Crystal clear

The world of structural biology has been better off since U professor Carrie Wilmot decided not to become a vet.

By Jack El-Hai

Jan. 3, 2007

Protein in 3-D: U researcher Carrie Wilmot in front of an enlarged image of a protein structure.

Veterinary medicine was an early career choice for Carrie Wilmot, assistant professor in the Department of Biochemistry, Molecular Biology and Biophysics. "Then I became allergic to cats and dogs," she says.

Instead of treating animals, Wilmot transferred her interests to crystallography--the technique of determining the 3D structural arrangement of molecules by hitting crystalline samples with a beam of X-rays and studying the patterns of diffraction that result. Because of her expertise in crystallography and spectroscopy, the U.K.-native has gained wide recognition as an authority in the difficult task of successfully preparing samples of protein enzymes for analysis.

"She's world-famous for developing the techniques to catch enzymes in their different structural states as they go through the steps of their enzymatic reactions, and to trap them in a crystal so she can determine the structure," says David Thomas, who heads the structural biology group. Wilmot is one of many faculty researchers who are putting the University of Minnesota on the map and helping to transform it into one of the top three public research universities in the world within a decade.

Wilmot has focused her attention on several protein enzymes in particular. One, copper-containing amine oxidase, is implicated in such human health problems as congestive heart disease and inflammatory diseases, such as rheumatoid arthritis. When present in the blood, the enzyme can produce inflammation by drawing into surrounding tissues the cells that help fight off pathogens. The enzyme also produces formaldehyde and hydrogen peroxide, chemicals that can damage hearts already weakened by cardiac disease or diabetes. "Here is a single enzyme that represents a key step in the inflammatory response," Wilmot says.

And because the enzyme acts alone, Wilmot has found it an attractive target for investigation. Her hope is that examination of the enzyme's structure will suggest pharmaceutical approaches to inhibiting its effects. "What we're trying to do is to provide a platform of knowledge for people who want to go on and design drugs aimed at the enzyme," she says.

Also in her investigative sights are various molecular assemblies connected to Alzheimer's disease. In this research she collaborates with Karen Ashe, professor of neurology and neuroscience, who has discovered that a particular soluble form of a protein fragment is largely responsible for memory loss in Alzheimer's dementia (see "Further reading"). Ashe has succeeded in purifying this protein assembly, and Wilmot is going to solve its structure to understand why this particular form of the protein has such devastating effects in humans. "Carrie does very well researching in collaboration with other investigators," Thomas says. "Her contribution is valuable because she's [an] expert in determining protein structures."

This year the American Crystallographic Association gave Wilmot its Margaret C. Etter Early Career Award, and she earlier received the Paul D. Saltman Memorial Award from the Gordon Research Conferences.

"I'm motivated by the beauty of protein structures," she says. "I've been doing this for over a decade, but I still get such a thrill the first time I look at one. They provide the answers to so many questions, and open up so many more."

Further reading Nabbing the thief of memory.

Regents approve stadium design, new price tag

Jan. 3, 2007

Plans for a new Gopher football stadium are beginning to take shape, and that shape will be a traditional collegiate horseshoe that opens up to the campus of the University of Minnesota and to the downtown Minneapolis skyline beyond--all in a building that acknowledges the past while embracing the future of a burgeoning new part of campus.

The open end of the horseshoe on the new TCF Bank Stadium will afford views of the campus and of the downtown Minneapolis skyline.

At a special meeting of the University's Board of Regents on Jan. 3, the regents approved new schematic designs for TCF Bank Stadium as well as the stadium's revised budget, which is now $288.5 million.

"I think this design captures the character and the tradition of our campus," said President Bob Bruininks. "TCF Bank Stadium will be the largest and one of the highest profile buildings on campus, and we want it to be one of the more memorable venues in college football."

Added Athletics Director Joel Maturi: "It's a building we're proud of and all of us are excited to see [it] come out of the ground in the next two and a half years." (The stadium is scheduled to open in the fall of 2009.)

A collegiate look and feel

According to Scott Radecic, senior principal architect with HOK Sport, a primary goal of the architectural team was to design a stadium with a collegiate look and feel.

To that end, the stadium will have a traditional horseshoe shape and will be a "single rake" bowl, without the multiple decks and overhangs that characterize many professional stadiums.

The design calls for a blend of brick, stone and glass consistent with the architecture of the rest of campus. An exterior fa?ade will reflect and honor the look of the former Memorial Stadium, and new features--including a colonnade that rings the outside of the stadium--will offer "a way to transition into the future," Radecic said.

From its original conception, the stadium's orientation has shifted 90 degrees; now the open end of the horseshoe will face west toward the heart of campus.

Fan comfort will also be a priority, with 19-inch seats, 33-inch treads (the space between rows) and 45- to 60-foot corridors--considerably wider than the 24-foot width of the Metrodome's corridors.

The approved design is for a 50,000-seat facility that has the potential to expand to 72,000 to 80,000 seats.

University officials outlined an updated cost of $288.5 million, based on the changes intended to enhance the fan experience, improve campus aesthetics and incorporate sustainable or "green" architecture designs. Other cost increases have come from changes to the building code since the initial feasibility study and engineering challenges resulting from the type of soil present on the stadium site.

Bruininks stressed that the $39.8 million in added cost would not be funded by taxpayers, students or at the expense of the University's academic mission. Instead, the U will fund it using a combination of financing tools and increased athletics revenue that will result from the new stadium.

The Board of Regents approved the schematic design and the capital budget amendment for the increased cost by a vote of 11-1.

The University is moving forward on reaching its $86.5 million private-sector fundraising goal for the new stadium. Less than $40 million remains to be raised, with a number of pledges to be announced soon.

For more information on the stadium, visit the stadium Web site.

Related reading: Legislature approves on-campus football stadium U breaks ground for new stadium Proposed deal with state would increase funding for stadium

CAPA 2006-07 communications survey begins

P&A staff invited to speak their minds

Brief, Jan. 10, 2007

John Borchert, Intercollegiate Athletics, chairs CAPA's communications committee. At the CAPA orientation last fall, the council discussed the survey and ways to improve communication with P&A staff.

Over the course of the past year, the Council of Academic Professionals and Administrators (CAPA) has dealt with topics ranging from strategic positioning and its effect on academic professional and administrative (P&A) staff to the continuing Classification and Compensation Study being carried out by the Office of Human Resources. Recurring issues--like tuition benefits, sick and bereavement leave, vacation, and professional development--also remain important.

In an effort to assess and improve the way it communicates with its constituency of P&A staff, CAPA has conducted bi-annual surveys to evaluate its effectiveness in communicating. After deferring last year's survey in the wake of strategic positioning, the 2006-07 survey is now available online. P&A staff members are invited to complete it.

Calling all P&A staff!

Take the CAPA communications survey on the Web today. It takes only a few minutes. Your responses to the survey are central to improving CAPA communications with all P&A staff.

"Please take five minutes and let us know what you think," says John Borchert, CAPA communications chair. "The survey results not only help us understand how our communication strategy is working, but it also helps us understand the satisfaction our constituents have with the individual efforts of their respective representatives," Borchert says. "With important issues continuing to be on the table for CAPA and the University, we need to be certain we are adequately apprising P&As of what is happening, and how we as a group are responding."

At the CAPA orientation last fall, the council identified a number of ways in which communication can be improved:

- making the website more interactive with regular feature articles and more opportunities for feedback
- continuously improving the CAPA portion of the U of M-Twin Cities campus orientation
- continuing to coordinate the publication of the CAPA newsletter

But the centerpiece of the group's efforts to improve communication is the bi-annual communication survey, Borchert says.

"The communications survey allows those who have something to say about the way we communicate with our P&As and their respective units, both as an organization and at the representative level," says Borchert. "The way we prefer to receive information is ever-changing, and, as a result, it's important to make sure CAPA is adapting to the communication preferences of our P&As."

Borchert notes that, while specific issues change from year to year, the need for involvement and open lines of communication is ever significant.

"While it is critical for CAPA to stay in close communication with P&As as [major] issues are dealt with," he says, "it behooves us to always foster and maintain our connection with staff, no matter what is going on."

The CAPA communication survey can be taken on the CAPA Web site at http://capa.umn.edu/communications_survey.php.

John Borchert is the CAPA representative for Intercollegiate Athletics, Twin Cities campus.

Fear of physics? Go see these guys.

The Physics Force is back with its annual public show in Northrop Auditorium

By Deane Morrison

Jan. 8, 2007

Members of the Physics Force shoot toilet paper in the air to illustrate the power of air pressure.

If you've never seen grown men shooting a roll of toilet paper 30 feet into the air or propelling themselves across a stage by emptying a fire extinguisher, you're in for a treat. The University's Physics Force swings into action for its annual public show this Thursday (Jan. 11) night. University physics professor Dan Dahlberg and several current or retired Twin cities high school physics teachers make up the Force. They use imaginative and humorous stunts to illustrate how the physics that govern our lives work and to show that their favorite science can be fun. The show is suitable for all ages. "I'd like everyone to realize that it is as much fun to exercise your mind as it is to exercise your body," says Dahlberg, whose day job involves research in magnetism. The Force has been with us for more than two decades, and they've got their act down to a science. It's hard to pick the most spectacular stunt, but it could be the physicist who falls from 20 feet above the stage as Dahlberg shoots a projectile at him from a small cannon. Will gravity pull both physicist and projectile down at the same rate, resulting in a catch? Come and see. (The baseball mitt on the falling physicist's hand may give you a clue.) Or perhaps the biggest stunt is when the team partially fills a 55-gallon steel barrel with water and heats it to boiling. They then seal the barrel and cool it with water. Inside, the hot water vapor condenses and the air pressure plummets. Suddenly, the barrel implodes with a loud WHUMP!, the victim of relentless pressure from air outside the barrel. Whatever your predilections, here are the specifics for Thursday night: Time: 7 p.m. Place: Northrop Auditorium, 84 Church St. S.E., Minneapolis Cost: Free, except parking Parking and directions: Park in Washington Avenue Ramp, 501 Washington Ave. S.E.; 4th Street Ramp, 1625 4th St. S.E.; or Church Street Garage, 80 Church St. S.E. View directions to campus. View a campus map showing the Church Street Garage and Northrop Auditorium. The Physics Force is funded by the University of Minnesota. **Further reading** Take a closer look at the Physics Force in Falling for Physics.

Higher power

Carlson School student Nila Khan takes an energetic approach to college and career

By Brian Lieb

Jan. 9, 2007

Nila Khan is one of four employees in Xcel Energy's nuclear asset management division.

At one time, Nila Khan had different plans. But the summer before her first year of college, after already being admitted to the University of Minnesota's College of Liberal Arts, everything changed. "I was working at Xcel Energy's High Bridge generating plant in St. Paul and I loved every minute of it," she says. "I decided that business was right for me." Unfortunately, the Carlson School's application deadline was long past. So she changed her first-year schedule and worked to attain one of the highly competitive transfer admission spots. "It was pretty much the most exciting news in the world when I got my acceptance letter," she recalls. Now a junior majoring in marketing and finance, Khan still interns at Xcel as one of four employees in its nuclear asset management division. The group is responsible for oversight of the company's two nuclear power plants--facilities that produce roughly 12 percent of Xcel's total energy, enough to power more than 1.5 million homes. Khan analyzes a range of incoming data to see if the plants are meeting performance indicators.

"I just read manual after manual until I had a good understanding of the topics," Khan says. "Then once I figured something out, I would go to my supervisor and ask for something new."

If her job sounds impressive, particularly for someone who just finished her second year of college, it is. She is the first intern in the division, and while she initially performed typical intern work, she quickly expanded her duties. "I just read manual after manual until I had a good understanding of the topics," she says. "Then once I figured something out, I would go to my supervisor and ask for something new." Khan brings that same drive to campus activities. She is vice president of finance for her sorority and has been a University of Minnesota New Student Weekend leader. She was also recently named a Carlson School Ambassador. This select group of students plans and organizes special events and interacts with legislators, deans, corporate leaders and community members. For Khan, the most exciting part of serving as an ambassador is the opportunity to work with nontraditional incoming students. "I believe everyone deserves a chance at higher education," she says. Now just two years removed from her High Bridge days, Khan has wide-ranging interests but clear goals in mind. She expects to eventually return to the Carlson School for an MBA. After that, she would like to teach. "I have had some amazing professors throughout my experience at the University," she says, "and I want to be a part of that."

Republished from Carlson School*, fall 2006, a publication by the Carlson School of Management.*

FURTHER READING Mr. Perseverance From international student to world leader U student named Rhodes Scholar Africa calling U student named top-10 college woman

The forest of the future

University ecologist Lee Frelich on the fate of the Boundary Waters

By Kate Tyler

Jan. 9, 2007

U forest ecologist Lee Frelich warns that Minnesota's premier north woods wilderness will lose its pines and moose within two generations.

If you haven't yet had the thrill of seeing a moose amble up to a pine-shrouded lake in the northern boreal forest, you'd better plan a trip to Minnesota's Boundary Waters Canoe Area Wilderness soon. With climate and invasive pests both poised to wreak havoc on the Boundary Waters, renowned forest ecologist Lee Frelich warns that Minnesota's premier north woods wilderness--the most visited wilderness area in the country--is heading for a "perfect storm" of events so catastrophic that both pines and moose could vanish within two generations.

It's conceivable, Frelich says, that in just 50 years the Boundary waters could come to look a lot less like Canada and a lot more like, well, Nebraska.

"Unless we take steps now, the forests we have today simply won't be there anymore," says Frelich, a leading authority on forest disturbance who directs the University of Minnesota's Center for Hardwood Ecology. Logging, which clear-cut huge swaths of ancient white pines across northeastern Minnesota between 1890 and 1920, ended in the Boundary Waters in 1978, but tree-munching invaders and climate change can be just as devastating to the forest, he stresses, and much harder to contain.

"The idea that wilderness areas will take care of themselves if we just keep people out--ban logging, restrict motorized vehicles, keep mine tailings from draining into a watershed--that's an old model of wilderness management," says Frelich. "Global warming and exotic pests don't obey signs and boundaries. Unless we confront these new threats, they're going to change our unique and beautiful Boundary Waters forests beyond recognition."

Threats to the wilderness

Scientists see the seismic storm that blew down 400,000 acres of Boundary Waters forests in 1999 as one of many signs that climate change has begun to reshape northern Minnesota. The warming of the earth, largely the result of carbon dioxide and other emissions from factories and automobiles, clearly is driving severe storms father north, says Frelich.

Warmer summers and milder winters in the upper Midwest eventually will push out northerly species such as jack pine, red pine, balsam fir and black spruce in favor of southerly species such as red maple and oak (or the oak savannahs of the Great Plains if the warmer weather also brings drought, as some scientists predict). Even more profound--and less gradual--changes may be wrought by blowdowns, which upend the forest's natural processes of adaptation and change.

The 1999 blowdown "is pushing the forest forward to a state it wouldn't otherwise reach for 100 years," Frelich says. "People think that any disturbance returns the forest to a 'natural' state, but that's more true of fires than blowdowns." The slender jack pine, a hallmark of the boreal forest, depends on fire to reproduce, Frelich observes: its cones remain closed unless they're scorched by fire, and its seedlings grow only on a charcoal bed.

> *"The idea that wilderness areas will take care of themselves if we just keep people out... that's an old model of wilderness management," says Frelich.*

It's not that jack pines are inherently preferable to the spruce and cedar that are sprouting up in their stead, says Frelich. "But the forest is an ecosystem, with many different plant and animal species that have evolved together. Blowdowns aren't a normal part of the natural history of the boreal forest the way fires are. They abruptly disrupt the gradual succession of species. And we do expect to see many more big blowdowns with global warming."

If warmer temperatures and blowdowns already are transforming the Boundary Waters, other changes are on deck. Milder winters will likely swell populations of deer, which may literally chew to extinction every last white pine, white cedar and yellow birch, says Frelich. Similarly, some insects (such as the mountain pine beetle), benign when in small numbers, are turning deadly as their numbers increase under more auspicious breeding conditions.

Minnesota's forests already are under siege by a more lowly invader: the worm. Frelich explains that all the earthworms and nightcrawlers in Minnesota are non-native species from Europe and Asia. They spread more quickly in a warmer climate, and are harmful because they eat the deep layer of duff (leaf litter) that insulates the forest floor. This intensifies the effects of climate change by making the soil drier. It also changes the seedbed, facilitating the growth of invasive plants such as buckthorn.

A forest of jack pines at the Boundary Waters.

Photo by Lee Frelich

Until the last tree falls

"When you look at all this stuff--the deer and the worms already here, multiple invasive pests on the way, and the climate changes already happening--it's hard to imagine a more perfect storm heading for the Boundary Waters," says Frelich.

Still, he maintains, it's not too late to save the wilderness for the next generation. "I'm an optimist, and right up until the last tree falls, I'll believe it's possible to turn the tide," he says. "It may take a century or two with global warming, but if we take dramatic steps now-such as limiting CO_2 emissions, developing hydrogen cars, pursuing renewable energy sources, and possibly also increasing the earth's reflectivity through white roofs and the like-we'll have a good chance."

Also needed, says Frelich, is a new paradigm of forest management "that recognizes that we can't just leave wilderness areas alone." Bold strategies are needed to curtail the movement of invasive species and to manage burgeoning deer populations, he suggests. Most of all, to ensure long-term biodiversity, the U.S. Forest Service "needs to restore fire to the forest in a meaningful way." Fires do release carbon dioxide, but their contribution to global warming is miniscule compared to the consumption of fossil fuels--and the resulting healthy forests store carbon.

The bigger, bolder strategies needed to preserve the wilderness can't be put off, says Frelich.

"We have to take immediate steps to curb global warming," he says. "Nor can we wait to curtail the spread of invasive species, manage the deer population, and restore fire. We have to keep the Boundary Waters from being wrecked. Then we can worry about exactly what we want it to be."

Edited from Imprint, *a publication by the* *Bell Museum of Natural History*.

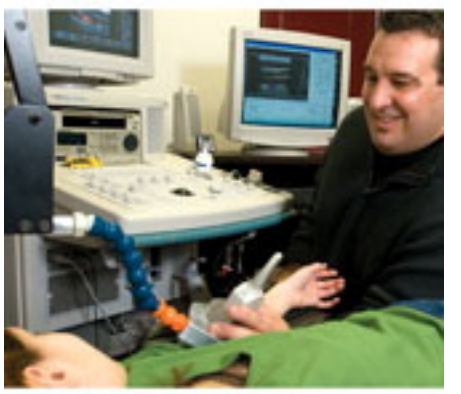
FURTHER READING Sugar in your gas tank? Research without borders Services industries and global warming Why the tundra is transforming Digging deeper pays off

Healthy young hearts

U researcher combats childhood obesity

From *M*, winter 2007

It's no secret that the United States is in the midst of a childhood obesity epidemic--an astounding one-third of our children, nearly nine million children are at risk for obesity-related illnesses, including formerly adult-only diseases like hypertension, elevated cholesterol, Type 2 diabetes, heart disease, and stroke.



Associate professor of kinesiology Donald Dengel has found that exercise improves vascular health in overweight children.

Donald Dengel of the College of Education and Human Development studies cardiovascular health in overweight children--looking for promising early interventions that might give them a healthy future.

Dengel, associate professor of kinesiology and co-director of the General Clinic Research Center's Body Composition Human Performance Laboratory, focuses much of his research on the endothelium--or lining of the blood vessel--looking for signs of dysfunction that lead cardiovascular disease, and working on ways to improve the endothelia of overweight children.

"If we think about schools as just a place where intellectual learning happens, we will continue to add to the problem of childhood overweight and obesity," Dengel says.

His recent research followed a group of overweight children with endothelial dysfunction as they participated in four-times-weekly exercise sessions on a stationary bike. Their peers in the control group did not change their exercise habits.

After just eight weeks, the exercise group improved dramatically in vascular health, with endothelial functions returning to normal. This is not the case in adults, who can improve endothelial function with exercise, but not totally reverse the damage. In addition, the kids improved their physical fitness and increased their HDL cholesterol (the good cholesterol).

The study participants who exercised didn't lose weight or reduce body fat, but from a vascular health standpoint, Dengel says, weight loss appears to be less important than exercise. "If we get kids to exercise early enough--regardless of being overweight--they have a chance at a healthy future," he says.

On the other hand, the non-exercising control group's endothelial dysfunction worsened, fitness decreased, and the children gained weight--an average of 1.8 pounds per child--on track for an annual weight gain of at least 10 pounds.

According to Dengel, current projections show that when today's children reach age 44, 87-90 percent will be overweight. He hopes his research can lead to societal changes to promote health among all children, starting with improvements in the nutritional value of school lunches, and increased physical education and recess time.

"If we think about schools as just a place where intellectual learning happens, we will continue to add to the problem of childhood overweight and obesity," he says.

Radon in your home?

By Bill Angell

From *eNews,* Jan. 11, 2007

Winter is the best time to test your home for radon. Radon, a radioactive gas that comes from the natural breakdown of radium (a decay product of uranium), is the leading cause of lung cancer among non-smokers and the second leading cause of lung cancer in the United States, claiming more than 20,000 lives annually. Minnesota is the fourth highest state with radon levels above the U.S. Environmental Protection Agency (EPA) "threshold for action levels." A recent "pooled" analysis of residential radon lung cancer studies by members of the World Health Organization's International Radon Project is probably the most definitive residential radon risk assessment in our lifetime. Everyone involved in the study agrees that the scientific foundation for our understanding of the dangers of lung cancer from radon exposure in the home is greater than previously thought. At the current radon action level used in the United States (1.3 picocuries per liter), the average person has at least 1 in 50 chance of contracting lung cancer from radon exposure in homes. (According to the EPA, the average indoor radon level is about 1.3 pCi/L in the United States; the average outdoor level is about 0.4 pCi/L.) You should test your home for radon now--not when you want to sell your home. Short-term testing is best done when homes are closed up--and in Minnesota, that's winter. The major source of high levels of radon in houses is in the soil surrounding the house, according to the University of Minnesota Extension Service. The radon gas from the soil enters the house--or building--through cracks in the foundation floor, walls, drains, sumps, joints or other openings.

SURGEON GENERAL'S WARNING:
Radon causes lung cancer.

EPA

January is Radon Action Month. The U.S. Environmental Protection Agency has released a new Public Service Announcement campaign for radon, which features the U.S. Surgeon General's warning that radon causes lung cancer and that you should test your home.

And if you're a prospective home buyer, insist on a radon test. This applies even when you're buying a new home. Research has shown no difference in radon levels between new and existing homes in Minnesota. But if you're building a new home, you'll want to incorporate radon-resistant construction features. This can be done for $300 to $500, a cost much less than fixing a radon problem once the home is built. Testing is easy and inexpensive. You can get information about testing from local public health offices, state health offices and the EPA. In Minnesota, go to the Minnesota Department of Health; see www.epa.gov/radon for detailed information from the EPA. You can also order radon-testing kits from http://mn.radon.com.

Radon expertise at the U

The Midwest Universities Radon Consortium at the University of Minnesota is one of four U.S. EPA Regional Radon Training Centers. It offers training on the health risks posed by radon and on radon mitigating methods. For more information about the center and its 2006-07 courses, visit the Radon Center.

Bill Angell is a professor and housing specialist with the University of Minnesota Extension Service. He is also chair of the World Health Organization's International Radon Project Mitigation and Prevention Working Group, president of the American Association of Radon Scientists and Technologists, and director of the Midwest Universities Radon Consortium (see sidebar).

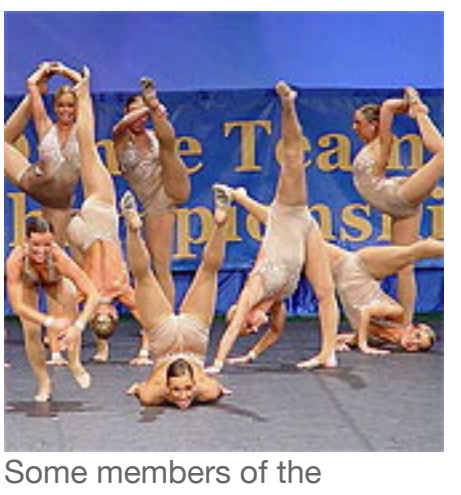
shooting for a penta-peat

University of Minnesota dance team heads to Florida for fifth bid at national title

By Pauline Oo

Jan. 11, 2007

Editor's note: On Sunday (Jan. 15) the University of Minnesota dance team took third in the Division 1A Dance category at the 2007 Universal Dance Association's Cheerleading and Dance Team National Championships. The team also placed sixth in the Division 1A hip-hop.



Some members of the University of Minnesota dance team at the 2006 Universal Dance Association's national championships.

Split leaps, *cha?n?s* turns, double and triple pirouettes... not only can each member of the University of Minnesota dance team execute these beautiful--and technically difficult--dance moves on their own, each one of them can also perform those moves with such ease and in total sync with the other 16 women on the team.

Yes, they're that good. And they have four consecutive national titles to prove it.

Last year, the Gophers became the first dance team to win four straight titles in the past decade. This weekend, the team--along with the other Spirit Squad units (cheer team and school mascot Goldy Gopher)--will once again attempt to spellbind more than 4,000 spectators when it heads to the 2007 Universal Dance Association's Cheerleading and Dance Team National Championships (Jan. 14-17) at the Walt Disney World Resort in Orlando.

The University team will compete against 28 other teams across the United States in the Division IA jazz category and close to 20 teams in hip-hop. Preliminary rounds are on Saturday and the finals are on Sunday.

"When people attend our practices they really understand how much work and how athletic these girls are," says head coach Amber Struzyk. "They truly are Division IA athletes because they are at that elite of a level. There's so much work that goes into [a routine] that by the time the audience sees it, it looks effortless and it has that grace. But there's so much power and athleticism that has to go into it to get it to that point."

From July through March, the dance team practices for two-and-a-half hours, three times a week. On the off days, they lift weights. "But over the last two weeks, they've been practicing almost every day," says Struzyk, a 2000 graduate of the Carlson School and former member of the team. "It gets pretty intense."

The U's dance team at the 2004 UDA national championships. View the performance on YouTube.

And when they're not competing, the dance team performs at all home women's and men's basketball games, helping to entertain the audience as part of the Gopher Spirit Squad.

Of the 17 dancers--all University sophomores, juniors and seniors--who are competing in the UDA nationals this year, 11 are championship veterans, including co-captains Gina Becchetti and Brianne LaGrano. "We consider ourselves athletes and artists, and we seriously pour our hearts into what we do that to go out there and win is so gratifying," says Becchetti.

Becchetti, who is majoring in communications studies and participating in her fourth UDA nationals, says she and her teammates are "definitely prepared" for this weekend's challenge.

"I'm a senior this year, and I know how the competition works," she explains, "so we've been able to tell the younger girls how everything works and get them really prepared mentally and physically."

Making the cut

Each year teams and mascots from across the nation send in videotapes of their performances to the organizers of the competition, and top seeds are selected from all the categories to receive funds to travel and compete. The Minnesota team is not exempted from this rule even though it is the defending champion.

"[A win depends on the] judging," says Struzyk. "It's not like basketball where the players score the basket and they win the game. [The dancers] do their work, then someone else judges it and tells you three hours later who won. So, my expectation [for the members of the University of Minnesota dance team] is that when they walk off the floor, they know that they could not have done any better with both of their routines."

The judges score teams on a 100-point system, based on the following criteria: overall effect (the team's image and crowd appeal), communication and projection (eye contact and showmanship), choreography (difficulty and creativity), group execution (synchronization, spacing and timing with the music) and dance techniques. Each team has a maximum of two minutes on the stage.

This year the U's dance team will perform its jazz routine to an *a capella* song. (Last year it performed to an instrumental piece.) In the hip-hop category, the team will dance to a mix of 10 different songs.

From 1996 to 2002 the University of Minnesota dance team's average finish at the national championships was sixth place, but since then the team's work ethic, skill and style has put them on top. "What really sets us apart from other teams is we work harder, and we make sure that we do so that we can achieve our goals," says Becchetti. "If we need to stay an hour after practice and keep working and working and working, we will do that."

To catch the University of Minnesota Dance Team in action, check your local TV listings for ESPN or espn2 coverage.

Did you know?

Cheerleading was born at the University of Minnesota. In 1898, after three straight losses by the U's football team, a student named Johnny Campbell made the then-radical suggestion that he lead organized cheers to root the players on to victory. A few weeks later, he put his idea into action during a home game between Northwestern and Minnesota. When the Gophers won by a score of 17-6, much of the credit went to Campbell and his squad of "yell leaders," as they were initially called. The yell leaders were the first organized cheerleading team in the nation. Soon, no self-respecting college or university could do without its own cheerleading squad.

Today, this proud tradition is carried on by the U's Spirit Squads--more than 70 dedicated student-athletes who each devote an average of 700 hours per year to practices, games, special appearances, cheerleading camp and competitions. Like student-athletes in other Gopher sports programs, members of the Spirit Squad--cheer teams, dance team and Goldy Gopher mascot--must maintain high academic standards and carry a full credit load in order to participate.

To learn more about the Spirit Squad, see GopherSports.

Source: University of Minnesota Intercollegiate Athletics

The science of longevity

U researcher learns from the oldest of the old

by Jennifer Amie

Jan. 12, 2007

The oldest of the old "are the survivors," says U biologist James Curtsinder. "They're past the heart attack and cancer years, and they've avoided the main causes of death."

Shrews live 18 months, Canada geese live 25 years or more, elephants commonly reach their 60s, and tortoises can outlast them all, with a life span of more than 150 years. But how long can humans live? This question took root in the mind of biologist James Curtsinger when he met the oldest man in the world.

Curtsinger, a professor in the University's Department of Ecology, Evolution and Behavior, was introduced to Christian Mortensen in California in 1997. Mortensen would die the following year at age 115 years and 252 days. "He enjoyed smoking and had an excellent sense of humor," recalls Curtsinger, who had arrived at Mortensen's nursing care facility bearing cigars. Born in Denmark in 1882, Mortensen could remember sailing into New York harbor in 1903, at the age of 21, and being processed at Ellis Island. Age had taken its toll on his short-term memory, however, and he suffered from cataracts and hearing loss. "Meeting him was an uplifting experience, but it was also sobering because he was no longer self-sufficient," says Curtsinger, who marveled at Mortensen's longevity. He began to wonder: What made Mortensen so special that he could live to such an advanced age?

Curtsinger, whose background is in population genetics, teamed up with demographic researcher James Vaupel to study the oldest of the old--the centenarians at the outer edge of the human life span. In particular, they set out to investigate a commonly held belief about life expectancy: that a person's risk of dying increases exponentially with increasing age. "What this implies," says Curtsinger, "is that there is an age at which the risk of death is so large that almost no one survives beyond it." But the oldest of the old, like Mortensen, defied those odds to such a degree that Curtsinger and Vaupel began to wonder whether this so-called "wall of death" existed at all.

The two researchers took the unusual step of pursuing both demographic research, conducted by Vaupel, and laboratory experiments conducted by Curtsinger. Together, they launched a 15-year project, funded by the National Institutes of Health, to compile data on mortality rates among humans and among experimental colonies of fruit flies.

"Meeting him was an uplifting experience, but it was also sobering because he was no longer self-sufficient," says Curtsinger, who marveled at Mortensen's longevity.

Finding reliable data on human life spans proved to be tricky. In the 1970 United States census, for example, 100,000 people reported that they were centenarians. "The real number," says Curtsinger, "was closer to 4,800." It turns out that the oldest people tend to over-state their age, perhaps rounding up for reasons of prestige. With that in mind, Vaupel turned to the most reliable data he could find for his demographic studies: written population records from Sweden dating back several hundred years.

For his part, Curtsinger began raising experimental colonies of fruit flies in the laboratory. "To get an accurate picture of mortality at the oldest ages," he says, "you need to start with an enormous population--50,000 to 100,000 flies for each experiment." Over time, after most of the flies died off, Curtsinger was able to record the mortality rates of the remaining, longest-lived flies.

Both the laboratory experiments and analysis of the Swedish population records revealed the same unexpected phenomenon: the risk of death increased exponentially with age at first, but at the oldest ages, the risk of death leveled off. There was no "wall of death." Instead, after a certain age, mortality rates hit a plateau.

What that means for humans, says Curtsinger, is that if you live to be 100, your risk of dying is 50 percent every year thereafter. At age 105 or 110, your risk is still 50 percent--it doesn't increase. This suggests that the oldest of the old are the most vigorous among us. "They are the survivors," Curtsinger says. "They're past the heart attack and cancer years, and they've avoided the main causes of death."

Further research with experimental systems using fruit flies, nematodes, and mice is helping to identify which genetic factors enable these survivors to live so long. In ongoing studies, Curtsinger is examining the genetics of fruit fly populations that have been selected for long life. These flies live twice as long as their normal counterparts and, essentially, Curtsinger is asking the same question about them that he once asked about Christian Mortensen: What makes them so special? So far, he has discovered that at older ages, antioxidant genes and genes related to immunity are more active in the longest-lived flies.

Whatever the secret to his longevity, is turns out that Mortensen was at the leading edge of a trend that affects us all. Overall human life expectancy has increased dramatically over the past 160 years. According to Vaupel, in 1840, Swedish women held the record for longevity with a life expectancy of 45 years; by 2000 Japanese women enjoyed a life expectancy of 85 years. In the United States, life expectancy is expected to rise past 85 by the year 2060, up from 77 today, says Curtsinger. Worldwide, the rate of increase in human life span shows no sign of slowing.

These data, along with the discovery that there is no "wall of death"--or set age beyond which almost no one can survive--suggest that there is no well-defined upper limit to the human life span. How long can humans live? The likely answer, says Curtsinger, is longer and longer as time goes by.

Evolution and aging

While there are many factors that affect human senescence and longevity--including advances in health care, access to health care, and environmental and social conditions--genes, which are the cause of inherited human diseases, play a significant role in what happens to individuals as they age. In fact, evolutionary theory offers a convincing explanation for why late-onset diseases such as Alzheimer's occur in the population.

The Nobel Prize-winning immunologist Sir Peter Medawar first described the effects of natural selection on diseases of old age. Inherited diseases that affect a young person's ability to survive and reproduce will be strongly selected against, and weeded out of the population over time. Diseases that strike in old age, well past the reproductive years, are not strongly selected against. This allows harmful mutations with a late onset to accumulate and spread through the population over time.

Recognize a U staff member

CSBU Staff Awards honor civil service and bargaining unit staff

By Heather Powell

Brief, Jan. 17, 2007

Civil service staff member **Debra Haessly** is administrative director of the School of Kinesiology, Twin Cities campus.

Think about the civil service and bargaining unit employees who make a difference in your work day. Last year about this time, Professor Mary Jo Kane thought about civil service staff member Debra Haessly and then nominated her for an award.

Kane is professor and director of the School of Kinesiology, where Haessly is the administrative director. Haessly won the 2006 Civil Service and Bargaining Unit (CSBU) Staff Award, cosponsored by the U's Office of the Vice President for Human Resources and Office for University Women. The annual award recognizes leadership and commendable efforts to improve the University work environment for CSBU women and men.

Nominate someone for the CSBU Staff Award!

The **Feb. 15 deadline** is quickly approaching, so submit your nomination now!

"As a person in a leadership position at the University, I think it is my obligation to find outlets to publicly acknowledge the good work of our civil service staff," says Kane. "I encourage my colleagues to do the same because, without the work of our support staff, the University will not prosper.

"I nominated Deb for the Civil Service Bargaining Unit Staff Award because she exemplifies the qualities a great University looks for in its staff," Kane says. "In big and small ways, Deb always gets the job done and makes us all successful."

Haessly began her University employment as a senior secretary. She advanced through the positions of principal secretary, executive secretary, and executive assistant, until she became administrative director of the School of Kinesiology.

As a civil service professional who now supervises several civil service and bargaining unit staff members, Haessly is characterized as extremely competent, committed, innovative, and passionate about her job. She believes in the value contributed by CSBU employees and refers to CSBU staff as "the engine that keeps the University train running."

Haessly's contributions to improve the work environment for CSBU staff began in her own school with processes to mediate conflict and improve communication among the staff. Innovations that simplified and streamlined administrative processes also contributed to a more productive and satisfying work environment for the CSBU staff members who implement various campus operations. Haessly's innovative practices regarding payroll, data collection, and instructor and graduate assistant appointments have been shared with other department administrators--yet another way that her work extends beyond her position to the institution as a whole.

"The University is recognizing us for the lasting value of the way we do our jobs--putting all we have into supporting the faculty, students, and our fellow workers," Haessly says. "I am deeply appreciative and proud of being a part of the civil service employee group."

For more information about the award and a link to the nomination form, see Civil Service and Bargaining Unit Staff Award.

Heather Powell chairs the Civil Service Committee communications and publications subcommittee. She is applications systems manager at the U Card Office, Twin Cities campus.

Apprentice to civic engagement

Public engagement spotlight

By Stephanie Wilkes

Brief, Jan. 17, 2007

Marketing professor John Kratz worked with the UMD Office of Civic Engagement to identify community clients when he implemented a competitive format in his class.

"You're fired!" Donald Trump's catchphrase from *The Apprentice* stands for capitalism and the world of business. But at the University of Minnesota, Duluth, the popular television show has inspired civic engagement for a crop of marketing students.

John Kratz teaches Advertising and Marketing Communications. After seeing the show a couple of years ago, he decided to put a new spin on the format.

"I thought, 'Wouldn't it be interesting to pit a team in one section of the class against a team in the other section, and see what happens?'" says Kratz. He was thinking of student involvement, quality of work, and motivation. And he wasn't disappointed.

In fall 2005, Kratz introduced the new format in his class, which had two sections of about 35 students each. Each section was divided into an equal number of groups. Then he assigned two competing groups--one from each section--to clients in need of a marketing campaign.

One pair of groups was assigned to UMD's Office of Civic Engagement (OCE). Director Casey LaCore asked the groups to create a campaign centered on awareness of one of Duluth's most prevalent problems: methamphetamine.

"It was not only the most valuable class in my college career," says student Pam Chihak, "it was the most fun, too. It taught us how to work using the whole team's ideas and opinions and turn it into something. It was rewarding to put our talents to work and actually create an end product that could help the community."

People were impressed with the students' work, and so was Kratz. He says their success had a lot to do with their buy-in and emotional attachment to the cause--they were dedicated to the anti-meth program.

"The students respond to the competitive framework of the class because they know the client is going to pick a winner," says Kratz.

He repeated the format with the fall 2006 class, too, which included several non-profit clients. One of them was Northern Community Land Trust, which raises money to buy property for building affordable housing in the Duluth area. They asked to be part of the class, knowing the students and their campaigns would help raise the trust's visibility in the community.

Kratz credits part of his class's success to OCE and its director, LaCore.

"Casey was able to marshall resources and community contacts to assist me as an educator to find a worthwhile community cause and then help me offer it up to the students," says Kratz. "I like OCE because it gives you a one-stop resource to focus and channel initiatives."

UMD's Office for Civic Engagement: link to the Duluth community

OCE grew out of UMD's Darland Connection, established in 1993. LaCore became the Darland Connection's director in 1998, but it was not very long before her job began to change shape.

"Vice Chancellor Vince Magnuson was interested in the ideas of citizenship and helping UMD students to be more aware of their roles and responsibilities as citizens," says LaCore. "We started having conversations about citizenship, public engagement, and public work."

A task force formed in 2003, then a steering committee and reading group. OCE was formally created in 2005.

OCE director Casey LaCore

"The real purpose is to assist faculty in incorporating civic engagement activities into their curriculum," says LaCore. "But we are also looking more broadly for ways we can assist UMD students in being better citizens and understanding what that means."

Faculty members can get involved in a number of ways. Reading groups continue to define engagement and identify concrete ways to integrate it at UMD. Workshops for faculty and community members on various issues are another opportunity--it was a workshop on meth in Duluth that led to the involvement of Kratz's marketing class. And last year, OCE awarded $20,000 in mini-grants to faculty members toward their projects in the community.

Students may get involved through a class like Kratz's. They can sign up for a class with a community learning component. Or they can volunteer in their free time.

Sophomore Allison Schmidley has a student job at OCE and also uses the office to find volunteer work.

"It's easy to only interact with students and faculty as a college student," she says. "OCE helps students broaden their perspectives and interact with Duluth's diverse community."

When LaCore became director of the Darland Connection in 1998, about 200 UMD students worked in the community each year. By fall 2006, OCE was placing more than 900 students in the community in just one semester. That means about ten percent of all UMD students are engaging in community work.

"Our numbers are high for the size of campus we have," LaCore says. "But within those numbers, we have good quality control going on, so we have a really high level of trust with our community agencies. That is incredibly valuable, and we protect that." LaCore credits the dedication of the staff for working to maintain the quality of UMD's community work.

LaCore has been a part of the Duluth community for more than 12 years and sits on several boards. She says it's a tight-knit community, but for outsiders or newcomers, becoming part of the community isn't always easy.

"If you are young and you didn't grow up here, or if you are a person of color, this is not an easy place to be," says LaCore. "I think that the concepts and ideas behind being engaged in the community and understanding how community works are really important to this problem. An effective way to break down cultural barriers and stereotypes is to be engaged, especially with people who aren't just like you. Working around a task unifies people. You become just people working together on an issue, learning to appreciate each others' differences."

LaCore sees more growth on the horizon as people turn to UMD to help meet community needs.

"It can be frustrating for a citizen to try to figure this place out, but our office provides a way in," she says. "The community is starting to realize that OCE is their door to the University--to the knowledge and expertise of faculty and students."

It is this approach to community engagement, adopted by OCE at the Duluth campus and by the Office for Public Engagement (OPE) at the Twin Cities campus, that is encouraging faculty members like Kratz.

"I appreciate the recognition of members of the faculty and other collegiate units who are doing these kinds of things," says Kratz. "It helps me learn about what others are doing to engage in the community."

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu .

Adult stem cells clear a hurdle

A type of adult stem cell discovered at the University can replace bone marrow in mice

By Deane Morrison

Jan. 16, 2007

Catherine Verfaillie, director of the University's Stem Cell Institute, has been a leader in discovering and characterizing stem cells to replace a variety of tissues.

A type of adult stem cell can replace the bone marrow and regenerate the immune systems of mice, a team of researchers from the University of Minnesota and Stanford University reported earlier this week. If the finding can be extended to humans, it could mean a new and more abundant supply of cells for bone marrow transplant patients. The work is published in the Journal of Experimental Medicine. The cells, called MAPCs (multipotent adult progenitor cells), were first identified in 2001 by Catherine Verfaillie, director of the University's Stem Cell Institute, who headed the latest work. True to their name, they can give rise in the laboratory to many tissues, including blood, brain, liver, smooth muscle and the endothelial cells that line the cavities of arteries and veins. **A tempestuous history** The story of MAPCs has had its ups and downs. At first, many scientists were skeptical about their properties and even their existence because they were hard to grow in the laboratory. But with the advent of improved culture techniques, more laboratories can look forward to repeating and extending Verfaillie's work. One of the early critics was Irving Weissman, director of Stanford's Institute for Stem Cell Biology and Regenerative Medicine and a co-author of the new study. His inclusion on the research team assured the presence of a dispassionate eye, which is always a good thing in scientific investigations but especially when the stakes are as high as they are in stem cell research. "These experiments point to potential precursors of blood-forming stem cells in an unexpected population of cultured cells," he says, referring to MAPCs. "Scientists must now understand that mouse MAPCs can make normal blood, and we need to explore how they do it." Before MAPCs came along, the prime candidate for replacing blood cells was the cells that do that in normal bone marrow. Called hematopoietic stem cells, or HSCs, they have proved very difficult to grow in large numbers in the laboratory.

"The cells not only survived when transplanted, but they completely repopulated the blood system of the mice," Verfaillie says.

But large numbers are needed for patients whose own diseased bone marrow has been destroyed by radiation because bone marrow stem cells have a big job to do. They produce both the red cells that carry oxygen to tissues and the several types of white cells that form the basis of the body's immune system. **The experiments** The Verfaillie team isolated MAPCs from bone marrow of mice and grew them in culture until the cells had divided at least 80 times. They then transplanted the cells into mice whose immune systems had been destroyed by radiation. "The cells not only survived when transplanted, but they completely repopulated the blood system of the mice," Verfaillie says. The MAPCs did not form other cell types, nor did it form tumors in any animals, even though some transplanted MAPCs carried genetic abnormalities as a result of being cultured in the lab so long. Tests showed that white cells derived from the MAPCs had migrated to tissues of the immune system such as the circulating blood, spleen and lymph nodes and appeared to be functioning as immune cells. The chromosomes of those cells tested normal, which led Verfaillie to suggest that the genetically abnormal cells may have been weeded out by the mice's bodies. The researchers also took bone marrow from mice that had received MAPC transplants and transferred it to a new group of irradiated mice. The transplants "took" and regenerated a new blood system in these mice. So did transplants from the second group of mice into a third group. Subsequent research by one of the authors, pediatrics professor Bruce Blazar, has since confirmed the results. "Our results independently confirmed in an additional series of animals the finding that MAPCs can make blood cells," he says. **Future directions** The researchers stress that much more work must be done with nonhuman animals, and that studies must be replicated with human MAPCs, before any new treatments can become available. It is also possible that someday, transplants of MAPCs into bone marrow will help reduce rejection of other transplanted tissue (for example, liver or the lining of an artery) derived from the same population of MAPCs. That could happen if immune cells arising from MAPC cells in the bone marrow recognize the second transplant as "self" and so refrain from destroying it. Verfaillie has always maintained that her research on adult stem cells does not diminish the importance of investigating the possibilities of all types of stem cells, both embryonic and adult, because it is still too early to know which type(s) will work out best for treating particular conditions. **Further reading** The Cure Within: Unlocking the Secrets of Our Stem Cells Point/counterpoint: Embryonic stem cell research

U makes push for increased state funding

Biennial budget and capital requests to be considered by legislature

By Rick Moore

From *Brief,* Jan. 17, 2007

Editor's note: On Jan. 22 Gov. Tim Pawlenty released his biennial budget recommendations for the state, which includes $90.4 million for the U.

The U has put forward its biennial budget and capital requests to the Minnesota State Legislature. For fiscal year 2007, state appropriations represented 25 percent of the U's budgeted revenues.

The University of Minnesota has an ambitious and tangible plan to increase its competitiveness among the world's top research universities.

Now University officials are turning to the Minnesota State Legislature for the funding support necessary to both sustain the U's current quality and competitiveness and, indeed, invest in the University's plan to become one of the top public research universities in the world.

The U's biennial budget request (for fiscal years 2008 and 2009) calls for a state investment of $123.4 million for the biennium. Coupled with a 1 percent reallocation of University resources and a proposed 4.5 percent tuition increase for students, the total investment for the biennium would be $192.3 million.

The biennial budget request is organized around two categories: sustaining quality and competitiveness and "creating Minnesota's future."

For sustaining quality and competitiveness, the primary component ($69.5 million) is **general compensation** for faculty and staff, since the U is a people-driven institution and almost two-thirds of the U's annual operating budget is devoted to salaries. The other components are **advancing education** ($26.4 million)--through efforts such as an undergraduate writing initiative and expanded academic advising and undergraduate research opportunities--**technology and infrastructure** ($7.1 million) and **facilities, operations and maintenance** ($31.5 million), which the U will finance on its own.

An insider's look at the legislative requests

Join President Bob Bruininks and supporters of the U for the 2007 Legislative Briefing and Reception **Jan. 24**. You'll get an inside look at the University of Minnesota's 2007 legislative requests, and learn how to be an effective advocate for the U. The event is from 5:30 to 8 p.m. at the McNamara Alumni Center on the Twin Cities campus in Minneapolis. A light dinner will be served.

RSVP by Jan. 18 online or by calling 612-625-8739.

There will be two additional opportunities to learn about the legislative requests and become an advocate for the U: 8:30 to 9:30 a.m. **Jan. 30** in the President's Room at Coffman Union, or 8:30 to 9:30 a.m. **Jan. 31** in the Minnesota Commons Room of the St. Paul Student Center. No registration is necessary for either event.

The "creating Minnesota's future" part of the request is designed to enable the U to enhance the future economic vitality of the state, as well as take its place as one of the preeminent research universities in the world. It has four components:

Competitive compensation ($18.7 million): Competition is fierce for the most elite educators and researchers. These funds would address market pressures and help the U recruit and retain world-class faculty and staff.

Health workforce and clinical sciences ($19.1 million): This investment would address the continuing shortage of advanced-practice nurses in the state and the critical shortage of allied health professionals.

Science and engineering ($11.5 million): These funds would help the U invest in a medical device center, in neuroscience and nanotechnology and in the creation of a civil engineering program at the University of Minnesota, Duluth.

Environment, agricultural systems and renewable energy ($8.4 million): In addition to helping the University ensure food safety and animal and human health, these funds will help fund the U's new Institute on the Environment.

Maintaining momentum with the Biomedical Sciences Research Facilities Authority

In addition to the biennial budget request, the University is also advancing a two-part capital request.

Last year the University introduced a groundbreaking plan to increase Minnesota's competitiveness in the biomedical sciences--the area where medicine meets the latest in science and technology. Minnesota has traditionally been a leader in the biomedical sciences--and the University of Minnesota, with its myriad medical breakthroughs, has been the driver of discovery in the state.

This year the University is again asking the legislature to authorize the Biomedical Sciences Research Facilities Authority, an entity that would steer the investment of $310 million in the biomedical sciences over the next decade.

The plan would allow the U the ability to construct approximately 600,000 square feet (about 150,000 square feet every other year) in technologically sophisticated research space. These buildings--including the Biomedical Sciences Building approved by the legislature last year--would allow the U to house 40 faculty and 120 research staff in each building. The University also anticipates that each building would generate at least $20 million in new grant money, which is critical in stimulating Minnesota's economy.

In addition to the Biomedical Sciences Research Facilities Authority, the U is submitting a supplemental request for HEAPR--Higher Education Asset Preservation and Replacement. HEAPR funds go toward building systems and health and safety improvements, and the U is asking the state for $22 million to cover necessary improvements at the Twin Cities, Crookston, Duluth and Morris campuses and at regional outreach centers around the state.

To learn more about the U's biennial budget request or capital request, visit the Office of Government and Community Relations Web site.

U names Brewster new head football coach

By Rick Moore

Jan. 17, 2007


Tim Brewster

The University of Minnesota named Tim Brewster as the new head football coach of the Golden Gophers at a special press conference on Jan. 17 at the McNamara Alumni Center on the Twin Cities campus in Minneapolis.

U athletics director Joel Maturi introduced Brewster to the media, as well as to a few hundred fans who gathered for the public event. The hiring of Brewster caps an accelerated search that began when Glen Mason was dismissed on Dec. 31. Brewster was offered the position late Monday evening and the deal was solidified yesterday morning, Jan. 16. Maturi said that he was dedicated to finding a head coach who would energize students, alumni and fans, who would be committed to the academic performance of the athletes, and who would bring a Big Ten title to the U. Said Maturi: "Tim Brewster fits those qualities."

Bruininks comments on Brewster

Hear the audio of a statement by University President Robert Bruininks about the hiring of Tim Brewster as the new Gopher football head coach.

"I pledge to you, I'm going to do everything in my power to bring a championship to the Twin Cities," said Brewster, who played collegiately in the Big Ten at Illinois. "I can't wait to get out and sing the praises of the U," he said, adding that he has no fear or anxiety about this being his first collegiate head coaching job. "What I've got is total exhilaration about being the head coach here." Brewster, 46, has spent the last five seasons in the NFL. For the past two seasons he has been the tight ends coach with the Denver Broncos, and for the previous three seasons he was the tight ends coach for the San Diego Chargers. In San Diego, he held additional responsibilities as the club's assistant head coach for the 2004 season, and he oversaw the rapid development of tight end Antonio Gates; in 2004 Gates earned first-team All-Pro honors from the Associated Press and a Pro Bowl selection after playing only his second year of football since high school. Before joining the Chargers, Brewster enjoyed success at the University of Texas (1998-2001) and the University of North Carolina (1989-97), where he also coached special teams and was the Tar Heels' recruiting coordinator. North Carolina finished fourth in the country in the final USA Today/CNN Top 25 in 1997 following an 11-1 season. He worked on head coach Mack Brown's staffs at both schools.

"I pledge to you, I'm going to do everything in my power to bring a championship to the Twin Cities," said Brewster.

He began his coaching career in 1986 in the Big Ten at Purdue University, where he coached tight ends and offensive tackles as a graduate assistant. He is known as an energetic and tenacious recruiter, and Maturi noted that Brewster was once recognized as a national recruiter of the year. He's also credited with bringing star quarterback Vince Young to the University of Texas. Brewster said he will personally recruit the state of Minnesota and vowed that every young football player in the state will know his name. "We're going to wake up in the morning thinking about recruiting, we're going to go to sleep thinking about recruiting, and we're going to dream about recruiting," Brewster said. A former two-time All-Big Ten Conference selection at the University of Illinois, Brewster led the nation's tight ends in receiving in 1983 and captained the Illini to the 1984 Rose Bowl vs. UCLA. Brewster, who graduated from Illinois with a degree in political science, played in the training camps of the New York Giants (1984) and Philadelphia Eagles (1985). For more information on Gopher football, visit GopherSports.com.

--Contains information from University of Minnesota Athletics **Related reading:** Regents approve stadium design, new price tag U breaks ground for new stadium

First flight for fledgling institute

A $300K contract funds a comprehensive conservation and preservation plan for the state of Minnesota

By Jim Thorp

Jan. 18, 2006

A team led by the U's new Institute on the Environment has won a $300,000 contract to prepare a comprehensive conservation and preservation plan for the state of Minnesota.

The University of Minnesota's new Institute on the Environment *just* named 15 founding fellows and does not yet have bylaws or physical space, but it already has a lot of work to do.

The institute was recently awarded a $300,000 contract from the Legislative-Citizen Commission on Minnesota Resources (LCCMR) to develop a comprehensive conservation and preservation plan for the state of Minnesota. As a result, within the next several months, more than 40 faculty members from 12 different departments and eight separate colleges will put the concept of the interdisciplinary institute to the test.

"This is a perfect example of what the Institute on the Environment was designed to do: bringing diverse talent and perspectives together to tackle a complicated environmental issue," says interim director and professor of environmental health sciences Deb Swackhamer. "The faculty actually came to me and asked the institute to facilitate it--they were hesitant to take it on as an ad hoc group of investigators. After our presentation to the commission, the feedback was that they were thrilled the U had stepped up to partner with the state, true to its land-grant mission."

About the project
Led by the U's Institute on the Environment, the conservation and preservation plan consulting team will:

>> Build upon existing plans to create a comprehensive new strategy
>> Identify current, emerging and future issues and trends affecting Minnesota's resources
>> Prioritize issues that should be addressed
>> Provide implementation strategies to address the issues
>> Determine general cost and benefit analysis of proposed strategies
>> Establish bench marks to measure and evaluate progress

For more information on the project, visit the LCCMR Web site or view the press release (DOC 36 KB).

The project is an early success for the institute--and a boon for the working relationship between the U and the state. The project provides a practical test case for the institute's proposed structure--U researchers and external partners working in interdisciplinary teams on specific projects or problems related to broad environmental themes. A preliminary plan is scheduled for completion this June, which means the institute will have to work quickly. The final plan is due in June 2008.

"I think it will help the Institute develop even faster--instead of just evolving around theoretical constructs, we have a contract in place as a concrete example," says Swackhamer. "We are also collaborating with two private Twin Cities design firms, demonstrating one of our guiding principles: working with partners on real-world issues."

The project should also help to illustrate another idea at the core of the institute--that the University of Minnesota is uniquely positioned to tackle such issues by virtue of its comprehensive academic resources; its threefold mission of education, research and outreach; and its geographic footprint, which includes prairie and forest biomes, the Great Lakes, the Great Plains, and three major river basins.

Swackhamer's conviction is evident--she knows the U's diverse strengths and looks forward to the broad-based, coordinated effort the conservation and preservation plan represents.

"The point of the institute is to build diverse teams of scholars, to provide opportunities for synergistic interactions among people with different ways of looking at things, different talents and skills," she says. "These teams can address complex studies (like this one) that could not be addressed as effectively with a few researchers. It will position us to tackle the 'big' issues of the day beyond what is already being done at the U."

FURTHER READING Environmental institute names founding fellows Environmental institute to set new standards for interdisciplinary work Board of Regents actions advance Transforming the U agenda Swackhamer named interim director of new environmental institute

The times of your life

Two University authors reveal the innate rhythms that govern organisms from gardenias to Gershwin

By Deane Morrison

Jan. 19, 2007

In their book, University researchers Robert Sothern (left) and Willard Koukkari present the rhythms that govern all life.

If you're taking a drug to treat high blood pressure or cancer, you want the right type of drug and the right dosage. But if you take it at the wrong time of day, you could cancel out its effects. Much of the credit for that discovery--and, in fact, for the whole field of biological rhythms--goes to University professor Franz Halberg, one of three early pioneers in the subject and a major source for a recent book by two University authors. In "Introducing Biological Rhythms," retired plant biology professor Willard Koukkari and plant biology research associate Robert Sothern reveal the hidden hand of the clock in virtually every aspect of life, from sleeping and waking to when athletes perform best to the flowering of plants. As Halberg showed, the human body keeps a complicated schedule of rhythms, which we ignore at our own risk. "You can credit him with the fact that many prescription medicines are to be taken at certain times of day," says Sothern. Halberg also found that closely monitoring a patient's blood pressure throughout the day for a week or two could pick out ominous patterns predictive of impending heart trouble or stroke. He regards the practice of measuring a patient's blood pressure only one time as about as useful as trying to deduce the plot of a film from a single frame. The internal clocks of organisms can be set to generate cycles of any length. Seven-day cycles turn up frequently; for example, that's how long it takes the human body to reject an organ transplant. But how in the world do certain cicadas know to emerge from the ground to mate every 13 or 17 years, and how can synchronized flowering and seeding of Chinese bamboo happen every 100 to 120 years? Sometimes, nature's timing works with mind-boggling precision. Nor is timing limited to big events like eating, sleeping and mating. Even individual cells obey the rhythm of an internal clock. To drive home the ubiquity of biological rhythms, Koukkari issued a challenge to the students in his classes throughout his long and award-winning career as a teacher. "I told them that if anybody could name one [biological function] that has no rhythm, the student would get an automatic A," he chuckles. "Many tried, but nobody ever found one." Experiments Sothern did years ago illustrate the dramatic effect of timing. Studying rats that had been inoculated with cancer cells, he found that when treated with chemotherapy during their active hours, the rats fared poorly.

"What applies in humans applies in plants and even bacteria," Koukkari says. "The temporal organization of life is as critical as the structural organization."

"But I cured them of tumors by treating them at their resting time, which was during the light part of their day," he says. That's because when normal body cells are resting, they don't absorb the anti-cancer chemicals. But tumor cells, which have lost their sense of rhythm, readily take them up. Examples of rhythms in the book also run to the familiar, such as the phenomenon of jet lag and the role it seems to have played in the outcomes of major league baseball and NFL games. The common thread, says Sothern, is that the human body reaches its peak in late afternoon, when body temperature, energy and muscle strength are highest. To illustrate, the book quotes a 25-year analysis of all Monday Night Football games played between 1970 and 1994, when the games always began at 9 p.m. Eastern time. When West Coast teams played on the East Coast, the 9 p.m. start time was very late in the day for the East Coast teams. But to the West Coast players, it felt like 6 p.m., or late afternoon. Sure enough, the record shows that West Coast teams won more often--on the road, no less--and by larger margins than East Coast teams under those circumstances. Games played on the West Coast went the same way because the perceived times of day were the same. [Note to International Olympic Committee: How about moving the women's marathon from morning to late afternoon, when the men's is run? The times might improve.] Plants got rhythm, too. Bean plants lift their leaves in the morning to catch the sun, then droop them at night. As vines grow, they rotate their tips in a spiral pattern, completing each rotation in the same amount of time according to temperature. Also, say Koukkari and Sothern, timing is an important factor in applying herbicides. Woe to the farmer who spends big bucks to spread herbicide at a time of day when the weeds aren't susceptible. Although environmental factors such as day length and temperature can shift biological rhythms, "clock genes" keep them more or less stable. That science of these genes is still in its infancy, but it appears they guide the continual reprogramming of organisms' activities to conform with the day-night cycle. For Koukkari, much of the wonder of biological rhythms lies in their universality. "What applies in humans applies in plants and even bacteria," he says. "The temporal organization of life is as critical as the structural organization."

Read your own clock

If you want to detect some of your own rhythms, Sothern suggests monitoring your heart rate (counting for a full minute) or body temperature every two hours throughout the day. Also, try rating your vigor on a scale of 1 to 7 all day long. You may see connections between some of the variables.

Spreading the word about HPV and cervical cancer

By Pauline Oo

Jan. 19, 2007; updated Feb. 14, 2007

The National Lieutenant Governor Association is distributing educational brochures and bead kits that can be assembled into HPV and cervical cancer awareness bracelets in Minnesota and 10 other states.

Eleven of the nation's second-in-commands, including Minnesota Lt. Gov. Carol Molnau, have joined forces to educate the public about the highly preventable nature of cervical cancer and its direct link to a certain virus--the human papillomavirus (HPV), a focus of University research.

Molnau officially kicked off the National Lieutenant Governor Association's "Ending Cervical Cancer in Our Lifetime: Make the Connection" campaign on Jan. 18 in Sanford Hall on the Twin Cities campus in Minneapolis. It was a particularly appropriate setting since women of undergraduate age are the target audience. Molnau was joined by Levi Downs, a researcher with the University of Minnesota Medical School and Cancer Center; Amy Clute, a leading member of the student organization SHADE (Sexual Health Awareness and Disease Education); and Margaret Sughrue Carlson, chief executive officer of the University of Minnesota Alumni Association.

"I learned about [HPV] from friends and students coming to me with questions [such as] how do I get this and what do I tell my sexual partner," says Clute, a senior majoring in family social science and psychology. "[As a peer educator with SHADE], I feel like a surrogate parent, and like parents, I want to give them the information that they need. The age that HPV typically strikes is late teens and early 20s--that's the undergraduate population here at the U. I hope this campaign can create a national dialogue [about HPV and the risks and treatment options available for cervical cancer]."

About 11,150 women in the United States are expected to develop cervical cancer this year, reports the National Cancer Institute, and 3,700 of them will die from the disease. In Minnesota, about 200 women are diagnosed with invasive cervical cancer each year.

January is Cervical Cancer Awareness Month

Listen to Levi Downs, Cancer Center researcher, discuss the link between the sexually transmitted human papillomavirus and cervical cancer on University of Minnesota Moment.

Also, hear Kristin Anderson, cancer epidemiologist, talk about the risk factors and preventive measures for cervical cancer.

A new vaccine called Gardasil, recently approved by the FDA, holds the promise of changing this scenario. The vaccine, licensed for use in females aged 9 through 26, can prevent the HPV infections that cause 70 percent of cervical cancers, says Downs, who is also an assistant professor of obstetrics and gynecology at the U.

HPV is a common virus generally transmitted through any kind of genital contact. Most sexually active adults will be infected with HPV at some point in their life--each year about 6.2 million people in the United States become infected with HPV, making it the most common sexually transmitted infection. The HPV virus doesn't show any signs of infection and can harbor in a women's body for years before revealing itself; only a woman's yearly Pap test can detect the abnormal cells.

"The vaccine that is currently FDA-approved is an attempt to vaccinate girls between the ages of 9 and 13, before sexual activity begins," says Downs. "There is also a recommendation for girls and women between 13 and 25 to get vaccinated. There is not a lot of research of the benefits of vaccine for [women 26 years and older]." But, adds Downs, "every woman, regardless of age, should discuss the vaccine option with their parent or physician."

Cervarix, a vaccine that immunizes against the same cancer-causing strains of HPV as Gardasil, was recently tested at the University of Minnesota as part of worldwide clinical trials and will be available in mid-2007. Downs and his colleagues are preparing to test a next-generation version of Gardasil that would get at the HPV types that cause the remaining 30 percent of cervical cancers. This version would protect against eight types of HPV. Clinical trials will begin at University of Minnesota this year.

As part of the public awareness campaign, the lieutenant governor of each state--Colorado, Delaware, Illinois, Kentucky, Michigan, Minnesota, Missouri, New Mexico, Pennsylvania, Utah and Virginia--will distribute a total of 82,000 educational brochures and bead kits that can be assembled into "Make the Connection" awareness bracelets.

"We want you to know that this is a threat to your daughters, granddaughters, wives, mothers and sisters," says Lt. Gov. Molnau. " [Cervical cancer] is a scary disease because it's hidden, mysterious and deadly. It really thrives on ignorance, and today we're here to make people aware of it. No one should die through cervical cancer."

Merck, Inc. is funding the campaign. For more information on cervical cancer prevention, visit www.maketheconnection.org or the University of Minnesota Cancer center.

What is cervical cancer?

Cancer of the cervix, a.k.a cervical cancer, begins in the lining of the cervix, the lower part of the uterus (womb). Virtually all these cancers are caused by a sexually transmitted disease called the human papillomavirus (HPV), which triggers the growth of abnormal cells on the cervix (cervical dysplasia) that can evolve into cervical cancer if left untreated.

Regular Pap tests or Pap smears (a procedure in which cells are scraped from the cervix and looked at under a microscope), can turn up these abnormal cells. Women are encouraged to get annual Pap smears within three years of starting sexual intercourse or when they turn 21.

To learn more about HPV and cervical cancer, visit the University of Minnesota Cancer Center.

Further reading Cervical Cancer: A New Vaccine and a Brighter Future
Regular Pap Smears Help Ensure Women's Health

American Indians on center stage

Visiting professor offers insight into Native American-authored plays in spring course

By Pauline Oo

Jan. 19, 2007

Vibrina Coronado in action during the first week of classes.

Storytelling is as old as civilization, and it is certainly not unique to the North American Indian culture. But stories from this culture--written and performed by American Indians--began surfacing on theatrical stages only in the 1970s. (American Indian literature hit the shelves in the 1960s.)

"Prior to that, plays, television shows and films tended to focus on stereotypes--images of the American Indian as a savage or noble sidekick, like Tonto in 'The Lone Ranger'--because they were created by a non-native author," says visiting University of Minnesota professor Vibrina Coronado. "Indians now have a voice because of the American Indian Movement [in the 1960s] and other folks who would stand up and say, 'we don't look like that or act like that.'"

American Indian stereotypes are one of several topics Coronado will address in her class, American Indian Theatre (AMIN 5920) this spring. Students in the 15-week undergraduate course will learn about the cultural and artistic origins of 20th century American Indian theater and gain an understanding of how the works of Native American playwrights from various tribal groups relate to broader political, social and cultural contexts. "I designed the course after looking at other American Indian theater courses offered at other universities and drew on my own knowledge of the subject," explains Coronado, who arrived in Minnesota in August after three-and-a-half years at the University of North Carolina-Pembroke. "We'll be reading plays by American Indian authors, such as Lynn Riggs and William Yellow Robe, Jr., and I will also have some local playwrights, like Marcie Rendon, visit the class. We'll view some videos and do in-class readings of the plays."

Vibrina Coronado

Theater is one of Coronado's areas of expertise. The petite and animated woman of Lumbee Indian blood spent 10 years in New York City in professional theater, making costumes for Broadway.

"All cultures have performances as part of their creative expression," says Coronado. "What this class shows is that Native Americans have taken a Western or European form and molded it into their way of expressing."

For example, the notion of "main characters" is absent from Native American theater because it doesn't fit with Native culture. "Many native-authored plays have more of an ensemble; not one or two main characters with the rest supporting," she says. "All characters have equal weight because some [Native playwrights] have argued that you don't make one person more important than another. You always come from a community. [Not having a main character] is a way to both honor community and individual."

The traditional dramatic elements of conflict and climax are also often absent in Native American theater.

"My hope [for this class] is that students who are non-theater folk will get the chance to see what plays can be, and that non-Native students have the opportunity to see Native Americans as living, breathing human beings just like everybody else," says Coronado.

Did you know?

* The University of Minnesota's Department of American Indian Studies, established in June 1969, is the oldest such program in the country.

* The American Indian Movement, or AIM for short, got its start in Minneapolis in 1968. AIM introduced legislative language in 1977, which recognizes state responsibility for Indian education and culture. This legislation was adopted as a model throughout the country.

* The musical *Oklahoma!* was adapted from the 1931 play *Green Grow the Lilacs* by Cherokee Indian Lynn Riggs.

* The Lumbee tribe is the largest tribe in North Carolina, the largest tribe east of the Mississippi and the ninth largest tribe in the nation. The tribe name comes from the Lumbee River, which flows through Robeson county.

Further reading Storytelling in the lesson plan Native American nursing science bridge program Good medicine

U works to improve health care in northwestern Minnesota

Crookston chosen to host the state's fourth Area Health Education Center

Jan. 23, 2007

Dr. David Peterson is the only podiatrist in the Crookston community. The new AHEC is designed to increase the number of doctors, nurses, and dentists in northwestern Minnesota.

In the future, northwestern Minnesota may have more doctors, nurses, dentists and other health care professionals to treat patients in an area that has seen its health care workforce dwindle.

Last week, Crookston--home to the University of Minnesota, Crookston (UMC)--was chosen to host the state's fourth Area Health Education Center (AHEC), which will bring the power of University of Minnesota health care education system to the region.

AHECs are designed to help improve the accessibility and quality of health care by encouraging universities and educators to look beyond their institutions to develop partnerships that meet community health needs. Minnesota AHECs, which are funded by a blend of federal, state and University money, are already established in Hibbing (northeast), Willmar (southern) and Fergus Falls (central).

"Northwest Minnesota is facing significant workforce shortages in primary and specialty care medicine, dentistry and nursing," says Barbara Brandt, Minnesota AHEC program director and assistant vice president for education at the University's Academic Health Center. "The Northwest Minnesota AHEC will be a vital resource...to address these shortages."

Headquarters will be located at RiverView Health in Crookston, a city of 8,000 people about 25 miles east of the Red River and less than 100 miles from the Canadian border. The Northwest Minnesota AHEC will develop relationships between the University and health care facilities and education sites throughout the region to promote and support health care careers.

Debra Boardman, RiverView Health president and chief executive officer, says it is critical to have a program like AHEC to work with educational institutions, health care providers and communities to bring health care professionals back to the area.

"We look forward to bringing an AHEC to northwest Minnesota and to working collaboratively to promote health care as an important, viable employment opportunity," says Boardman.

Competition to host the new AHEC was stiff. The Crookston community drew on its linkage with the North Region Health Alliance and the Minnesota Rural Health Association, which relocated to Crookston from Mankato last summer. The new AHEC is the first in the state to be located in a city with a University of Minnesota campus, which will leverage AHEC's presence.

"We are extremely pleased," said UMC chancellor Charles Casey. "We know rural Minnesota, and we know the challenges. Together, we have the resources to work for solutions now and in the years ahead."

More than 10 years ago, UMC recognized the shortage of health care professionals in northwest Minnesota. In response, it established a bachelor of applied health--and offered it online. Today, UMC is the University's pioneer campus in developing and offering online degrees.

Rural Minnesota to gain access to more health education programs through the U

Rural Minnesota needs not only doctors, nurses and dentists--which the new AHEC will help to prepare--but laboratory technologists, occupational therapists and other staff in fields known as the allied health professions. The University is working to expand access to education programs in these fields, too, thanks to the new Center for Allied Health Programs, approved last year and now in development.

Only five states in the nation have no AHECs. Two of them--North and South Dakota--are on Minnesota's western border. This month, the North Dakota legislature introduced a bill to try to address urgent health care workforce needs, which the new AHEC in Crookston will help to meet.

University officials will immediately begin a national search for an executive director to lead the Northwest Minnesota AHEC.

RELATED NEWS RELEASE

"Central Area Health Education Center (AHEC) hires regional director," Fergus Falls, Minn., Jan. 23, 2007.

U introduces new ticketing system

New software to offer improved service for customers

By Rick Moore

Jan. 23, 2007

As the University of Minnesota has been examining ways to consolidate resources and improve service, one aspect of its operation seemed a perfect candidate for improvement: ticketing.

By almost anyone's standards, the U sells a lot of tickets each year--about 1.2 million just between athletics events on the Twin Cities campus and arts events through the Northrop Ticket Office. But as of the end of 2006, there was a lack of uniformity in ticket operations; i.e., Northrop's system was different from the operation in athletics, which is different from the systems at the University of Minnesota, Duluth (UMD).

So the U went in search of a "single enterprise" ticketing application that would best serve its many customers--including students, staff and the general public. After looking at a number of options, the U decided on a software package from Toronto-based AudienceView, which is also used by the Toronto Blue Jays and MGM Mirage Inc. in Las Vegas.

According to Andy Hill, project manager in the U's Office of Information Technology, AudienceView's software features state-of-the-art technology and can be customized to best fit the University's needs.

The new system, which is being phased in, went online Jan. 4 for Twin Cities art venues and groups including Northrop Auditorium, Rarig Center, Ted Mann Concert Hall, VocalEssence and the Twin Cities Gay Men's Chorus. The system is projected to be up and running for the UMD fine arts festival this spring and for the athletics department on the Twin Cities campus on June 15.

Fair food, fantastic ideas

The Enterprise Ticketing System will be one of the topics on display at the U's first-ever Quality Fair on Jan. 25 from 8 a.m. to noon at the McNamara Alumni Center on the Twin Cities campus. With the theme of "The Great University of Minnesota Get-Together," the fair will feature innovative ideas from staff and faculty across the state. More than 50 poster and breakout sessions will address topics such as executing strategy through a balanced scorecard and fostering engaged learning inside and outside the classroom.

Keynote speaker Doug Lennick of the Lennick Aberman Group will discusss aligning personal values, aspirations, and behavior with organizational strategy and culture.

The fair comes complete with a sideshow barker, mini-donuts, cotton candy, mini-corn dogs, and prizes.

The Quality Fair is sponsored by the Office of Service and Continuous Improvement and the improvement liaisons. To register or get more information, see Quality Fair. Presentations will be streamed live online the day of the event; advance testing of your computer's reception capabilities is recommended.

Perhaps the best part of the new ticketing system is the promise it offers for better--and potentially very creative--customer service. For starters, it will have modern ticket functionality, such as the ability to print tickets at home after ordering online. Procrastinating students on campus who get a sudden urge to take in a sporting event could go online, buy an available ticket and be on their merry way.

"If they decide to go to the game at the last minute, they can do it--they can print out [a ticket] at home and within five minutes be at the game," says Hill.

Down the road, a customer might be able to purchase game tickets, make a parking reservation, stake out a pre-game meal and even order a gift card for their cash-strapped son or daughter--all in one expeditious transaction.

The Office of Information Technology is also going to work to integrate the new ticketing system with other University systems and features, such as the Web portal, the U Card and registration. (Student and/or staff status would automatically be verified, and students would be able to take advantage of special ticket offers when registering for classes.)

The new software will also help the U be aware of a customer's event preferences based on his or her purchases across venues and events. Say someone has taken in four women's basketball games in the past year, along with a handful of music and dance performances. Based on that information, the U would be able to promote special offers and discounts that align with that customer's specific interests.

"We're trying to get people at the University to view our customers as being customers of the [entire] U," not of just Northrop events or athletics, says Lincoln Kallsen, director of financial research at the University. "In order to do that, we have to have all of these entities at the U 'talking to each other.'" The new system will enable that to happen, he says.

There is also the possibility of having a single physical box office across the University system, with one unifying phone number and Web address.

While customers will still see service charges and handling fees, the University will determine what fees to assess, as necessary.

"We control all the ticketing fees and choose what the ticket charges are, and that is, indeed, how we will pay for operational costs," says Kallsen. "One of the reasons we bought this software is so that we could keep these service and handling fees as reasonable as possible, especially for our students."

Even before all of the more sophisticated cross-department benefits are in place, customers will see an immediate improvement with the new software, which Kallsen says will be "replacing two very old, unsupported software packages" for Northrop and athletics. "This is light years ahead of what they had."

Supporting military families

By Rose Allen and Sara Croymans

From *eNews,* Jan. 25, 2007

Did you know that half of the soldiers serving in Iraq today are part of the National Guard or Army Reserve? These men and women have families, jobs and other roles in their communities. In Minnesota, an estimated 5,000 soldiers have been mobilized to serve in a number of conflicts around the world. Mobilization takes them away from family and community for anywhere from two months to two years or more. The recent proposal by President Bush to increase the U.S. military presence in Iraq will add an additional four months to the time many Minnesota soldiers are away from home.

Earlier this month, President George Bush proposed adding more than 20,000 troops to the U.S. effort in Iraq.

What does this mean for their families and the community?

You can find answers to this question and more--like how to help kids cope with stress, what is the impact of grief and loss or how to be a couple again--on a new University of Minnesota Extension Service Web resource: "Operation Military Kids--Learning Circle Resources" The online information also includes a 15-minute video that describes the five stages of deployment and how they affect families, as well as a lesson plan for hosting a learning circle. (The learning circle lesson includes a leader's guide and participant handouts.)

Speak out for military kids

On Saturday, Jan. 27, several military children will discuss what it's like to have a parent or family member deployed overseas. The event, from 6:30 to 8 p.m. in the Centennial Student Union Heritage Room at Minnesota State University, Mankato, is free and open to the public. Earlier that day (9:15 to 10:30 a.m.), the children will also participate in a military panel, which will allow them to ask questions of military personnel who have been deployed in the past.

Extension educators Rose Allen and Sara Croymans developed the lesson plan with the support of Minnesota's Operation Military Kids Team. Operation Military Kids is a national outreach effort that delivers recreation, social and educational programs for military youth living in civilian communities.

The U also offers the first-of-its kind Veterans Transition Center in Eddy Hall on the Twin Cities campus. The center, which opened in October 2005 to provide educational and other resources for student veterans, faculty and fellow students, is sponsored by the student group Comfort for Courage. To learn more, visit the Veterans Transition Center.

Rose Allen is an educator in family relations and Sara Croymans is an educator in family resource management with the University of Minnesota Extension Service.

A love of teaching

Interim men's basketball coach Jim Molinari places a high value on education

By Rick Moore

Jan. 24, 2007

In 13 seasons as a head basketball coach before coming to the U, Jim Molinari compiled a record of 218-167 and was named coach of the year for both the Mid-Continent Conference (1991) and the Missouri Valley Conference (1996).

In 2004, when the Gopher men's basketball program was looking for a coach to elevate its defense to a new level, Jim Molinari was picked as the man for the job.

The team felt his impact instantly. In that first season of 2004-05, on their way to the NCAA tournament, the Gophers finished third in the Big Ten in scoring defense, allowing only 62.7 points per game--just two points behind conference-best Illinois. Minnesota's average of 62.9 points allowed in all games was its best in 23 years, and it earned Molinari the label of best assistant coach in the Big Ten by *Street & Smith's*.

Things have changed considerably since then for the man known as "Coach Mo." Two-plus years after arriving, Molinari was tabbed as the interim head coach of the Gophers following the dismissal of Dan Monson, and his scope has had to broaden accordingly.

But no matter his on-court commitments and the team's current struggle to win games in the Big Ten, Molinari remains clearly focused on what he views as the most important things his student-athletes can take from the U: a great education... and a degree.

He believes as much in stressing academics and character development in his players as in being a master of the Xs and Os on the court.

Why players might seek his counsel

How many Division I head basketball coaches have law degrees? Without crunching the numbers on that one, the guess here is somewhere around one.

Molinari gained a juris doctor from DePaul University in 1980 while helping coach the Blue Demon basketball team. After passing the bar and working as a summer associate at a big firm in Chicago ("I was a tax drone," he quips), Molinari decided to turn his attention to coaching.

Coach Mo believes having a law degree helps make him a better coach, and made the following observation: "We tie our goals to our values--like effort, like discipline, like unselfishness. Whether it's a law firm or coaching, a lot of those principles are the same."

"I've always had a holistic approach to being a coach," he says. "I think coaches are educators. They're professors without tenure. I've always seen the value of education, and that's been my approach."

While athletes--like other students--aren't going to learn everything you teach, "They're smart enough to see what you emphasize," Molinari adds. "[The reality of it is,] I know that my job is to provide options for them. And most options are going to come from their academics."

"I tell them, 'When you get a degree from the University, when you go into a place you're going to get tremendous respect," he says.

For Molinari, helping student-athletes find success is more than just talk. During his 13-year head coaching career at Northern Illinois University and Bradley University, nearly 90 percent of Molinari's student-athletes graduated.

"I really feel that if you coach someone for four years and they leave without a degree, you've used them," he says. "You've sent them out into the world for some trouble."

He also acknowledges the nature of the beast in Division I college basketball--that in addition to trying to educate athletes and make them better people, a coach needs to win games, and if he gets fired, it's likely for not meeting the last requirement.

But, he adds, "You have a tremendous platform [for] the first two."

Molinari also would like to help whittle away any barriers that might exist between the academic and athletic sides of the U and create more of a community atmosphere. He says it's his job, and the job of his players, to represent the University in a way that everyone--faculty, staff and fans--wants to be a part of it.

"We're not an island. We're part of something that's much bigger than us," Molinari says. "I want people who meet us to feel that's our philosophy...."

A special opportunity for faculty and staff

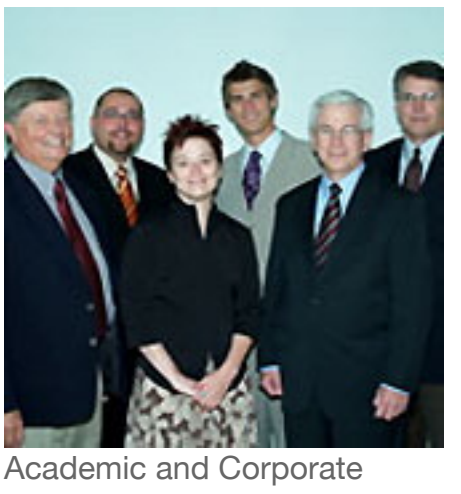
To help build campus community, a joint initiative of U governance and athletics is offering reduced-price tickets to Gopher sports events this semester for U faculty and staff. You can cheer on Coach Mo and the men's basketball team at Williams Arena in games against Iowa (**Feb. 7** at 7 p.m.) and Michigan (**Feb. 24** at 1:30 p.m.). Tickets are $15 while supplies last, and are available at the U of M Bookstores in Coffman Union and the St. Paul Student Center, and at the ticket office in Mariucci Arena. Other special offers are for **men's gymnastics** (Feb. 17), **women's gymnastics** (Feb. 24), **baseball** (March 24) and **softball** (April 14).

RELATED READING U of M aims to improve student-athlete academic performance Mr. Perseverance: Jamal Abu-Shamala A strong rebound: The U is now a model for athletic compliance

The new front door of the U

By Pauline Oo

Jan. 26, 2007; updated April 23, 2008



Academic and Corporate Relations Center director Dick Sommerstad (left) and his team. The U established the new center to make its expertise more available to local business.

Hotel concierges field dozens of requests each day, from the mundane (restaurant reservations, theater tickets, local transportation or Internet cafes) to the sublime ("help me plan a marriage proposal that will knock the socks of my intended"). No question or need is impossible, and virtually every request is fulfilled.

The University of Minnesota's new Academic and Corporate Relations Center (ACRC) is no different. Dick Sommerstad, the center's director, and his staff of five handle numerous questions each day--meeting any business need, big or small, in quick time. The center will even set up a meeting for you if you ask.

"We had a guy call us on Friday with 30 part-time jobs for $15 an hour and wanted to know where to go. We had another guy call this morning looking for somebody who is doing research in a specific area ... whether you want to hire students, do collaborative research or find out if we have anybody doing research in A, B, C, D, E, F and G, you can call us," says Sommerstad. "If we can't [give you answers] within those [few] seconds, we will get back to you within 48 hours."

The center, which is being called the U's front door to the business community, is only six months old, but it already has much to be proud of. From July 2006 through the third week of January, the center received about 800 calls, referred people to about 950 different places in the University, placed a lot of students in jobs and internships and helped double the number of job listings on the U's GoldPASS career and resume system.

"Say you're in a hotel in Mexico and you want to go to a restaurant within walking distance with seafood for dinner tonight," says Sommerstad. "You go out to the hotel lobby to find somebody who can help you, but nobody speaks English. That's kind of the way the University used to be. Unless you knew where the restaurant was and had a phone number and knew how to find it, you couldn't find it."

Sommerstad and his team--a receptionist, a coordinator and three relationship managers--are available Monday through Friday by e-mail or phone. (Relationship managers help their accounts--about 20 companies or organizations each--to navigate the U and identify appropriate people to work as consultants or in sponsored research. The companies include Target, Best Buy, 3M, Boston Scientific, Hormel Foods and Coloplast Corp. in Denmark.)

New umbrella

In April 2008, the Academic and Corporate Relations Center became a part of University Relations (UR), the U's central communications office. UR, located in Morrill Hall on the Twin Cities campus in Minneapolis, has five other departments: Government and Community Relations, News Service, Marketing, Internal Communications, and Creative Services.

"What we're trying to do is connect all the pieces of the University through that Web site," says Sommerstad, making it easier for businesses to get what they need and want from the University.

Other universities have corporate relations offices or relationship managers, adds Sommerstad, but "the University is very unique in that we have the three-legged stool of the relationship managers, the concierge service and [a resource-rich Web site]."

The ACRC Web site offers a bounty of information--from University expertise to University events, including workshops for businesses around areas of research at the University. But the plan down the road, says Sommerstad, is to have a Google-like search engine on the Web site that would pull up everything related to what businesses might be looking for.

"What we're trying to do is connect all the pieces of the University through that Web site," he adds, making it easier for businesses to get what they need and want from the University.

In spite of all they do to connect the outside world to the U, Sommerstad's team's expertise, attention and loving care isn't just for people outside the University.

"We find that 20 percent of our inquiries come from inside the University," says Sommerstad. "[The U community wants] to know where they can find certain things within the University, if the U has anybody that is working on this or that or [what businesses could help them host or sponsor a] workshop."

Take Joel Maturi, for instance. The athletics director recently asked Sommerstad for the names of five deans with "good senses of humor" that he could enlist for a promotional campaign.

Learn more

To learn more about the Academic and Corporate Relations Center, located at 1000 Westgate Ave. in St. Paul (along the bus transitway between the U's Twin Cities campus in St. Paul and Minneapolis), see the ACRC Web site or call 612-626-3438.

Sommerstad, of course, had the answer. And you'll just have to wait to catch these ads to see who the funny deans are.

Further reading Bioscience business incubator moves forward Lab-based incubator aims to jumpstart biosciences in Minnesota

The rotten truth

By Mary Hoff

Jan. 26, 2007

U biologist Sarah Hobbie wants to better understand the effects of decomposition and global change on each other.

What happens to living things when they're no longer alive may seem a rather after-the-fact matter for a biologist. But Sarah Hobbie knows otherwise. Associate professor in the Department of Ecology, Evolution and Behavior (EEB), Hobbie studies the role that degradation of organic matter plays in the cycles of carbon and nutrients that ultimately sustain all of life.

"I joke with my classes, it's hard to go tell your grandparents you work on decomposition," she says. But once she explains how pertinent it is to everything from growing prized tomatoes to global warming, the laughs subside. Decomposition, she says, is critical to recycling plant nutrients. It's the main pathway by which carbon dioxide fixed by plants is returned to the atmosphere. And it's the source of organic matter needed for healthy soil.

Hobbie, who EEB head Claudia Neuhauser calls "one of the [department's] leading researchers" in the field of biogeochemistry, began studying decomposition as a graduate student looking at nutrient cycling on the Arctic tundra. She soon realized that it's a key--and often neglected--variable linked to human-caused global changes such as increases in atmospheric carbon dioxide and fixed nitrogen. Since then she has led a number of studies aimed at understanding the effects of decomposition and global change on each other.

In one project, Hobbie is looking at nutrient cycling in monoculture stands of 14 tree species that were planted in Poland three decades ago. When she started the study, she thought the amount of lignin and nitrogen in the leaf litter, which affects soil microorganisms' ability to break it down, would control the decomposition rate. "We found out we were completely wrong," she says. The wrench in the hypothesis turned out to be nightcrawlers, which prefer leaves with lots of calcium. This same nightcrawler species is now invading Minnesota forests, so the research "helps us understand what's currently going on in Minnesota," Hobbie says.

Hobbie is also studying decomposition at Cedar Creek Natural History Area. Past research has shown that the higher the nitrogen in plant material, the faster it rots. "That suggests that humans increasing the input of nitrogen should speed up the rate," she says. But when she added nitrogen fertilizer to her research plots, decomposition accelerated on only a few--and even slowed on some.

"I still don't understand those results," she says. Because of the prevalence of fertilizer use, she plans to conduct additional experiments until she does.

When all is said and done, Hobbie says, she hopes to have "contributed some understanding of the basic ecological response to human-caused global change." And, she adds, "It would be nice if that information actually related to societal decisions about global change."

Adapted Sports Club rolls out membership drive

By Bob San

Jan. 29, 2007

Jerry Rinehart, vice provost of student affairs, tries his hand at shooting free throws during halftime of the wheelchair basketball exhibition at the Rec Center.

About 200 people attended a wheelchair basketball exhibition game at the U's Rec Center featuring the Courage Center's athletes on Friday, Jan. 26. The event was staged to raise awareness and recruit members for the University's newly formed Adapted Sports Club, and also to generate support for an official University of Minnesota wheelchair basketball team.

The Junior and Adult Rolling Timberwolves and the Rolling Gophers provided the game entertainment for the large crowd that ringed the Rec Center court. At halftime, spectators and U dignitaries tried their hand at shooting free throws.

The Adapted Sports Club was formed last spring, becoming the first recreation club at the University designed for students, faculty and staff with disabilities.

"It's really important that we get people with or without disabilities involved," Garaghty said. "The significance of the club is that it brings people together with sports as a common interest. It's a really good way of building relationships as well as showing the extent of activities that people with disabilities can do."

The U has more than 1,200 registered students with disabilities, but most do not participate in sports or have their recreational needs met at other places in the community because they are not aware of the opportunities on campus. The Adapted Sports Club is meant to act as a liaison between students and staff with disabilities and the Department of Recreational Sports, said Tony Brown, the department's associate director.

"If a student is interested in canoeing and kayaking, he can contact the club and club will contact our outdoor recreation program and we can put something together," Brown said. "If the student is interested in being physically fit we can set him up with a personal trainer or group training. It's a new concept and idea. We think if we can get people become aware of it, membership will grow."

"It's really important that we get people with or without disabilities involved," club president Rachel Garaghty said. "The significance of the club is that it brings people together with sports as a common interest. It's a really good way of building relationships as well as showing the extent of activities that people with disabilities can do."

"Spectators of the event were able to witness how competitive and entertaining the sport of wheelchair basketball can be," added Sara Hege, specialist and staff advisor with Disability Services. "Hopefully, the momentum and excitement generated at this event will carry into future sport and recreational opportunities for students, staff and faculty with disabilities at the University of Minnesota."

The Adapted Sports Club is scheduling another wheelchair basketball exhibition during the halftime of the Gopher women's basketball game Sunday, Feb. 11.

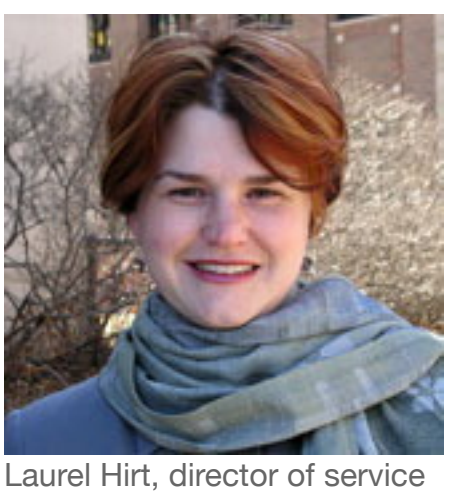
For more information about the Adapted Sports Club, contact 612-624-2602.

A national leader in community engagement

Carnegie Foundation picks the U of M-Twin Cities for a new category of colleges and universities

By Stephanie Wilkes

Brief, Jan. 31, 2007



Laurel Hirt, director of service learning and community involvement at the Twin Cities campus, was part of the Carnegie Foundation's pilot project that helped to develop the new, elective classification in which colleges and universities can be distinguished.

When the decades-old classification system for colleges and universities was overhauled in 2005, planning began for the first elective classification--community engagement. Last month, the University of Minnesota's Twin Cities (UMTC) campus was identified as one of 76 institutions in the new classification's inaugural class. Recognized for dedication to community engagement, the campus will serve as an example for institutions nationwide.

Since 1970, the Carnegie Foundation for the Advancement of Teaching's classification system has been recognized as a defining force in the realm of higher education. *U.S. News and World Report* uses the classifications to compare institutions, and the Research I and Research II classifications are familiar among UMTC's peer institutions.

The new community engagement classification acknowledges collaboration between institutions of higher education and their larger communities as a mutually beneficial exchange.

"The fact that Carnegie recognizes community engagement as valuable--so valuable that they created a classification for it, which institutions can apply for and be part of--will allow community engagement to be more than just a passing fad," says Laurel Hirt, director of Service Learning and Community Involvement at UMTC.

Transforming classifications

The Carnegie Commission on Higher Education, developed in 1967, created the Carnegie classification system to "address the complexity and diversity of US higher education." The system assigned every institution of higher education to one of 18 categories, based on analysis of information collected by outside agencies. But after 35 years, the number of higher education institutions had almost doubled, and the Carnegie Foundation felt it was time to make a change in their popular classification system.

"Over the last 20 or 25 years, there has been a growing attention to the range of forms of scholarship that faculty members engage in, including the obligation of the institution to provide benefits to society," says Alexander McCormick, a senior scholar at the Carnegie Foundation in charge of directing the new classification initiative. "That is why it was so important to us to have community engagement be the first elective classification--because it was the most conspicuous omission from the earlier classifications."

The biggest change in the overhaul, according to McCormick, was a move from one classification to a more multidimensional framework with several all-inclusive classifications.

Now the system is based on six all-inclusive classifications: Undergraduate Instructional Program, Graduate Instructional Program, Size and Setting, Enrollment Profile, Undergraduate Profile, and Basic. The Basic classification updates the old single classification. Due to the new method of differentiating community colleges, the Basic classification now has over 30 categories to choose from.

But the foundation didn't stop there. Instead, they looked for ways to broaden the classification system to incorporate different kinds of scholarship.

"We wanted to address some of the blind spots in the classification," says McCormick. "The first of blind spots had to do with institutions that had strong commitment to community engagement, ways in which the institutions both serve their communities and take advantage of their communities as an educational resource. That led to the first elective classification, community engagement."

The Carnegie system

The Carnegie Foundation was established by Andrew Carnegie in 1904, and was chartered by Congress in 1905. Originally, it was formed to create a pension system for university faculty, but in the 1920s the pension systems spun off into TIAA-CREF, and the Carnegie Foundation became much of what it is today.

The Carnegie Commission on Higher Education, established in 1967 to analyze issues facing U.S. higher education approaching the 21st century, created the Carnegie classification system to "address the complexity and diversity of U.S. higher education."

Addressing a gap

To develop the elective classification, the foundation looked to institutions for help, holding a pilot study in 2005. When the University of Minnesota was asked to participate in the pilot, Hirt was recommended by Craig Swan, vice provost and dean of undergraduate education, and Deb Cran from senior vice president Robert Jones's office.

"The foundation recognized that the University had been doing a lot of work through its civic engagement task force in 2000, and that we were one of the few places that had a comprehensive effort to look at public engagement across the entire institution," says Hirt.

She and political science emeritus professor Ed Fogelman visited the Carnegie Foundation center in Palo Alto, California, in January 2005. After two days of discussion about what a community engagement classification should look like, the pilot members went back to their institutions to begin collecting data--a daunting task at a university as large as the U of M Twin Cities.

"I started talking to people all over campus, making phone calls, sending e-mail and visiting lots of Web sites," says Hirt. "I finally got it all together by the end of the summer."

"Each university needs to value public scholarship, within itself and its surrounding community. But we must also act together, in national scholarly societies and higher education organizations, to reinvigorate our great system of higher education." --Victor Bloomfield, associate vice president for public engagement, in "Engaging Campus and Community," 2005.

The pilot project members met again in October 2005 to review their data and discuss next steps. In January 2006, the Carnegie Foundation made recommendations for application, which the pilot members reviewed and discussed. In the spring, the foundation sent out an official call for applications.

As an elective classification, community engagement operates differently than Carnegie's other classifications. Elective classifications are based on voluntary participation by the institutions, involving additional data collection and documentation on the part of each individual university.

Within the community engagement classification, institutions can fit into one or both of two categories: Curricular Engagement, and Outreach and Partnerships. Curricular Engagement recognizes institutions where teaching and learning engage faculty, students, and community in collaboration that addresses community-identified needs and deepens students' academic and civic learning. Outreach and Partnerships focus on two approaches to community engagement: (1) application of institutional resources for community use, and (2) interactions with community and related scholarship to exchange and apply knowledge and resources.

Based on the final guidelines, Hirt collected more data and sent in the completed application in September. Word that UMTC was accepted came Dec. 6.

"We had a target of 100 institutions that we could accommodate through the review process, and we had 145 institutions send a letter of intent," says McCormick. "Of those, we accepted 107 for participation, 88 actually submitted completed documentation frameworks, and we selected 76 to be included in the inaugural classification of community engagement."

According to McCormick, the foundation will hold another call for applications for the community engagement classification in 2008. To apply, institutions must respond to a documentation framework and provide, in some detail, data that indicates the institution's support for community engagement through inclusion in their mission, budgetary allocations, dedicated offices or units, particular examples in the two categories, and assessment mechanisms.

McCormick believes the new classification will help strengthen the importance of community engagement at higher education institutions.

"For institutions that see community engagement as an important part of their mission, this classification provides an opportunity for visibility," he says, "a way to call attention to an institution like the U of M's community engagement identity and commitment."

See also the Carnegie Foundation's news release.

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu .

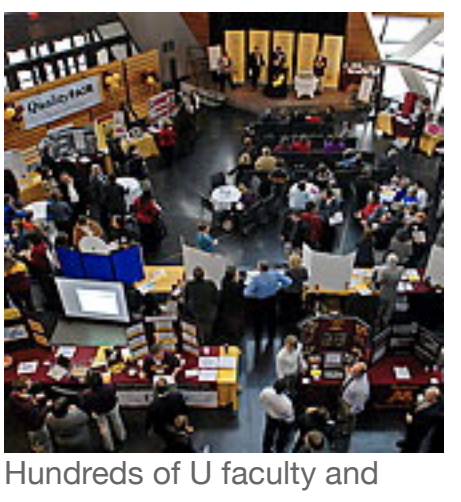
Revised Feb. 1, 2007

Quality Fair generates big energy

About 800 people attended the U-wide event

By Gayla Marty

Brief, Jan. 31, 2007

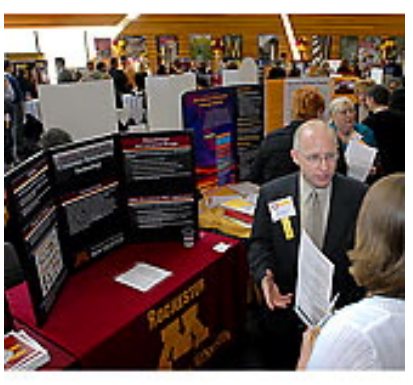


Hundreds of U faculty and staff filled the atrium of the McNamara Alumni Center in Minneapolis for the U's first Quality Fair Jan. 25.

The buzz was big in the atrium of the McNamara Alumni Center last Thursday morning at the University's first-ever Quality Fair. About 800 people--munching on mini-donuts, cheese curds, and cotton candy--packed in to the sunny space and swarmed more than 50 exhibitors. They talked over serious-looking posters, some decked out with such noisemakers as Hotwheels cars on a tiny racetrack (Parking and Transportation Services) and a ticking clock (the service-hours study). In the background, a familiar voice of the University--J. B. Eckert, sporting a maroon-and-gold tie and matching blazer--announced doorprize drawings underway.

When President Bruininks stepped to the podium, the decibels didn't drop. He talked right over the buzz to a couple hundred fair-goers sitting down for a rest.

"I can't tell you how exciting it is for me to come here today," Bruininks said. "I hope you steal all the best ideas you can find here and put them to really good use back where you work!



U of M-Rochester exhibitor Jay Hesley explained a project designed to enroll more prospective students by giving them better, faster service.

"This is all about alignment--connecting the dots--connecting the spirit of reform and innovation to the high aspirational goals of the University of Minnesota," he continued. "I want to profoundly thank *all* of you for working thousands and thousands of hours to create the ideas, the innovations, and the improvements that will ensure that the University continues as a great university, and evolves into one of the best public research university systems in the world."

The Quality Fair was organized to share information about improvement projects across all University campuses, departments, and units. Exhibitors included teams from Crookston and Rochester as well as two each from Duluth and Morris. All the exhibits showed how to identify problems, establish goals, manage change, and make improvements that support the U's strategic objectives.

It's all part of the goal of transforming the U. The poster sessions were designated for their focus on producing exceptional students, faculty and staff, organization, and innovation...with many crossing over into two or even three categories. Prizes were awarded (see box, right)--eight units will receive certificates, and the top four will also receive $100 toward holding a celebration with their units. The top two winners will present their posters at the President's Executive Committee meeting in February or March.

POSTER WINNERS

1 - Standardization of Services, University Services, #23
2 - UMD's Strategic Approach to Improving Retention and Graduation Rates, U of M-Duluth, #36
3 - Best Value Procurement in Capital Planning and Management, Capital Planning and Project Management, University Services, #20
4 - Boosting Quality at the School of Dentistry, School of Dentistry, #14

Honorable Mention

*** Student Feedback on Online Courses**, U of M-Crookston, #15
*** Producing Elegant Cross-College Workflow**, College of Liberal Arts, Twin Cities, #28
*** Service Hours Study**, Office of Human Resources, #30
*** The Adaptable Orientation**, Medical School, #41

Focus on leadership

In a keynote presentation to a full room, consultant Doug Lennick spoke about "breakthrough leadership"--aligning personal values, aspirations, and actions with organizational strategy and culture. Lennick--a former student at the U's Morris and Twin Cities campuses and a former vice president at what is now Ameriprise--is the acclaimed author of *The Simple Genius (You)*, *How to Get What You Want and Remain True to Yourself*, and (with coauthor Fred Kiel) *Moral Intelligence: Enhancing Business Performance and Leadership Success*.

Leadership can be defined simply as influencing others, he said, and "followership" as being influenced by others. By those definitions, everybody is both a leader and follower in various circumstances. He led the audience in a true-false quiz to explore factors that affect leadership, following, and performance at work.

"A 'values-right' culture is a function of selection as well as leadership," he stressed. "Who we select [as employees] matters." He cited research that shows moral and emotional competencies are even more important to performance than intellectual and technical competencies.

Lennick also recommended playing a "freeze game" several times a day--"hitting the pause button and asking yourself, 'What am I thinking right now? What am I feeling? What am I doing? Is it consistent and aligned with my principles, values, and beliefs?'"--as a way of becoming aware, managing actions and leadership more effectively, and growing toward a closer alignment of one's ideal and real selves.

Two breakout sessions drew active participation and discussion. One featured a "balanced scorecard" methodology for actually getting strategic plans to and through the implementation stage. The scorecard method was described by Barbara Possin, vice president of system quality and strategic alignment at St. Mary's Duluth Clinic Health System.

Facilities Management staff members Mary Santori and Rob Tunell, Twin Cities campus, described a comprehensive initiative to become a more customer-focused organization.

The other breakout session focused on student engagement and service learning--and how to measure it. Twin Cities campus staff members Laurel Hirt, Career and Community Learning Center, and June Nobbe, director of student engagement and leadership, led the session.

Lennick's presentation is now available on the Web, and the others will be available Feb. 5. See the video highlights.

What's next

In the planning stages, this year's committee wasn't sure how the U community would respond. They tentatively hoped to attract perhaps 300 people.

It's clear that the fair tapped into a need to share and a desire to hear about what others around the U's campuses are trying and finding successful on the path to ever greater improvement.

"If half of winning is showing up, then this great university is ready to win," said Scott Martens, director of the Office of Service and Continuous Improvement (OSCI). "With more than 800 people from the academic and administrative sides from every campus in our system showing up here today, this is a great sign that the University is ready to move forward with transformation."

OSCI and the improvement liaisons are in the process of evaluating this year's fair and have already started talking about how they can top it next year.

The University's first Quality Fair was sponsored by the OSCI and the improvement liaison group, with key assistance from coordinator Joyce Wascoe and OSCI assistant Mary Swords. The fair was designed to help OSCI carry out its goals related to knowledge dissemination and helping to build a culture of excellence.

Health Connections expands in 2007

By Susan Wiese

Brief, Feb. 7, 2007

This time last winter, U employee Ellen Reed (not her real name) decided to participate in Health Connections because she wanted her clothes to fit better. The 45-year-old mom with a mostly sedentary job also wanted to stop feeling winded after climbing stairs. Reed agreed to share how she improved her health habits and changed her lifestyle.

Health Connections expands in 2007 to include every spouse or same-sex domestic partner who is also covered by the UPlan Medical Program. They'll be able to earn financial rewards for health improvement, too.

Connect to better health through Health Connections

UPlan Wellness Assessment
StayWell Health Management,
800-926-5455

Health coaching by phone
Harris HealthTrends Resource Center,
877-247-9204

What started Reed down the path to better health was the feedback she got after completing the online UPlan Wellness Assessment. Her results triggered a phone call from a nutritionist at Harris HealthTrends, Inc., the independent, third-party administrator of Health Connections. Working with the health coach over the phone throughout the year led to dramatic changes in Reed's eating habits and a marked increase in her daily physical activity. For what she achieved, and as a UPlan Medical Program member, Reed earned two $65 wellness rewards.

In the coming months, Reed hopes to persuade her husband to join her in taking advantage of essentially the same opportunities for health improvement from UPlan Wellness.

In 2007, every active University employee who is a UPlan member and every spouse or same-sex domestic partner (who is also covered by the UPlan Medical Program) will each be able to earn financial rewards for health improvement. That can add up to four $65 wellness rewards, or $260 per couple.

Murray L. Harber became the UPlan Wellness program manager in October. He formerly served as supervisor and manager of the wellness program for Hennepin County employees. Photo by Don Breneman.

"Of more than 8,000 employees who completed the online wellness assessment in its first year of operation, more than 5,000 went on to enroll in one kind of health improvement program or another," says Murray Harber, who was named program manager for UPlan Wellness in October.

"By expanding Health Connections in 2007 to include the spouses or partners of our employees, we hope to generate even more interest in being and staying healthy," he says.

Research shows that family members can be instrumental in bringing about change in health habits.

"Encouragement and support from a spouse or partner increases the likelihood not only that positive change will occur, but that healthier behaviors will be sustained over time," says Harber.

Log-in, learn, and earn

Every UPlan member and his or her spouse or same-sex partner--if also a UPlan member--can receive $65 after connecting to and completing the confidential UPlan Wellness Assessment by April 30, 2007. To get started, go to www.healthconnections.umn.edu.

After taking the wellness assessment, a Health Connections participant is eligible to receive a second $65 wellness reward when he or she

- takes advantage of Web-based Healthy Living programs to get fit, lose weight, or manage stress
- connects to a health coach by telephone to make lifestyle changes or manage a medical condition
- enrolls in a health action program available later this year--similar to the 10,000 Steps program in 2006 *(see box, above right)*.

Dependents of UPlan members who are 16 years or older can participate, as well, but they don't qualify to receive financial rewards.

My pedometer, my healer

The HealthPartners 10,000 Steps program was announced just before I went on a medical leave for major surgery. My doctor said walking would be one important thing I could do to speed my recovery, so I signed up for the program and got a pedometer. Two weeks after the surgery, I put it on. My three-day average was really low--fewer than 3,000 steps. So I set an eight-week goal of 8,000 steps.

Wearing my pedometer and keeping track of my steps every day made sure that I really was gradually getting more exercise each day. It also helped me identify how much was too much on some days. The daily tracker turned into an amazing journal of my recovery, and I easily made my goal--plus I felt great!

Jumping to 10,000 steps a day turned out to be harder. By that time, I was back at work. I found out how hard it is to get 10,000 steps in an average day at my desk job. But I also found out that, for me, I walk about 1,000 steps per 10 minutes, so I'm better at calculating how to get my 10,000 steps. And my medical leave helped me establish a habit that I'm motivated to maintain. I find myself craving walks, even when it's cold outside.

I've discovered walking as transportation. I live about three miles from the U, and there's no better way to meet my goal than walking home from work. Now I'm saving bus money, too! Thank you!

U employee, Twin Cities

Update on 10,000 Steps

More than 4,500 University employees are currently enrolled in the 10,000 Steps program from HealthPartners.

If you're one of them, you may have questions about how to continue or get re-started. Find answers at Health Connections.

Susan Wiese is the UPlan Wellness communications project manager.

Climate change is easy; breaking habits is hard

Or, how to get the world to stop talking and do something about global warming

By Deane Morrison

Jan. 30, 2007

If anybody knows why the U.S. government has moved so sluggishly on global warming, it's Walter Mondale. As Jimmy Carter's vice president, the University of Minnesota alumnus went up against a host of opponents as the two pushed to write energy efficiency into the laws of the land. Speaking last week at a conference designed to promote action on combatting global warming, Mondale described how his relatives in Norway have said the glaciers are melting and that no one seems to be rushing to the rescue. He labeled global warming an emergency and said that "special interests, Congress and the whole federal system seem almost built to slow things down." Those who want progress find the system stacked in favor of powerful entrenched interests.

Polar bears are feeling the heat from global warming. A recent University conference explored ways to speed up action on the crisis.

No one would agree more than University sociology professor Jeffrey Broadbent, who organized the conference. Called "Risk and Response to Global Warming and Environmental Change: Lessons from Social Science Research," the gathering Jan. 25 and 26, 2007 at the University's Humphrey Institute exposed the political and social underside of the climate change issue and some of the stumbling blocks to actually doing something to stem the tide. Broadbent's efforts are the latest example of the University's determination to play a leading role in the drive to conserve and protect the environment. "Most study of climate change has been from a natural science perspective," says Broadbent. "Much less attention has been paid to why governments, people, and societies don't take this problem seriously. It's a unique problem, global in scope. To solve it, we have to make deep changes in how we get our energy. The biggest obstacle is that people think in the short run." **A failure to communicate** For too long, global warming has been poorly presented to the public and to governments and other institutions in power, said keynote speaker Leslie King of the University of Manitoba. "I think global warming has suffered from a framing problem from the start," she said. "A lot of people can't relate to an increase of one or two degrees over 50 or 75 years." But when the issue hits home, all of a sudden things get done. "It's been said that California's policy on emissions was informed by predictions of the number of days with temperatures exceeding 100 degrees and the human deaths that would result," said Kathryn Harrison of the University of British Columbia.

Symposium on Biofuels

Some of the nation's top biofuels experts will meet at the University of Minnesota, Twin Cities Thursday, Feb. 1, to discuss ways to reduce dependence on fossil fuels by producing sustainable, environmentally friendly and abundant biofuels. "This is a valuable opportunity to learn how our country's transition from fossil fuels to biofuels may unfold," says event host David Tilman, Regents Professor of Ecology in the College of Biological Sciences. The public is welcome, but space is limited and registration is requested. To register, click here and then on "upcoming events." Read more about the symposium in a news release.

"Environmental laws open new investment and create new industries," [Schofer] said. "For example, Germany has more people employed in environmental cleanup than in the auto industry."

Another speaker, Radoslav Dimitrov of the University of Western Ontario, underscored the importance of telling people not only what damage global warming is causing, but what it means to them. For example, acid rain and ozone destruction were successfully addressed because scientists made it clear how damage in one country could be caused by activity in another. In Europe, acid rain was seen as a threat to forests, while in Canada and the northeastern United States it was known as a destroyer of lakes. Ozone-depleting substances can drift widely, leading people around the world to be exposed to higher levels of cancer-causing ultraviolet radiation. In contrast, said Dimitrov, efforts to protect forests and coral reefs from global warming have been stymied because scientists have not shown that destruction will cause worldwide harm. Coral reefs seem to be the ecosystem with the greatest biodiversity and, says University ecologist Clarence Lehman, have great potential to remove and store carbon dioxide in the coral matrix. But, said Dimitrov, scientists haven't made the case for transboundary consequences of reef loss. "It's as if a dead reef affects local fisher[people], not people on the other side of the globe," he commented. **The powers that befuddle** Other stumbling blocks in the road to action arise from the complex interplay of power and economics. Brazil was the first to sign the Kyoto Protocol to reduce greenhouse gas emissions, yet it opposes accords to limit deforestation. "The Brazilian government delinks deforestation--which causes two-thirds of [greenhouse gas] emissions--and climate change," explains Myanna Lahsen, a researcher with the International Geosphere-Biosphere Project in Rio de Janiero. "The government has fears about its sovereignty with respect to the Amazon." Brazil has recently become a major supplier of soybeans, and Lahsen said the Brazilian government apparently thinks that countries threatened by the growth of Brazilian agribusiness are trying to use the deforestation issue against it. Worries that countries with tough environmental laws will abandon them to attract foreign capital are unfounded, said Evan Schofer, associate professor of sociology at the University. In a recent study, he found pro-environment countries fared better with respect to gross domestic product, industrial activity, and investment. "Environmental laws open new investment and create new industries," he said. "For example, Germany has more people employed in environmental cleanup than in the auto industry." Further, by reducing the number of safe havens for polluters, treaties and environmental institutions diminish the attractiveness of moving industries to other countries. A growing divide exists between the European Union and the United States where the environment is concerned, said Miranda Schreurs of the University of Maryland. While Europeans generally accept the precautionary principle--that action to prevent damage should be taken in the face of uncertainty--the United States has insisted that action against global warming is not scientifically grounded and is a barrier to trade. Schreurs linked recent U.S. recalcitrance on enacting tougher environmental laws to industrial lobbying. She also said that in Europe, unlike in the United States, proportional representation [where parties get seats in legislative bodies according to the percentage of votes garnered], allows "green voices" to be heard. Also, Peter Ester of Tilburg University, Netherlands, presented data showing that environmental decision-makers often severely underestimate public support for measures to protect the environment. Taking into account the reports delivered at the conference, a working group met over the weekend to design a global research project. "It will compare countries, bring in new people [to explore the issue] and see what works to get things done," said Broadbent. "We have to get people to work for the public good, and the solution must spread benefits to poorer nations." **Further reading** Learn more about environmental work at the University of Minnesota: Gorham led the way in curbing fallout, acid rain The forest of the future The rotten truth New college and environmental institute gear up Digging deeper pays off

NBA star earns U degree after a 23-year hiatus

Trent Tucker will speak about his experiences returning to school on Feb. 6

By Megan Rocker

Feb. 2, 2007

Trent Tucker finally earned his degree from the U, 23 years after he left to play professional basketball.

Growing up in Flint, Michigan, Trent Tucker realized how lucky he was to have positive role models in his life. "My parents taught me early on the importance of making positive choices and having a support system," he says. Even so, "growing up, college wasn't something that was really in my plans. Every day, I was faced with negative [situations]; drugs, alcohol, and other tragic events." But thanks to his parents and other adult influences, Tucker didn't fall prey to many of the things that plagued his peers. His father, a part-time carpenter and employee at General Motors, and his mother, a homemaker, fostered a strong sense of community values and stressed the importance of education. They also encouraged his athletic pursuits. At age seven, he first picked up a basketball--and immediately found his calling. "When I started receiving college recruiting letters in the 10th grade, I realized basketball would give me the opportunity to go on to college," says Tucker. After much consideration, Tucker chose the University of Minnesota, and in 1978 became a student athlete. At the U, Tucker became interested in courses dealing with law, policy and criminal justice. As someone who had been faced with many difficult decisions and choices growing up, he also was intrigued with people's decision-making processes and the role of an individual's environment and upbringing on future choices. "The U...instill[ed] knowledge [I] would utilize in the years to come," he says. "I enjoyed taking classes where I could communicate and debate with my classmates about issues I had life experiences with."

For Tucker, as for many people, college is direct preparation for a future career. Unlike most people, however, Tucker's career aspirations were to play in the NBA. After leading the Gophers to a Big Ten championship in 1982, Tucker left the U and entered the NBA draft, where he was selected in the first round by the New York Knicks. What followed was a highly successful 11-year professional basketball career. Known as one of the greatest three-point-shooters in basketball history, Tucker also played with the San Antonio Spurs and the Chicago Bulls--with whom he won a championship ring in 1993. Despite his successes on the court, however, Tucker never forgot where he came from. "[I was] motivated to use my celebrity to help those who were less fortunate," explains Tucker. "It was a natural progression for me, really, because I realized I couldn't have made it to where I was without the opportunities that had been given to me...I felt it was important to educate our youth and make them understand...there is a bigger picture out there for them to see." Not long after going pro, Tucker began donating his time and his support to youth organizations. He founded the Trent Tucker Basketball camp for youth in the mid-1980s, and in 1998, a few years after his retirement from the NBA, he founded the Trent Tucker Non-Profit Organization. The organization, and its division, the Trent Tucker Youth Program (established in 2001), are designed to help urban youth maximize their abilities, make positive choices, and realize their potential. It was working with kids and his nonprofits that made Tucker realize that he wanted to go back to school to finish his degree--more than two decades after his last stint in the classroom. "I was lucky to be able to play sports at the highest level," he says. "But I knew that an education would be able to take me places basketball couldn't. It would give me the credentials to do different types of things I'd love to do--coaching college basketball, working with kids." So in 2004, after a 23-year hiatus, Tucker returned to the U of M to get his degree. Seeking something that built upon the human service course work he had been interested in his initial degree studies, he enrolled in the College of Continuing Education's Inter-College Program (ICP), an interdisciplinary, self-designed bachelor's degree program that draws course work from across the University's colleges and departments. "The [ICP] allowed me to further my education in things I'm involved with, and enjoy doing--like working with my youth programs," says Tucker. "In it, you're able to build a degree that fits you. I didn't have to fall into a certain category and I could study things that were important to me, and my career after basketball."

Trent talks

At 6 p.m. Tuesday, Feb. 6, Trent Tucker will talk about his decision to return to school as an adult and his life after basketball in a free event sponsored by the College of Continuing Education at the McNamara Alumni Center on the Twin Cities campus in Minneapolis. A free career workshop and a continuing education fair will follow.

"Basketball had been so good to me for so many years," says Tucker. "But after basketball was over I knew that if I wanted to get into something else, education would be the right way to go. There's so many other wonderful fields that you can explore but without that education those things would not be possible."

To RSVP for the event and to view a video clip of Trent Tucker, visit the College of Continuing Education.

"I remember that first day I walked in and sat down and the students kind of looked at me for a minute, like they were thinking 'what's HE doing here?'...," says Trent Tucker.

Still, returning to the classroom as an adult was not easy--even for a former professional athlete and celebrity. "It was a challenge. Walking into a classroom after so many years...looking around and asking myself, 'Do I fit in here?', 'Do I belong?', 'Can I cope?'. I remember," Tucker laughs, "that first day I walked in and sat down and the students kind of looked at me for a minute, like they were thinking 'what's HE doing here?', and then one of them asked 'are you the professor?' And I just kind of laughed and told them I hadn't quite achieved that status--yet." Tucker says he enjoyed the challenge of going back to school, testing his limits, and especially meeting and working with his fellow students and professors. "You're never too old to learn, to grow," he says. "I loved the program; I had a ball. And to have a degree from the U of M? That's a special thing." In 2005, Tucker graduated with a bachelor's degree in psychology of communications in human services, specializing in youth psychology. It's a degree he puts to use daily, both in his nonprofit organizations and in his continued involvement with basketball. "This degree gave me a chance to do different things that I truly enjoy doing. It's given me an even better understanding of how to reach kids and communicate with them."

Evolving with the climate

Understanding how plants evolve could suggest ways to help them adapt to global climate change.

Mary K. Hoff

Feb. 2, 2007

Plant evolution expert Peter Tiffin has studied how plants hold their own against herbivores and other enemies.

At first glance it may seem like a charmed life. But in reality it's not all that easy being a plant.

Anchored firmly by your roots, you can't outrun, dodge or hide from organisms that aim to eat you. So instead you develop defenses: tough tissue, toxins, thorns, spines. And what do your nemeses do in turn?

Develop ways to outsmart them. This evolutionary pas de deux holds plenty of intrigue for Peter Tiffin, assistant professor in the Department of Plant Biology. Tiffin started his scientific career studying plants from the perspective of crop production.

But he soon found himself captivated not so much by the organisms themselves, but by the molecular changes in their genes that allow them to endure in and adapt to a changing world. Among the most fascinating genetic characteristics Tiffin has studied so far are those that help plants hold their own against herbivores and other enemies.

"I want to understand how biotic interactions shape the evolution of organisms," Tiffin says. "As far as a strong evolutionary force, being eaten is pretty strong."

Tiffin has been looking at molecular genetic differences in two species of teosinte, a Central American grass that is the ancestor of modern corn. By comparing the DNA that codes for defenses such as digestion-inhibiting and antifungal proteins in different populations, he's been able to gain insights into a variety of evolutionary strategies for staying alive in a world replete with plant-eaters.

"We consider Peter Tiffin one of the top young stars in the plant molecular evolution field," says Peter Snustad, acting head of the Department of Plant Biology. "His work on the evolution of plant defense genes and host-parasite interactions is cutting edge."

Tiffin is also investigating the genetic implications for genetic variation and selection of increasing atmospheric carbon dioxide. To study that, he planted 6,000 Arabidopsis thaliana plants (the botanical equivalent of white mice) in research plots exposed to higher-than-normal carbon dioxide at the College of Biological Sciences' Cedar Creek Natural History Area research facility.

"There are suggestions that carbon dioxide changes the evolutionary trajectory," he says. "We hope to test this idea as well as identify chromosomal regions contributing to differences among genotypes' response to carbon dioxide."

In another study, Tiffin is looking at the relationship between molecular genetic variation and growth range in Clarkia xantiana, a purple-petaled flower found in the Sierra Nevada of California.

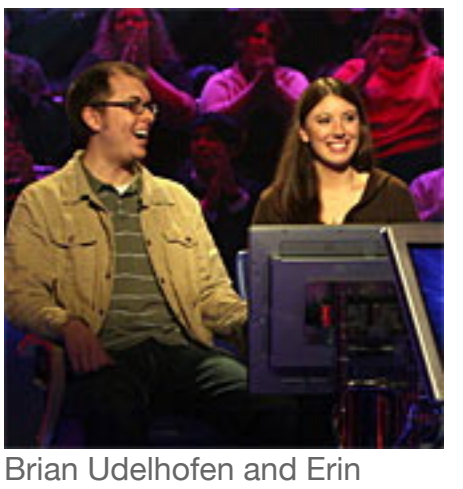
"With global climate change, there's a lot of evidence that species ranges will shift," he says. Improved understanding of the link between genetics and range, he says, may prove valuable to predicting-and potentially boosting-plants' ability to adapt to such change.

Were their final answers good enough?

U students plan to use 'Millionaire' winnings to finance wedding

By Rick Moore

Feb. 2, 2007; updated Feb. 5



Brian Udelhofen and Erin Hanrahan compete on "Who Wants to be a Millionaire?"

Editor's note: The drama is over for friends and acquaintances of Erin Hanrahan and Brian Udelhofen, two University of Minnesota students who appeared on "Who Wants to be a Millionaire?" on Feb. 5. Now that the show has aired, we can tell you that they won $25,000. Ultimately, they were stumped on the $50,000 question: "Which of these is not the title of a book in the popular "For Dummies" reference series? A) Breastfeeding for Dummies, B) Origami for Dummies, C) Ferrets for Dummies, D) Robot Building for Dummies?" They guessed the answer to be "C;" unfortunately, the correct answer was "B."

There's little doubt that this young couple is ambitious. Bride-to-be Erin Hanrahan is a law student at the University of Minnesota, and her fianc?, Brian Udelhofen, is a graduate student at the U in Geographic Information Science. Both are on track to graduate this spring.

But it's their ambitious decision to get up in the middle of the night and drive to Chicago for an audition that wound up paying unexpected dividends.

The audition was for the popular TV show "Who Wants to Be a Millionaire" for its special "Play to Pay for Your Wedding" week. Udelhofen and Hanrahan, who are scheduled to marry on Aug. 11, were one of the chosen couples, and their quest for the big money aired on Monday, Feb. 5, at 4 p.m. on KARE-11.

"This one time, at band camp..."

How wholesome is this? Udelhofen and Hanrahan did indeed first meet this one time at band camp when both were teenagers. They remained just acquaintances until Brian asked Erin out for an ice cream date. One thing led to another and soon they were going out for (gasp) coffee! Then finally, two years later, it was dinner on Valentine's Day.

"Is that your final answer?"

Their engagement story is a little more "Seinfeld" than "Mayberry R.F.D." Udelhofen disguised his intentions by saying they were going to Chicago for a concert by the underground hip-hop artist Lyrics Born. After a limousine took them to a hotel and Hanrahan figured out what was going on, she didn't respond with tears or a kiss. Her first reaction was to tackle Brian and scream at him, "Are you for real?"

They wound up going to the show, and the artist publicly dedicated a song he wrote for his wife to Udelhofen and Hanrahan.

The saga of their TV appearance began last summer, when they started looking at their finances. "We were crunching the numbers for our wedding," Udelhofen says, and figured "We had absolutely no way of paying for it." Then he says the thought occurred to them: "How cool would it be to be on 'Millionaire' to pay for our wedding?"

Hanrahan looked up information for the show online and discovered the special "Play to Pay for Your Wedding" week. "It was pretty much her idea. I was kind of reluctant," Udelhofen says. "She convinced me."

Audition day in Chicago was a story by itself. Although the mass auditions (for couples and regular contestants) didn't start until 9 a.m., Udelhofen and Hanrahan were told it would be best to arrive at about 5 a.m. when the parking lot opened. So they set the alarm for 3 a.m. at Hanrahan's parents' house in Racine, Wis., packed up some turkey sandwiches and hit the road.

After a chilly four-hour wait, Udelhofen and Hanrahan finally made it into the building with a group of 200-300 other candidates, where they individually took a 30-question trivia test. Both were among the 20 or so people from their group who passed that step. Then came a big questionnaire to fill out before they made it into a final pool of possible contestants. And finally, a call for the pair to travel to Manhattan on Nov. 16 for their show's taping.

At the studio, the couple went over details such as how to properly get into and out of the contestant chairs--all the while trying to contain their nerves. Unfortunately, breakfast and lunch buffets provided for the contestants didn't help. "It was pretty nerve-wracking," Udelhofen says. "We could barely stomach anything."

But, he adds, "I think it helped that we were there as a couple. I think we helped calm each other down."

They were also coached to be themselves, but if they got excited, to go ahead and show it. So how did they present themselves--as polite, restrained Midwesterners or screaming fools caught up in the moment? Says Udelhofen: "To be honest, I'm going to have to watch, myself, to see how we came off."

The couple had been sworn to secrecy prior to Monday's airing. But they've said that--in addition to wedding expenses--they would use their winnings to pay off student loans, and maybe splurge for a honeymoon to Greece.

Unmasking our true selves

Innovative research reveals identity and power issues in communication

Feb. 5, 2007

"O wad some Power the giftie gie us /To see oursels as ithers see us!"--Robert Burns

It's taken a couple of centuries, but poet Robert Burns' famous wish has come true. Using digital technology, University researcher Cryss Brunner has created a way for students to see themselves through the eyes of others. Many who try it find that they may not be quite as fair or unbiased as they had thought.

Ultimately, Brunner, an associate professor of educational policy and administration, wants to know if our identity (gender, race, physical characteristics, experiences) gets in the way of interpersonal understanding, true dialogue and "justice-oriented" interaction.

"Identity shapes both [what we say and what we think we say] in ways that [promote inequality]," Brunner explains. "Identity and the power associated with it can drown out alternative voices or marginalize all but mainstream authority." Often, leaders who practice this kind of autocratic interaction are unaware of imposing their power on others, she says.

Brunner has spent the last decade studying female leaders and power within school administrations. In 2002 she and colleagues from the University's Digital Media Center created Experiential Simulations (ES), an online environment similar to a chat room where people's true identities are masked to others in the group.

Each person is given a "modified persona"--an assigned gender, racial, class and positional identity unlike their own. They are instructed not to reveal personal details to one another. When they log in, each sees his or her own image, while their classmates see images and video that represent the assigned persona. The students are unaware of this, however, and assume that the others are seeing them as they actually are.

"Consider what the United Nations might be able to accomplish if [delegates] were stripped of the power associated with the countries they represent," says Brunner.

In this context, students work together in situations designed to show how their perception of other people shapes their own decisions. Offline, the students answer questions concerning their assumptions about power and stereotypes, their communication and their decision-making practices.

Afterward, they compare their profiles of themselves to cumulative data sets collected since 2002 that expose to them their skills in communication, leadership and collaboration, as well as their biases and how they use power. The ES experience brings to the fore what is usually in the background of real-world interaction: who each student is in relation to their membership in privileged or marginalized groups, the assumptions about those groups and the characteristics that bias their interactions.

What the research shows

The reactions from students in the project have been visceral and profound. One woman who thought that people didn't listen to her because she is African American realized that her own communication approach was preventing her from being heard. Several participants were startled to learn that their behavior was often bigoted. Others who thought they were inclusive discovered they were bullies. Several continue to report that they draw on the ES experience every day as they interact with others.

For another group of students, the exercise was a great equalizer. Speakers of languages other than English reported that they had never before been able to participate in class discussions in such a meaningful way, an experience that was echoed by students who categorize themselves as shy and by those with physical disabilities.

The Experiential Simulations process has been patented and copyrighted. Brunner and her colleagues are in the process of refining the ES model as software that can be used as a leadership development tool.

Michael Miller, assistant professor of teacher education at the University of Wisconsin-River Falls, sees promise for Brunner's work in fostering interpersonal understanding. "One powerful use might be an Experiential Simulation in which you modify the personas of inner-city students to become stereotypically suburban students and give suburban students stereotypically inner-city identities and have them collaborate on a task," Miller says. "This would provide students a powerful look at how [what] they think differs from how they act and an opening for meaningful discussions about perceptions of the 'other.'

"In the past few years, social networking via online vehicles such as MySpace and Friendster have illustrated very real components of social influence generally, and power and identity specifically," Miller continues. "Brunner's work ... may prove to have farther reaching implications given the way human communication continues to so rapidly morph."

Adds Christen Opsal, a graduate student in educational policy and administration: "Of the many possible applications, I see value in using Experiential Simulations during a hiring process, as a way to identify candidates who are truly competent and collaborative, and also as a way to reduce bias in selection processes."

The technology could have application in any situation where people work together in groups--in schools, communities, businesses and government.

"Consider what the United Nations might be able to accomplish if [delegates] were stripped of the power associated with the countries they represent," says Brunner. "Would the world be a more just place if decisions were made from such a level playing field?"

Adapted from ResearchWorks, *January 2007, a publication by the College of Education and Human Development.*

State of the AHC 2007

U's Academic Health Center aims to be premier destination for students, faculty and patients

By Jim Thorp

Brief, Feb. 7, 2007

Senior vice president Frank Cerra delivered the 2007 State of the AHC address Jan. 31 in Mayo Memorial Auditorium.

Drawing on the University of Minnesota's historic mission and current trends in health care, education and research, senior vice president for health sciences Frank Cerra outlined a five-year progressive vision for the Academic Health Center during his annual State of the AHC address Jan. 31.

The address was delivered to a near-capacity crowd of students, faculty and staff in the newly remodeled, historic Mayo Memorial Auditorium and was telecast to U campuses in Duluth, Rochester and St. Paul.

Cerra's vision for the future of the AHC is based on extensive consultation with AHC faculty, staff and students. The process generated three principles that correspond to the U's three-fold mission of teaching, research and service:

- **Distinctive education.** By 2011, the AHC will offer an interdisciplinary approach to the health sciences that sets it apart from peer institutions, will be meeting the demand for health care professionals in the state, and will facilitate the rapid dissemination of health care information among researchers, educators, students, practitioners and the public. Investments in technology and training, community partnerships for education, improved and more diverse facilities and services, and flexible learning environments that meet the needs of the next generation of high-performing students are all critical to this transformation.
- **Talent magnet.** The best universities are self-sustaining: top faculty members attract funding and students, which serve to attract and retain new faculty. In addition to improving faculty recruitment and retention, the AHC's vision includes successfully competing for sponsored project funding, achieving national recognition for focused areas of excellence in interdisciplinary research and becoming a national model for relations with business and technology commercialization. To do this, the AHC must find more effective ways to compete for funding and manage relationships -- including tapping the wisdom of its most experienced faculty members.
- **Destination of choice.** University of Minnesota Physicians chair Roby Thompson has said, "Clinical excellence will be our route to academic prominence." The AHC aspires to be the choice for people seeking the best care in the region or the world by expanding clinical practice across all disciplines and health needs and fostering greater collaboration among information centers, health care delivery systems, practitioners and researchers. Decreasing funding and competition between potential partners remain critical issues but are not insurmountable.

While Cerra acknowledged competitive pressures and the need for new research space and upgraded technology infrastructure, he offered an upbeat assessment of the AHC and its relationship to the University overall. "[The Academic Health Center] is increasingly recognized for the growing strength of its faculty, the rigor and vitality of its degree programs, and the impact of its clinics and hospitals on the health of the community. Our reputation is leading others in the state to say to us, 'We want to be your partner,'" said Cerra. "Student application rates are way up. ... [Deans] are feeling the pressure of having to disappoint high-achieving students who are denied entry to our schools."

Cerra also said that the AHC is 90-percent effective in recruiting specific faculty members to meet its needs and has developed much more effective methods of identifying, recruiting and retaining faculty despite a highly competitive recruiting environment--all of which helps to support the U's goal of becoming a top-three public research university.

"The health sciences are recognized now as being part of this University and working with it to achieve the aspirational goal--not because 'We need the University and they need us,' but because we are one."

The speech was preceded by the AHC Faculty Assembly and followed by a reception and tours of the renovated building. Mayo Memorial Auditorium was built in the 1950s and has been the site of teaching by world-renowned physicians such as Nobel Prize-winner Louis Ignarro.

WIRED FOR THE FUTURE
The newly renovated Mayo Memorial Auditorium provided the perfect backdrop to discuss the AHC's technology needs for teaching, learning and research. The historic structure now boasts state-of-the-art technology for recording and webcasting audio, video and presentations, as well as for real-time question-and-answer sessions via the Web.

SEE FOR YOURSELF
For more on the State of the AHC, view the video of the speech with an automated view of the accompanying presentation. Please note: The chat function that displays with the video was available only during the live speech.

FURTHER READING U works to improve health care in northwestern Minnesota Spreading the word about HPV and cervical cancer The science of longevity

Heart knowledge: more than skin deep?

Awareness is the first step to better heart health in women

By Anne Taylor

From *eNews,* Feb. 8, 2008

Editor's note: *February is American Heart Month. On. Feb 2 University of Minnesota cardiologist Anne Taylor spoke about heart disease prevention in women on the Twin Cities campus. The lecture, "How do you Mend a Broken Heart?" (listen to a recording of it), was sponsored by the Deborah E. Powell Center for Women's Health and is part of the center's lecture series, "Women and Heart Disease: It's not just for men anymore!"*

On Feb. 2 people turned out, en masse and in red, at the University Field House for the U's Wear Red Rally to raise awareness of heart disease in women.

While women worry more about breast cancer than heart disease, statistics show that 1 in 30 women dies of breast cancer, but 1 in 2.5 women dies of heart disease. Heart disease is the No. 1 cause of death in women. And, while the total number of people dying of heart disease is decreasing, the decline is much greater in men than in women.

Women should know that:

- Health-care providers are less likely to treat women with strategies that prevent heart disease, such as drugs that lower cholesterol.
- Although they are less likely to have a heart attack in their forties and fifties than men, women in this age range are also far less likely to survive a heart attack.
- Women wait longer before going to an emergency room when they are having a heart attack and are less likely to leave the hospital alive than men who arrive with heart attacks.
- Women are more likely to die in the year following a heart attack: 38 percent of women compared with 25 percent of men.

So how can women protect their hearts? Prevention is important. Some risk factors, such as age, menopause, family history and ethnicity are beyond your control. (African Americans, Hispanics and Native Americans have higher rates of heart disease.) But, no matter what your age or ethnicity, you can affect the following risk factors for heart disease:

- High blood pressure
- High cholesterol
- Diabetes
- Tobacco use
- Obesity
- Lack of physical exercise

To reduce your risk:

- Get regular checkups and learn your cholesterol and blood pressure numbers.
- Don't hesitate to ask questions such as, "What can I do to improve my heart health?" And, ask to be screened for diabetes--one-half of people with diabetes are not diagnosed.
- Take medications as prescribed. Medications can reduce cholesterol, control blood pressure and maintain normal blood sugars.
- Stop smoking. Smoking increases blood pressure and hardens arteries.
- Get regular exercise. It reduces stress and decreases your risk of obesity and diabetes.
- Eat healthfully. A diet low in saturated fat and that includes plenty of fruits and vegetables can reduce bad cholesterol, control blood sugar and help you maintain a healthy weight.

In case of a heart attack... The most common symptom in women and men is pain or discomfort in the chest, ranging from a mild ache to feeling a heavy weight on the chest. Some women, however, do not have classic heart attack symptoms. They may instead experience shortness of breath, nausea and vomiting, back or jaw pain or extreme fatigue. In women, these symptoms may be misdiagnosed as a panic attack, flu or indigestion. It is crucial to seek immediate medical attention if you or a loved one experiences any of these symptoms.

Anne Taylor is a University of Minnesota cardiologist and author of The Black Women's Guide to a Healthy Heart.

U center for women's health

"When women are fully involved, families are healthier," said Kofi Annan, secretary-general of the United Nations, in 2002. "They are better fed. Income, savings and reinvestment go up. And what is true of families is true of communities, and eventually, of whole countries."

The Deborah E. Powell Center for Women's Health at the University of Minnesota is dedicated to improving the health and wellness of women throughout their lifespan. The center is one of 19 nationally designated Centers of Excellence, a designation awarded by the U.S. Department of Health and Human Services in September 2003 after a competitive application process.

To learn more, visit the center or call 612-626-1125. For women's health tips, see www.healthymnwomen.org.

Christophe Wall-Romana and cinepoetry

McKnight Land-Grant Professor brings back poetry for a new generation

By Andi McDaniel

Feb. 12, 2007; updated March 7, 2007

Christophe Wall-Romana, one of 11 new McKnight Land-Grant Professors

When Christophe Wall-Romana is honored by the Board of Regents March 9, he'll be acknowledged for his work in a genre he calls cinepoetry. An assistant professor of French and Italian, Wall-Romana is one of 11 junior faculty members engaged in critical and timely research who have been named McKnight Land-Grant Professors for 2007-09 *(see box, below)*. The awards provide financial support, beginning July 1, as well as a research leave in the second year.

Like his field of research, Wall-Romana is hard to describe in a nutshell. With a Ph.D. in French literature from Berkeley, an impressive array of awards for his research, and a growing international reputation as the go-to guy for anyone interested in the intersections between cinema and poetry, Wall-Romana has certainly earned his status as an esteemed professor of French studies. But that's not all that makes him such an effective teacher. He's also funny, enthusiastic, and full of stories that testify to his innate quirkiness--like the one about proposing to his wife five days after he met her in a coffee shop.

2007-09 McKnight Land-Grant Professors

Awards support the University's most promising junior faculty at a crucial time in their professional careers. They are made by the Office of the Provost and the Graduate School.

* **Daniel Bond**, microbiology and BioTechnology Institute
* **Kathleen Collins**, political science
* **Christy Haynes**, chemistry
* **Karen Ho**, anthropology
* **Nihar Jindal**, electrical and computer engineering
* **Marta Lewicka**, mathematics
* **Helene Muller-Landau**, ecology, evolution, and behavior
* **William Schuler**, computer science and engineering
* **Kathleen Vohs**, management
* **Christophe Wall-Romana**, French and Italian
* **Chun Wang**, biomedical engineering

For more information, see the award Web site.

Perhaps that's why he's drawn to cinepoetry, a writing genre he is the first to identify as such and that's quirky in its own right. In addition to writing his dissertation on the topic, as well as a slew of articles, Wall-Romana is in the process of writing a book about cinepoetry. Cinepoetry, he explains, is the merging of film and poetry, and it can take a wide variety of forms--a poem in verse or in prose, a visual poem, or even a longer novelistic poem that is unmistakably cinematic. The underlying idea is that poets are inevitably influenced by film, so why not use that artistic relationship to teach poetry?

One easy way to get a feel for cinepoetry is to think back to silent films.

"Before 1928, you couldn't go to the movies without seeing words on screen, so that's probably one way poets began thinking about writing in relation to the moving image," Wall-Romana explains.

While cinepoetry has been around since the late 1800's--when poet St?phane Mallarm? first began visually arranging his poems in a distinctly film-inspired way--it has gone in new directions as film technology has evolved. Hence its appeal to the younger, media-focused generation and its growing status as the hot new thing in French studies.

"One of the things that initially fueled my research is the question of 'How can we still teach poetry to our students?'" explains Wall-Romana. "These days, it's like a dead language to them; it might as well be cuneiform writing." The way Wall-Romana sees it, cinepoetry is an opportunity to bring poetry back to life for today's students.

Born in Paris, Wall-Romana came to the United States in his early twenties, fully intending to return to France. As fate would have it, he met his future wife in a coffee shop in New York City on his first day. He never moved back to Paris. (As the story goes, he complained that the caf?'s coffee "tasted like cat pee," and as a New Yorker, she felt like she had to show him good coffee. So they walked to another caf?, and the rest is history.)

As a Franco-American, Wall-Romana shrugs at the American media's representation of France.

"There's much less anti-Americanism [in France] than you would expect," he remarks. "The media promotes this rhetoric of 'They hate us, we hate them.'" But that's just a side effect of the current jingoism, he suggests. In fact, most French people enjoy Americans, and as for the United States, "The vast majority of Americans dream of nothing but living in Paris," he says laughingly.

> *"One of the things that initially fueled my research is the question of 'How can we still teach poetry to our students?' These days, it's like a dead language to them...it might as well be cuneiform writing."*

Wall-Romana received a grant from CLA's Infotech Fees Committee to create a digital film clip database, a tool that will allow all instructors in cinema to access examples of specific techniques at the click of mouse. The project will be part of the new Digital Image Database that will soon revolutionize visual studies on campus. And he has joined with his colleague Rembert Hueser from the Department of German, Scandinavian, and Dutch to organize screenings of French and German experimental filmmakers with Walker Art Center in Minneapolis.

Given Wall-Romana's dedication to film and cinepoetry, it might seem that he's left traditional poetry behind. Thankfully, that's not the case.

"I'm proofing a book of poems by W. S. Merwin [who received the National Book Award for poetry in 2005]," says Wall-Romana happily. "It'll be the first book in French by this great poet!"

FURTHER READING Read about more 2007-09 McKnight Land-Grant Professors.

*** Christy Haynes, chemistry**
"Why Jell-O jiggles and other mysteries explained"

*** William Schuler, computer science and engineering**
"Two young faculty take it from the top"

*** Kathleen Vohs, management**
"The root of all effort?"

Search for the soul of the U

Symposium asks the big question: What is the purpose of the university?

By Deane Morrison

Feb. 13, 2007

A Feb. 19 symposium will examine the role of a public university in promoting civic engagement among students, which for many is a way to put their moral values into practice.

If students' bread is career preparation, what about nourishment for their hearts and souls? And how does a secular university provide that? Those questions go to the core of what it means to be a university and will be the theme of a symposium from 2:30 to 4:40 p.m. Monday, Feb. 19, in the Humphrey Institute's Cowles Auditorium on the Twin Cities campus. Called "Symposium on Civic Engagement and Moral Education," the gathering brings three prominent speakers in to tackle the question of how a university should help students sort out how to lead full lives as citizens. Implicit in the discussion is the idea that civic engagement is an individual's attempt to put her or his moral values to work in the world. But if moral values are rooted in religion for some people, how should a secular university help students explore them? And what about those for whom the drive for civic engagement stems from something other than morality and religion? What motivates those students and what is the role of the university in shaping their vision?

"The professor said, 'Let's talk about why [9/11] happened,'" Osburn recalls. "I was surprised no one was willing to bring up the elephant in the room: religion. Finally, I did. The professor blew it off."

"Civic engagement" doesn't have to mean joining organizations or being active in a political party; it could be as simple as voting or writing a letter to the editor, say two organizers of the event, Bryan Dowd and Robert Osburn. Whatever it means to an individual, it represents an attempt to make the world a better place. Dowd, director of graduate studies in health services research, policy, and administration, and Osburn, director of the MacLaurin Institute, say that this desire, at least in America, has religious roots, which creates an interesting situation at public universities.

At a pluralistic public university, teachers, students, and staff are likely to have different perspectives, even about morality. Invited speaker Nicholas Wolterstorff, a retired professor of philosophical theology at Yale University, will speak about how the lack of a common moral vision need not be an impediment to public universities educating students for citizenship.

No topic left behind The University of Minnesota is the perfect place for deep and even searing discussions, but they won't happen as long as people are afraid to broach certain topics, say Osburn and Dowd. In recalling his return to classes after the 9/11 disaster, Osburn, who was then a graduate student, found that a certain University of Minnesota professor wasn't open to discussing all angles of the issue. "The professor said, 'Let's talk about why this happened,'" Osburn recalls. "I was surprised no one was willing to bring up the elephant in the room: religion. Finally, I did. The professor blew it off. "I find professors are comfortable talking about race and culture. But the notion of the relativity of morals is also an example of the elephant. The most obvious example of how difficult conversation about morality becomes is when you consider the Palestinian-Israeli conflict." A hero to the Palestinians is a monster to the Israelis, and vice versa, he says. "You have to ask yourself if there's a larger framework to evaluate what's going on and why."

Continual vigilance Although many colleges and universities offer hands-on "service learning," invited speaker Mark Bauerlein, professor of English at Emory University, says he doesn't believe that activity by itself leads to long-term engagement. "I believe the primary purpose of a university is to help young people develop the intellectual tools to engage civically in a responsible and civil manner," he says. "The principles of American democracy must be rehearsed in college, [with students looking] at actual texts. I believe a lot of kids are starving for this kind of material." Another speaker, Richard Bernstein of the New School for Social Research, says students are most influenced by examples. "Frequently, the content of a course is far less important than how the teacher approaches the material," he explains. "Students are inspired by the passion, dedication, commitments, and vision of their teachers and peers." Bernstein says labels like "religious," "secular," "liberal" and "conservative" tend to muddy the waters when people are searching for ways to make the world a better place. It isn't the so-called "world view" that counts, but "the specific judgments about injustices and what is to be done about them that is crucial," he says.

For students seeking more than academics

The University of Minnesota is creating a Web-based Student Engagement Planner where students can match their interests to meaningful experiences outside the classroom. Part of the University's Student Engagement Initiative, it will help students not only find activities but reflect on what they're doing and what they're learning, whether it be critical thinking skills or how to deal with different kinds of people. "We have found no other comparable universities doing this," says June Nobbe, director of the Office for Student Engagement and Leadership. The planner could debut as early as fall 2008.

The road to financial security

Map a route and set your course using proven financial tools from Extension

Feb. 12, 2007

Marlene Stum is a nationally recognized researcher in family resource management.

How much time did you spend planning your last family vacation? How much time did you spend watching TV this past week? How much time have you spent planning for your life after age 60? We spend more time planning annual vacations than we do retirement and later life-which can last 30 years or more. "Thanks to a lifetime of poor savings rates and fewer family members to provide care, the sheer numbers of people needing and eligible for publicly funded long-term care by 2030 could overwhelm the state budget," Larhae Knatterud, Minnesota Department of Human Services planning director, wrote in a 2005 report to the Minnesota Legislature.

Today, more than ever, it's up to each of us to plan for our financial security in later life. Since the 1980s, retirement planning has undergone a major shift. From defined benefit plans to defined contribution plans, responsibility has shifted from employers to employees. "How individuals prepare for later life has a collective impact on everyone," Knatterud said. "People who prepare now are less likely to place increasing demands on limited public resources like government sources of income, health insurance and social services."

"Individuals need to make plans for the type of later life they want and how they are going to achieve their goals," Stum said.

While employees are increasingly responsible for their own retirement planning, the statistics are not promising: 40 percent of workers are not saving for retirement, 33 percent of workers age 51 to 61 have not yet begun to think about retirement, and one in five Minnesotans ages 40 to 69 are projected to have insufficient resources for basic living and long-term care. In 2003, the Minnesota Legislature asked the state Department of Human Services (DHS) to study long-term care financing options. DHS staff turned to Extension's Marlene Stum, Family Social Science professor, for her nationally recognized research in family resource management. Stum studies what factors motivate individuals to take personal responsibility and prepare financially for their retirement and old age. "Knowing how individuals make these decisions is crucial to developing successful policies and strategies," Knatterud said. Motivating individuals to plan and prepare for financial security in later life is a daunting challenge. How often have you been reminded about retirement planning, long-term care insurance or health directives and not taken action? You are not alone. Stum's research on the gap between people's intentions and their actual behavior revealed several factors that widen the gap-perceptions or feelings about the problem and solutions, decision-making styles, knowledge, and prior experience. Using this information, Stum led a team of Extension researchers and educators who have developed workshops and self-study materials on financial security in later life. "Individuals need to make plans for the type of later life they want and how they are going to achieve their goals," Stum said. "We learned that the work site is a very positive place to offer education and tools to help in the planning. People trust their employers to offer good products and it's convenient-two important factors for taking action." For more information, see worksite education and financial security.

From Source, *winter 2007, a publication from University of Minnesota Extension.*

Discovering P

Update from the Council of Academic and Professional Administrators

By Pam Stenhjem

Brief, Feb. 14, 2007

Academic professional and administrative (P&A) employees are one of the most diverse employee groups at the University of Minnesota. We number between 4,000 and 5,000 individuals across the state, and our abilities, skills, responsibilities, and contributions to the University represent a broad array of talent, education, and training. P&A employees are responsible for an eclectic blend of job duties that includes teaching, research, program design and implementation, as well as administrative and program support. We write grants, secure funding, train professionals both locally and nationally, and generate countless publications both internally and externally in such venues as peer-reviewed journals and textbooks.

The Council of Academic and Professional Administrators (CAPA) understands and recognizes the vast contributions of P&A employees at the University and is currently sponsoring three activities to recognize the talent and value they bring to the University and its strategic positioning initiative.

CAPA welcomes and encourages every P&A employee to take part in these three activities. Your voice can be heard and your accomplishments shared.

Survey to show P&A value to the U

CAPA will conduct a short and important survey regarding the value and contributions made by P&A employees across the University of Minnesota.

As part of the strategic positioning initiative, the Office of Metrics and Measurement is collecting data on the faculty and on students to capture their contributions to and work at the University. However, very little, if any, of the data reflects the extensive contributions of P&A employees.

CAPA believes P&A employees are critical to the University of Minnesota achieving its goals and that the value and contributions of P&A employees must be captured, reviewed, and used on a regular basis, along with information about faculty and students, in order to create a comprehensive picture of the elements that create a world-class research university.

We hope all P&A employees will choose to take part in the survey process when the survey is distributed by e-mail. We want to stress that the purpose of this survey is to gather positive information that reflects the value, contributions, and excellence of P&A employees.

Outstanding Unit Award - call for nominations

We are pleased to announce the call for nominations for the CAPA Outstanding Unit Award. This award is designed to recognize University units that are exemplary in their support of P&A staff. It also acknowledges the work of the P&A staff members within these units who have made distinguished contributions to the mission of the unit and University.

A unit that wins the award will receive $1,000 to support a unit-centered P&A professional development activity, a plaque, and public recognition. For details, contact Pam Stenhjem, chair, CAPA Professional Development and Recognition Committee, 612-625-3863 or huntx010@umn.edu. Nomination guidelines, selection criteria, and a nomination form can be found online. The deadline to submit nominations is **March 20**.

P&A Spring Recognition Event - mark your calendars

In coordination with presentation of the Outstanding Unit Award, the P&A Spring Recognition Event will be held Friday, **April 20**, from noon to 1:30 p.m., after the monthly CAPA meeting. This event is an opportunity for CAPA to recognize the extensive contributions and work of P&A employees at the University and to provide those employees with a chance to celebrate their accomplishments. Please mark your calendars--details and invitations will be sent soon. Good food and a good time are sure to be had by all!

Pam Stenhjem is an educational specialist in the Institute on Community Integration. She chairs the CAPA Professional Development and Recognition Committee.

Stage set for Northrop renewal

Recommendations for campus centerpiece underscore U's commitment to historic mission, transformative change

By Jim Thorp

Brief, Feb. 14, 2007

Historic Northrop Memorial Auditorium could be the focus of a massive renovation in the next few years.

Long the historic heart of the University of Minnesota's Twin Cities campus, Northrop Memorial Auditorium could one day expand from a fine arts and lectures mecca to a hub of U activity 24 hours a day, seven days a week, if a proposed new vision is adopted.

In February 2006, President Robert Bruininks charged a group of University and community leaders to develop a vision for the future of Northrop that supports the U's goal of becoming one of the top three public research universities in the world.

"Northrop is one of the most recognizable buildings in the state," Bruininks told the Board or Regents at its Feb. 9, 2007, meeting. "It's always been the home to exciting artistic performances ... We were seeking a vision for the future of Northrop that is at the center of the life of the University."

The Future of Northrop Advisory Committee was co-chaired by vice president for university services Kathleen O'Brien and College of Liberal Arts dean Steven Rosenstone, who presented the board with an overview of the group's conclusions and recommendations.

According to the 30-page report, the recommendations will "transform a sacred, aging and crumbling icon" into:

- A bustling and dynamic place that advances the University's academic mission and is a fully integrated part of the everyday life of the University community.
- A forum for discussion and debate about the most innovative ideas and challenging issues of our time.
- A venue in which diverse, eclectic and exciting events, performances and gatherings routinely engage the University and the broader community.
- A state-of-the-art facility with superior design, acoustics, spaces and technologies that facilitate rich programming.
- A place of distinction that enlightens, inspires, provokes, challenges and educates students, faculty and staff and connects the University of Minnesota to the world.

The committee's recommendations would reconfigure the auditorium to create superior acoustics and sightlines, address all health and safety issues, and enrich the facility with up-to-date technology. Reducing the size of the auditorium would provide space within the building to house a signature academic program such as the new University honors program, as well as flexible-use meeting space for seminars and informal student and faculty gatherings. The project would cost an estimated $70 million, requiring state and private support, as well as additional bonding on the University's part.

Northrop today
Although the University is already spending $21 million to stabilize the building and address safety concerns, O'Brien and Rosenstone offered a sobering assessment of the current state of Northrop:

>> No aspect of Northrop is without issue.
>> The current configuration and use patterns make only a modest contribution to the academic priorities of the U.
>> The substantial resources required to maintain the facility demand a multi-use, daily-use facility to provide more bang for the University buck.

Northrop Memorial Auditorium opened in 1929 with a seating capacity of 4,800--the U's entire student body at the time. According to Rosenstone, once safety and accessibility issues addressed, the renovated auditorium will seat no more than 4,000.

In other action, the Board of Regents:

- Accepted gifts totaling nearly $60 million for the months of November and December 2006. According to U of M Foundation president Gerald Fischer, December was a record month, with gifts totaling more than $52 million. Fisher highlighted major gifts from the Charles J. Biederman estate to the Weisman Art Museum and from Target Corporation to support capital initiatives on the Twin Cities campus including TCF Stadium, a new Weisman wing, and the Carlson School of Management's Hanson Hall.
- Reviewed policy clarifying the relationship between the University and associated organizations, including appropriate U representation on the boards of such organizations and appropriate standards for ethics, business practices, accountability, and alignment.
- Accepted the report and recommendations of the All-University Honors Committee and heard a report from the Faculty Consultative Committee on the status of tenure code revisions and the establishment of University-wide student learning outcomes.

See also the new release, "U of M Regents hear plan for future of Northrop Auditorium, new East Gateway campus district" (Feb. 9). The next Board of Regents meetings are scheduled for March 8-9 on the Twin Cities campus.

For the complete report of the Future of Northrop Advisory Committee, see pages 69-103 of the February 2007 board docket (PDF 3.30 MB).

Up to the task

VP Mulcahy leads discussion of the importance of research at the U--and what it will take to achieve top-three status

By Jim Thorp

Brief, Feb. 14, 2007

Innovative research in psychology and other social sciences is just one area of U strength and prominence. In this lab, psychiatry professor Chris Donahue uses virtual reality to treat anxiety disorders. Read more.

The University of Minnesota's ultimate goal is well-established: to become one of the top three public research universities in the world. And when it comes to bridging the growing gap in research funding, vice president for research Tim Mulcahy says the U is in a good position--if it acts decisively.

"People have heard that the U is no longer above average in terms of research," Mulcahy says. "In truth, we're no longer above average among the *best of the best*--that's the group we choose to compare ourselves with.

"I would compare it to the finals in an Olympic sprint," he says. "If you make it to the finals but don't finish with a medal, are you a below-average sprinter? We're well *above* average, but some significant changes are needed if we want to finish in the medals."

In December, Mulcahy presented his 2006 annual report to the Board of Regents. He provided similar testimony in January to the Minnesota House Committee on Biosciences and Emerging Technologies. Last week, he spoke to the regents again as part of a session on aspects of research related to the U's academic mission.

Since 1991, the U has fallen from second to ninth among 14 peer institutions in terms of reported research funding. While acknowledging the funding gap between the U and other leading public research universities, Mulcahy has consistently highlighted the U's strengths and outlined plans to address its challenges.

Balanced portfolio

One major source of strength for the U is the diversity and balance of its research portfolio. Mulcahy has examined the change in rank of research universities if medical school research, engineering school research, or both, are subtracted from total research expenditures. If a university's rank is closely tied to one or both of these areas of research, their rank shifts dramatically. But the U's rank shifts very little--a testimony to its strength as a comprehensive university.

Several areas of University of Minnesota research have seen significant growth recently, and current funding patterns indicate the U's push toward greater interdisciplinary scholarship should pay off.

"The Academic Health Center grew funding for shared initiatives by 100 percent in 2006," Mulcahy says. "Essentially, these are interdisciplinary efforts--the types of projects that are going to be successful in terms of federal funding in the coming years."

The future activities of such interdisciplinary initiatives as the Institute for Advanced Study, Institute on the Environment, Institute for Translational Neuroscience, and Institute for the Advancement of Science and Technology should help attract new funds to the University by coordinating and building on existing academic strengths. In addition, these activities help improve teaching and students' experience.

Research as education

At the Feb. 9 Board of Regents meeting, Mulcahy teamed with Extension dean Bev Durgan, Twin Cities campus vice provost for undergraduate education Craig Swan, professor Lanny Schmidt, and chemical engineering undergraduate Sarah Tupy to explain the importance of research to the University's academic mission.

Mulcahy doesn't share the concern that emphasizing the U's role in research will negatively impact teaching. In fact, he predicts the opposite effect.

FULL CIRCLE

U of M Extension dean Bev Durgan uses the example of soybean aphid research to illustrate how extension bridges the gap between the lab and the public to respond quickly to problems. For this and other stories, check out the winter 2007 issue of *Source* , the Extension magazine.

"Research is a perpetual process of discovery that fosters lifelong learning skills," he says, "and at a university like this one, it's in our faculty's DNA." He adds that teachers who are also scholars at the forefront of their disciplines, influencing the way we think about complex issues and shaping students to be deep thinkers and sophisticated problem-solvers.

"Studies in this area have revealed that research helps students develop a critical mindset, which contributes to greater growth and development," he says, regardless of where their career path takes them.

Research is only as beneficial as its applications, however. Durgan gave regents examples of how Extension brings research to the public to solve practical problems--in agriculture, food safety, and nutrition. *(See box, left.)*

Tupy offered an undergraduate perspective of research in the lab, where she works alongside Schmidt's graduate students. She added to Mulcahy's list of educational benefits, explaining that her lab work has greatly enriched her classroom experience and helped to form a stronger bond with the department.

Swan oversees the University-wide Undergraduate Research Opportunities Program (UROP), which gives undergraduate students and faculty members the opportunity to work together on research, scholarly, and creative activities. Begun in 1985, this competitive program now provides more than 400 students a year with financial support while they assist with a faculty member's scholarship or carry out projects of their own under the supervision of a faculty member. Physics professor Marvin Marshak will be leading a charge to provide greater opportunities for undergraduates to get involved in basic research on campus.

"Currently, 25 to 30 percent of our undergraduates have had deep and sustained involvement in research," Swan says. "Our goal is to make that 50 percent."

Working smarter *and* harder

Federal sources provide roughly 75 percent of research funding for the U and must be a top priority. Mulcahy believes that the University can increase its share of federal research support by emphasizing its interdisciplinary strengths, working with colleges to develop strategic plans to enhance research productivity, and taking advantage of major opportunities aligned with University strengths.

"The National Institutes of Health budget for 2007 is expected to increase by less than one percent," says Mulcahy. "For the third year in a row, it will fail to keep pace with inflation." All research institutions will feel the pinch in this increasingly competitive environment: he says investigators seeking federal funds should expect success rates of approximately 20 percent or lower.

"Faculty will have to submit proposals one-and-a-half times to twice as often to succeed," Mulcahy says. "They will need us to facilitate the process.

"The core is healthy--strategic positioning has put the University in position to attain its research goals. The U has seen continuous growth of research funding over the last decade, [and] has identified critical challenges and formulated strategic responses. Make no mistake: with a declining federal R&D budget, times are going to be tight--but I believe the U can win."

For more information on the state of U research, download Mulcahy's complete report (DOC 354 KB) or presentation (PDF 216 KB). **FURTHER READING** Research without borders U survey shows broad alumni impact New VP for research looks ahead

RESEARCH IS U-WIDE

The U's **Twin Cities campus** is classified as a public research university because of its Ph.D.-granting status and size. But research permeates the entire University of Minnesota system.

UMD is a comprehensive regional university that offers graduate degrees in 20 fields. Research is an integrated part of academics and campus life. The U of M Graduate School, Medical School, and College of Pharmacy span both the Twin Cities and Duluth campuses.

U of M-Morris is a public liberal arts college. Undergraduate research with faculty mentors is a hallmark of UMM's top-ranking student experience.

U of M-Crookston is a comprehensive regional college. The campus is building on its strengths in applied education and research as well as strong faculty-student interaction to create an exceptional student experience.

Undergraduates on **all U of M campuses** participate in UROP.

BRIDGING THE GAP

To begin bridging the research funding gap, Mulcahy recommended several strategies to the regents in December.

To **increase its share of federal research support**, the U must:

>> Build its research capacity, in terms of both faculty and facilities
>> Provide for critical research infrastructure
>> Emphasize interdisciplinary research
>> Work with colleges to develop strategic plans for enhancing research productivity
>> Take advantage of major research opportunities aligned with existing U strengths
>> Enable increased faculty productivity through the new Office of Collaborative Research Services

To **increase sponsored research collaborations**, the U must:

>> Work to bridge the gap between publicly funded basic research and private investment in marketable innovations or solutions
>> Emphasize long-term relationships and revise its negotiating practices
>> Continue to develop the University-Industry Demonstration Partnership and the new Academic and Corporate Relations Center
>> Work to increase funding available through the state, technology commercialization, and the University of Minnesota Foundation.

"The U remains one of the premier public research universities in the country," Mulcahy says. "It ranks below average among the elite group of institutions we intend to be judged against. We are focused on a plan to be near the top of this group within 10 years."

Closing the achievement gap

The promise of afterschool programs

Feb. 16, 2007

As Minnesota's student population diversifies, educators are faced with the daunting task of finding cost-effective ways to narrow the gap between highly prepared students and the underprepared.

The gains in student achievement and school attendance suggest that afterschool programs have a beneficial effect on regularly participating students.

Through no fault of their own, underprepared students often experience an array of learning obstacles. For instance, one student may face challenges as a recent ?migr? from a Thai refugee camp, another may miss inordinate amounts of school due to asthma or some other chronic condition, and a third child may receive only minimal parental support.

Obstacles like these force children to run not only at the same pace as their more advanced peers, but actually require that they run faster to arrive at the finish line at the same time--whether that finish line is some form of testing or graduation.

As a large, urban district, St. Paul Public Schools experiences the achievement gap acutely. Its student population is highly mobile, ethnically diverse and reflects a high level of poverty within the community. Schools in St. Paul must also address the needs of English language learners as these students work to develop language proficiency.

A group of researchers from the U's Center for Applied Research and Educational Improvement at the College of Education and Human Development--Timothy Sheldon, Ashley Lewis, and Michael Michlin--examined how an afterschool program in the St. Paul district impacted academic achievement. The program was built from grants from federal funds available through the 21st Century Community Learning Centers.

"We wanted to understand the relationship between regular participation in these afterschool programs and students' academic performance and student behavior. In particular, we were interested in measurable outcomes, such as tests scores, grades, attendance, and discipline rates," Sheldon says.

"In this era of accountability, schools are seeking research-based evidence for the educational programs that they want to implement or continue."

To do that, they created two groups with nearly identical characteristics. One group, the control group, never participated in the afterschool program during the three years of the grant. The other group was composed of students who were regular participants for at least the last two years of programming.

The research showed the effectiveness of increased afterschool programming. The results included:

Standardized tests. Participants demonstrated continuous improvement across the years, particularly in math, while the control group showed uneven or falling scores. On average, participants began with lower average tests scores prior to programming, but achieved higher averages in reading and math during years two and three.

School attendance. Participants experienced dramatically better school attendance, with participants attending 18 more school days and missing 10 fewer school days than their non-participant counterparts. Middle school participants missed 17 fewer days of school than non-participants.

Grades. Participants generally received better marks in English and math.

Behavior. Teachers reported that four out of five students showed improved habits and skills consistently associated with better academic performance, classroom behavior, and improved academic work; discipline records, however, show no significant differences.

Sheldon believes more longitudinal research is needed to determine whether these findings will persist over time, but he believes the research makes clear that regular participation in the afterschool program has had desirable effects on students.

"The successes found with middle and junior high students are especially encouraging, since this period is critical to students' academic future," Sheldon says.

Overall, the gains in student achievement and school attendance suggests that afterschool programming has a beneficial effect on students who regularly participate, especially when that participation continues over several years.

"This study is particularly important in light of the No Child Left Behind legislation," Sheldon adds. "In this era of accountability, schools are seeking research-based evidence for the educational programs that they want to implement or continue."

The benefits to school districts, students, and families include making headway in narrowing the achievement gap, increasing school attachment for at-risk youth, and efficient use of resources (teachers, buildings, and community organizations).

"Since these valuable resources are already present in the community, afterschool programs like this one in St. Paul are also extremely cost-effective," Sheldon concludes. "For these reasons, it seems clear that afterschool programming, particularly for struggling schools, is one additional pathway toward achieving academic equity in American public schools."

A growing health threat

David Kessler and Allen Levine open the 2007 Great Conversations with "The Obesity Epidemic"

By Megan Rocker

Feb. 16, 2007

U researcher Allen Levine says "biology, psychology, society, the government...they all play a role" in causing obesity.

Imagine an epidemic that kills more than 300,000 Americans a year. A disease that affects more than 65 percent of the population, and whose incidence among children has tripled in the last three decades. One in which the health-related complications are greater than those of poverty, smoking and alcoholism, and indirect costs include everything from rising insurance rates and lost hours in the workplace to a bump in airfare prices.

It isn't cancer, or HIV; it's obesity. And it's a problem that is so multifaceted, with so many contributing factors, that some people have likened it to the crisis in the Middle East in terms of complexity of causes and possible solutions.

"The issue of obesity in our society is one of tremendous complexity," says Allen Levine, head of the Minnesota Obesity Center. "There is a network of complicated forces interacting, and it's difficult to say any one of them is the root 'cause.' Biology, psychology, society, the government...they all play a role. It isn't as simple as 'nature or nurture.'"

Levine will attempt to shed some light on some of these factors when he takes the stage on Feb. 20, along with former Food and Drug Administration commissioner David Kessler for the first installment of the 2007 Great Conversations series, sponsored by the College of Continuing Education (see sidebar). Kessler and Levine will discuss some of the societal and biological factors involved with the epidemic.

Levine, also dean of the University's College of Food, Agricultural and Natural Resource Sciences (CFANS), studies how areas of the brain and certain neuropeptides play a role in obesity and overeating. "I look at obesity and eating from an angle that many people might not think about--eating for pleasure and reward, and how that might overlap with other kinds of 'reward systems' that can become problematic, such as gambling or drug or alcohol abuse," he says.

Humans eat for pleasure, Levine adds. Historically, certain foods were considered a "treat" or a true reward. We ate them and we felt good. The current problem is that we now live in a society that makes those "treats" commonplace and readily available. Food has become an "acceptable reward," and may result in a type of dependence.

David Kessler, former U.S. Food and Drug Administration commissioner, will visit the U's Twin Cities campus on Feb. 20. --*Photo by Majed*

"In a public forum," says Levine, "you're not going to be drinking or injecting yourself with drugs or having sex at work. You can't smoke at your desk. So what are you going to do to reward yourself? Well, you can have a doughnut. Society isn't going to slap your hand if you eat at your desk. It's a reward, a 'feel good' thing, but it's allowable."

Of course, says Levine, while neurobehavior plays a role, it alone isn't responsible for the dramatic increase in overweight individuals.

"It's an intersection of many factors," he explains. "Clearly, biology is driving people to eat a certain way, their impulse control is not stopping them and the environment is enabling them. It's akin to intelligence and knowledge in a way...like taking someone who is very, very bright and putting them in a resource-poor environment versus in one in which there are many opportunities for learning. Obviously, they will be more informed and advanced if they're in the environment that educated them well."

In addition, the food industry responds to supply and demand, Levine says.

"When the craze was 'fat-free,' suddenly multitudes of nonfat products appeared on shelves," he says. And of course, to make something light or low-fat, you have to increase the sugar to make it taste good. Plus, it's cheaper for the restaurants to give you more food. Think about it--what does it cost for them to add extra beef to your burger? A buck? But how many more customers will they draw in if their burgers are bigger and juicier than the place down the street?"

And with the rise of convenience foods and the prominence of chains such as McDonald's, comes fatter families because "it's time-consuming and expensive to feed a family healthy foods. High calorie foods are cheap. Sugar and fat mixed together (cake frosting) is not expensive. But look at the price of fresh fruits and vegetables, at a head of lettuce. On a per calorie basis, it's a lot more expensive to eat salad than it is to eat cake." A family with two parents each working 40-plus hours a week, struggling to make ends meet, is much more likely to rely on fast food and prepackaged food, Levine says, because it's "quick, cheap, and easy."

The problem is pervasive and contributing factors can be found in just about every facet of our society--from politics to business and industry, and from education to marketing. Is there a solution in our lifetime? Has the obesity epidemic peaked or will its ramifications continue to snowball? Find out at this first 2007 Great Conversations event.

To learn more about Great Conversations, or to download audio files from previous programs, visit www.cce.umn.edu/conversations. To buy tickets to the conversation between Levine and Kessler, or other events in the series, visit the U's Arts Ticketing Office.

Great Conversations 2007

Feb. 20: Allen Levine and David Kessler on the obesity epidemic.

March 27: Robert Elde and Larry Rosenstock on innovations in education.

April 24: Kathryn Sikkink and Juan E. Mendez on international human rights.

May 8: Donna Gabaccia and Ruben Martinez on global immigration issues.

June 5: Richard Leider and Richard Bolles on the purposeful life.

All events take place at 7:30 p.m. at the Ted Mann Concert Hall on the Twin Cities campus. Series tickets are $115 and single tickets are $28.50 ($95 and $23.50 respectively for U faculty, staff, students and alumni). For more information, call 612-624-2345 or visit the U's Arts Ticketing Office.

Pulling the plug on excessive energy use

Campus Energy Wars raises awareness of energy savings among U community

By Pauline Oo

Feb. 16, 2007

Taking the Campus Wars Pledge: Rene Maes (center) from the UMM chapter of the Minnesota Public Interest Research Group swearing in UMM chancellor Jacquie Johnson and campus sustainability coordinator Troy Goodnough in early February.

The University of Minnesota, Morris, is currently "at war." So are 13 other schools in Minnesota, including Macalester College, St. Olaf, Gustavus Adolphus College and Minnesota State University at Mankato. Each is looking to come out tops in the 2007 Campus Energy Wars. The challenge: to reduce heat and electricity usage this month.

Thus far, "things are going well" in Morris, reports Troy Goodnough, Morris campus sustainability coordinator.

The energy-savings initiative kicked off with pledge week (several hundred people have since taken the Campus Wars Pledge and received "war" awareness buttons; see sidebar); energy-savings posters and flyers have popped up all over campus; there was a free screening of *An Inconvenient Truth,* former vice president Al Gore's film about global warming's deadly progress and the myths and misconceptions that surround it; recycled Valentines made the rounds on Feb. 14; more faculty-expert lectures, complete with question-and-answer sessions, on biodiversity and global warming are on tap; and energy-efficient, compact florescent lights will soon be handed out to the student body.

"February is a busy and fun month for sustainability," says Goodnough. "We're trying to win [the competition], but more importantly, we're bringing about awareness in the community."

At the University of Minnesota, the simplest energy conservation measures--such as switching off an office lamp at the end of the day--could save the U millions of dollars in energy costs annually. The University has more than 800 buildings across the state (or the same amount of space as 17,000 average homes), and approximately one third of its power usage is under discretionary control of the building occupants.

"If every light on the campus was shut off one additional hour a day, we could save over $500,000 a year," says Mary Santori, assistant director of Energy Management, a unit within the U's Facilities Management on the Twin Cities campus.

The Campus Energy Wars originated at Macalester College, a small liberal arts college in St. Paul. Last year, the contest was held between the residence halls of Macalester and the U's Twin Cities and Duluth campuses. Most residence halls recorded about 6 percent savings in electricity consumption, while the winning Macalester hall saved 27 percent. This time around, the Minnesota College Energy Coalition at Macalester and members of the Minnesota Public Interest Research Group (MPIRG) decided to expand the effort across the state. (This year, only the residence halls on the U's Twin Cities and Duluth campuses are involved.)

Participating schools will be judged on the total energy consumption in two categories, heating and electricity, measured as a percent reduction from the campuses' previous three-year average (February 2004, 2005 and 2006).

"Things are complicated this year because we are suffering from one of the coldest months in a long time," says Goodnough. "I think all students in the competition, and especially those of us suffering the biting cold of the prairie, are going to find their energy up compared to previous years."

Goodnough is serving as the liaison between UMM's Plant Services staff and the MPIRG members on campus, and by month's end, will help both groups calculate how much energy (in kilowatt hours and British thermal units) and University money they've helped to save.

"What everybody is finding out, especially our students, is that collecting and interpreting the data is not easy," says Goodnough. "Meters break, weather changes... the first two weeks [of this competition] have been about figuring out what the data looks like."

In 2005, UMM became the first public college to install a large-scale wind turbine on its campus. The windmill generates 1.65 megawatts of power, equivalent to about half of the campus's electricity needs. And when UMM's biomass gasification demonstration and research facility is completed, it will provide more than 80 percent of the Morris campus's heating and cooling needs. The facility is designed to burn a wide variety of biomass including corn stalks and small grain straw.

"Students are driving this [current energy-savings project], and they are providing an impetus for us to dig even deeper, to find more ways to save energy on our campus," says Goodnough. "The UMM goal is to be energy self-sufficient by 2010. We want to use as much wind as possible for energy and greatly reduce fossil fuel use with biomass." Renewable energy is one engine that has been powering the University's drive to transform itself into one of the world's top three public research universities. The University has been focused on energy conservation efforts for decades, and since 1994 it has actually decreased overall consumption. Specific energy conservation efforts have included: retrofitting the majority of the incandescent and other inefficient lighting systems on campus to fluorescent and other more efficient lighting systems, installing Direct Digital Control equipment for better heating and cooling control, scheduling equipment to turn off when a space is not in use and testing and replacing faulty steam traps.

To learn more about energy-saving or sustainable projects at the U, see Sustainability and U.

Take the pledge!
UMM's Campus Wars pledge encourages students, faculty and staff to:

* Turn off the lights in an unoccupied room.

* Shorten the length of showers.

* Remain aware of water usage in general.

* Unplug appliances when not in use.

Save energy--What more can you do?
In addition to the suggestions above, here's what you can do to save energy and money:

* Set your thermostat as low as is comfortable in the winter and as high as is comfortable in the summer.

* Use compact fluorescent light bulbs.

* Air-dry dishes instead of using your dishwasher's drying cycle.

* Turn off your computer and monitor when not in use.

* Plug home electronics, such as TVs and DVD players, into power strips; turn the power strips off when the equipment is not in use.

* Drive sensibly. Aggressive driving (speeding, rapid acceleration and braking) wastes gasoline.

Source: U.S. Department of Energy

Further reading Looking for energy answers
Natural prairie holds key to sustainable fuels

UMM receives federal funding for biomass development

Growing up healthy

Faculty members are contributing to a major statewide initiative that links them to communities looking for long-term solutions

By Stephanie Wilkes

Brief, Feb. 21, 2007

Kathy Draeger, director of the U's statewide Regional Sustainable Development Partnerships, says public engagement keeps the U relevant to the needs of Minnesotans.

Children across Minnesota will be growing up healthier due to a major project of the Blue Cross and Blue Shield of Minnesota Foundation. The foundation is funding 13 projects that seek long-term solutions to health issues. Four of those projects are engaging University faculty members in communities from Minneapolis to the Red River Valley.

"Growing Up Healthy: Kids and Communities" strives to improve the health of Minnesota's children by focusing on social and environmental factors that impact health.

Plans began in 2005 with six months of community meetings and determining the main goals, says program officer Lisa Simer. The foundation identified three main health determinants for the initiative:

- early childhood development
- stable, affordable housing
- physical environment

After releasing a request for proposals in March last year, the foundation evaluated more than 70 applicants on their ability to create change in the identified areas. Another important factor in choosing projects was strong potential for collaboration within the community. In September, the foundation announced the projects to receive planning grants totaling $475,000.

"The value the University of Minnesota adds to this initiative is access to solid research and evaluation expertise," says Simer. "The participation of the University in these projects as an equal partner to support the community organizations is a significantly different approach to improving community health."

All the planning-grant recipients must develop a community vision, an implementation plan, and broad-based community support to qualify for the next step--implementation funding for a period up to three years.

Last week, faculty members involved in three of the projects described their work.

Blue Cross and Blue Shield of Minnesota Foundation

The foundation is the philanthropic arm of Blue Cross and Blue Shield of Minnesota, which, with 2.7 million members, is the largest health plan in the state. Since the foundation was established in 1986, it has worked to improve long-term community health in Minnesota. Its board of directors is comprised of Blue Cross leaders and community representatives.

"Growing Up Healthy: Kids and Communities" stemmed from the findings of an earlier foundation initiative, "Growing Up Healthy in Minnesota," which started in 2002. The focus of the first project was on improving access to--and use of--preventive health and dental care among children and adolescents from communities of color, foreign-born populations, and American Indian tribes.

Healthy housing in urban communities

The U's Children, Youth and Family Consortium (CYFC) was awarded a $25,000 planning grant to collaborate with the Sustainable Resources Center, Sabathani Community Center, and Southside Family Nurturing Center of Minneapolis. Together they will design a project that integrates existing healthy-housing interventions and family-stability services to reduce children's exposure to environmental hazards indoors. By helping families meet their pressing needs, the cooperating groups hope those families will be able to better attend to environmental education and make health of their homes a priority.

CYFC director Cathy Jordan, an assistant professor of pediatrics, is one of the driving forces within the project. Her previous research on lead poisoning in children in the Phillips neighborhood from 1993 to 2003 helped spur her interest in healthy-housing intervention and the project.

CYFC director Cathy Jordan

Jordan and her collaborators hope to improve practices in both the housing and human services industries by creating a service-delivery model that views the family in the context of the home and the home in the context of the family. The planning grant will enable the four organizations to explore each others' practices and design a project that draws on each organization's strengths. The project will involve evaluating the process and benefit of integrating healthy-housing intervention into the family services provided to clients by Sabathani Community Center and Southside Family Nurturing Center. A primary goal of the planning grant is to create a comprehensive service that "puts the family in the driver's seat," says Jordan.

In her experience working with the community, Jordan has learned a lot about the world of public engagement and hopes to make this project a positive one for both the University and the local community.

"Past community engagement mistakes have led to a lack of trust from the community," says Jordan. "Good public engagement is a way to build collaborations that benefit both sides and increase trust and communication."

Reducing exposure to household pesticides

The U's Regional Sustainable Development Partnerships (RSDP) were awarded a $25,000 planning grant to work with the Red River Valley community to reduce exposure to household pesticides in children and pregnant women.

Levels of pesticide exposure are high in the Red River Valley area, says RSDP director Kathy Draeger. Children and pregnant women are most at risk, which is why the project focuses primarily on their exposure and ways to reduce it.

In this stage of the project, Draeger and her collaborators are mostly gathering evidence and opinions about the growing problem. Using Photovoice, a new form of documentation technology, public health professor Pat McGovern and graduate student Maggie Stedman-Smith will conduct sessions with three different populations and document their concerns about pesticides in the area.

"Public engagement keeps the U relevant to the needs of Minnesotans, to whom they owe their attention," says Draeger. "I am a product of a rural population, and I know that communities can contribute and benefit from this public institution."

Improving school readiness

The Folwell Center for Urban Initiatives in Minneapolis was awarded a $25,000 planning grant to work in collaboration with the U's Center for Early Education and Development (CEED) and Hennepin County's Strategic Initiative and Community Engagement department. They will serve as members of a steering committee to evaluate and improve school readiness in north Minneapolis in their Five Hundred Under Five project.

CEED director of community engagement Scott McConnell. Photo by Leo Kim.

The three organizations will focus on providing 500 children under five years old, who live in two areas of north Minneapolis, with services and knowledge to ready them for kindergarten and their educational futures. The planning grant will allow the organizations to identify other organizations to come together, review their resources, and continue to monitor research on need and intervention effectiveness.

Scott McConnell, professor of educational psychology and CEED's director of community engagement, has worked with the Folwell Center in the past. He says CEED served as the conduit for the center to come in contact with the other organizations to collaborate on the project.

McConnell recognizes the value of integrating his work and research in a community project such as this.

"It's an example of engaged scholarship," says McConnell. "Our research is not being developed in isolation here on campus but...in collaboration with community members to address pressing needs."

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu .

Honoring all kinds of great service

Nominate a colleague for the President's Outstanding Service Award

By Heather Powell and Gayla Marty

Brief, Feb. 21, 2007

Civil service staff member **Jenny Meslow** received a President's Outstanding Service Award in 2006. She and the other recipients were honored by **President Bruininks** at Eastcliff.

If you work at the U--or even if you don't--you may recognize the Relay for Life and the Turtle Derby as fun fund-raisers for great causes. And there's a civil service employee behind those names: Jenny Meslow chaired the derby for 10 years, and in 2004 she brought the relay to raise funds for cancer-related research to Minnesota.

Meslow was one of two civil service staff members who won the President's Outstanding Service Award in 2006. She's a great example of why it's important to take the time to nominate a colleague for the award.

"I've been at the U for 25 years, and I love the U," says Meslow. "I feel like I put my heart and soul into my job. I didn't do those 25 years to get a pat on the back, but"--she laughs--"it's really nice to get that pat on the back!"

She says the award recognizes how hard she works and how much she cares, and it continues to "cement that dedication."

History of medicine faculty member Jennifer Gunn says she had the idea of nominating Meslow for an award the same year that a group of health sciences students did. The timing was good, Gunn says, because Meslow was changing hats at the Academic Health Center. Meslow was joining the AHC communications office after many years directing the student organization CHIP--the Center for Health Interprofessional Programs--and making a big impact on students in every health sciences major.

Read more about the Turtle Derby and the Relay for Life, two of Meslow's projects at the AHC.

"Everybody would nominate Jenny for that award every single year because of the things she does to build community and make connections," says Gunn. "And she is highly effective. We all wanted to honor her."

Not every award winner has worked on such public projects as Meslow. The other civil service award winner in 2006 was Debbie Nelson in the Law School, special assistant to the associate dean and director of curriculum development.

Nelson is the one who plans retirement parties, potlucks, and care packages to the Law School's extended family in Iraq.

The Law School's **Debbie Nelson** celebrated her 2006 award at Eastcliff. See more photos.

"And if there's a crisis, she's the first one picking up a shovel to dig out," says assistant dean of students Erin Keyes. "She gives a lot of herself, and she knows how to communicate effectively. She's a professional in many, many areas."

Professor Stephen Befort agrees. While serving as associate dean for academic curriculum for four years, he worked closely with Nelson.

"She has this great institutional wisdom," says Befort. "I'd go to Debbie and ask, 'How did we do this before?' She would answer always with the best interests of the school in mind.

"Another thing about Debbie is that, as she's moved up the ladder, she's always been willing to help those in her former positions," Befort adds. "She's the ultimate team player."

Nelson's strong role in fostering a sense of community in and beyond the Law School and her example of inclusion and respect are attributes her nominators wanted to honor because they exemplify outstanding service at the U--even though Nelson is not the kind of person who wants public recognition or accolades.

So nominate a colleague! It's not too late. Download the form today and aim for **March 9** to submit your nomination.

Heather Powell works at the U Card Office in Coffman Union and is a member of the Civil Service Committee.

Unusual protein linked to diabetes

New form of a cholesterol-transporting protein found in some of American Indian, Mexican descent

By Deane Morrison

Feb. 20, 2007

A discovery by professor Gary Nelsestuen and colleagues links an unusual form of a cholesterol-transporting protein to higher body weight and the potential for developing diabetes.

A tiny variation in a protein that transports cholesterol in the blood may predispose many people of American Indian and Mexican descent to diabetes, University biochemistry professor Gary Nelsestuen and his colleagues have found. The researchers discovered the variant form, which they have detected only in people of American Indian or Mexican descent, last fall. This week, they report in the International Journal of Obesity that those who carry the variant are more likely to be overweight or obese and to have parents with diabetes. It is the first genetic variation ever found in the protein, which is called apolipoprotein C1 and is found in all human beings. "Obesity and diabetes are serious health problems for Americans and especially for those with American Indian or Mexican ancestry," Nelsestuen says. "This protein may contribute to the elevated rates of diabetes in relevant ethnic groups and might be more common in isolated populations." In beginning the study, Nelsestuen and his team were looking for new ways to spot variations in the structures of proteins. Such studies are part of the new science of proteomics, where large numbers of proteins are studied at the same time. (Its name comes from "genomics," the study of many or all of an organism's genes together.) Proteins consist of building blocks called amino acids, and in a protein with hundreds of building blocks, a different one in just one position can make a big difference in how the protein functions. In the case of C1, that's all it was-a single substitution of one amino acid for another. The researchers found the variant in a survey of blood proteins from more than 1,000 people of American Indian, European, African and Asian descent. Of 228 American Indians in the study, it occurred in 36, and of 86 Mexicans, 10 had it. It was not found in anyone from the other groups. **In the company of dangers** In a study of the body mass index (BMI; an index relating weight to height) among American Indians in the study, those with the variant protein had, on average, a nine percent higher BMI than those with the common form of the protein, an effect that was stronger in males than females. Among the Mexican-descended subjects, five of those with the variant had a sibling of the same sex with the ocmmon form. Among them the average BMI was 27.2 for those with the common form and 36.2 for those with the variant. A BMI of 30 or above is defined as obesity, and 27 indicates overweight or near-overweight.

> *The variant form of [the protein] may have survived because it conferred an advantage that has been masked or even turned into a disadvantage by changes in diet and lifestyle.*

If the variant form of C1 predisposes a person to diabetes, rates of the disease should be higher in individuals with the variant trait. This wasn't the case, however, among American Indians in the study. Although rates were indeed higher in the variant group, the difference wasn't significant. But diabetes often develops later in life. And, since the form of the protein a person has is genetically determined, it follows that differences in diabetes rates ought to show up among parents of people in the study. And so it was: Parents of those with the variant form had a significantly higher rate of diabetes (66 percent) than parents of those with the common form (41 percent). The variant form of C1 may have survived because it conferred an advantage that has been masked or even turned into a disadvantage by changes in diet and lifestyle. "An increased BMI is consistent with an impact on fat storage, which is advantageous in certain circumstances during human evolution," says Nelsestuen. "An important future goal is to identify an adult population of New World descent who have the variant trait but no diabetes or increases in BMI. Such a population may reveal dietary and lifestyle factors that would benefit all individuals with the trait." It is possible that in the future, finding that a person has the variant will become akin to finding that someone carries a breast cancer gene: It will make people monitor aspects of their health more closely, he adds. Nelsestuen sees great value in studying proteins rather than genes when looking for variations among individuals. Genes may differ from one person to another, but some differences have no effect. In studying proteins, however, researchers are looking at the actual agents that carry out the myriad tasks of cells and tissues. By looking at the C1 molecule rather than the gene for it, Nelsestuen's team could immediately see a difference in how the protein functioned. "This helps illustrate the value the new field of proteomics brings to biomedical research," he says. "This is about as important a discovery as you can make by proteomic methods." **Read on**

Small change is no small change

In the bloodstream, the common form of C1 tends to be found in HDL, the high-density protein complexes that ferry cholesterol to storage depots in the body and are linked to lower cardiovascular disease risk. But Gary Nelsestuen and his team found that the variant form of C1 tends to become part of low (LDL)- or very low-density protein complexes, which transport cholesterol to arterial walls and are associated with higher cardiovascular disease risk. Thus, having the variant could tip the balance of cholesterol carriers and may possibly lead toward depletion of HDL-also a risk factor for heart disease.

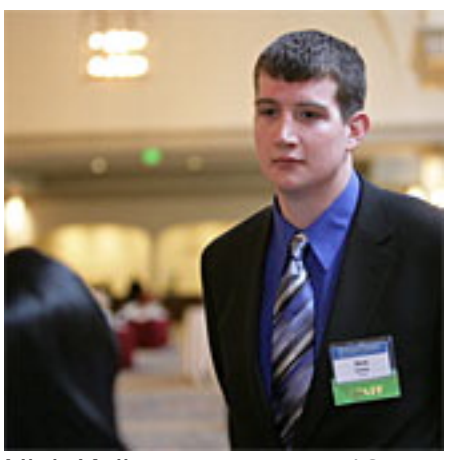
Learn about other University efforts to Defeat diabetes.

Learning beyond the books

School of Public Health students take part in national summit on pandemic flu

By Kris Stouffer

Feb. 20, 2007



Nick Kelley was among 18 University of Minnesota students who attended the second "Business Preparedness for Pandemic Influenza" national summit in Florida as part of a School of Public Health spring course.

Students in the School of Public Health's Emerging Infectious Diseases course started spring semester like most others. There was the usual round of readings, lectures, and quizzes. But three weeks into the semester their student experience took an extraordinary turn. They flew to Florida. They dined with CEOs of Fortune 500 companies. They got career advice from Madeleine Albright.

The 18 students had become a part of the Business Preparedness for Pandemic Influenza second national summit. The invitation to join this gathering of national and international leaders came from their professor, Michael Osterholm, an internationally known expert on infectious disease.

From appearances on CNN and Oprah to testimonies before Congress, Osterholm has been calling for the world to prepare for history's next influenza outbreak. He directs a team of experts at the Center for Infectious Disease Research and Policy (CIDRAP), which has become a go-to source as business and government grapple with the complex issues of pandemic preparedness.

CIDRAP delivered some big names at the Orlando summit. Margaret Chan, director-general of the World Health Organization, spoke via videotape on the inherent global nature of pan flu. The U.S. Centers for Disease Control director, Julie Gerberding, challenged business to stay focused on the "marathon" of preparing. Former U.S. Secretary of State Madeleine Albright called the summit "a true national service" and said "hope is not a strategy" when dealing with potential catastrophes.

In a meeting with the students before her keynote address, Albright encouraged the group to consider new career options. "If ever there was an issue that is transnational and global, it's public health," she said. "Think about a career in diplomacy--we need experts."

The students (who worked at the summit to cover travel and registration costs) witnessed corporate executives debating pandemic issues rarely talked about in public-health classrooms. How would businesses get critical supplies like masks, drugs and food out? What if half of the workforce fell ill? Would the Internet function? What would the legal implications be?

Whether it was a national leader speaking on stage or an informal conversation over lunch, the summit underscored an important lesson: Tomorrow's public health leaders need to understand the private sector, and the private sector looks to public health on issues of preparedness.

"Public health can be an important player at the national and international level," says Osterholm. "It's about understanding consequential public health. It's not enough to learn it [and] to preach it. You must practice it."

Nick Kelley, a first-year student in environmental health sciences, said, "The experience solidified the notion that the field I'm going into is constantly changing." Along with classmates, Kelley candidly "blogged" his way through the summit; see Kelley's blog.

The computer as public-health tool is second nature to Kelley, who also works as a research assistant for CIDRAP. (A recent "need-to-know by the end of the day" assignment from Osterholm had Kelley estimating the number of people who crossed international borders in 2006.) Kelley also provides daily H5N1 virus updates for officials at Luther College in Decorah, Iowa. As an undergraduate student there, he wrote a paper about the dangers of pandemic influenza that was disseminated to local leaders and published in the newspaper.

Kelley was inspired to write the paper--outside of his regular coursework--after reading *The Great Influenza: The Epic Story of the Deadliest Plague in History* by John Barry. The book details the devastating flu pandemic of 1918. When Kelley came across the book, he had no idea that years later, he would meet Barry at the summit.

CIDRAP

The Center for Infectious Disease Research and Policy at the University of Minnesota is an internationally recognized source for addressing the most pressing infectious disease issues of our time. Established just one week before Sept. 11, 2001, CIDRAP has, from the beginning, made public health preparedness a major focus.

Both public- and private-sector groups consult CIDRAP's expert staff on public health preparedness, emerging infectious disease response, agricultural and food biosecurity, and food safety.

CIDRAP has played a central role in establishing the University of Minnesota's emergency preparedness plans.

These are the influential moments that don't happen in the classroom, said Osterholm. And they build a knowledge that the next generation of public health leaders needs to tackle the challenges ahead.

"It's a critical connection and experience that goes beyond the books," he added. "It's important for students to see this firsthand. It shows them that the possibilities for their future really are endless."

To hear student comments and see photos from the summit, go to: http://www.sph.umn.edu/about/slideshow.html.

To read the blog, go to http://blog.lib.umn.edu/sphpod/panflu/.

Further reading Planning and politics of epidemics UMD alum resurrects and studies killer flu virus Thinking the unthinkable: Imagining bioterrorism at the U

Red envelopes for China study

China Center's Red Pockets Appeal for Scholarships provides U students with learning abroad opportunities

By Pauline Oo

Feb. 21, 2007

The lion dance is a traditional Chinese dance in which one or two dancers don a lion costume to mimic a lion's movements. Photo (and homepage image) by Ryan Rodgers.

Red envelopes, also known as red packets, *ang pow, laisee* or *Hong Bao,* are as synonymous to the Chinese New Year as lion dances, fire crackers and tangerines--all to symbolize or summon good luck and fortune. Traditionally, parents or married individuals give the red envelopes filled with money to their children or unmarried relatives and friends. Red packets are also common gifts at weddings, birthdays or any other important event.

At the University of Minnesota, however, these auspicious red envelopes have taken on a new meaning. They represent a University student's chance to pursue an education in China.

The U's China Center on the Twin Cities campus established the Red Pockets Appeal for Scholarships two years ago, complete with an informational letter and a palm-sized red envelope that's mailed to potential donors (see photo below). Each year, an average of 15 students tap the resource for awards that can vary between $500 and $1,000. A committee made up of China Center staff and representatives from the U's Learning Abroad Center picks the recipients--undergraduate, graduate and professional students of various majors who are interested in yearlong, semester or May session sojourns to broaden their knowledge of Mainland China, Hong Kong and Taiwan.

"We haven't really turned that many down; most people who've applied have received something," says Joan Brzezinski, China Center interim director. "[The scholarship] helps to cover their travel cost."

In 2005, 16 students submitted applications and 13 received scholarships. (The first Red Pockets appeal in 2004 brought in $3,075 in new scholarship funds from 22 donors; in 2005, 29 donors gave $5,225.)

The Red Pocket appeal: Illustrations on the front of a red envelope, which could be anything from carp to the fabled phoenix, represent good wishes for longevity, prosperity and good health.--*Photo by Ryan Rodgers*

"My travel to Taiwan and China [has been] the highlight of my college career," says former scholarship recipient and undergraduate student Tyler Stigen. "I can't even begin to put into words the scope of the culture and history I was privileged enough to enjoy. I am continuing my studies in biomedical engineering and Chinese now that I am back."

The University of Minnesota has a 90-year history with China and boasts more than 8,000 Chinese alumni who have worked or studied here. Following the normalization of U.S.-China relations, the University formed the China Center in 1979 to further strengthen the educational, cultural and economic ties with China. Currently, the University is home to more than 1,200 visiting Chinese scholars and students--the largest contingent on a North American campus.

"[Our Red Pockets scholarship has] been a great opportunity for many students, and more students should take advantage of it," says Brzezinski.

In addition to the Red Pockets scholarship, the China Center also offers the Hsiao Scholarship, which was created through an endowment from University of Minnesota donors Jenny and Fred Hsiao. The requirements are similar to the Red Pockets award, except that it funds only travel to Mainland China.

To learn more about both scholarships, call the China Center at 612-624-1002 or e-mail chinactr@umn.edu.

Year of the Pig

This year the Chinese New Year, the most important of the traditional Chinese holidays, began on Feb. 18 and ends on the full moon 15 days later. (That last day of celebration, March 4, is called the Lantern Festival.) The Chinese New Year is also known as the Lunar New Year because it corresponds to the lunar cycle, and it is celebrated in different ways by other Asian cultures.

Further reading Did You Know? The Minnesota-China connection Carlson School program rated No. 1 in China Putting the pieces together: Bruininks reflects on whirlwind trip to China

Be wary of new hardiness zones

From *eNews,* Feb. 22, 2007

In Minnesota, plant hardiness is an important consideration. Gardeners who want to create long-lasting, sustainable yards and gardens should select reliably hardy plants--or plants that are tolerant of cool temperatures, light frost and cold winds--for the majority of their landscapes, say University of Minnesota Extension horticulturists Mary Meyer and Nancy Rose. Minnesota falls primarily within Zone 4 and Zone 3 on the current USDA zone map. According to a revised map developed by the National Arbor Day Foundation (NADF), parts of southern Minnesota, including the Twin Cities, are placed in Zone 5, characterized by average annual minimum temperatures of -10 to -20 degrees Fahrenheit. The NADF map also moves Zone 4 farther north, and leaves a small section of Zone 3 in the northernmost quarter of the state (see the revised map). "The NADF map uses only the most recent 15 years of climate data to determine zone borders," says Meyer. "The results reflect the string of above-normal-temperature winters in recent years, but may not accurately reflect long-term climate conditions." The USDA map has also been criticized for using climate data from a relatively short, though colder, period of time (1974-1986), Meyer points out.

Minnesota is divided into zones 3 and 4, according to the U.S. Department of Agriculure's Zone Map. (Note on image: A narrow area of zone 4 along Lake Superior, probably no more than half-mile wide in most locations.)

"Both maps are also limited in predicting plant hardiness because they tell us only one thing: the average annual minimum temperature in a given region," says Rose. "A plant's ability to survive winter is affected by many factors, not just the single coldest temperature of the winter." Even in years when the minimum temperature only reaches the Zone 5 range, plants may be damaged or killed by sudden below-normal temperatures, especially in early or late winter, adds Rose. Soil moisture, snow cover and overall plant health are important additional factors that can affect winter survival. Since the exact conditions for next winter--let alone the next five winters--can't be predicted, Meyer and Rose recommend that Minnesota gardeners continue to choose landscape plants carefully. Less-hardy plants may require special care, including the application of winter mulch. Gardeners who want to experiment with less-hardy plants should consider starting with herbaceous perennials or small shrubs. If colder winters return and kill these plants, they can be readily replaced with hardier plants. Larger, long-lived landscape plants such as shade trees and large evergreens are costlier to replace, and their loss can be a serious setback to a maturing landscape. To learn more about cold hardiness, visit University of Minnesota Extension.

Hardy research at the U

The University's Plant Hardiness Laboratory is renowned for its studies in cold hardiness. The concept of "Deep Supercooling" originated here in the 1960s to explain how--at the cellular level--plants survive winter. Over the years, laboratory-freezing tests plotted for various climate fluctuations have helped U researchers determine a cultivar's ability to withstand harsh winter conditions.

For a selection of the hardiest Minnesota plants, developed at the University of Minnesota, see "Minnesota Hardy."

Source: Minnesota Agricultural Experiment Station

University of Minnesota Moment Listen to Extension horticulturist Mary Meyer discuss the changes in the hardiness zone map on U of M Moment.

UMD alumna elected tribal chair

Karen Diver is first chairwoman of Fond du Lac Band of Lake Superior Chippewa

By Cheryl Reitan

Feb. 23, 2007

Karen Diver has been elected the first female chair of the Fond du Lac Band of Lake Superior Chippewa.

In early February, University of Minnesota Duluth alumna Karen Diver was elected chair of the Fond du Lac Band of Lake Superior Chippewa. In her new position, this 1987 economics graduate now heads a tribal government that employs approximately 1,700 people and has assets exceeding $300 million. Diver becomes Fond du Lac's first female chair.

She also serves on the governing body of the Minnesota Chippewa Tribe, made up of the White Earth, Mille Lacs, Fond du Lac, Bois Forte, Leech Lake, and Grand Portage bands. Most recently, she served as the director of special projects for the Fond du Lac Reservation, and before that she was the executive director of the YWCA in Duluth.

One significant opportunity for Diver was her participation as a Bush Foundation Leadership Fellow at the Kennedy School of Government at Harvard University. There she received a master in public administration degree in 2003. As a student in the Harvard American Indian Economic Development Project, she studied best practices in governance and economic development in Indian Country.

Life at UMD

Karen Diver has a passion for Fond du Lac, possibly because she left Minnesota for many years. Her parents, both tribe members, moved in 1960 on the relocation program, and Diver was raised in Cleveland. A tribal scholarship to UMD brought her and her daughter, Rochelle, back to the state.

Life was not easy at UMD. Diver remembers taking three buses in the morning to get her daughter to daycare and herself to class. There were late nights and lonely days, living half a country away from her parents.

Some of Diver's dedication to advocacy for others is due to her own situation. She knows what it's like to rely on welfare and how hard it is to achieve success when you don't have resources.

Diver is the only Native woman and one of only three Native Americans to graduate from UMD's Labovitz School of Business & Economics. Diver says she would have never have made it through UMD if it hadn't been for the Anishinabe Club. "I was a single mom. I wouldn't have survived without the support of the Native kids," Diver said. "They helped me believe that I could make it at UMD. When I had problems, the Anishinabe Club helped me solve them."

Growth for the tribe

As Fond du Lac's chair, Diver serves on the Reservation Business Committee, often called the tribal council, along with five other members. Her plan is to work with the members to bring "best practices" to the tribe, and there may be changes in the coming months. "Fond du Lac has experienced exponential growth in the last 20 years, and for the most part, the community just hung on for the ride," she said.

Fond du Lac's businesses have flourished, unlike some sovereign nations around the world. "We have many tribal enterprises and their success may be due to our strong sense of culture and community," Diver said. The largest employer in Carlton County, the tribe owns the Black Bear Casino, the Fond du Luth Casino in Duluth, a construction company, a propane company, a gas station, a convenience store, a hotel, and a golf course.

The Reservation Business Committee runs all the businesses. "We haven't given management over to other corporations like some other tribes have," said Diver. "We've been able to be successful doing it ourselves."

The growth has brought more families back to the area. "We've done well as a tribal nation and now it's time to do long-range strategic planning for the future," Diver said. More people, more businesses, and more job opportunities means that the tribe needs to achieve a higher level of governance. "We can't govern the same way we did in 1985," she added. "The tribe needs transparency, accountability, openness, community awareness, clear policies and a strong structure."

Envisioning the future

It doesn't surprise Diver that she is working at Fond du Lac. It was always her long-term plan to provide leadership for the tribe. As she continued through her career, she garnered the experience that has prepared her for the role as Fond du Lac tribal chair: in community development, workforce development, organizational management, women's issues, culturally competent programming and financial literacy.

Diver searches for a way to balance the past "200 years of poverty and oppression" with a future full of growth and economic success. She wants good things for her people--jobs, housing, health care and education.

"We want a better life for our kids," Diver said. And it's important for her that Fond du Lac maintains its strong culture. Balance is the goal. "That's the sweet spot," she said.

UMD communication intern Jenna Hagen contributed to this article.

On the identity trail

U student learns about Bulgaria while tracking his stolen identity

by Pauline Oo

Feb. 23, 2007

Bulgaria, which is slightly larger than Tennessee, is located in southeastern Europe, bordering the Black Sea, between Romania and Turkey. Bulgaria joined the European Union on Jan. 1, 2007.

If someone stole your personal information, would you: A) Report the crime and wait to see what happens? B) Follow the paper trail left by the thieves, even if it leads you to a foreign country?

Most people would answer A. But if you answered A and B, then you probably have a rare adventurous spirit, like Andrew Schroeder. The University of Minnesota graduate student was a victim of identity theft in December 2005, and last year he made a special trip to the Balkans, where he supposedly made about 60 financial transactions within 14 days.

"I came up with the idea of retracing the path of my Visa card [in Macedonia and Bulgaria] a week after my identity had been stolen," says Schroeder, a second-year M.F.A. candidate in visual arts and printmaking. "I was drawn to the danger element, and I was looking for answers: Who are these people? Why did they do this to me?"

To help bring life to his idea, Schroeder applied for the U's 2006 Walter H. Judd International Graduate and Professional Fellowship. In recent years, and as it drives toward its goal of becoming one of the top three public research universities in the world, the University of Minnesota has focused efforts on increasing study abroad opportunities for undergraduate students and offering more fellowships to support graduate student research, artistic endeavors and internships (see "Further reading" at the end of the story). Schroeder was among the 23 Judd fellowship recipients.

Photo trail

To view a selection of Schroeder's photos, see Bulgaria project

"The grant paid for airfare and hotels," says Schroeder. "And I paid for everything in between."

Schroeder, making his first solo trip to Europe, flew to Amsterdam and then Istanbul, where he boarded a train to Bulgaria. Because he couldn't get a permit to enter neighboring Macedonia, Schroeder focused his five-week "research project" on the transactions that occurred on Bulgarian soil. (His first journal entry was May 17, 2006; his last was June 11.)

"Nobody spoke English, and the people could barely read the [Latin] alphabet," recalls Schroeder. "I was armed with bank statements, a journal and two cameras--film and digital--to record my experiences."

His itinerary, formed entirely out of the information that appeared on his bank statements, brought him to a wide array of places--from seedy hotels in Plovdiv, Bulgaria, to beer-serving caf?s in Veliko Turnovo and vendors near the dangerously decaying 1300th Anniversary Monument built by Communists in the capital city of Sofia.

"I thought I could create a character sketch of the person who stole my identity," explains Schroeder. "But I couldn't. I was at coffee shops, hotels and ATMs in different cities across the country. The transactions were random, as far as I could tell. I even went to the Black Sea coast and stayed in a really luxurious hotel that was filled with 50-year-old Germans and Russians, who were probably wondering what I was doing there. I was clearly the youngest person there."

Be safe!

While there are no guarantees to avoiding identity theft, there are steps you can take to reduce your risk and minimize the damage if you become a victim. Read "Don't fall victim to identity theft or phishing."

Because of Bulgaria's lagging technology, the thief (or thieves) had been able to ring up a large number of transactions before Schroeder's bank canceled his card.

"I think the Mafia stole my identity," says Schroeder, who had learned while traipsing the country that the mafia is entrenched in Bulgarian life. (Bulgarian Mafia organizations have made headlines as significant players in arms trafficking and the narcotics network through Bulgaria and the Balkan states of Albania and Macedonia and Western Europe.)

Schroeder took about 300 photographs during his sojourn in Bulgaria. Since his return, the Nebraska native has been trying to condense the photos down to "the most interesting or varied transactions." Three of his large-scale photos, along with descriptive captions, were featured in the recent exhibit "Narrative Beyond Words," a collection of M.F.A. student works displayed throughout Wilson Library on the Twin Cities campus in Minneapolis.


Andrew Schroeder

"There was a moment when I came back and I thought, 'Now what?'" says Schroeder. "The project is evolving. I have a great deal in terms of photos and text, and I've made progress turning each transaction into small artist books or self-published 'zines.' But I don't really know [what the end result will be]--if this project should be a documentary, a book form or something on the Web."

Neither Schroeder nor the police have figured out who stole his identity. But no matter, says the animated and optimistic Schroeder. He got a valuable lesson in geography, if not in the fragility of personal information in an increasingly digital world.

"[The trip] had the potential to be a real disaster--I was traveling alone, I didn't know anyone and I could have been mugged or killed [by a suspicious member of the mob]--but it was a great trip," says Schroeder, "because I got to immerse myself in a culture that I was oblivious to." (Although a vegetarian, Schroeder tried pork neck, "all in the spirit of doing what they did and eating what they ate.")

"Bulgaria is an interesting place for travel because so few Americans go there," he adds. "I'd like to go back because there are a few things I'd like to follow up on. [For example,] I met a lot of British people buying homes there, and I am curious about how these two pockets of Europe intersect in this one country."

Further Reading Global imperative Did You Know?: Global learning opportunities for every student Africa calling One size does not fit all

Winter greens, anyone?

UMM staff's greenhouse gives food to families via the Community Support Agriculture organization

By Crystal Oko

Feb. 23, 2007; updated Feb. 26

Inside Carol Ford and Chuck Waibel's greenhouse in Milan.

On weekdays, one can find Carol Ford as the "office goddess" in the Science and Math Division at the University of Minnesota, Morris, (UMM). (Her official title is principal administrative specialist.) On nights and weekends she's in a T-shirt in her 80-degree greenhouse tending to all her greens. Just two years ago, Ford and her husband, Chuck Waibel, made their dream come true when they built a greenhouse that now provides food during the winter months for families involved in an organization called Community Supported Agriculture (CSA).

CSA is a distribution system that provides food directly from the producer to the consumer. Families pay in advance to a get a share of the producer's weekly crop. Many families in west central Minnesota participate in CSAs, but only in the summer, which makes sense due to Minnesota's harsh winters.

Ford, who loves to do research, has combined this passion with another love: greenhouses and "green" initiatives. After much research and reading, she became particularly inspired by a passive solar greenhouse in Cheyenne, Wyo. that was run entirely by volunteers.

"I thought if they can do it in the harsh winters of Wyoming, why can't we do it here," says Ford.

Ford and her husband have always had an interest in building a winter CSA, and together they attended a course through The Land Stewardship Project called "Farm Beginnings." Since then, Ford and Waibel have constructed an 18-by-24-foot greenhouse on their double lot in Milan, about 30 miles south of Morris.

They are now in their second year of providing fresh winter greens to 15 families. "It's going great, better than I hoped," says Ford. "I have not had as many sleepless nights this winter." Ford explained that their first winter included an infestation of aphids and was "a learning curve year." The 15 families, already part of a summer CSA, are thrilled that they can continue receiving fresh organic greens through the Ford's winter CSA.

Carol Ford in front of her greenhouse.--Photo by Bill Zimmer of West Central Tribune.

Ford will be one of the presenters at The Home Grown Economy Conference, sponsored by Congressman Collin Peterson, in April (rescheduled from Monday, Feb. 26) on the Morris campus. (see sidebar)

Conference on locally grown foods

To explore how local foods can be an economic development engine for rural communities, Congressman Collin Peterson is sponsoring a conference, "The Home Grown Economy: Foods from Local Farms as an Economic Development Tool," in April (rescheduled from Monday, Feb. 26) on the Morris campus. Session topics include economic realities of the region, organic agriculture and consumer attitudes toward local foods. Registration is $35, $10 students. For complete details and to register, see the Regional Partnerships.

"If [conference participants] see the potential of a CSA and get thinking about it and talking about it, the word will spread," says Ford. "All they have to do is have a salad from my greenhouse, and they will be convinced that there should be one on every block of every neighborhood in Minnesota."

Crystal Oko, Woodbury, is a senior in speech communication and a communications assistant in the Morris campus Office of University Relations.

Over the top

Campus Club unveils display of U award winners

By Gayla Marty

Brief, Feb. 28, 2007

Current and previous award winners viewed the new display in the Campus Club on the fourth floor of Coffman Union.

The Campus Club on the Twin Cities campus was full of sunlight and laughter last Wednesday afternoon for a gathering of more than 100 U faculty, staff, and student winners of three awards. A display of the awards was unveiled on a wall where members and guests can't miss it--between the coatroom and the dining service.

The awards are the President's Award for Outstanding Service, the Josie R. Johnson Human Rights and Social Justice Award, and the Outstanding Community Service Award. *(See sidebar, below right.)* Recipients each year include faculty, staff, and-for the Johnson Award--a student. In the new display, each award is identified by a bronze plaque above a case containing the names of the current year's winners etched on individual glass nameplates.

"We needed a *place* to celebrate these very important awards," President Bruininks told the crowd that gathered for a reception in the west wing. "I am so pleased to see it come to be. These awards honor a community of people who keep paying forward to make not just the U but the world a better place."

Last year, the University dedicated the Scholars Walk to honor outstanding academic and creative achievements of the faculty. But President Bruininks's idea to honor all kinds of contributions to the U had been percolating even before ground was broken for the walk. The president's office approached the Campus Club about four years ago.

"We could only think, 'We don't have enough wall space!'" said Campus Club president and dentistry faculty member Gary Anderson. "But when these three awards rose to the top, there was no question that it was the right thing to do. These awards honor people from all walks of life whose accomplishments make the U what it is and what it will be."

Speakers also included Robert Jones, senior vice president for system academic administration, whose office will support the awards display in conjunction with the Campus Club and the U Honors and Awards Program; Rusty BarcelÓ, vice president for equity and diversity; and Victor Bloomfield, professor and director of the Office for Public Engagement.

Former U regent and associate vice president **Josie Johnson** stood next to the display for the award named in her honor.

The crowd gave a standing ovation to Josie Johnson, the first African American and woman on the University Board of Regents in 1971, who has also served the University in roles from senior fellow to associate vice president for minority affairs and diversity.

"I was honored to fill her shoes in 1996 and it was daunting, to say the least," said BarcelÓ, now vice president for equity and diversity, in a tribute to Johnson. "And she is still just as committed to this work. After I came to the University for the second time [last year], I had lunch with Dr. Johnson and she gave me a list of goals to be accomplished!"

Before and after the program, previous and current-year award winners enjoyed the display, traded jokes, and posed for pictures in clusters in the west wing and in front of the display.

"It's all a little overwhelming," said 2006 President's Award for Outstanding Service winner Betty Jo Johnson, executive office and administrative specialist in the College of Education and Human Development. "First they brought us to be recognized by the Board of Regents, then to Eastcliff for a reception, and now this. It's just over the top!"

But everyone agreed on the importance of giving greater visibility to those who contribute in a multitude of ways to the U community. The awards display is a good match between that goal and the mission of the Campus Club as a meeting place for the whole U community.

"These awards honor people from all walks of life whose accomplishments make the U what it is and what it will be."

Plans call for a reception each year, hosted by the Campus Club, to honor new recipients of the three awards. At that time, the previous year's winners will take possession of their etched nameplates.

The award display was created by a team led by Vickie Courtney, program director, University Honors and Awards. Members of the team were Ann Holt, executive director, Campus Club; Jessica Meyer, U Senate Office; Melanie Clarke, designer, University Relations; and Jim Lemke, president, Triology Marketing Group.

RELATED READING Grand opening of the Scholars Walk and Wall of Discovery, fall 2006

THREE AWARDS

See the names of current-year and previous winners on each award Web site.

President's Award for Outstanding Service
Est. 1997
Recognizes faculty, staff, or retirees who have provided exceptional service to the University, its schools, colleges, departments, and service units; have gone well beyond their regular duties; and have demonstrated an unusual commitment to the U community.

Josie R. Johnson Human Rights and Social Justice Award
Est. 1998
Honors U of M faculty, staff, and students who, through their principles and practices, exemplify Dr. Johnson's standard of excellence in creating respectful and inclusive living, learning, and working environments.

Outstanding Community Service Award
Est. 1999
Recognizes outstanding contributions and accomplishments of U of M faculty, staff, or community members who have devoted their time and talent to make substantial, enduring contributions to the community and improving public life and the well-being of society.

A closer look

U outreach program exposes children to science and engineering

By Christie Vogt

Feb. 27, 2007

Two students from Harvest Prep Academy take part in an experiment to "launch" balloons at the University of Minnesota.

Last Friday, the University's Academic Programs for Excellence in Engineering and Science (APEXES) hosted 60 girls from the Minneapolis Afrocentric Charter School, Harvest Prep Academy. The event was in honor of Black History Month and National Engineers Week.

"The purpose of the visit is to expose students to different fields of engineering and sciences through hands-on projects," APEXES outreach associate Richard Pollard explained. "By exposing children to science and engineering at younger ages, we have more time to equip them for academic excellence in math and science, which in turn will prepare them to compete at a higher level in college and beyond."

When asked what she likes most about science, student Aryanne replied, "I like experiments, because sometimes you get to eat them!" A balloon then burst a few feet away, followed by streams of giggles from the fifth and sixth grade girls.

Two girls explained that they get frustrated with science experiments when they don't know what to do, but student Kadeejah offered some words of advice: "You have to have a good attitude, because sometimes it doesn't work when you first do it."

In one activity, the students were taught how to make balloon rockets in order to demonstrate how unbalanced forces produce motion. Amidst much noise and laughter, some balloons "launched" along a length of string and others did not. When Pollard asked the group afterwards what some problems might have been, the students addressed such complications as escaping air, too much tape, and not enough string. One young girl raised her hand and said, "I don't know how to blow up a balloon!"

APEXES is a program in the U's Institute of Technology that encourages academic excellence in engineering, physical sciences, and mathematics. The program focuses on students of color and women, and works to increase the number of students from underrepresented populations who earn degrees in these disciplines.

Science is student Kyla's subject of choice, and like most of her peers, her favorite part is "all the experiments!" Fellow student Aryanne originally had aspirations of being a singer, but her mom told her "to always have a Plan B," and so she is now considering becoming a doctor or lawyer.

Because women are underrepresented in the engineering and science fields, this type of outreach may be essential for young girls to realize their potential. In regard to the computer science field, APEXES director Samuel Moore told the students that even though there are not a lot of women in it today, women have been there since the very beginning. Grace Hopper was a computer science pioneer, and this month Frances E. Allen became the first woman to be awarded the Turing Award for her contributions to the field.

Moore believes that one reason there is a lack of women in the engineering and science fields is that girls "are not encouraged to go into [them]," and there are not many role models in whose footsteps they could follow.

Two girls explained that they get frustrated with science experiments when they don't know what to do, but student Kadeejah offered some words of advice: "You have to have a good attitude, because sometimes it doesn't work when you first do it."

Miata Foluke, a sixth grade teacher at Harvest Prep Academy, said she wanted the girls to walk away from the event with a better appreciation of math and science and how they work in the world. She said she hopes that, most of all, they will learn not to be afraid of these sometimes daunting subjects.

Toward the end of the day, Moore asked who would like to come to the U this summer to work on robots. The room erupted with raised hands--a possible indicator of the future of engineering and science.

Christie Vogt is an editorial assistant with University Relations.

Phillips wins Wolf Prize

U professor was first to generate whole corn plants from cells grown in culture

By Kristi Goldade

Feb. 27, 2007; updated April 10, 2007

University Regents Professor of Agronomy and Plant Genetics Ron Phillips has won the coveted 2007 Wolf Prize in Agriculture.

University Regents Professor of Agronomy and Plant Genetics Ron Phillips has won the coveted 2007 Wolf Prize in Agriculture. In 1976 German philanthropist Ricardo Wolf established the annual award for agriculture, chemistry, mathematics, medicine, physics, and the arts.

The $100,000 prize will be given at an award ceremony May 13 in Jerusalem. To date, 232 scientists and artists have been honored.

According to the Wolf Foundation, Phillips won for groundbreaking discoveries in genetics and genomics. He was the first to generate whole corn plants from cells grown in culture, laying the foundation for genetically modifying corn plants and other cereals.

Phillips's latest project involves increasing the amount of oil in high oil corn from 3.5 percent to 20 percent to produce biorenewable energy.

"It is much easier to work with millions of corn cells than with millions of corn plants," says Phillips. "We have discovered how to identify unique traits in the cells, to choose specific cells, and finally, to grow them into plants."

Farmers across the world have begun to farm with these improved seeds. The latest data shows a 13 percent worldwide rise in the use of biotechnology seeds. This means that 1.4 billion commercial acres are now growing genetically modified plants.

Phillips believes it's safe to modify the genes of plants. "In 1987, the National Academy of Sciences stated that the technology was safe," Phillips says. "Twenty years later, it remains reliable. What we must monitor is the product, and this issue is not unique to genetic engineering. Before a seed can be grown, it must undergo rigorous regulatory processes."

Studies in Phillips's lab also led to the identification of cells and plants with increased levels of essential amino acids and the development of an efficient DNA sequence mapping system used by plant scientists in genomics research.

Phillips received his doctoral degree in genetics from the University of Minnesota, and his research at the U was one of the earliest programs in modern plant biotechnology related to agriculture.

He is world renowned for his leadership and service in international agricultural research communities, and for his teaching and training in the plant genetics field. He is a member of the National Academy of Sciences.

CAMPUS RECEPTION TO HONOR PHILLIPS APRIL 11

A public reception to honor Professor Phillips will be attended by Deputy Consul General of Israel to the Midwest Andy David, Jewish Community Relations Council executive director Steve Hunegs, President Bruininks, and Provost Sullivan. **April 11, 2:30-3:30 p.m., Cherrywood Room, St. Paul Student Center.** See the news release.

Today, Phillips is focused on genomics research--looking at all the genes as a dynamic system rather than at individual genes. His latest project involves increasing the amount of oil in high oil corn from 3.5 percent to 20 percent to produce biorenewable energy. Another project is solving the human pathogen problem of E. coli. He and a colleague are working to identify a pair of genes that counteract the harmful bacteria.

Kristi Goldade is an editorial assistant with University Relations.

State of the U 2007

Live streaming video available

Feb. 28, 2007; updated April 5

University of Minnesota President Bob Bruininks will give the annual State of the University address at 4 p.m. on Thursday, April 5. The address, which was rescheduled because of the March 1 snowstorm, will be delivered at Coffman Memorial Union Theater, 300 Washington Ave. S.E., Minneapolis, and streamed live beginning at 3:55 p.m.

Last year, President Bruininks delivered his State of the U address on the Morris campus.

An archive of the video will be available soon after the address on the President's Web site.

Bruininks's speech will focus on the achievements that have been made with the University's strategic positioning initiatives and the need to reset its goals for the future to meet new challenges.

"For the past three years, the University has taken great strides in its bold effort to become one of the top three public research universities in the world, and we deserve to celebrate that success throughout our campuses," Bruininks says. "We must remain persistent in that cause, pursuing a common vision of excellence in order to meet the challenges ahead."

Interactive broadcasts will also be shown at the following sites:

- 100 Dowell Hall, 2900 University Ave., University of Minnesota, Crookston
- 410 Library, 416 Library Dr., University of Minnesota, Duluth
- Science Auditorium, 600 East 4th St., University of Minnesota, Morris
- ST108, University Center Rochester, University of Minnesota, Rochester
- 155 Peters Hall, 1404 Gortner Ave., University of Minnesota, St. Paul

A question and answer session will follow the speech.

Designing a new campus landmark

By Rick Moore

From *M,* spring 2007

The planned new Gopher football stadium is beginning to take shape--and that shape will be a traditional collegiate horseshoe opening westward to the University of Minnesota campus and the downtown Minneapolis skyline.

The football stadium will anchor the East Gateway District, the name being used to describe the area of new development at the east end of the Twin Cities campus. The district will house up to 10 major academic buildings, two new parking structures, and a hub for mass transit.

In January, after hearing details from University officials and a representative of the architectural team, the U's Board of Regents approved the schematic designs for TCF Bank Stadium as well as its revised budget, now $288.5 million. The stadium is scheduled to open in fall 2009.

"I think this design captures the character and the tradition of our campus," says President Bob Bruininks. "We want [TCF Bank Stadium] to be one of the more memorable venues in college football."

The design calls for a 50,000-seat facility that can expand to 72,000 or 80,000 seats and is meant to have a collegiate look and feel, says Scott Radecic, senior principal architect with HOK Sport.

To that end, the stadium will be a "single rake" bowl, without the multiple decks and overhangs of many professional stadiums. The exterior will recall the old Memorial Stadium, including its brick arches, and will be ringed by a colonnade.

Fan will like the 19-inch seats, 33-inch spaces between rows, and 45 to 60-foot corridors--much wider than the Metrodome's 24-foot corridors.

University officials based the updated cost on changes to enhance the fan experience, improve campus aesthetics, and incorporate sustainable or "green" architecture designs. Other cost increases have come from recent changes to the building code and engineering challenges due to the type of soil on the site.

Bruininks stresses that the extra $39.8 million will not come from taxpayers or students or at the expense of the University's academic mission. Instead, the U will use a combination of financing tools and increased athletics revenue resulting from the new venue.

The design unveiling has also renewed stadium fund-raising. Over half the $86.5 million goal has been met through gifts, pledges, and sponsorships from individuals and corporations. Since the commitments from TCF Bank and the state of Minnesota, recent gifts of $1 million or more from companies like Best Buy, Target, and the General Mills Foundation, plus gifts from individual donors, have pushed fund-raising beyond the halfway mark. "Alumni and friends have shown overwhelming support for this new campus landmark," says Bruininks. "It has been doubly gratifying to see many donors taking the opportunity to contribute to academic areas as well."

Changing the porcelain percentages

While the new football stadium promises to have a "traditional collegiate look and feel," don't expect the traditional lines outside of the women's restrooms.

Minnesota law mandates that all new stadiums, arenas, concert halls, etc., must provide three female bathroom stalls for every two male bathroom stalls or urinals. Part of the "potty parity" movement, such laws are welcome news for the generations of women who have endured long lines at stadiums while waves of men did their business and still had time to buy another round of lemonade.

The new stadium design calls for approximately 400 women's water closets and roughly 280 men's fixtures (200 urinals; 80 stalls), according to Myron Chase, an associate for HOK Sport. Men can take heart, too, as there will be individual urinals rather than the urinal troughs at the Metrodome.

"Ironically enough, HOK standards [for potty parity] exceed what the Minnesota code requires," says Chase, whose firm has designed a number of sports stadiums and arenas in recent years. "Based on our past experience, we know what we should shoot for." Its about time.

Click for more information on the stadium.

Faces in the quilts

U professor remembers American women soldiers killed in the current Iraq war

By Pauline Oo

The Karina S. Lau Quilt is one in a series of quilts depicting female American soldiers killed in the Iraq war. Army Pfc. Lau, 20, was killed Nov. 2, 2003, in an attack on a CH-47 Chinook helicopter near Fallujah, Iraq.

In spring 2004, Daniel Jasper began a series of design projects called "The Casualties of War." He wanted to visually show the total number of United States military fatalities in the current Iraq war, while also differentiating among the individual soldiers killed. In one project, he transforms digital portraits of dead servicewomen into large-scale patchwork quilts.

"What is remarkable about this particular war are the numbers and the pace at which women soldiers are dying--though they're not technically combat soldiers," says Jasper, an associate professor of graphic design. "The women are support soldiers: mechanics, truck drivers, members of supply teams, etc. Given the nature of this war--an insurgency with no traditional 'front line'--the women and their support battalions are getting caught up in the fighting and are often the victims of roadside bombs."

In 2004, there were 35 women on the casualty list. "Today, the number is up in the 60s," says Jasper.

Jasper is working with University of Minnesota alum and costume technician Susan Walter, as well as textile designer Chris Batagglia, to make the full-sized bed quilts. There are five, so far, with grant money left to make one more. The goal, if Jasper lands another grant, is to make a quilt in each woman's name.

"Whether the viewer is pro- or anti-war, I hope that [this exhibit] reminds him or her of the human element of war and what that means," says Walter.

"I agreed to the project because I was intrigued by the concepts behind the work," says Walter. "When we hear of the number of soldiers being killed in Iraq, it is almost an abstract event unless there are names, photos, or stories attached to those numbers. When I look at one of these quilts, the portrait stays with me."

For Walter and Jasper's work, the digital photos are broken down into pixels, their smallest elements. One pixel equals one quilt patch. "If you have an image on your computer screen and you zoom in on it, it's nothing but a bunch of squares--the pixels. But when you zoom out, it sort of congeals into a continuous-toned image," says Jasper.

The Casualties of War quilts are mesmerizing, both up close and at a distance. When you're looking at one from two or three feet away, you find yourself immersed in the patterns, colors, and textures of the fabric. When you step away from it, you suddenly become aware of the big picture--literally.

"The quilt is the ideal vehicle to get at the dichotomy that exists between what are seen as traditional roles of women in culture and this new role that they're performing as combat soldiers," says Jasper.

The quilts are traveling in exhibits nationwide, but plans are underway to show them at the University.

"I like to think that by working on this project I'm participating in the current political discourse," says Walter. "Whether the viewer is pro- or anti-war, I hope that it reminds him or her of the human element of war and what that means."

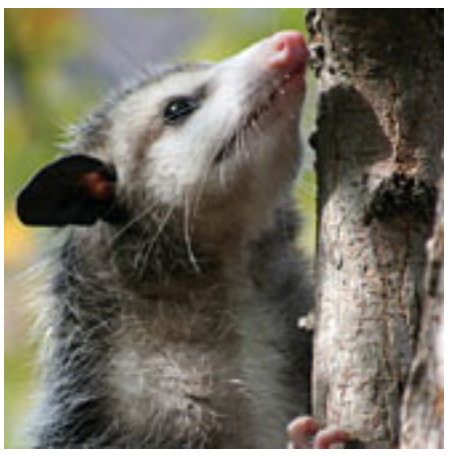
Winter is losing its bite

With winter losing its bite, life in the Frozen North just isn't the same

By Deane Morrison

From *M*, spring 2007

When Minnesota ice fishing tournaments are canceled for lack of ice, you know it's a mild winter-again. Mark Seeley, a University meteorologist and state climate history expert, says the change in winter is for real. "Although we can always find warm winters, we can't find a string like the last nine," says Seeley, author of *Minnesota Weather Almanac*. The changes are in line with predictions by models of global warming. Based on average temperatures, January 2006 was the warmest since 1846, and December 2006 tied for fourth warmest in state history. That's a far cry from December 1983, the coldest of the 20th century.



Once rare in Minnesota, opossums have been rapidly moving north.

The relative heat wave means we're burning less fossil fuel in our furnaces, too. "At present energy prices, some people would be paying a monthly heating bill equivalent to a mortgage payment" if December 1983 were to repeat itself, Seeley figures. Municipalities are spending less on snow removal, and schools and businesses close less often. The weather also means a longer construction season for contractors, a longer biking season, and even winter golfing. The lack of snow is in part a cause, as well as an effect, of our warm winters. "You don't get record setting warm winters with snow," says Seeley. Snow reflects solar radiation, helping the air around it stay cold. But bare ground soaks up the heat, warms the air, and contributes to further snowmelt. As more northern land goes snow-free in winter, it helps accelerate global warming. As temperatures rise, Minnesota may be seeing more freezing rain and sleet. And no longer is March the snowiest month; with more March precipitation falling as rain, January has taken the top spot. "This can help alleviate the spring snowmelt effect," says Seeley, referring to the flooding that follows a large, rapid snowmelt. Records begun in 1895 show that 10 of the 20 warmest November-March intervals have occurred since 1981. Higher minimum temperatures, which usually occur at night, seem most responsible. In his book, Seeley writes that southeastern Minnesota counties' average daily minimum for February rose from 8.2 F for 1951-1980 to 11.7 F for 1971-2000. "That's a change of 3.5 degrees, large in comparison to changes in maximum temperatures, which are typically just a few tenths of a degree," he writes. This small change has hurt ski operations, outdoor hockey, and skating. Even car mechanics are feeling the heat. "My mechanic said that during the '70s and '80s, a huge part of his income was installation of engine block heaters," recalls Seeley. "They've all but disappeared."

So *that's* an opossum! The nonhuman residents of Minnesota change with the climate

As winters shrink and the climate warms up, state populations of many animals and plants are shifting:
>>**Opossums**. North America's only marsupial has been moving rapidly north, turning up in roadkills throughout the Upper Midwest.
>>**Birds**. Cardinals, once unseen in Minnesota, now live on the North Shore and in Canada. The Carolina wren and the blue-gray gnatcatcher have also made themselves at home in our state. Loons may be migrating back earlier, and may--possibly--stick around if lakes remain ice-free. But, says the American Bird Conservancy, climate change could rob Minnesota of 36 bird species while adding only five. Many of the losses will be warblers of the northern forests, which are threatened by climate change and other factors.
>>**Insects**. More bean leaf beetles and European corn borers will survive our winters, which bodes more damage to soybean and corn crops.
>>Gardeners may wonder if plants adapted to USDA hardiness zone 5 can now be grown in parts of Minnesota long rated zone 4. The answer is unclear. If you want to experiment with zone 5-rated plants, go ahead, but try an inexpensive perennial such as a Korean spice viburnum, forsythia, peony, or iris. Don't risk $300 on a Japanese maple or fruit tree. The USDA hardiness zones are undergoing revision.

Historic bison skull on Crookston campus

March 2, 2007

Thanks to Dennis Nikolayson of rural Erskine, the University of Minnesota, Crookston (UMC) has a piece of the past. Nikolayson and his father were working in a former peat bog on his farm west of Erskine in 1958 when they discovered an almost perfect bison skull and most of the skeleton, along with remnants of two other bison. The thousand-year-old skull is on display in UMC's Natural History Collection on the second floor of Owen Hall. There were once 75 million bison, also known as American buffalo, ranging on the grasslands as far east as the Atlantic Ocean and as far south as the Gulf of Mexico, but the animals have been gone from Minnesota for more than a century. Small herds of bison were still found wandering in the state as late as 1880, according to a historical record from Twin Valley resident A. Hawkins. As a 9-year-old, Hawkins saw four bison heading west in June while herding cattle. This sighting is apparently the last record of wild bison in the state, Gustav Swanson noted in *The Mammals of Minnesota.*

UMC naturalist Laura Bell (center) with natural resources students Kristin Fritz (left) and Mary Jo Gelder.

A bison at rest.

Bison bones are not especially uncommon in peat bogs and river sediments in northwest Minnesota. "When the Red Lake River is low, one can find bison and elk bone fragments, but it is rare to find an intact skull like the one on loan from Mr. Nikolayson," says Dan Svedarsky, head of the Natural Resources Department on the Crookston campus. "It is intriguing to imagine the circumstances of how the adult bison came to be trapped in the boggy area." Nikolayson says the peat was about six to eight feet deep. Originally open water, the wetland would have originated after the retreat of the last glacial ice sheet and before the drainage of Glacial Lake Agassiz approximately 9,000 years ago. An accumulation of peat would have had to be present to trap the bison, dating the skull to at least 1,000 years old.

The skull is on exhibit for an indefinite period, after which it could be moved to a regional interpretive center, says Svedarsky.

The display case in Owen Hall is located in the central hallway across from Room 210. It is available for public viewing whenever the building is open.

Where the buffalo roam ...

By 1880, immigrant settlement and slaughter by market hunters and the U.S. Army had combined to reduce buffalo numbers to a handful of captive bison. Soldiers killed thousands of buffalo in an attempt to starve Indian tribes.

Today, largely because of captive herds, buffalo have been reintroduced in preserves and parks in Minnesota. A mature bull may stand five to six feet high at the shoulder, measure nearly 10 feet in length and weigh more than 2,000 pounds. Cows are smaller, weighing about 1,200 pounds. A grazing mammal, the bison feeds almost entirely on grasses.

Source: The Minnesota Department of Natural Resources.

The core of who we are

Q&A about the revised code of conduct for faculty and staff

By Gayla Marty

Brief, March 7, 2007

Office of Institutional Compliance director Tom Schumacher

The University has two codes of conduct, one for students and one that governs those who do work--paid or unpaid--on behalf of the U. Both codes were updated by the Board of Regents in December.

Tom Schumacher is the director of the Office of Institutional Compliance, established in 2002 to continue the University's commitment to adhering to the highest standards of ethics, integrity, and responsibility. That office played a big part in the process of updating the code of conduct for faculty, staff, and volunteers. Schumacher talked recently about the revised code.

Brief: **How do you describe the code of conduct in the simplest terms?**

Schumacher: We've tried to generalize in a very accessible, plain-language way the core principles that relate to ethical conduct within University policy, and to explain those in a more readable way. This was not creating new policy. There are four parts, and the third part is the core. Part three has ten sections.

What difference does this policy really make?

This is perhaps the single most important regents policy we have. It's the umbrella under which all of our other policies and procedures really live. This is like a mission statement for behavior. It's the core of what we expect to be part of our community. So, if any regents policy is going to be amended, this is the most significant one. This is our statement to the community and to everybody else about what we expect about being a good steward. And it's institutionalized. It's not a statement from an officer. It's not a news article or a seminar. It's part of our core. In the way that we're structured, it's policy, and Board of Regents policies at the University are law for the University.

I think we do have a compliant culture. The code of conduct is one of the tools that we all can use to continue and enhance that. And it's based on values. Of course we're committed to meeting our legal obligations, but the code really moves beyond that and is much more about doing the right thing.

SEE THE CODE OF CONDUCT

The revised code of conduct, approved by the regents Dec. 8, runs only about 1,300 words--shorter than most issues of *Brief*. You can find the code with links to related policies or in its official policy format (PDF).

Why was it updated?

The first code was adopted in 1996 as part of changes to meet the spirit and requests of the National Institutes of Health, so it was written through the lens of the NIH--broadly but with an emphasis specifically on research-related issues.

Since 1996, there has been a sea change in expectations for governance and accountability for organizations of every variety, not just for-profit. We've seen this in particular in the legislation following the collapse of Enron and Tyco and other corporate scandals. There's an evolution of thinking about how to establish accountability based on the experience that establishing ethical principles, commitments, and aspirational values is by far most effective in engendering confidence and commitment to an institution--and better behavior. We don't follow the rules just because there's a law behind them. We try to act ethically. So the language and content of the revised code is developed through the lens of acknowledging and implementing institutional values.

Is there any part of the code that you think is particularly important?

If I had to pick one section to highlight, it's in Part 3--Section 5. "Promote a culture of compliance." There are very few jobs at this institution that aren't covered by a whole array of policies and procedures and workplace rules that have their source in commitments that we've made to our stakeholders, either to the Minnesota legislature or to our students or to our federal sponsors. So everybody, whether they're overtly aware of it or not, has a whole series of workplace rules that they're expected to follow. We expect and have committed to our sponsors that our employees will be proactive in their own professional development and education and figure out what rules and policies and procedures relate to their job, and tools to get them done. We offer training, we encourage faculty and staff to talk to peers, to talk to managers, to talk to department heads, to talk to our many subject matter experts and ask questions. That's what you see here in the first expectation: to learn and follow the laws, regulations, contracts, and policies applicable to your activity. I think that the vast majority of compliance breakdowns are just mistakes, not knowing or not appreciating the significance of something.

So what's the average employee supposed to do with this? What's the value in reading it?

Well, reading it by itself isn't nearly as useful as thoughtfully reflecting on how these principles translate to a person's job or faculty position, and how those principles can impact or promote a culture that is consistent with our goals--especially in this time of transformation. It would be wonderful to see the code used in staff meetings and in team meetings as a vehicle to create dialogue about workplace behavior and a safer way to be a catalyst for that.

It's to provide guidance, but we don't expect a faculty or staff member to run to a policy to deal with every workplace situation--we don't have policies for every workplace situation. Instead we want to promote core principles of action that can lead to good decisions. For example, if we're looking at discrimination or harassment--concerns about workplace atmosphere--the policy talks generally about our commitment to a fair and respectful workplace and a diverse community. But for particular concerns, we would expect a faculty or staff member who wants to know more to read the University's policies on that, and read our guidelines, and contact our offices. If you're looking for particulars about workplace rules, you should rely on the specific policies, which were drafted with care and precision that we don't want to lose through a generalization.

Then there's the part of managers, department heads, faculty, and others internalizing this and thinking, "Well, what can I tell the people who work around me about this?" I mean, who'd disagree with "Promote efficient operations," that we're going to prevent waste and abuse? But what do you *do?* For example, if someone is using office resources for personal things, we should be able to say, "That's really not an appropriate use of University property and equipment" and address it. The best environment is one where every worker feels that it's safe to raise an issue...just setting a tone that, if the boss doesn't do it, no one else does it--it's just not an appropriate way to do business. And then I think, also, be reasonable.

Raising concerns about conduct

Schumacher says one of the code's implicit expectations is an environment where concerns of any kind can be raised at the "local level"--with a manager or department. Sometimes that's not practical, though. In fact, the U is required under a variety of laws and regulations to have confidential reporting mechanisms in place. One of those is Ureport, introduced at the U in 2005.

"We've had a hotline in place--actually, several of them for different things--since 1996 or earlier," says Schumacher. "Ureport eliminated duplication. The new functionality is that we can communicate with an anonymous reporter, which has been tremendously helpful."

For more information about Ureport, see the Office of Institutional Compliance.

What about on the work-group level? For example, mine is eight people who report to a manager.

That's the best place to do it. One way is at a performance review. A lot of people get a document from their manager ahead of time saying, "Let me know your accomplishments." That document could include, "Where do you relate to the code of conduct? What concerns do you have about our workplace, generally?" or "What could I do to make it easier to raise workplace concerns you have?" That makes it not just the manager telling someone but gets a dialogue going.

I think every U employee has been exposed to the code of conduct because it's in new employee orientation, it's in an annual communication either from the president's office or from the dean, and there are different places it's been promoted. But unless it's contextualized, it's hard to expect people to internalize it.

What's a concrete example of how the code and policies relate?

The vast majority of policies have as their source some federal responsibility or law. We didn't make them up. Take for example our acceptable-use-of-technology policies. One of the things we require is that people use anti-virus software to connect to our Internet. Well, why do we do that? Because the cost and expense of dealing with viruses is just immense, and we've concluded that the most effective and efficient way to prevent significant disruption to an individual, to a department, and sometimes to the University, is to prevent the problem from happening in the first place. That's an example of a policy that facilitates an expected practice or behavior, not because there's a legal obligation, but because it makes tremendous sense and it's in everybody's interest that it's done that way.

You can see both the "Code of Conduct" and "Student Code of Conduct" at Board of Regents Policies under "Academic."

Mentor for mentors

Service learning opens doors of U campus to Crookston youth

By Stephanie Wilkes

Brief, March 7, 2007

Lisa Loegering, assistant director for service learning on the Crookston campus, says youth who come to campus with their mentors start thinking of college as attainable.

When Lisa Loegering moved from Oregon to Crookston six years ago, she got involved in volunteer work right away. She volunteered for Meals on Wheels and joined the board of Crookston VolunTEAM, a volunteer clearinghouse through Service Learning Office at the University of Minnesota-Crookston (UMC) north of town. When she was hired as UMC's assistant director of service learning, Loegering's volunteer and work lives came together.

One of Loegering's duties has been holding semi-annual community dialogues, where all of Crookston's nonprofits meet to create a list of community needs and wants. Ideas generated there often become part of UMC service-learning courses or are integrated into an annual orientation event, Meet Crookston Through Service.

"One thing that kept coming up year after year was the need for a mentoring program," says Loegering. But an effective mentoring program wouldn't fit into UMC's normal service-learning framework.

The Service Learning Office--dedicated to providing UMC students with the chance to apply themselves in the community--set out to find a way to make a mentoring program work. Research on available mentors and mentee referral agencies was done in 2003 by UMC student Tiffany Anderson on a Minnesota Campus Compact Fellowship.

Everyone deserves a mentor, says Loegering. "Giving...kids in the community the opportunity to see what is available to them is extremely important."

In fall 2004, UMC Mentoring and Caring was launched, connecting 15 UMC student mentors with children in Crookston. By fall 2006, the number of mentors had doubled.

Polk County Social Services is the referral agency for the program. Initial funding came from the Otto Bremer Foundation. Loegering wrote the grant proposal; three years later, she's responsible for a host of activities.

For the Mentoring and Caring program, Loegering maintains the relationship with Polk County Social Services. She e-mails them weekly and meets every few months with a liaison to review mentee applications. She keeps gift certificates, activity coupons, and craft supplies in stock to reimburse mentors for their expenses. She keeps in touch with the UMC student activities and athletic directors to make sure mentees can come to campus events with their mentors free of charge. But her main responsibility for Mentoring and Caring is training and staying in contact with the mentors themselves.

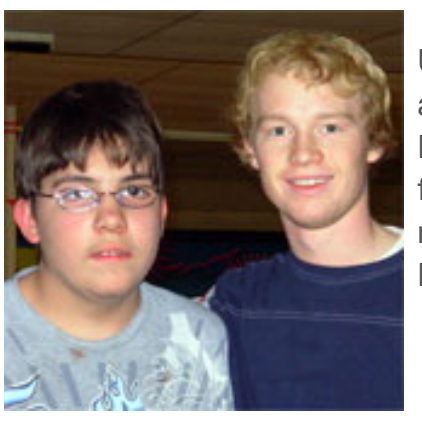
Mentoring the mentors

UMC student mentors attend an initial training session, for which Loegering brings in professionals from Northwest Mental Health and Polk County Social Services. After matches are made, she meets weekly with the mentors to address issues they may be facing. She works with them daily if they have questions or concerns.

"If we have a lot of mentees who have Attention Deficit Disorder or who are autistic and it seems to be affecting quite a few of the mentors," she says, "we will bring in a special speaker from the University or from social services to address those topics."

In fact, a number of autistic children are mentored successfully through the program.

Josiah Loll, a junior in agricultural business, has been mentoring since he was a freshman. This year, he began to mentor a nonverbal, autistic boy. Loegering cautioned Loll about difficulties he might face. When he came into the office a few weeks later, she assumed he wanted to ask for a different mentee.



UMC junior Josiah Loll, right, and one of his mentees, Alex Mazzucco. Since his freshman year, Loll has mentored several youth. Photo by Jim Irrgang.

"He said, 'I think I want another mentee,'" she remembers. "I started to tell him that I understood...that it couldn't have been easy, and that I would be happy to find him a different mentee. He stopped me and said, 'No, I really like the mentee I have now. I just think I want another one, too."

Loll now mentors two teens, 13 and 16, and participates in activities like bowling, swimming, and playing video games. He continues to have positive experiences with his mentees and their families. He sees Mentoring and Caring as an asset for Crookston. Loll knows the importance of a good role model in every child's life and also knows the experience will benefit him personally later in life, as a father.

He cites Loegering's guidance and dedication to the program as important to his experience.

"She is always there with suggestions of activities that I can go to with my mentees," says Loll. "She has been really good at matching up mentees with mentors, and she has excellent advice about how to handle situations that may arise."

Everybody benefits

Loegering believes everyone deserves a mentor. She also believes children in the Crookston community can benefit from the experience, which gets them on campus and allows them to start thinking about postsecondary education as attainable.

"[Crookston has] many children going through lots of different struggles," says Loegering. "Their families' first priority for their children may not be a college education when they are worried about paying the bills and putting food on the table.

"Giving those kids in the community the opportunity to see what is available to them is extremely important," Loegering says. "The University has resources that we can share, and when we do, it can be a very wonderful thing for the community and for our students."

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Changing perceptions

U initiative strives to build campus community around Gopher athletics

By Rick Moore

March 6, 2007; updated March 20

Meg and Jim Stephenson huddle with their team in a 2005 meet against Iowa State. Entering this season, the Stephensons had a record of 136-103-1 as co-head coaches of the Gophers, including two Big Ten championships (1998 and 2006).

In a nondescript building on the Twin Cities campus where the historic Knoll District meets University Avenue, a group of dedicated, if not obsessive, student-athletes trains for one of the University's most demanding sports.

It's here in Peik Gym that the women's gymnastics team, under the guidance of co-head coaches Jim and Meg Stephenson, grinds through four-hour practices up to five times a week.

It's not a sport for those who thirst for immediate gratification. "It takes us a good four months to get into shape to do a routine that [might] last 25 seconds," says Jim Stephenson, who has been coaching the Gophers for 15 years.

In addition to tapping every muscle in their bodies, there's also the requisite mental toughness--the ability to "stay in a zone at a really high level," says Meg Stephenson, who has been coaching with her husband for 25 years and joined him as co-head coach of the Gophers 10 years ago. "It's really a unique high-level, high-commitment sport."

That commitment extends to academics, as well. The team had a 3.2 GPA last fall, and typically comes in at 3.0 or higher--the Stephensons' standard for success.

Bridging the academic-athletic divide

Women's gymnastics is one of many sports at the U in which the student-athletes are successful in both aspects--student and athlete--of their moniker. (In addition to the classroom success, the team also won the Big Ten championship last season.) Yet there is a lingering perception that student-athletes are far less dedicated to achieving an education than they are to their sport.

At the University, that perception was likely exacerbated by the academic fraud scandal of 1999. But the U is certainly not alone in dealing with this issue. "For 100 years, there's been a divide between the academic side of [a] university and the sports culture," says Jim.

Some people at the U are eager to change that perception. In 2004 the U Senate's Advisory Committee on Athletics created a Subcommittee on Campus and Community Relations. Its goals are twofold: to build and enhance support on campus among faculty, staff, students, U departments, alumni and Gopher fans; and to increase awareness of Gopher Athletics' contribution to the campus and community.

"Our media tend to go berserk on the bad news, and there's so much good news--especially in athletics--but it doesn't get out there," Meg Stephenson says. "I think the University and the community would rally around athletics much more if they knew the great stories."

The committee is hosting twice-yearly lunches where coaches of all sports are invited to meet with chosen faculty to address issues of common concern. It has also spearheaded special deals for faculty and staff to attend select Gopher sporting events this year.

The long-term aim is to bridge the gap between the academic and athletic sides of the University, and perhaps increase attendance by staff at Gopher sporting events along the way.

"While there still is a lot of work that needs to be done, we're finding that the efforts are being well-received," says Vickie Courtney, the U Senate office coordinator who is managing the initiative. "The coaches have been very supportive of the initiative and want to connect with the academic side of the University."

Earlier in the academic year there were special events for women's soccer, men's basketball and men's gymnastics. And on Feb. 24, faculty and staff were offered the chance to attend the women's gymnastics meet for free.

A sport for 'Type A's

A few hundred fans braved the first of the two recent snowstorms to watch the Gopher gymnasts take on Iowa, and Meg points out that home meets typically draw between 1,500-2,200 fans. While the No. 24 Hawkeyes prevailed 194.625 to 193.950, Minnesota turned in its highest scores of the season on vault (48.700) and floor (49.125) in a highly entertaining meet.

The following weekend, the Gophers tallied their highest score of the year (195.350) in defeating both Iowa and No. 10 Iowa State in a tri-meet on March 4.

Deals for faculty and staff

There are two remaining special offers for U faculty and staff to Gopher athletic events:

>> On Saturday, March 24, the baseball team hosts the University of Hartford at 2 p.m. at the Metrodome. Discounted tickets are available for faculty and staff for $3 at the U of M Bookstore in Coffman Union or the ticket office in Mariucci Arena. Coach John Anderson and his staff will hold a free baseball clinic for children ages 7 to 17 on the Metrodome field from 11:15 to 12:15. To RSVP for the children's clinic, e-mail baseball@umn.edu.

>> On Saturday, April 14, the softballl team hosts Purdue at noon at Jane Sage Cowles Stadium. Admission is free for faculty and staff with a U card; $3.00 tickets for family and friends can be purchased in advance at the U of M Bookstore in Coffman Union or at the stadium on game day. A special one-hour clinic for kids 12 and under will be held after the game; to register, email Deb Diamond at diamo010@umn.edu.

These offers have been made available through a joint initiative of U governance and athletics.

Back in their cozy office in the basement of Peik Gym, the Stephensons talk about why they love coaching their sport, especially at Minnesota.

"It's a magnet for perfectionist kids," Jim says. ("'Type A's," Meg interjects.) "And to have a gym full of those is a unique situation."

"What we love about collegiate gymnastics is that it's a women's form of gymnastics," says Meg, explaining that the artistry is much more mature than in youth gymnastics.

"You seldom see that capability in a young athlete," Jim adds. "The presentation you see with collegiate athletes only comes with the experience you get from 15 to 18 years of gymnastics."

They point out that there's an emphasis for coaches to bring in top academic performers who also happen to play sports. "We really recruit kids who are interested in getting a degree," Meg says.

"We know that with the help they get here through academic services, they can succeed," she adds. "We can't speak enough about the support they get as athletes. And they should get it. They have a full-time job representing the University."

And if the U Senate's initiative can help spread the word about the wonderful things happening with student-athletes at the U, the Stephensons will be thrilled.

"Our media tend to go berserk on the bad news, and there's so much good news--especially in athletics--but it doesn't get out there," Meg says. "I think the University and the community would rally around athletics much more if they knew the great stories."

The women's gymnastics team has one remaining home meet. On Saturday, March 24, the Gophers take on West Virginia at 6 p.m. at the Sports Pavilion.

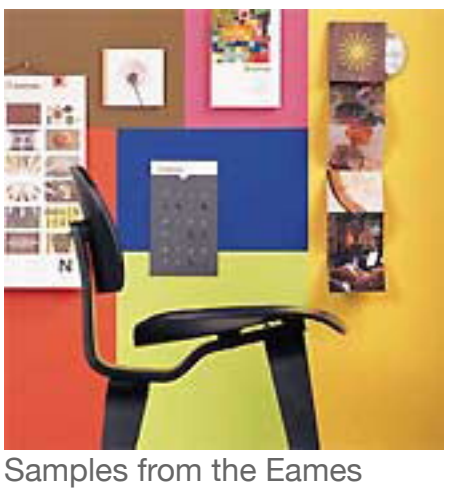
Related reading: U of M aims to improve student-athlete academic performance Jim Molinari: a love of teaching A strong rebound: Athletic compliance program is raising the bar

At the Goldstein: making of the Eames paper

Design students try new Eames paper in class assignments

By Pauline Oo

March 6, 2007



Samples from the Eames Paper Collection at the back of the iconic Lounge Chair Wood or Plywood Lounge Chair, designed by Charles and Ray Eames in 1946.

Anything can inspire paper texture and color, according to the current exhibit at the University of Minnesota's Goldstein Museum of Design. For Neenah Paper Inc.'s new Eames Paper Collection, the inspirations were a house, an abstract painting and a chair.

"Design Redux: Eames on Paper," which runs through April 1, traces how a Minneapolis design firm, Design Guys, Inc., came up with a new line of paper for the centuries-old paper behemoth Neenah Paper.

Visitors will learn about papermaking and gain insight into Charles and Ray Eames, the couple who inspired the Design Guys in this project and who were responsible for the iconic Lounge Chair Wood, hailed by *Time* magazine as "Best Design of the 20th Century."

"[We brought this exhibition to campus because it] tells the story of several elements important to the College of Design--design process, design history or legacy, collaboration or partnership and product design," says Lin Nelson-Mayson, museum director. "Since Design Guys are [local], they also spoke at the opening and at [Charles and Ray Eames' grandson] Eames Demetrios' lecture about this project, providing the graphic design students in particular with an applied perspective on the profession."

Last fall, while developing the exhibition, the museum requested a donation of Eames paper from the Georgia-based Neenah Paper. The goal was to incorporate examples of the students' work into the exhibit.

"We sent out an invitation to the graphic design faculty, and several expressed interest in using the paper in their classes," says Nelson-Mayson. "Neenah responded with a generous donation that reflected a range of weights, colors and textures from the Eames paper line."

The paper company also donated more than 1,700 pounds of paper toward the exhibit. (The paper has proven so popular that the museum is requesting that visitors limit their take-away to a piece each of the 19 available samples.)

Ray and Charles Eames in 1960. --Photo courtesy of the Eames Office

There are 19 colors and three surface textures in the Eames Paper Collection, developed specifically for graphic designers and paper enthusiasts. The Architecture Palette has a rippled texture reminiscent of the movable panels in the Eameses' home and colors like Case Study Red, Palisades Gold and Cobalt Blue. The Painting Palette, born of *For C in Limited Palette,* a painting by Ray for Charles, has a painter's canvas finish and colors such as Brushwork Beige and Provincetown Blue. And the Furniture Palette, inspired by the 1950s Eames Molded Plastic Chairs, has a woven texture and colors include Tivoli Green, India Pink and Kaleidoscope Purple.

Both the Furniture and Painting Palettes are made with 30 percent post-consumer recycled content. All three palettes are made with renewable energy--steam is used at the paper mill during the manufacturing process. "My initial reaction was [that] the colors were amazing," says Andrew Buck, a pre-graphic design major. Buck and his classmates in Drawing and Design in 2 and 3 Dimensions (DHA 1311) were challenged by lecturer Monica Fogg to design and construct a container using the Eames paper.

"I enjoyed the grain [and] texture on the paper because it presented a very tactile feel, which also made it very durable so I could score or bend it without too much damage or resistance," says Buck. His box, along with work by students Mae Rogers and Kelley Street, are featured in the exhibit.

For graphic design senior Sheila Brueggeman, her uncertainty in using textured paper for a project in her Design Process: Bookmaking (DHA 4352) class soon gave way to enthusiasm.

"I used it for screen printing and also printed on it using just my home ink jet printer, and couldn't have been happier with the results," she says. "I was really impressed at how versatile each [palette] is. As college kids, just the opportunity to have access to this line of paper was fantastic, something I think we were all appreciative of."

The Goldstein Museum of Design is located in 241 McNeal Hall on the Twin Cities campus in St. Paul. Gallery hours are 10 a.m. to 4 p.m. weekdays (10 a.m. to 8 p.m. on Thursday) and 1:30 p.m. to 4:30 p.m. weekends. Admission is free.

Dynamic duo

Charles and Ray Kaiser Eames were commissioned by the Navy during World War II to produce molded plywood splints, stretchers and experimental glider shells. In 1949, the husband and wife designed and built their California home--considered one of the most important post-war residences in the world.

The Eameses continued to create new furniture designs into the 1970s. Their work includes the lounge chair and ottoman and the Tandem Sling Seating (still in use at airports around the world). Charles died in 1978; Ray ten years. Daughter Lucia Eames and one of her sons, Eames Demetrios, currently run the Eames Office.

Further reading Designing a college

Standardized tests predict student success

From *eNews,* March 8, 2006

In the largest and most comprehensive study of graduate and professional school admissions tests, a University of Minnesota-led team has found that standardized test scores are more accurate than prior academic experience in predicting student success.

Nathan Kuncel, assistant professor of psychology at the University of Minnesota, and Sarah Hezlett of the Personnel Decisions Research Institute say that after 80 years of controversy about the value of such tests, their study reinforces the correlation between students' standardized test scores and success in their graduate studies and in their field. The study was published in the Feb. 23 issue of *Science.*

The study evaluated graduate school tests as they relate to several indicators of performance, including first-year grades, overall grades, licensing exams, faculty ratings, degree attainment, research productivity, citation counts and comprehensive exams. Outcomes showed that standardized test scores outperformed prior academic experience in predicting success.

"Standardized tests from the GRE to the MCAT and from the LSAT to the GMAT predict a lot of important and complex student outcomes--years after the test was taken--in fields ranging from the humanities to engineering, medicine, management and the law," says Kuncel.

Graduate admissions tests are designed to indicate students' abilities in a range of disciplines. Most of these standardized tests combine verbal, quantitative and reasoning sections with field-specific knowledge. They are a primary selection factor for admission into many graduate programs, such as law, medicine, science and business.

"Both advocates and critics often have their favorite study or two that supposedly proves their point," says Kuncel. "This study is based on an exhaustive synthesis of the literature, both pro and con. The final analysis is that the tests are solid predictors."

Snow on your roof

From *eNews,* March 8, 2007

A heavy snowfall can create dilemmas for Minnesota homeowners, who often worry about how much snow their roofs can support or what to do about ice dams and large, hanging icicles.

According to Richard Stone, University of Minnesota Extension housing technology specialist, homeowners are encouraged to hire professionals to clear snow or ice from roofs.

"Homeowners who attempt to clear heavy snow or ice dams by themselves risk serious injury and may damage the roof," says Stone. "If there is not ice build-up at the edges, it may be alright to leave the snow on the roof, and trust that the roof can support the load. Roofs, like the rest of the home, should have been designed to withstand expected snow loads."

In Minnesota, design plans showing expected snow loads are usually required to receive a building permit, says Stone. The plans for your home may be on file at your local building inspection office. To help you understand the plans, or if you cannot find plans for your home, contact an architectural engineering firm. A professional engineer should be able to evaluate the structure of your home and answer questions about the strength of your roof.

Stone also warns homeowners to be cautious about icicles hanging from roofs, which can be dangerous if they fall. Large icicles may also signal the formation of ice dams. An ice dam is a ridge of ice that forms at the edge of a roof, preventing melted snow from draining properly.

Ice dams are often caused as heat escaping from the home into the attic warms the roof surface and melts snow. Melted snow runs downward and hits the cold edge of the roof where the water refreezes. As the ice builds up at the bottom edge of the roof, it creates a dam that causes water to back up under the shingles and potentially leak into the house.

"Damage from ice dams can show up in many forms," says Stone. The most common signs include water-soaked insulation, stained or water-soaked ceilings and water accumulation in wall cavities, causing damage to walls and interior finishes.

How should a homeowner deal with ice dams?

- Removing an ice dam can place the roof and the ice dam remover at serious risk. Hire a professional who has the equipment and experience to clear the ice dam safely and with less risk of damaging the roof.
- Stay away from large icicles, if there are any, to avoid injury--should they fall.

University of Minnesota Moment

Everyone knows about shoveling your driveway when it snows, but most people don't know that it might be necessary to clear your roof too--in particular if it is an agricultural building. University of Minnesota Extension professor Larry Jacobson explains.

Over the long term, or in preparation for next winter, here's what homeowners can do:

- Make ceilings airtight so no warm air can flow from the house into the attic space. However, you should evaluate the impact these changes will have on exhaust ventilation systems and the safety of combustion devices like furnaces and water heaters.
- Increase your ceiling or roof insulation to cut down on heat loss.
- Proper roof ventilation also helps maintain uniform attic and roof temperatures.
- Contact a weatherization professional to help you develop safe and effective solutions. (Look in the Yellow Pages under "energy management," "conservation consultants" or "insulation contractors.") Your electric or gas utility company could also help you locate a contractor. Contractors use diagnostic tools to detect places where heat and moisture are escaping from the house into the attic space, creating the potential for ice dams. They can then fix the problem areas and improve home efficiency.

For more information on ice dams, see the Minnesota Department of Commerce Energy Information Center.

Ten years together

University of Minnesota, Fairview Health Services and U Physicians continue partnership

By Mary Hoff

From *eNews,* March 8, 2007

The University of Minnesota Medical Center, Fairview at Riverside neighborhood near the U's West Bank.

Anywhere else, Gavin Nieters's chances would have been slim to none. Born June 9, 2005, with a major malfunction in his tiny heart, Gavin needed highly specialized surgery. And the only place in the world it could be done was the University of Minnesota Children's Hospital, Fairview. When Gavin was four days old, pediatric cardiothoracic surgeon John Foker cut into his small chest and, in a 12-hour operation, corrected the deadly defect.

Gavin's lifesaving surgery might not have been possible if it hadn't been for an innovative partnership forged 10 years ago between the University of Minnesota, Fairview Health Services, and University of Minnesota Physicians. By combining a community health system with an academic health center and its faculty physicians, the partnership created an entity specialized enough to function at--and advance--the leading edge of medicine, yet sturdy enough to survive in a highly competitive health-care environment.

"Our patients are truly the beneficiaries of the University-Fairview partnership," says Gordon Alexander, president of University of Minnesota Medical Center, Fairview, and University of Minnesota Children's Hospital, Fairview. "Over the past 10 years, our partnership has evolved. We had to get to know each other--to learn how best to work together and harness our strengths to achieve our unified vision of world-class patient care, research and education."

Setting the stage For the University, the motivation behind the merger was largely economic. In the mid-1990s, the University of Minnesota Hospital and Clinics, like many of its peers, was struggling financially as it tried to provide highly specialized health-care services in an increasingly competitive managed-care environment. Its faculty physicians--then represented by 18 separate practice groups--were in the process of creating a single practice plan, University of Minnesota Physicians, which would help them thrive in the tough health-care market.

But that was not going to solve the problem entirely. With the University's hospital $140 million in debt, administrators eyed a number of options, including closing, downsizing and partnering with an existing community health-care network.

Visionaries at Fairview Health Services saw a chance to support academic medicine while adding high-end services, such as transplants and leading-edge cancer care, to Fairview's repertoire and providing new opportunities for its Riverside medical center, located just across the Mississippi from the University. In January 1997, University Hospital and Fairview merged, bringing together the strengths of each to create what they hoped would be a new and powerful paradigm for providing exceptional teaching, research, and clinical care.

Baby Skylie with Heather Voss and University surgeon Cynthia Herrington (right).

At first the road was rocky. The merger brought together very different cultures--each used to doing things in a certain way. Employees worried about jobs. Physicians on both campuses tried to figure out how they fit into the new reality.

"After high-fives and champagne corks, within six or eight months each side was saying, 'Who are these guys? These guys are crazy--we can't get along with them,'" recalls David Page, Fairview president and chief executive officer.

Gradually, however, participants began to acknowledge and appreciate their differences. What were once seen as obstacles were reframed as opportunities. Today, the medical center is financially healthy, providing innovative care to patients from the Upper Midwest and beyond--and looking forward to future growth.

A sturdy financial foundation What benefits did the merger bring? Top on the list for the University: "We're still here," says Frank Cerra, the University's senior vice president for health sciences.

"When we embarked on this, the future of University Hospital was in great jeopardy, both financially and competitively," Cerra says. "We were at risk of losing our primary teaching hospital--the hospital at which we performed most of our clinical research and the place known for high-end, technologically oriented care you can't get in most places."

Before the merger, the University's hospital was projected to lose $50-$55 million per year by 2000. Today, says James Fox, Fairview senior vice president and chief financial officer, it's on a trajectory to produce $30 million in net income for the year.

That solid fiscal foundation is not just good business. It also allows the medical enter to provide premier care to patients. Since the merger, Fairview has invested some $250 million in facilities and equipment, from creating a kid-friendly imaging and sedation center in the children's hospital to adding a sophisticated da Vinci robotic surgical system for performing minimally invasive surgeries.

Partnership in action

Watch a short video about the University of Minnesota Physicians and the group's connection to the University of Minnesota Medical Center, Fairview, or read the full story at Minnesota Medical Foundation.

Cerra notes that the *U.S. News and World Report* "Best Hospitals 2006" edition lists the University of Minnesota Medical Center, Fairview, among the top 50 U.S. medical centers in 11 areas: kidney disease; respiratory disorders; endocrinology; gynecology; orthopaedics; neurology and neuro-surgery; cancer; ear, nose, and throat; heart and heart surgery; urology and digestive disorders.

"That's a real sign of success," he says.

Pattern for partnership Today the University-Fairview merger is seen as a model for other academic health centers. In a 2000 report, the Association of Academic Health Centers and University HealthSystem Consortium cited the University-Fairview merger as a national model for academic-community partnerships.

The merger also has provided a pattern for other partnerships within the system. In May 2005, Fairview broke ground for a new ambulatory care clinic in Maple Grove--a collaboration with University of Minnesota Physicians that will bring the expertise of University doctors to the community.

Thompson anticipates more such agreements in the future. "Our academic mission acknowledges the growing need for us to have a larger presence in the community," he says.

With the dust finally settling after a decade, partners are now standing back to take a big-picture look at configurations for the next 20 years. A Clinical Sciences Campus Plan developed in 2004 calls for creating a new specialty medical center, consolidating clinical laboratories, and offering a more inviting, user-friendly setting for patients and their families.

Plans are also under way to construct a state-of-the-art replacement facility for University of Minnesota Children's Hospital, with groundbreaking scheduled to take place this year.

Further reading New name for hospital

Goodwill gone wild

U students join Pay it Forward Tour during spring break

March 9, 2007

Juniors Luke Leadbetter and Lisa Roble wait for their bus to leave on the Pay it Forward Tour. It's the first Pay It Forward trip for both students.

Four buses departed from the University of Minnesota's Twin Cities campus on Friday, March 9, as part of the Pay it Forward spring break tour. The 140 U students loaded a suitcase, pillow and sleeping bag and boarded the buses to start on separate nine-day journeys.

Now in its fourth year, the Pay it Forward Tour is a spring break community service trip--planned and led by students--that has grown exponentially since it was conceived by four U freshmen during a late-night brainstorming session.

This year, 15 buses with 600 student volunteers will collectively serve 77 communities. After traveling across the country, eight buses will meet in Washington, D.C. and seven buses will meet in San Antonio. In addition to the unforgettable service opportunities for students, the trip helps to break down stereotypes, and participants often forge lifelong friendships.

Kari Olson, one of the students involved with the first Pay It Forward Tour, says that 2004 journey "just made such an impact on my life" that she's been a regular participant ever since.

"It's the people involved that kept me coming back," says Olson. "[And] obviously, the service is cool, too."

Olson says the groups typically travel from city to city in the afternoon, grab dinner on the road and stay overnight at places like churches and YMCAs. They typically perform their service projects in the morning for a few hours before hitting the road again for the next stop.

During spring break 2004, the tour started with one busload of 43 students from the University of Minnesota that stopped in five cities on its way to Washington, D.C., performing at least one service project in each city. The 2005 tour saw 150 students on four buses--three from the University of Minnesota and one from University of North Dakota--each traveling a different route on their way to Washington.

Last spring, eight buses with 320 students from more than a dozen Midwestern universities continued the tradition, serving more than 50 communities en route to D.C., where they cleaned up a riverfront. To date, more than 700 students have gone on a Pay it Forward Tour.

As a three-year veteran and one of the coordinators of the tours, Olson says one of her favorite parts of the trip is watching the group dynamics evolve over the course of the journey. On the first day, everyone is quiet and reserved, but by the time they return home, "you can't get them to shut up," she says. "Watching that progress is one of my favorite parts of the [trips]."

The annual tour is the crowning accomplishment of Students Today Leaders Forever (STLF), a student organization that was founded in September 2003 by four University of Minnesota freshmen. In May 2005, STLF became an official non-profit organization, and it has since grown to 11 chapters in the Midwest. Members work on projects at their respective universities throughout the year.

For more information about the tour or the organization, visit the STLF Web site.

Helping the less-than-perfect driver

By Peter Park Nelson

From *eNews,* March 22, 2007

Imagine a world where drivers don't make mistakes. Everyone pays perfect attention to the movements of cars around them, and no one takes unnecessary risks like following too closely behind another vehicle. This utopian world really exists--at least in research labs where computer simulations model the movements of virtual vehicles.

U researchers John Hourdos and Wuping Xin are developing a new driving simulation model that's capable of replicating real-life car-following behaviors with all their risks and imperfections.

But like all utopias, these neat and tidy models are not as perfect as they appear.

For University of Minnesota civil engineering professor Panos Michalopoulos and traffic researcher John Hourdos--who are trying to understand how and why vehicle crashes happen and how crashes affect traffic--the behavior of virtual vehicles is frustratingly limited. Joined by civil engineering professor Gary Davis and graduate student Wuping Xin, the researchers set out to develop a more accurate and complete model of car-following behavior. The U's Intelligent Transportation Systems Institute funded the study.

Reflecting reality The first attempts to mathematically describe the behavior of vehicles under simple traffic conditions were made in the 1950s, by scientists and engineers seeking to understand how disturbances in traffic flow propagate down a line of moving vehicles.

A significant advance occurred with the development of psycho-physical models that more accurately reflect the decision-making processes of drivers. Whereas in earlier models every vehicle adjusted its speed constantly based on distance to the vehicle ahead, vehicles in a psycho-physical model change their acceleration only when they reach an "action point"--for example, when the distance to a vehicle ahead drops below a specified distance. Today, this principle is incorporated into the car-following models in several widely used commercial simulation systems.

Yet, despite the success of current car-following models at reproducing many observed features of traffic flow, existing approaches fail to capture the intricacies of individual driver behavior, such as reaction time delays, distraction and errors in judgment.

To understand the genesis of dangerous traffic conditions, many researchers look for evidence of instability within the equation systems that govern car-following models. These points of instability--where the models "break down" and the virtual vehicles begin to collide--are indicators of accident-prone traffic conditions.

One example is the formation of high-density "traffic waves" in which gaps between vehicles become too short for drivers to avoid rear-end collisions. This phenomenon can arise naturally from the dynamic interaction between vehicles as traffic density increases. Another example relates to driver performance. Factors such as visual perception and decision errors appear to exert a significant influence on the car-following behavior of individual vehicles.

If traffic simulation is to provide a clear picture of factors that cause crashes, car-following models must take both these sources of instability into account.

Model behavior Wuping Xin has spent a lot of time thinking about instability. Under the direction of Micholopoulos and Hourdos, Xin took on the challenge of implementing the research team's conceptual model of driver behavior and vehicle response into computer software that can interact with standard simulation packages used by traffic researchers.

The new car-following model offers a more realistic simulation of the driver's perception-response process because it varies according to external conditions. The simulation relies on certain perceptual cues to determine when the driver is approaching too closely to the vehicle ahead, and then Xin's software makes acceleration and braking decisions by analyzing those perceptual cues.

The U project is ongoing, capitalizing on detailed car-following data collected in Germany, Japan and on the Twin Cities freeways. The research team plans to improve its accuracy as a powerful tool for examining collisions by adding new features, such as a multiple vehicle detector, which would more closely mimics the behavior of human drivers who frequently respond to the braking or acceleration of cars further ahead in the lane.

Remembering the Holocaust

New video archive gives the campus--and the public--access to 52,000 testimonies from Holocaust survivors and witnesses

By Christopher James

March 9, 2007

With a computer connected to the University's Internet servers, a person can use more than 50,000 keywords, as well as the names of every person mentioned in the testimonies, to search the Visual History Archive.

The woman on the screen sits in the living room of a Burbank home. She's 80 years old.

"I couldn't stand any more suffering," she says. "I was talking to God. I said, 'Please, God, how much are we going to suffer? What did we do wrong? Can you help? Please help us.' And then the next day they moved us to Bergen-Belsen [concentration camp]."

The woman is Claire Codron, one of nearly 52,000 Holocaust survivors and witnesses whose testimonies are part of the University of Southern California's Shoah Foundation Institute's Visual History Archive (VHA), a video-based resource that is now available to the public through the University Libraries.

The VHA is the largest video archive of its kind in the world, with oral histories in 32 languages and from 56 countries. The vast majority of the interviews--about 90 percent--are with Jewish survivors of Nazi persecution; however, political prisoners, Roma and Sinti (Gypsy) survivors, homosexuals, Jehovah's Witnesses, and liberators, witnesses, rescuers, and aid providers are also represented in the archive.

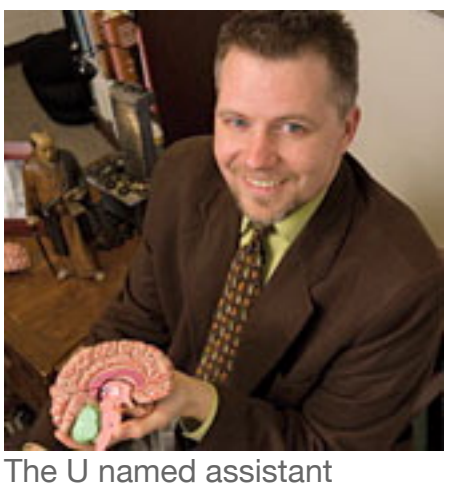
"I couldn't stand any more suffering," she says. "I was talking to God. I said, 'Please, God, how much are we going to suffer? What did we do wrong? Can you help? Please help us.' And then the next day they moved us to Bergen-Belsen [concentration camp]."

The USC Shoah Foundation Institute grew out of the Survivors of the Shoah Visual History Foundation, founded by Steven Spielberg to document the experiences of survivors and other witnesses of the Holocaust. The Shoah Foundation currently provides licensed access to six universities worldwide, including the University of Minnesota. These partners can, in turn, give users access to the entire archive over the high-speed Internet2 research network. "The oral histories in the VHA are an invaluable resource for researchers," says University Librarian Wendy Pradt Lougee. "By studying the firsthand experiences of these survivors, scholars of history, religion, anthropology and many other disciplines can gain the authentic perspective that only primary source material can provide." Scholars on campus have already made significant use of the archive in their research. For example, Amelia Corl, a Ph.D. student in sociology, is examining collective memories of repression experienced by German Jews in Nazi Germany. "The Shoah VHA has proven to be an incredibly accessible site for [my research]," Corl says. "We were able, for example, to enter search terms that allowed us to identify those survivors who experienced the rise of Nazism in Germany (as opposed to German occupied countries), to easily identify their birth dates and to draw a stratified sample. The Shoah VHA also has a simple and efficient process for requesting, downloading and watching individual testimonies from any computer on campus." To access the archive, users--from the University community or from the general public--must be physically present on the University of Minnesota-Twin Cities campus. With a computer connected to the University's Internet servers, a user can conduct a variety of searches using more than 50,000 geographic and experiential keywords, as well as the names of every person mentioned in the testimonies and biographical information for each interviewee. University faculty like Stephen Feinstein, director of the Center for Holocaust and Genocide Studies, say the archive will help promote the University of Minnesota as a leader in this field of inquiry. "The Holocaust is one of the most negative events in history," Feinstein says. "However, thanks to the USC Shoah Foundation Institute, survivors and liberators have had their stories recorded and documented in a clear fashion in many languages. The archive offers many new opportunities for research and learning, especially for fields like history, sociology, psychology and foreign languages. This is a unique opportunity for the University of Minnesota to move to the front of Holocaust and genocide studies." Users can access the local VHA site at for additional information about the archive.

This is madness

A young psychology professor stalks the roots of mental illness

By Deane Morrison



The U named assistant professor of psychology Angus MacDonald a McKnight Land-Grant Professor in 2006.

When the student got up to speak, Angus MacDonald should have been ready. But he wasn't.

As a young assistant professor of psychology, MacDonald knew about drug addiction. He had discussed with his class how the nice feeling that accompanies the early stages of addictive drug-taking soon becomes perverted into an awful craving. But when this student he knew talked about what it's like to go down that road, it affected MacDonald deeply.

"What took me aback was the proximity of it, that it can happen to anybody," says MacDonald. "He was an excellent student who thought deeply about issues, and he was a coke addict. But [his experience shows] that you can find your way back."

Something goes wrong in the human brain as it spirals into addiction, just as in schizophrenia and other forms of mental illness. MacDonald's multipronged efforts to find causes and treatments of such disorders led to his being named a McKnight Land-Grant Professor in 2006.

MacDonald is a hit with both undergraduate and graduate students. With his graduate students, he's made a humorous music video to the Dandy Warhols' indie hit "Scientist," and he plays drums in the clinical psychology program's rock cover band.

In his statistics class, he emphasized the introduction of an off-beat topic with an original rap song performed with his students. Each year, he takes students on a canoe trip to the St. Croix River and encourages them to think expansively.

"The challenge of turning data from humble neurons into a meaningful story about how to lead your life is one of the wonderful things about being at the University," says MacDonald.

For senior Danielle Huber and former undergraduate advisee James Porter, MacDonald stood out for his willingness to give students time.

"He gave me opportunities to talk about projects I was interested in rather than [just] assigning something," says Huber.

"Working on my senior thesis, we had weekly meetings," recalls Porter, who now manages MacDonald's laboratory. "I'd talk to undergraduates doing projects with other advisers and they'd say, 'I e-mailed my adviser a week ago and haven't heard back.'"

"His work runs from mental disorders to how the brain produces them and how genetics plays a role," says graduate student Melissa Johnson. "I'm consistently surprised by how much he knows about all these areas and how he can put them all together in a research program. Not many people can do that."

MacDonald doesn't confine his intellectual pursuits to science. He maintains a keen interest in Eastern philosophy and Buddhist meditation, two subjects he encountered in India during an undergraduate year abroad. In his search for the roots of mental illness, MacDonald asks one big question: Where does madness happen, and why?

He focuses his search in the prefrontal cerebral cortex, the outermost layer of the front third of the brain. This thin tissue allows people to perform many sophisticated tasks, such as consciously altering routines or generating new responses to fit new situations.

Using a scanner at the University's Center for Magnetic Resonance Research, MacDonald analyzes patterns of brain activity associated with certain tasks in healthy subjects, schizophrenia patients, and relatives of patients.

"We see abnormalities in schizophrenia patients, and there's a reliably higher proportion of relatives of patients who also show abnormalities," he says. Lately, MacDonald has begun studying the brain mechanisms involved in human joy and impulsivity, which include activity in the more primitive midbrain region. The midbrain may be involved with substance abuse, he says, or with the inability to get pleasure from being with other people, which is characteristic of people with schizophrenia.

One thing that interests him is what happens when people have to control an emotional response. In collaboration with colleagues, MacDonald will be studying this by scanning brain activity when subjects are shown emotionally loaded pictures--either happy or sad--and asked to either ignore or not ignore what they see.

Understanding emotional control or breakdown may one day lead to better ways of helping people through life's ups and, especially, downs. By studying functions of the cerebral cortex and the midbrain, plus connections between these two large areas, MacDonald is stretching his own mind and conveying this adventure to students.

He hopes they will find ways to apply the knowledge as they come into their own as citizens and scientists.

"The challenge of turning data from humble neurons into a meaningful story about how to lead your life is one of the wonderful things about being at the University," he says.

New hope for hearts

From *M,* spring 2007

University of Minnesota researchers have found a cell type in adult rat hearts that can make all types of cardiac cells. This offers hope that someday these cells could be used to repair heart muscle damaged by a heart attack or to grow new blood vessels for use in bypass surgery.

The researchers grew the cells from rat heart tissue in a dish. The cells were able to generate all types of cardiac cells, such as those found in the left and right ventricles and blood vessels. The cells even beat in a laboratory dish, as more mature heart muscle cells will do.

Then they injected the cells into rats with injured hearts and documented that the cells repaired the damaged tissue, said Doris Taylor, professor of physiology and director of the Center for Cardiovascular Repair.

"They appear at this time to be the ideal cell to use for cardiac repair," Taylor says. "They do everything embryonic cardiac cells do, and they don't create teratomas, or tumors."

The next steps will be to grow the cells from human heart tissue and to repeat the experiment in a larger animal, such as a pig.

Building bone marrow

From *M,* spring 2007

A team of researchers from the University of Minnesota and Stanford University has found that a type of adult stem cell can replace the bone marrow and regenerate the immune systems of mice. If the finding can be extended to humans, it could mean a new and more abundant supply of cells for bone marrow transplant patients.

Petri dishes incubating stem cells

Catherine Verfaillie, director of the University's Stem Cell Institute, who headed the latest work, first identified the cells, called MAPCs (multipotent adult progenitor cells), in 2001.

True to their name, they can give rise in the laboratory to many tissues, including blood, brain, liver, smooth muscle, and the endothelial cells that line the cavities of arteries and veins.

The Verfaillie team isolated MAPCs from bone marrow of mice, grew them in culture, and transplanted them into mice whose immune systems had been destroyed by radiation.

"The cells not only survived when transplanted, but they completely repopulated the blood system of the mice," Verfaillie says.

The researchers stress that much more work must be done with nonhuman animals and that studies must be replicated with human MAPCs before any new treatments can become available.

Five reasons to come back to campus in April

From *M*, spring 2007

Spring will soon be in the air and, whatever your tastes, the Twin Cities campus beckons with fun, entertaining, and enlightening possibilities. Pair your visit with good food and you have the makings for a great back-to-campus experience.

Dance program students perform in a recent production of Anna Sokolow's *Rooms* at the Southern Theater.

SPORTS

WHAT TO SEE:

Mid-April is the height of the **Gopher baseball and softball** seasons, so why not catch a game or two? On Saturday, April 14, the softball team plays Purdue at noon at Jane Sage Cowles Stadium on the north edge of campus, and the baseball teams square off against Iowa next door at Siebert Field in a doubleheader beginning at 1:05. The following day you could catch the softball team in a doubleheader beginning at noon, while the baseball team has a single game at 1:05.

WHERE TO EAT: For a hearty breakfast before the games, and killer pancakes, visit the old standby at 413 14th Ave. S.E.--**Al's Breakfast**--and if the crowd is too big for this one-counter classic, head across the street to the **Dinkytowner Cafe**.

FILM

WHAT TO SEE:

Each Thursday at 7 p.m., the Bell Museum's **Science on Screen** program presents intriguing films focusing on scientific research and related ideas, controversies, and personalities. Following each screening, audiences are invited to share viewpoints during informal post-film discussions with scientists and other experts. For more information, see the Bell Museum.

WHERE TO EAT:

These days Dinkytown is rich in good places to have dinner or a drink. Try the **Loring Pasta Bar** at 327 14th Ave. S. for first-rate cuisine in a disarming atmosphere. Just down 14th Ave. at number 421 is **Kaf? 421**, with a cozy wine bar, terrific food, and an owner who greets you like an old friend.

THEATER

WHAT TO SEE:

A twelve-member cast of University theater students brings **The Arabian Nights** to campus. This adaptation offers a wonderful blend of the lesser-known tales of Scheherazade as she spins them for 1,001 nights to prevent her husband, the cruel ruler Shayryar, from murdering her. The play opens on April 19 at 7:30 p.m. at the Rarig Center on the West Bank and continues until April 28. See the theater for information.

WHERE TO EAT:

It's all about ethnic dining on the West Bank. Two possibilities within walking distance of the Rarig are **Jewel of India** at 1427 Washington Ave. S. and the new **Chai's Thai Restaurant** at 414 1/2 Cedar Ave.

DANCE

WHAT TO SEE:

The **Student Dance Coalition's** annual show at the beautiful Barbara Barker Center for Dance features a colorful variety of original works that University of Minnesota dance students create, perform, curate, and produce. Performances run from April 5 (preview showing) through April 9. Visit the theater for more details.

WHERE TO EAT:

Before the 2:00 p.m. Saturday show, be sure to have lunch across the street at **St. Martin's Table**, 2001 Riverside Avenue. The food is exceptional, all the servers are volunteers, and tips are donated to charities.

MUSIC

WHAT TO SEE:

One of the best-kept secrets on the Twin Cities campus is the senior, Master's, and Doctoral **music recitals**. On Saturday and Sunday afternoons and evenings, the best and brightest music students show off their talents in the Lloyd Ultan Recital Hall in Ferguson Hall. Come see and hear these young musicians at the very beginning of their careers. All recitals are free and open to the public. Click for a complete schedule. WHERE TO EAT: Before or after a recital, stroll across the Washington Avenue Bridge to Stadium Village to enjoy two locally owned restaurants. The **Village Wok** at 610 Washington Ave. S.E. serves authentic Chinese food and specializes in fish and seafood. And a little ways down the street, at 802 Washington Ave. S.E., **Bona** offers fresh and delicious Vietnamese food in pleasant surroundings.

Directions to all University of Minnesota locations can be found at campus maps. For more events in the coming months, see events.

Strong associations

Generosity extends from current to future alumni

From *M*, spring 2007

As a high school senior, Chantel Ressie applied for college scholarships until the cows came home. Then she went out to milk them. Ressie, a freshman in the Carlson School of Management, credits the work ethic she developed on her family's dairy farm near Lewiston, Minnesota, with helping her land several scholarships.

One of the awards is a University of Minnesota Alumni Association Scholarship. Created for the alumni association's 100th anniversary in 2004, the award is matched by the President's Scholarship--which doubles its impact--and this year is helping seven students across the University.

"The scholarship has helped me greatly by relieving stress that comes with high tuition bills," says Ressie. "My first year at the U has been a really great experience as a result." She expects to focus her studies on human resources, with the hope of putting her degree to work outside the Twin Cities.

"I don't plan to stay in the big city. I'd like to be able to know more people in my community," she says.

Mob mentality

Fellowship helps student get creative with his stolen identity

By Steve Anderson

From *M*, spring 2007

An ATM machine in Varna, Bulgaria, at which Andrew Schroeder had money withdrawn from his account twice.

For five weeks last summer, Andrew Schroeder was a Bulgarian mobster. The second-year visual arts M.F.A. student traipsed around the Balkans, hanging out in seedy hotels, decrepit resorts, and smoky taverns--all in the name of research.

Schroeder was on the trail of thieves who had stolen his identity off the Internet. The crooks, probably part of organized crime, created a credit card and launched a spending spree through Macedonia and Bulgaria. Because of lagging technology, they were able to ring up more than 60 transactions over a two-week period before Schroeder's bank canceled the card.

"After I was done moping around, I realized it was actually an opportunity," recalls Schroeder, who decided to turn the experience into a documentary photo project. "Part of my interest was a sense of voyeurism, to see what I could learn about someone through something as trivial as a financial transaction."

Using credit card statements, he drew up an itinerary that included shops, hotels, restaurants, and ATM machines--places at which, according to bank records, he'd already been. A prestigious Judd Fellowship helped fund the project. Established in 2002 by a gift from the Walter H. Judd Fund of The Minneapolis Foundation, the program has already given more than 100 graduate and professional students the chance to study and conduct research abroad.

Since Schroeder's goal was total immersion, he checked his personal preferences at the border. In restaurants, he ordered dishes that matched the charges to his account, which led the vegetarian to choke down many a meat-based specialtiy, including one featuring pork neck in a boiling clay cauldron.

Another aim of the research was to explore the notion of identity in today's digital world. "I found that it's a really eerie, amazing thing when your paper trail and your conscious, physiological being smack into one another," says Schroeder, "especially at an over-60 resort on the Black Sea."

View images from Schroeder's project and read his diary entries.

Calling all alumni

U students pick up the phone for professional and personal rewards

By Steve Anderson

From *M*, spring 2007

This year's team of student callers will have 130,000 conversations with alumni, resulting in lots of great advice and several pledges of support to the U.

When U of M students ask alumni for gifts over the phone, it's not just dollars that the grads contribute. A recipe for rhubarb pie, the secrets of a good relationship (FYI: communication and trust), and the merits of name-brand macaroni and cheese are all things alumni have shared.

True, you can't take advice and recipes to the bank. But encouraging alumni to say what's on their mind is still a critical aim of the U's effort to re-engage graduates. "We've always tried to create great conversations for our alumni," says director of telemarketing Peter Rozga. "Usually, that means informing them about what's happening on campus."

Who better to relay campus chatter than current students? Around 100 student callers work on the telemarketing fund-raising staff. Each day, some 40 callers dial a segment of the U's 400,000-plus alumni to give them news from their department, their college, and the University as a whole. The 130,000 conversations callers have each year with alumni and friends typically last five to seven minutes and hopefully end with a pledge. In the past, pledges have been anywhere from $5 to $25,000.

Gifts of the gab

So far this year, pledges are outpacing projections. The current crop of callers reached the $1.5 million milestone six weeks before the same mark was hit last year. The majority of contributions are to an area of the University alumni feel strongly about; many are directed toward scholarships that help students study abroad, conduct research, or pursue interests in the arts, to name a few.

While no one's tallying the nonmonetary gifts student callers receive, each has stories that reflect the value of their conversations. Ashley Penney, a senior English and elementary education major, keeps a notebook of all the great advice she gets from alumni in the education field.

Back talk

Alumni recall conversations with student callers:

"Rachel was friendly, courteous, interested, enthusiastic--one of those callers who left me feeling good just for having talked to her."

"I probably would not have increased my giving this year if I hadn't been so impressed with the student caller."

"Nick was AWESOME on the phone; he really made me miss the U and remember how much I love it."

Superintendents, teachers, and cafeteria workers have all offered Penney tips on how to research a school district to make sure it fits with her teaching philosophy, how to tell which districts are good places to look for jobs, and how to prepare for an interview.

"Someday, I'll be able to thank alums for helping me get a job," she says.

Senior architecture major Josh Larson started as a student caller his freshman year and is now a student supervisor. "This job makes you feel really good because you get to make connections with people," he explains. "You feel good about making money for the U, making money for other students in need."

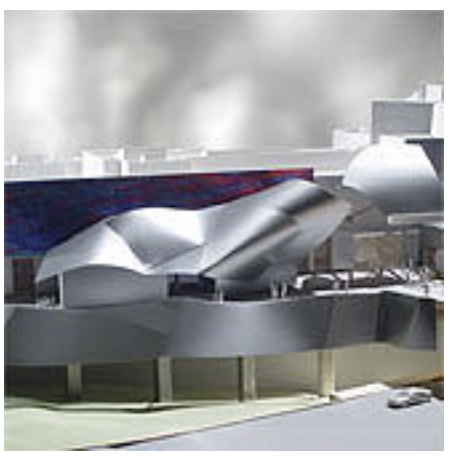
Those sentiments stick with Larson even after he hangs up the phone. He often takes his message of giving into the campus community. "Talking with people in class about what I do makes them think that they should consider giving back to the U," he says. "It makes them appreciate their U education even more."

Expansion in the wings

By Jodi Auvin

March 13, 2007

As if its perch overlooking the Mississippi wasn't lofty enough, the Weisman Art Museum enjoys another, even more elevated position in the art world: Its building is as much an objet d'art as the art it houses. The offbeat and imaginative stainless steel structure opened to international acclaim in 1993 and continues to astonish. In fact, a public-opinion poll in an online edition of the Wall Street Journal in February listed the Weisman as one of the 150 most popular buildings in America.



The 11,000-square-foot Frank Gehry-designed expansion will add three new wings to the U's Weisman Art Museum.

"Our building sets the tone for what we do," said Lyndel King, longtime director of the Weisman. "It conveys a sense of informality and eccentricity, and we think about that when we plan our programs." Frank Gehry, the renowned architect who designed the facility, is about to give King and her staff even more to ponder. At a celebration/news conference on March 13, the museum announced plans for an 11,000-square-foot Gehry-designed expansion, which will add three new wings to the iconic building.

A model and drawings of Gehry's vision for the new spaces were on display at the gathering, and President Bob Bruininks gave the opening remarks. "A thriving artistic community is key to the University's relevance and its reputation for excellence," said Bruininks. "Attaining our goal of becoming one of the top public research universities in the world requires not only achievements in medicine, technology and engineering, but also, equally, the creative works of our scholars, artists, dancers, actors and musicians...."

"A thriving artistic community is key to the University's relevance and its reputation for excellence," said Bruininks.

A total of $4 million is left to be raised in the capital campaign for the expansion, but that effort will be helped along, Bruininks announced today, by a $2 million fund provided by the University to match cash gifts.

Best in show The three wings will serve three distinct purposes. One wing, funded by $2 million from Target, is dedicated to creative collaboration. "Individual genius is important but collaboration is the wave of the future," said King. "The Target Studio for Creative Collaboration will bring together the best and brightest of artists and faculty, including experts from disciplines not traditionally associated with the arts, such as science and engineering. The hope is to create new ideas and make the process obvious to visitors. We don't know what the outcomes will be, but that's the point."

Another wing will house the Weisman's extensive permanent collection of American modernist paintings and Asian, European, American and Native American ceramics. The museum owns more than 20,000 pieces but can display only 100 at a time. A comparison of 15 benchmark university museums shows that the Weisman is first in attendance, fifth in collection size and last in gallery space. This new wing will allow some works to be on continuous display, giving students the chance to develop deep relationships with works of art that only comes, said King, "from seeing the same work of art over and over."

The wing will also house a new, groundbreaking collection of photography. "The idea is to collect images made in our century for scientific purposes that are worthy of being in a museum," said King. "We're still establishing criteria for this but the new space will give us a venue." The third wing will house a small caf? with dramatic river views and, possibly, interactive art at every table.

Gehry, now in his 70s, has completed a preliminary design. He is using new computer generated technology unavailable when he drew up the original Weisman plans. This allows him to create more flowing, organic curves which will complement the more geometric forms of the present building.

"The original facility and the expansion will look like they're designed by the same person yet it won't be seamless," stated King. "The expansion reflects Gehry's latest thinking and use of technology. But the design absolutely enforces the museum's mission: Art is in the middle of our lives. You don't have to like it, but you can't ignore it. So pay attention."

Growth funds

* $11.5 million capital campaign will make the Weisman Art Museum an even more important part of Transforming the U-the name the University has given its process of bringing the U into the top tier of research universities.

* $10 million of those funds will pay for the construction of three new wings-a total of 11,000 square feet of additional public space.

* The remaining $1.5 million will be used to enhance artistic and educational programs.

* Expansion is slated to open in 2009, the 75th anniversary of the founding of the "Little Gallery," the predecessor of the Weisman created in 1934 by then-University president Lotus Coffman and housed in a single room on the top floor of Northrop Auditorium.

Jodi Auvin is a writer based in Minneapolis

Cook your way around the world

From *M,* spring 2007

Get your taste buds fired up for the 2007 Heartland Cooking Series and treat yourself to the comforting flavors of the upper Midwest and of foods from across the globe.

Chefs Jenny Breen, Beth Dooley, Amalia Damgaard, and Raghavan Iyer toss a dash of cultural insight into their pot of cooking know-how at the University of Minnesota Landscape Arboretum. Each second and fourth Thursday evening of the month, the demonstration-style classes will offer wine tasting and exceptional recipes.

Dabble in the delectable tastes and cooking techniques of such dishes as spicy Spring Cod Caramba, Classic Winter Squash Soup With Coconut Milk and Hearty Greens, Dulce de Papaya Parfaits, and Roasted Beet and Arugula Salad.

The laid-back setting provides an opportunity for both relaxation and discovery.

To learn more, visit the Arboretum website and click the "Cooking Series" link from the "What's New" page.

For more information, call 952-443-1422.

Letters to the editor, spring 2007

From *M,* spring 2007

Thank you for the winter 2007 issue of M. I was especially interested in this issue, which I can share with my children--one college aged. He will get a taste of the U from many of the articles. The Bob Dylan article he will find very interesting as well!

I enjoyed the articles on teenage diet pills (I have a teenage daughter) and "The Beauty of Service." I'd like her to read these! "Healthy Young Hearts" is an issue I face with my 10-year-old son. I only wish the magazine was available online or I had several more copies!

Congratulations on a quality publication, which is always read! *--Renee Hoch (Shraier)*
Tucson

I would like to obtain 20 copies of the winter 2007 M for my aerobics/weight training class at Andover High School. It has several articles in it that I think my junior and senior students would benefit from reading.

"The Tyranny of Thin," "Healthy Young Hearts," "Sending Out an S.O.S.," and "The Art of Discovery" are four that pertain to my PE class, but the rest of the publication would be great for these students in their search for a college to attend in the future.

Thank you in advance,

--Lee Garbe
Andover, Minnesota Editor's note: We are always happy to send out additional copies of M. Please e-mail us at coven002@umn.edu to make a request. M is also available online.

Seeking an edge in the biomedical sciences

U hopes to secure long-term funding for cutting edge research

By Rick Moore

From *M,* spring 2007; updated April 5, 2007

After 22 years at Kansas, Gunda Georg is looking forward to collaborations with other scientists at the U. "All my research has been interdisciplinary--bringing in teams of people who complement each other with their skills," she says. "That's what I hope to do here."

There's no shortage of activity in the shiny new labs with the bright blue floors at 717 Delaware Street. Here, Gunda Georg's cadre of 27 research associates are settling in and developing novel ways to treat people with brain cancer and Alzheimer's disease.

One of their projects will be working with the drug Taxol, which has been used to effectively treat ovarian and breast cancer. Georg is hoping to use the drug in the brain, but the problem is that Taxol, as she describes, is a "big, greasy molecule" that cannot get into the brain; a natural "pump" there--a human defense mechanism--sends it back out. Her team is attempting to modify the Taxol molecule in such a way that it can make it across the so-called blood-brain barrier.

By all accounts, Georg is a world-renowned researcher; in fact, the National Institutes of Health (NIH) has identified her as among the top 5 percent of researchers receiving NIH funding over the last quarter century. For the past 22 years she has built her fame at the University of Kansas, but the University of Minnesota recently lured her here, where she holds the Robert Vince Endowed Chair and McKnight Presidential Chair in Medicinal Chemistry.

Biennial budget request at a glance

The University of Minnesota has an ambitious and tangible plan to increase its competitiveness among the world's top research universities.

Now U officials are turning to the Minnesota State Legislature for the funding support necessary to both sustain the U's current quality and competitiveness and invest in the plan to transform the University.

The U's biennial budget request (for fiscal years 2008 and 2009) calls for $182.3 million in new state funds. State funding accounts for approximately 25 percent of the University's total budget and represents an important source of funding for the U's education, research, and outreach missions.

One part of the budget request focuses on enhancing the University's core mission and competitive position. The primary component of this is general compensation for faculty and staff. Other areas include investments in advancing education--through efforts such as an undergraduate writing initiative and expanded academic advising and undergraduate research opportunities--as well as in technology and research infrastructure and facilities, operations, and maintenance.

A second part of the budget request focuses on investments that will help to "create Minnesota's future." Included are new investments in the health workforce and clinical sciences; science and engineering programs; and the environment, agricultural systems, and renewable energy. In addition, this funding would help to ensure that the U can recruit and retain world-class faculty and staff.

That only happened because the U was able to promise Georg state-of-the-art labs on campus to support her work.

"Only once it was made clear there would be space to move into, could I even consider coming here," says Georg. "It's a challenge for [any university] to have that kind of space available."

The circumstances around Georg's hire are the perfect illustration of a perpetual dilemma facing the U. To remain competitive, let alone to gain ground on its top-ranked peers, the University needs to be able to expand its ability to hire world-class faculty, and a precondition for bringing in the best talent is having technologically sophisticated space lined up for them. And this requires the ability to look further out on the horizon when planning for new buildings.

A new idea for long-term funding

That's why the University is turning to the Minnesota State Legislature to fund the Biomedical Sciences Research Facilities Authority, which would authorize the issuance of $310 million in bonds ($279 million in state general obligation debt and $31 million in University-issued bonds) and enable the University to construct four new research buildings--plus finish the renovation at 717 Delaware--over the next eight years.

The buildings would be hubs for interdisciplinary research like Georg's. Each would allow the U to house 40 new faculty researchers and 120 research assistants, and it's expected that each building would attract $20 million in new research dollars annually.

The proposal for the Biomedical Sciences Research Facilities Authority originally went to the legislature last year, where it passed in the Senate but not in the House. So far this year, the legislation has passed in the Senate again, but it was not included in the House of Representatives' capital investment bill. The two bodies will resolve their differences in a conference committee later this month.

"I believe this Biomedical Sciences Research Facilities Authority is indispensable to our future," President Bob Bruininks told the House Biosciences and Emerging Technology Committee at a hearing in late January.

According to Bruininks, some 20-25 states already have major long-term investments in the biosciences, including California, Michigan, Wisconsin, and Washington. Lack of funding might be understandable if Minnesota were lagging behind other states in biomedical sciences accomplishments and acumen, but this is the state that spawned Medtronic, Guidant, and St. Jude Medical, and that currently has more than 500 biomedical and related businesses employing some 250,000 people. "Minnesota is not some backwater state in this area," Bruininks says. The investment must be made in the bioscience research that feeds the biotechnology industry, adds Frank Cerra, the U's senior vice president for health sciences. "The only institution that can do that for health, industry, and agriculture is the University," he says. "It is a unique capability and needs to be invested in now."

In an age of heightened competitiveness among the country's top research universities, the best-equipped campuses get the best new research superstars. "If they have the choice between three different places and one has superb space, they will go there--all things being equal," says Georg.

And the health of Minnesota's economy may be on the line, as Cerra suggested to the House committee in January: "Do [we] want to be a fly-over state when it comes to biosciences, and give away the richness that we have today to the east and west coasts? That is what's at stake."

To learn more about the U's biennial budget request or capital request, including the Biomedical Sciences Research Facilities Authority, visit the Office of Government and Community Relations Web site.

On April 1, the Star Tribune *published a commentary written by former Vice President Walter Mondale and former Minnesota governor Arne Carlson supporting the Minnesota Biomedical Sciences Research Facilities Authority. Click here to read the article.*

My alma matter

M, spring 2007

By Shelley Miller, '02


Shelley Miller

One could say that I followed my big brother to the U. Jeff was configuring his final class schedule for his aerospace engineering degree as I was signing up for my first classes. And while I attended my first varsity swim practice, he was at the other end of the pool with the men's team. So yes, my brother's positive experience had an impact on my decision to leave Wisconsin to become a Gopher.

Although I followed Jeff, from my first day on campus I felt like my college experience was my own. The U offered the opportunity to learn about a seemingly infinite number of topics. Classes for my German minor balanced my business studies in the Carlson School, and the electives I took gave me a better perspective on the world.

The U taught me business and leadership skills that prepared me to be as competitive and knowledgeable as graduates of any other university. That is why I give back.

Shelley Miller, '02 B.S.B., is an associate at Magnetar Capital in New York City and a donor who supported the recent construction of a new boathouse for the U's rowing team.

A partnership that hits the bullseye

$5 million gift from Target supports three capital projects

From *M,* spring 2007

A commitment from faculty, staff, students, and alumni isn't all it will take to transform the University of Minnesota into a top three public research institution. Support from the greater community will also be vital. And perhaps no name is as synonymous with community support as Target, which gives back more than $3 million a week to the communities it serves.

Target's support of Hanson Hall will help the Carlson School of Management increase enrollment by 50 percent.

Now Target has joined with the U to zero in on three strategic projects on the Twin Cities campus: the Weisman Art Museum expansion ($2 million), TCF Bank Stadium ($2 million), and Herbert M. Hanson Hall at the Carlson School ($1 million). The projects run parallel to Target's primary areas of giving, including education, the arts, and families and communities.

"We're grateful to Target for their generous support of the University," says president Robert Bruininks. "Target's gift will support three important capital projects that build on our academic mission, improve the student experience, and add to the entire state's quality of life."

The gift to the Weisman will be used to build a new wing, allowing the museum to expand exhibit and programming space. Weisman architect Frank Gehry will design the space, which will include a new studio for showcasing the process and results of creative collaborations among artists and other practitioners. It will be called the Target Studio for Creative Collaboration.

Target and the University agree that when TCF Bank Stadium opens in 2009 it will be a marquee gathering place and a venue for building a strong sense of community.

According to Bruininks, "TCF Bank Stadium will be an exciting new center of campus life, where students, alumni, and friends will gather for many years to come."

Target's support of Hanson Hall will help the Carlson School increase enrollment by 50 percent. The expansion will help meet the increasing demands in applications (in 2006, only 12 percent of applicants were admitted), as well as the number of employers looking for new graduates. It will also bring the size of the Carlson School undergraduate program up to par with most peer schools in the Big Ten.

"Target believes partnerships with leading cultural and educational institutions help strengthen local communities," says Laysha Ward, vice president of community relations for Target. "This partnership will help all of us gain a stronger appreciation and understanding of diverse cultures, traditions, and points of view, which collectively create a more vibrant community."

Statistically speaking, they are ahead of the curve

Student raves lead to national award for U statistics teachers

By Deane Morrison

March 13, 2007

Thanks to the work of educational psychology professor Joan Garfield and other teachers, statistics courses have become student-friendly and fun as well as instructive.

As the class begins, the students debate what "Let's Make a Deal" contestants should do if they've just chosen door number three and host Monty Hall shows them that a booby prize was behind door number two. Do the odds favor a switch to door number one or staying with number three? They could ask Joan Garfield, their statistics professor, but she won't tell. Instead, she has the students play the game in class until the numbers make the answer clear. By having students learn statistics by doing it, Garfield, a professor of educational psychology in the College of Education and Human Development, and her colleagues have earned rave reviews from students and a national award for teaching innovation from the American Psychological Association. Presented to the department in February, the Innovative Practices in Graduate Education in Psychology Award was in large part due to Garfield, who was instrumental in reshaping her department's statistics teaching philosophy and style nearly a decade ago. Besides the award, Garfield is also a principal investigator on two grants from the National Science Foundation, one to assess students' statistical reasoning and another to develop class activities and lesson plans. "I think of myself as a revolutionary, trying to overthrow traditional ways of teaching statistics," she says. "I've been given a lot of freedom to do that in educational psychology." Garfield developed a new way to teach the subject and trains graduate students to use similar methods when they teach. "Joan is one of the people who have done the most to bring people together" to revolutionize statistics teaching, says Garfield's colleague Robert delMas, an associate professor of educational psychology. "She's a catalyst." The key to her success lies in never presenting statistics as a frightening or bewildering package of formulas. Instead, students collect their own data and analyze it to learn concepts first hand, making abundant use of computer tools to solve problems. Also, students get together in small groups to discuss their conjectures and test them with real or simulated data.

"Statistics is a fascinating subject," says Garfield. "It's been compared to detective work, investigating data to see what you can learn about the world."

Since 1998 students have reported greater satisfaction with statistics courses in the department, and enrollments have been up. All seven doctoral students who have completed their Ph.D.'s and taken part in the department's statistics training program have found academic positions, and several were told that their unique statistics teaching was a factor in hiring them. Two Ph.D. graduates of the program, Michelle Everson and Andrew Zieffler, are now colleagues of Garfield who have adopted and expanded her methods. In particular, Everson, now in her fifth year in the position, has emerged as a highly respected teacher in the same mold as Garfield. **Calming math phobia** Whenever Garfield or any of her colleagues remarks to a stranger on a plane or in an elevator that they teach statistics, the normal response is a groan. "I think people fear statistics because they connect it with math," says Garfield. "But you can do very well in statistics and not be good at math." To remove the math phobia, Garfield shows students that they can succeed in statistics by thinking critically, without spending time manually crunching numbers. Take the "Let's Make a Deal" dilemma. On the basis of chance alone, a contestant has a two-thirds chance of winning by switching doors after the contents of one has been revealed. Garfield explains that originally, each door has a one-third chance of hiding a new car. However, the revelation of one door as a dud changes the odds. That is, if the contestant has chosen number three and number two is shown to be a dud, number one's chances of hiding the prize rise to two-thirds. Everson, too, has helped students overcome their fears. One "math hater" student wrote of her: "Statistics is no longer the bitter enemy I avoided facing for so many years ... Michelle Everson is responsible for making this class worthwhile." **It's the real thing** To give students experience handling real data, Garfield has them measure body dimensions such as head circumference for everybody in the class. The students see that the variability in head sizes primarily reflects the diversity of the students' heads. But while the students all get measured once, the instructor's head is measured by every student in the class. The variability in measurements of the teacher's head size reveals another source of variability, the "error of measurement." When they put their tape measures away, the students have gained a grasp of two key aspects of variability, the most fundamental concept in statistics. In his classes, delMas has students work with the example of an actual company that laid off a number of workers, all over 55. What, he asks, are the chances that age played no part in the decision of whom to lay off? The answer has a strong bearing in the workers' age discrimination suit against the company. "We try to show our students that statistics is a way of thinking about information--for example, in ads or in making decisions about weather forecasts and how they know the chance of rain," says delMas. "Or in evaluating data in order to buy a car. They should ask questions about how the data was collected. Why does one poll say [one thing], and another poll says the exact opposite? We hope students will become critical consumers." The study of statistics also helps students overcome common misconceptions, such as the idea that correlation means causation. For example, says Garfield, a study of neighborhoods showed a correlation between income and the amount of recycling in a neighborhood. But that doesn't mean having more money makes people recycle more. "Statistics is a fascinating subject," says Garfield. "It's been compared to detective work, investigating data to see what you can learn about the world."

Data reveals great statistics teachers abound

Joan Garfield has received three teaching awards: Horace T. Morse Award for Excellence in Undergraduate Teaching (1995), the College of Education and Human Development's Distinguished Teaching Award (2002), and the Postbaccalaureate, Graduate and Professional Teaching Award (2006). Other University statistics teachers have also been recognized. Among them are Deborah Levison of the Humphrey Institute, who received an Award for Outstanding Contributions to Postbaccalaureate, Graduate, and Professional Education in 2006, and Jon E. Anderson of the University of Minnesota, Morris, who received a Morse-Alumni Award for Contributions to Undergraduate Education in 2003.

Recalling the medicinal plant garden at the U

From *M*, spring 2007

In 1892, the University of Minnesota hired an energetic and opinionated 25-year-old named Frederick John Wulling to be the founding dean of the brand new College of Pharmacy. The U's Medical School balked at the college's inclusion as a place of real scientific endeavor.

U.S. sailors helped harvest the digitalis that College of Pharmacy students and faculty grew, extracted, and standardized to meet the pharmaceutical needs of the country during World War I. (Plant house is at rear right.)

But Wulling knew the value of his profession and had two stipulations for accepting the deanship--the promise of a four-year course of study for the pharmacy degree (finally implemented in 1927) and a medicinal plant garden. Seventy percent of the drugs at the time came from plants, but those plants were delivered to pharmacists bound in bundles, as powders, or tinctures. Wulling was asking his students to get their hands dirty by planting and harvesting the plants themselves and thus know them and their properties more intimately.

Unable to get an agreement for an on-campus garden for his students, Wulling went ahead and planted one in his own backyard at 3305 2nd Ave. S. in Minneapolis. After two years of maintaining and funding it himself, he gave the regents an ultimatum--give him more money for lab equipment and a proper medicinal plant garden or he was leaving. The regents met his request. Wulling toured medicinal plant gardens in Europe and came back to establish, in 1911, what would be one of the nation's best.

Where you can now watch modern dance, listen to jazz, or catch the latest music sensation, stood Dean Wulling's garden. Northrop Auditorium on the Twin Cities campus occupies the spot where 15,000-25,000 plants of 492 species flourished as a living laboratory for pharmacy students.

Nearby, the College of Pharmacy built a lovely ornamental, yet sophisticated plant house with drying ovens, a drug milling system, an aquarium for aquatic plants, and its own heated tunnel connecting the plant house to the pharmacy building.

Modern-day research

Wulling's respect for and curiosity about plants and their potential continues in the work of many University researchers. Among them are Zigang Dong, director of the U's Hormel Institute, and Joel Slaton, assistant professor of urologic surgery.

Dong is using a five-year $1.5 million grant from the National Cancer Institute to study the effectiveness of tea in preventing cancer. Evidence from epidemiological and experimental studies, including data from Dong's group, indicates that compounds derived from tea have a strong inhibitory effect on cancer development with few side effects.

In 2004, the National Institute of Health (NIH) gave the Center for Spirituality and Healing a $2.3 million grant to study whether taking Turkey Tail mushroom (*Trametes versicolor*) extract can boost and maintain the body's immune response following radiation therapy to treat breast cancer. Slaton and fellow researchers will measure if the tumors shrink and if the women experience less fatigue and a better quality of life after taking the extract. While the clinical trial involves breast cancer, the results may have implications for prostate cancer patients as well.

For more on University research into the medicinal qualities of certain plants, see Blending tradition and science.

In concert: Osmo V?nsk? and U Symphony Orchestra

March 14, 2007

What's better than watching the Minnesota Orchestra? Playing with them. That's the answer you'll likely get if you asked the 80-plus members of the University Symphony Orchestra. The ensemble will perform with the Minnesota Orchestra and its conductor Osmo V?nsk? at 7:30 p.m. Thursday, March 22, in Orchestra Hall on Nicollet Mall.

Minnesota Orchestra Music Director Osmo V?nsk? rehearsing with University student musicians.

"Working with Maestro V?nsk? and the Minnesota Orchestra musicians is the highlight of our spring semester," says Erik Rohde, a University of Minnesota senior majoring in violin performance and biomedical engineering.

Finnish conductor V?nsk? is an A-list conductor for top orchestras in America and Europe, recognized for compelling interpretations of the standard, contemporary and Nordic repertoires, as well as his close rapport with the musicians he leads. V?nsk? became the Minnesota Orchestra's 10th music director in September 2003.

V?nsk? will lead the full University ensemble in four weekday rehearsals to prepare for their debut concert collaboration. The student musicians will also work with Minnesota Orchestra musicians in sectional rehearsals.

"We can't wait to see and hear the immediate effects of our rehearsals with them," says Rohde.

The University Symphony Orchestra is an ensemble of 80 to 90 students, primarily music majors. Admission is by audition only. The orchestra performs four to six concerts each year, in addition to working with the University Opera Theatre and performing in the annual University of Minnesota Bach Festival.

The orchestra's upcoming concert, which will see six Minnesota Orchestra principal players performing next to their student counterparts, includes Brahms' Second Symphony and pieces by renowned living Finnish composer Einojuhani Rautavaara and Icelandic composer Jon Leifs, hailed as the most important and original composer of Icelandic music in the 20th century. The six Minnesota Orchestra musicians are Jorja Fleezanis (concertmistress), Thomas Turner (principal viola), Janet Horvath (associate principal cello), Peter Lloyd (principal bass), John Snow (associate principal oboe), Douglas Carlsen (associate principal trumpet) and Jason Arkis (associate principal percussion).

"It is a very important part of the orchestra's mission to work with student players," says V?nsk?, who has led the University Symphony Orchestra in rehearsals in the past, but never before in a concert. "I am very happy that we have expanded our collaboration this year to include a concert performance. I very much look forward to working with these students. They have a great capacity for hard work, and they play very well."

The University of Minnesota School of Music and the Minnesota Orchestra share a long tradition of collaboration, including many years during which the Orchestra performed on the Twin Cities campus at Northrop Auditorium. More recently, the School of Music and the orchestra have shared a commitment to create experiences--from side-by-side rehearsals and performances to master classes and sectional rehearsals--that connect students with Minnesota Orchestra musicians and Orchestra Hall. The upcoming concert and activities surrounding it were made possible by the George T. and Elizabeth H. Pennock Endowment gift.

Tickets for the "V?nsk? Conducts the University of Minnesota Orchestra" concert are $2.50 (free for students with a valid student ID); call 612-371-5656 or visit Minnesota Orchestra. Orchestra Hall is located at 1111 Nicollet Ave. in downtown Minneapolis.

Orchestra history in U Archives

The Minnesota Orchestra, known as the Minneapolis Symphony Orchestra from 1903 to 1968, began depositing its records at the University of Minnesota in 1977. The collection, which continue to grow each year, contains scrapbooks that detail the first fifty years of Orchestra history; thousands of photographs of conductors, guest artists, staff and board members; financial records; programs; and recordings in a variety of formats. For more information about the collection, visit U Libraries.

A riveting tale of the Titanic

In an upcoming book, University alum Timothy Foecke suggests that faulty rivets played a role in the sinking

By Deane Morrison

From *M*, spring 2007; updated Dec. 27, 2007

Author and University alum Timothy Foecke suggests that faulty rivets were key to the Titanic disaster.

April 15, 1912: It was a night plagued by human error, a disorderly rush to the lifeboats, and one nasty scrape with an iceberg. In the end, the Titanic took just two hours and 40 minutes to sink, snuffing out some 1,500 lives. Some have theorized that the ship's steel hull became brittle from cold and staved in on impact. But work by University of Minnesota alumnus Timothy Foecke suggested it was the rivets that were brittle and, perhaps, the key to the disaster. Foecke, a staff materials scientist at the National Institute of Standards and Technology in Gaithersburg, Md., tells the tale of the rivets in an upcoming book, *What Really Sank the Titanic: New Forensic Discoveries,* with coauthor Jennifer Hooper McCarty of the Oregon Health and Science University. They conclude that the impact probably snapped rivets like buttons popping off a shirt, opening the seams between the steel plates of the bow. While not a "Titanic buff," Foecke says he was drawn to study the rivets' behavior because "it's an interesting historical mystery that can be addressed with scientific methods." Examining 28 rivets from the bow area, the authors found they had been made from substandard wrought iron. This usually tough material needs a little slag (a glassy byproduct) to fortify it, but too much makes it fragile. There is evidence that "the people who made [the wrought iron] were not the best guys," says Foecke, who holds a B.S. and Ph.D. in materials science and engineering from the University. The iron wasn't worked long enough, nor was it hot enough. But, he adds, the shipmaker, Harland & Wolf of Belfast, Northern Ireland, could not have known that what they were buying wasn't rivet quality.

When they came from the factory, the rivets consisted of a cylindrical shaft and a mushroom-shaped "head." At the shipyard, workers heated the rivets and inserted them through pre-cut holes in the hull plates. They then pounded the tail ends of the rivets to widen them and anchor the rivets in place. As the rivets cooled they contracted, pulling the plates even tighter together. In the case of the Titanic rivets, the substandard construction acted like a silent time bomb because there was no way to detect the weaknesses once the rivets had been put in place.

More on the Titanic

The Titanic book is due for publication by Kensington Publishers Feb. 26, 2008. If you'd like further information about it or to order a copy, visit Tim Foecke's Web site.

"There was a whole string of human errors. But if the rivets had been of better quality, those previous mistakes wouldn't perhaps have resulted in such a huge disaster."

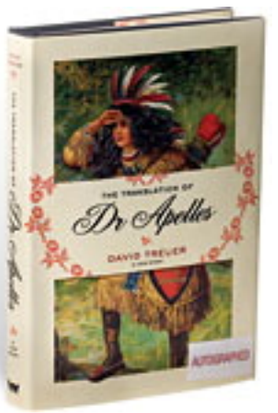
"There was no quality control," Foecke says. The only test was to tap the cooled rivets with a hammer and listen to see if they "rang true." If so, they were judged OK. But if a rivet rattled instead of ringing, that meant it was loose. Rivets were generally good at holding hulls together under shear forces, which tug perpendicularly to the rivet shaft. But they were weaker when pulled along the shaft. And that's what happened to the Titanic. A combination of too much slag, insufficient mixing of iron and slag, and misoriented slag fibers had left the rivets prone to snapping under pressure. When the ship's starboard bow struck the iceberg, the ice pushed against the hull plates. As the plates moved inward, they pulled the rivets along their axis. The popping rivets opened up a seam that allowed a small but fatal flow of water into the bow. Apart from rivets, that night was brimming with decisions and happenstance that, had things gone the other way, might have prevented or mitigated the catastrophe. "They were moving at close to full speed, about 22 knots [about 25 mph]," says Foecke. "There were relatively few actions taken by the shipmasters to avoid problems. There was confusion about where the ice was. There was a whole string of human errors. "But if the rivets had been of better quality, those previous mistakes wouldn't perhaps have resulted in such a huge disaster. The hull damage would have been smaller, and she would have sunk more slowly or even reached port in Halifax." With the rescue ship Carpathia only two hours away, a mere delay in sinking could have saved many lives. "Then," Foecke says, "the word 'Titanic' in English would have meant 'really, really big' instead of 'really big avoidable disaster.'"

Book reviews spring 2007

By Gayla Marty

From *M*, spring 2007

The Translation of Dr Apelles



By David Treuer

One terrible winter, two Native-American bands perish. A young girl and boy, unknown to each other, are the sole survivors, and both are rescued by animals. Many years later, solitary Dr. Apelles finds their story and begins to translate it. At the same time, Dr. Apelles is discovering that he has never been in love. "Translation" into humanness--through words or love--makes us fully alive...but will Dr. Apelles succeed at either one? Treuer teaches literature and creative writing on the Twin Cities campus and is the author of *Native American Fiction: A User's Manual*. *Graywolf Press, 2006; ISBN 978-1-55597-451-0; $23.00 hc*

The Physics of Superheroes

By James Kakalios

Discover what first-year students--and readers across the nation--have learned from the professor who uses his love of comic book superheros to teach us about the marvelous world of physics. Now in paperback. Kakalios teaches physics on the Twin Cities campus. *Gotham Books, 2006; ISBN 1-592-40242-9; $15.00 pb*

Maximizing Study Abroad

By R. Michael Paige, Andrew D. Cohen, Barbara Kappler, Julie C. Chi, and James Lassegard

Do you learn better by reading, hearing, or doing? And do you do those things better with others, or by yourself? Take the survey at the beginning of this guide to identify your own learning style...then pick the strategies that are best suited to help you learn to speak a language and live in another culture--before you go, while you're there, and after you get home. This guide was written for college students but is invaluable for any adult who wants to get the most from even a short experience abroad. The U authors are international leaders in their fields. *U of M Center for Advanced Research on Language Acquisition, second edition, 2006; ISBN 0-9722545-5-2; $12.00 pb*

MORE INFO:

Contact the University of Minnesota Bookstores, located in Coffman Memorial Union and the St. Paul Student Center, at 612-626-0559 or generalbooks@umn.edu. Look for faculty authors at www.bookstores.umn.edu/genref.

Medicinal herb garden

In 1892, the University of Minnesota hired an energetic and opinionated 25-year-old named Frederick John Wulling to be the founding dean of the brand new College of Pharmacy. The U's Medical School balked at the college's inclusion as a place of real scientific endeavor.

But Wulling knew the value of his profession and had two stipulations for accepting the deanship--the promise of a four-year course of study for the pharmacy degree (finally implemented in 1927) and a medicinal plant garden. Seventy percent of the drugs at the time came from plants, but those plants were delivered to pharmacists bound in bundles, as powders, or tinctures. Wulling was asking his students to get their hands dirty by planting and harvesting the plants themselves and thus know them and their properties more intimately.

Unable to get an agreement for an on-campus garden for his students, Wulling went ahead and planted one in his own backyard at 3305 2nd Ave. S. After two years of maintaining and funding it himself, he gave the regents an ultimatum--give him more money for lab equipment and a proper medicinal plant garden or he was leaving. The regents met his request. Wulling toured medicinal plant gardens in Europe and came back to establish, in 1911, what would be one of the nation's best.

Where you can now watch modern dance, listen to jazz, or catch the latest music sensation, stood Dean Wulling's garden. Northrop Auditorium on the Twin Cities campus occupies the spot where 15,000-25,000 plants of 492 species flourished as a living laboratory for pharmacy students.

Nearby, the College of Pharmacy built a lovely ornamental, yet sophisticated plant house with drying ovens, a drug milling system, an aquarium for aquatic plants, and its own heated tunnel connecting the plant house to the pharmacy building.

Wulling's respect for and curiosity about plants and their potential continues in the work of many University researchers. Among them are Zigang Dong, director of the U's Hormel Institute, and Joel Slaton, assistant professor of urologic surgery.

Dong is using a five-year $1.5 million grant from the National Cancer Institute to study the effectiveness of tea in preventing cancer. Evidence from epidemiological and experimental studies, including data from Dong's group, indicates that compounds derived from tea have a strong inhibitory effect on cancer development with few side effects.

In 2004, the National Institute of Health (NIH) gave the Center for Spirituality and Healing a $2.3 million grant to study whether taking Turkey Tail mushroom (Trametes versicolor) extract can boost and maintain the body's immune response following radiation therapy to treat breast cancer. Slaton and fellow researchers will measure if the tumors shrink and if the women experience less fatigue and a better quality of life after taking the extract. While the clinical trial involves breast cancer, the results may have implications for prostate cancer patients as well.

Connecting alumni

From *M*, spring 2007

Huddle with the UMAA on May 8

Alumni and friends of the University won't want to miss the 103rd annual celebration of the University of Minnesota Alumni Association on May 8. The UMAA is proud to present featured speaker Tony Dungy (B.S. '78) and special guest Stan Freese (B.A. '68), along with members of the University of Minnesota Marching Band. The evening includes a reception and dinner.

As a Gopher quarterback in the 1970s, Dungy was an academic all-American who led Minnesota to winning seasons as a starter. He is head coach of the Indianapolis Colts and has led them to four consecutive division titles and the Super Bowl. Freese, a talented musician and delightful entertainer, has been with the Disney Corporation for 35 years and served as Disney's first ever world director of bands. He is currently the company's talent booking and casting director. Tickets are on sale now. Call the University of Minnesota Arts Ticket Office at 612-624-2345 or online.

Former Gopher Tony Dungy guided his Indianapolis Colts to this year's Super Bowl championship.

Get behind the biosciences

You or someone you know has likely benefited from a medical breakthrough from the University of Minnesota. There are many, including the first open heart surgery, the development of treatments for diabetes, cancer-curing blood and bone-marrow transplants, and advances in treating Alzheimer's and Parkinson's diseases.

Through these discoveries, Minnesota has emerged as a leader in biomedical and related industries, employing 250,000 people and serving as home to companies such as Medtronic and St. Jude's Medical.

This year, the Minnesota State Legislature is considering the University's request for funding to establish the Biomedical Sciences Research Facilities Authority. (See cover story for details.) The University of Minnesota Alumni Association is committed to galvanizing alumni around this critically important initiative, as well as the University's 2008-09 biennial request.

Since last fall, the UMAA's advocacy committee has immersed itself in learning about the initiative, what promise it holds for the University and the state, and why it needs to be a legislative priority. The committee's work has led to a series of meetings throughout the state to educate citizens about the initiative.

The UMAA encourages you to become active in supporting the University at the legislature. To learn how to become involved and for the latest information on meetings in your area, visit the website or call 612-626-1417.

Receive *Minnesota* magazine

Minnesota magazine is a benefit of membership in the University of Minnesota Alumni Association.

The January-February 2007 issue includes a cover story on alumna Dr. Barbara Sigford, whose polytrauma unit treats U.S. service people with severe wounds, including traumatic brain injury; a feature on why corn-based ethanol won't save the planet but the alternative biofuels University researchers believe just might; and the first article in a two-part series exploring the history of Jewish students on campus.

Check out *Minnesota* content online. Contact us to receive a sample copy, or become a UMAA member and every issue will be mailed to you. Call 612-624-2323 or 800-862-5867.

Be the life of the UMAA

University president Bob Bruininks has noted that nothing is more important to the strength of the University than alumni and friends who care deeply about its future. One of the best ways to forge a lasting bond with the University is through membership in the University of Minnesota Alumni Association, an independent membership organization dedicated to connecting alumni, students, and friends in lifelong support of the University and each other. Life members make up almost a quarter of the UMAA's membership base of more than 56,000.

- **Who are life members?** Life members graduated as long ago as 1924 and as recently as 2006. They hail from every college on campus and represent a wide spectrum of careers and occupations. What they share is pride in the University and a keen interest in helping maintain its excellence. Life membership ensures that you have a stake in the University as it moves toward becoming one of the top three public research universities in the world.
- **Why become a life member?** *It's satisfying*. The UMAA accomplishes great things for the University through its members.

  It makes financial sense. Life membership is seamless. You join once, and you're assured uninterrupted access to University libraries, *Minnesota* magazine, and other membership benefits. Life membership allows the UMAA to avoid the costs associated with renewals, leaving more resources for important work in legislative advocacy, support for collegiate units, recognition of faculty and alumni, and assistance for student programs.

- **How do I join?** Single and joint life memberships are available, as well as a senior life membership (for age 65 and over). You have a choice of payment options. Pay all at once, make annual installments over 10 years, or--through a new capability--have monthly payments automatically deducted from your bank account. An envelope is attached to this issue for your convenience.

Join the UMAA today or contribute to alumni programming at one of the other University campuses.

Learn more about the UMAA.

Meet a life member

One of Jos? Gonzalez's enduring memories of his days as a student at the University is standing in long lines to register for classes, with one baby daughter in a "snuggly" on his chest and the other--a toddler--in a stroller. In those days, Gonzalez (B.A. '87) balanced book bags and diaper bags. Today, he balances family time and work as a program officer for the Bush Foundation with a deep commitment to the University.

A life member of the UMAA, Gonzalez, 50, serves on the president's Latino advisory committee at the U and is a proud supporter of the Chicano Studies department and Latino students and faculty.

"I am especially proud of the projects I've worked on with the admissions staff to make it as painless as possible for Latino students to apply to the U, to brainstorm alternate methods to improve outreach to Latino students, and to make the U and its many resources as accessible as possible," he says.

Click and vote

What problems should University researchers focus on in 2007? Should Gopher sports teams compete against teams with American Indian mascots or names? How did you finance college?

Visit the alumni association website and click on "Question of the Week" to give us your opinion on hot topics pertaining to the University of Minnesota and its alumni and friends. Every Friday, we'll post a new question and give the results from the previous week's poll.

Gopher wrestlers win national championship

Title is U's third since 2001

March 19, 2007

Gopher heavyweight Cole Konrad became the fourth two-time national champion in school history this past weekend. He finished his career with 76 wins in a row.

The top-ranked University of Minnesota wrestling team won its third NCAA championship since 2001 on Saturday night at the Palace in Auburn Hills, Mich. The Golden Gophers clinched the team title following back-to-back losses by Iowa State wrestlers in the 184- and 197-pound title matches. And in the final match of the tournament, Gopher heavyweight Cole Konrad concluded his stellar collegiate career with a pin of Penn State's Aaron Anspach in the finals. Konrad became the fourth two-time national champion in school history. Minnesota finished the NCAA tournament with 98.0 points and Iowa State finished second with 88.5. Iowa State entered the championship round with three finalists and needed victories from two of them to overtake the Gophers prior to the heavyweight match. Top-ranked Trent Paulson pulled the Cylcones to within 3.5 points after defeating Wisconsin's Craig Henning at 157 pounds. Freshman Jake Varner could not follow with a victory of his own as he was soundly defeated by top-ranked and unbeaten Jake Herbert of Northwestern at 184 pounds. It was then up to No. 9 Kurt Backes at 197 pounds, but No. 2 Josh Glenn of American got a takedown at the edge of the mat in the middle of the first overtime session and the Golden Gopher faithful were able to celebrate a championship.

"We had a tough semifinal round, but in a national tournament, you can't expect everything to go the way you want," Konrad said. "We focus in our training on getting stronger as a tournament goes on and we were able to bounce back today. I can't think of a better way to finish a career."

"I think the true character of a team is when you get yourself in a hole and you have to dig yourself out," said Gopher head coach J Robinson. "They responded when they had to and that's what champions do. This was a team win. All nine guys contributed to this and that's the beauty of this victory." With the team title locked up, Konrad took to the mat looking to cement his place alongside Golden Gopher legends Verne Gagne, Tim Hartung and Damion Hahn as two-time national champions. In the title match, Konrad put his patented body lock on Anspach midway through the first period and threw him to his back. Konrad got the fall at 1:53 of the period. He finished the season with a 35-0 record and a second straight individual title. "We had a tough semifinal round, but in a national tournament, you can't expect everything to go the way you want," Konrad said. "We focus in our training on getting stronger as a tournament goes on and we were able to bounce back today. I can't think of a better way to finish a career." Konrad concluded his career with back-to-back NCAA individual titles and 76 wins in a row. He finished with a 154-13-0 career record, just five wins behind the career record of 159 held by Ed Giese since 1986. Konrad also had 50 pins, which ranks second in school history. He became Minnesota's fifth four-time All-American, joining Chad Kraft, Luke Becker, Jared Lawrence, and Damion Hahn. During Saturday's medal round, junior Roger Kish and sophomore Dustin Schlatter earned third place at 184 and 149 pounds, respectively. Redshirt freshman Jayson Ness claimed fifth place at 125 pounds with his third pin of the tournament. And junior C.P. Schlatter finished his first All-American season with a sixth-place finish at 157 pounds. The Golden Gophers finished the 2006-07 season with a national title, five All-Americans, their sixth Big Ten title in the last nine years and their fourth National Duals title in the last seven years. Next year Minnesota will return four All-Americans and nine starters from a team which finished the regular season with a 20-1 record. The lone loss will be Konrad at heavyweight.

For more details on individual performances, or to read more about University of Minnesota Athletics, visit GopherSports.

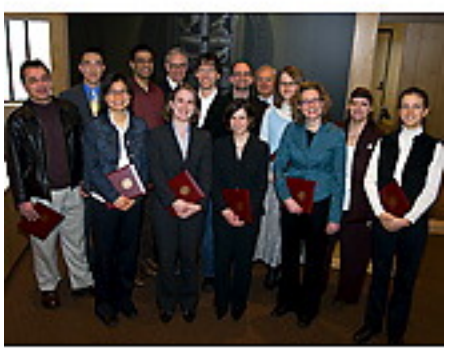
--From University of Minnesota Athletics

From strategic positioning to strategic action

Board of Regents assesses institutional change now underway

By Gayla Marty

Brief, March 21, 2007



The Board of Regents meeting opened March 9 with recognition of 11 junior faculty recipients of **McKnight Land-Grant Professorships for 2007-09**. They were congratulated by Chair Baraga, President Bruininks, and Dean Dubrow. Read more about the recipients.

Strategic positioning updates led the agenda of every meeting when the Board of Regents convened March 8-9.

"You have moved from strategic positioning to strategic action," Regent Larson told President Bruininks at the meeting of the full board on Friday. "It's exciting."

Larson was responding to a comprehensive progress report by Bruininks on recommendations and reports delivered to the regents over the past two years. The report and discussion lasted nearly an hour.

"We are moving now into implementation," Bruininks told the board. "It's a complex and intentional undertaking, touching every aspect of our culture, statewide. We are changing the culture [as well as] the long-term trajectory of the U."

Bruininks took time to reset the University's strategic goal of becoming one of the top-three public research universities in the world. What we seek isn't rank but stature, he said, and a "sustained cultural commitment to excellence in everything we do."

SEE THE COMPREHENSIVE REPORT

See the report as part of the video stream of the Board of Regents March 9 meeting.

* McKnight Land-Grant Professors (00:03:15)
* Gifts (00:29:35)
* Strategic positioning update (00:38:00)
* Six-year capital improvement plan (01:33:20)
* Report of the committees (01:59:50)

The response from the regents was strong and positive. Regent Simmons said the great appeal has been the emphasis on both excellence and access.

"It's appropriate for the board to reflect on what you have accomplished," said Regent Frobenius. "It's significant...[and] it is critical to the U's success in this environment of scarce resources."

"What you've done is demonstrate that a huge organization *is* able to change," said Regent Metzen. "The U has the patience to stick with it....We're at a very important point here, and we have to keep the sense of urgency."

The President's report was followed by a recap of the six-year capital improvement plan and the financial capacity to support it.

Beginning on Thursday, the **Audit Committee** heard evidence from compliance officer Tom Schumacher that the U is not only a community with strong stewardship ethics but leading the way nationally in improvement.

The **Educational Policy and Planning Committee** heard an in-depth report from Twin Cities campus provost Tom Sullivan and vice provosts Craig Swan, Arlene Carney, and Gerald Rinehart on work to transform the undergraduate experience. While the focus was on the Twin Cities campus, efforts to expand undergraduate research is U-wide. Later, the regents lunched with students participating in the Undergraduate Research Opportunities Program.

The **Facilities** and **Finance and Operations** committees previewed the U-wide six-year capital improvement plan, which envisions renovation of classrooms and buildings "from places where people learn by hearing to places where they learn by doing"...space flexible enough to be modified from one purpose to another "within days rather than months or years."

The **Faculty, Staff, and Student Affairs Committee** heard its first update from Nancy "Rusty" BarcelÓ, the U's first vice president for equity and diversity, on her new office, approaches, and priorities.

"Diversity is about people, and equity is about how we treat people," BarcelÓ said. "We are developing a culture, preparing students, and creating a community of scholars."

The same committee also discussed results of the Twin Cities campus student-interest survey, conducted every five years since 1971, which provides a telling snapshot of the student body's changing habits--for example, a clear transition from reading newspapers to online news and from commuting to living on campus.

In a work session of the full board, senior vice president Frank Cerra described the strategic role of the clinical sciences within the University. Clinical science is where the research, education, and service missions converge, he said. He showed maps of the planned reconfiguration of hospitals and clinics that will put adult and ambulatory facilities on the east bank and children and moms, behavioral clinics, and post-acute care on the west bank.

Cerra also talked about changes in the decade since the U forged its partnership with Fairview and what both partners have learned.

"The difference between a large complex hospital and a teaching hospital is the difference between rocks and flowers," Cerra said. "*This* is the model that the future of health care depends upon. This public-private partnership is very well positioned to weather the storm."

Friday's meeting of the full board opened with recognition of 11 energetic junior faculty members selected for the 2007-09 McKnight Land-Grant Professorships, which include $30,000 and a research leave in the second year. The awards are designed to provide support for young faculty members who show exceptional promise, at a critical time in their careers.

U Foundation president Gerald Fischer reported giving for the first seven months of the 2006-07 fiscal year running 39 percent ahead of the same period in the previous year, with an unprecedented emphasis on scholarships.

"Donors love the aspirational, strategic goal," Fischer said. "They have confidence in the leadership."

For more information about the March meetings, see the docket materials and video and audio streams of the March 9 meeting (note that the video stream's audio begins about three minutes in). See also the 2006-07 schedule, with links to related materials.

Changing of the board

As it happened, an evening vote of the Minnesota State Legislature on March 8 produced a change on the board itself. Empty Friday morning were the seats of Peter Bell, Frank Berman, Cynthia Lesher, and Lakeesha Ransom.

The new regents--Maureen Cisneros, Linda Cohen, Venora Hung, and Dean Johnson--began their six-year terms immediately but won't meet with the full board until its next meetings, May 10-11. See a list of the board members, including those elected March 8.

RELATED READING U of M maintains current ranking among public research universities (March 20, 2007)

The core of who we are: Q&A about the revised code of conduct for faculty and staff (March 7, 2007) Ten years together: U of M, Fairview Health Services, and U Physicians continue partnership (March 8, 2007)

Healthy optimism: U's Academic Health Center aims to be premier destination for students, faculty, and patients (Feb. 7, 2007)

Apply now for seats on the Civil Service Committee

Seats at Crookston, Duluth, and the Twin Cities campuses are open

By Peg Wolff and Heather Powell

Brief, March 21, 2007

UMD's Linda Olcott joined the Civil Service Committee in 2004. She has edited the e-mail *InTouch* for civil service staff for three years.

If you have been thinking about getting involved with the Civil Service Committee (CSC), this is the perfect time to do it.

Each spring, the CSC seeks eligible employees who will guide it through the coming year. Representation is sought from four broad areas of the University: (a) Academic Affairs, Senior Vice President and Provost; (b) Academic Health Center, Senior Vice President; (c) coordinate campuses; and (d) at large, which includes all other units. An e-mail message announcing vacancies for 2007-08 was sent to identifiable civil service employees around March 15 for the vacancies they're eligible to fill.

Linda Olcott, associate administrator for UMD Facilities Management, joined the committee in 2004. Because of expanded job responsibilities, she will not apply for a second term--but she says the decision was hard to make.

"I value the work and integrity of the Civil Service Committee and have felt I was able to contribute--by editing the monthly *e-InTouch,* and by representing the best interests of the Duluth campus," says Olcott. "I've grown personally and professionally by serving, meeting new people, facing new challenges, and strengthening staff connections with the larger University community. It has been an extremely rewarding experience."

Cathy Marquardt, a scientist in the Office of the Vice President for Research, is serving her second three-year term on the CSC. She is currently vice-chair and will become the chair in 2007-08.

"I am proud of the accomplishments the CSC has achieved," Marquardt says. "We've made improvements in the pay plan language and have continued to enjoy a positive working relationship with the Office of Human Resources."

First-year CSC member Susan Rose, a community program specialist in the Department of Epidemiology, Twin Cities, got involved with the subcommittee on compensation.

"I have found my working experience with the Civil Service Committee and the compensation subcommittee gives me a broader understanding of governance issues at the University," says Rose. "I have also found the employees on both these committees to be hardworking and professional--a good group of people to work with. I'm enjoying the work, the learning, and the building of new working relationships. This has been a positive experience for me. I can recommend [it] to all civil service employees--you will gain from the experience of becoming a Civil Service Committee member."

Seats available for 2007-08

Employees covered by the Civil Service Rules have an opportunity to serve on the Civil Service Committee. The CSC, comprised of 15 members, reviews policies and issues that affect civil service employees, acts in an advisory capacity to the president and the administration, and recommends changes in Civil Service Rules.

Rule 3 of the Civil Service Rules states that a search committee will screen, interview, and refer names to President Bruininks to replace six vacancies and several alternates.

While the president appoints the committee members, any employee covered by the Rules is eligible to serve on its subcommittees. Employees are encouraged to attend monthly meetings and to raise issues and concerns at any time. Monthly meetings and minutes are posted on the CSC Web site, along with contact information for the committee and individual members.

The Civil Service Committee will have five vacancies for the academic year beginning in July: three on the Twin Cities campus and one each on the Duluth and Crookston campuses. Each is a three-year term.

Alternates, which serve one-year terms, will be appointed to fill unexpected vacancies during fiscal year 2007-08 and will serve with a vote when regular committee members are absent.

Committee vacancies for 2007-08 by area are Academic Health Center (2); Duluth campus (1); Crookston campus (1); and at-large, which includes all other units (1).

Eligibility: All civil service staff, covered by the Civil Service Rules, who have held temporary or continuing appointments of at least 50 percent time or more for at least two calendar years are eligible to apply.

For first consideration, apply by Friday, **March 30**. Additional consideration will be given to individuals from units with vacancies. Applications will be accepted until interview times are filled during the week of **April 16-20**.

The application and other information is available on the CSC Web page at www.umn.edu/csc. If you have questions, contact Mary Berg, chair of the search, at bergx017@umn.edu or 612-627-4014.

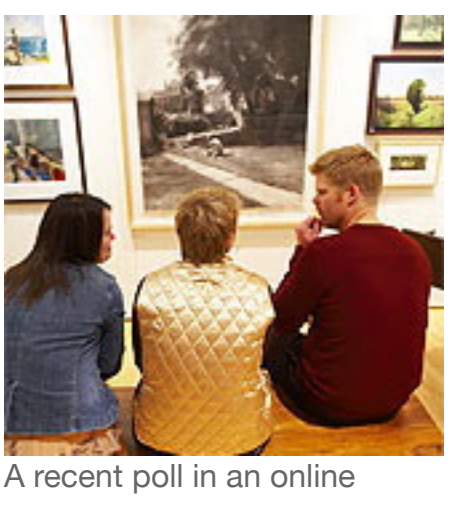
Peg Wolff, University Relations, Twin Cities, chairs the CSC this year. Heather Powell, U Card Office, Twin Cities, is the communications chair.

A destination for museums and galleries

The U's campuses hold a bevy of treasures for art enthusiasts

By Pauline Oo

March 20, 2007



A recent poll in an online edition of the Wall Street Journal listed the Weisman as one of the 150 most popular buildings in America.

Each year about 150,000 people walk through the Weisman Art Museum's doors. The ultra modern building on the Twin Cities campus in Minneapolis, with its stainless steel and wild jumble of angular shapes, is just one of many museums at the University of Minnesota. The U is a popular destination for art enthusiasts, thanks to several art galleries and numerous public art pieces sprinkled throughout its five campuses.

The following is a sampling of the U's museums and galleries. Admission (except for the Bell Museum) is free, and hours vary. All University museums and galleries are closed on U holidays.

Curtis L. and Arleen M. Carlson Heritage Gallery

The Curtis L. and Arleen M. Carlson Heritage Gallery is a multimedia exhibit in the McNamara Alumni Center on the Twin Cities campus that honors the accomplishments of University of Minnesota students, alumni, faculty and staff. Its 55-foot-high doorway--made of brick from the arch of the former on-campus Memorial Stadium--leads to a 2,600-square-foot room filled with permanent and changing photographs, videos, artifacts, inventions (such as the original K ration), and interactive kiosks, as well as a University timeline and The Wall of Books. The latter is an eight-foot stack of 5,000 books written by or about alumni, faculty, and students.

The gallery is open 7 a.m. to 8 p.m. Monday through Friday and 10 a.m. to 4 p.m. on Saturday. (On occasion, the gallery is closed due to a private event; call 612-624-9831 to confirm that it's open.)

Goldstein Museum of Design

The Goldstein Museum of Design, initially the Goldstein Gallery (formed in 1976), was created in honor of sisters, art collectors and former University of Minnesota instructors Harriet and Vetta Goldstein. The museum is a nationally recognized teaching museum and research center devoted to the study of design--dress, textiles, decorative arts and graphic design. Its permanent collection comprises more than 27,000 objects in four collection areas: costume, decorative arts, graphic design and textile. Items include a Chinese imperial robe, an assortment of beaded handbags and children's shoes, neolithic Chinese tomb wares, a 21st-century plastic fly swatter, and American quilts.

The museum is located at 241 McNeal Hall on the Twin Cities campus in St. Paul. Hours are 10 a.m. to 4 p.m. Monday, Tuesday, Wednesday and Friday; 10 a.m. to 8 p.m. Thursday; and 1:30 to 4:30 p.m. Saturday and Sunday.

To learn more about the current exhibit, "Design Redux: Eames as Paper" (through April 1), read "At the Goldstein: making of the Eames paper".

HGA Gallery

The HGA Gallery adjacent to the auditorium in Rapson Hall is named for the architecture firm Hamel, Green and Abrahamson. The gallery features two main shows per semester by local and international architects, landscape architects and designers. Visitors can enjoy new fabric architecture in "Textilien" through April 24. The gallery is open during building hours.

Once you're in Rapson, visit the two other galleries in the building: the lower-level gallery outside the Metropolitan Design Center, which showcases work by high school students in the U's Architecture Youth Project, and the courtyard between the old architecture building and the new Rapson Hall, which occasionally features design studio work by University students.

Humanities Fine Arts Gallery

The Humanities Fine Arts is the largest building on the Morris campus. It was built in 1973, and it houses the Humanities Fine Arts Gallery, which features a changing variety of student work and one-of-a-kind creations by national and international artists. Hours are 9 a.m. to 8 p.m. Monday to Thursday, 9 a .m. to 6 p.m. Friday and 1 to 4 p.m. Saturday.

Humphrey Forum

From his first campaign for mayor of Minneapolis in 1943 until his last election to the U.S. Senate in 1976, Hubert Humphrey collected material that represented the culture of American politics. Most of those items are now part of the U's Humphrey Forum, a museum of 20th century government, politics and history. The museum, located in the Hubert H. Humphrey Institute of Public Affairs on the West Bank, owns more than 10,000 objects, 8,000 photographs, 200 works of art, more than 100 films and videotapes and more than 30 linear feet of manuscripts. Hours are 10 a.m. to 5 p.m. weekdays and 10 a.m. to 2 p.m. Saturday. The museum features themed or traveling exhibits periodically; for current exhibit, see Humphrey Forum.

James Ford Bell Museum of Natural History

Constructed between 1920 and the late 1940s, the two floors of dioramas in the Bell Museum illustrate what Minnesota was like before the ax and plow. You'll learn animal facts, observe animal behavior and find out how certain species survive. The museum, located on the Twin Cities campus in Minneapolis, also has a West Gallery that showcases artwork and traveling exhibits from around the world; the Touch and See Room where you can pet a turtle, stare down a grizzly or try on a pair of antlers; and the Rainforest Exhibit, which offers a view of the rainforest canopy from two aerial walkways.

Museum hours are 9 a.m. to 5 p.m. Tuesday through Friday, 10 a.m. to 5 p.m. Saturday and noon to 5 p.m. Sunday. Admission is $5 for adults and $3 for children and seniors; free for Bell members and University of Minnesota faculty, staff and students; and free for the general public on Sunday.

Katherine E. Nash Gallery

Former Department of Art faculty member Katherine Nash created the Katherine E. Nash Gallery in 1979. In fall 2003, the gallery--originally located on the lower concourse of Willey Hall--moved to its current location in the Regis Center for Art in the heart of West Bank Arts Quarter. Its 4,900-square-foot exhibition space provides a venue for thesis work by master of fine arts students and University art faculty, as well as regional, national and international artists. Gallery hours are 11 a.m. to 7 p.m. Tuesday through Saturday.

Paul Whitney Larson Art Gallery

The 520-square-foot Paul Whitney Larson Art Gallery, located on the lower level of the St. Paul Student Center, was named in honor of alumnus Paul Whitney Larson. Larson was director of the student center from 1959 to 1979, and he had a passion for music and the arts, as well as a desire to foster the appreciation of the arts among the University community. Current exhibits are "Expressions," featuring mixed media paintings by Nancy Rosen and Fred Nocella (through April 5), and "Sculpture Works" by University of Minnesota graduate students (April 12 to May 7). Gallery hours are 10 a.m. to 5 p.m. Monday to Wednesday, 10 a.m. to 8 p.m. Thursday and 10a.m. to 4p.m. Friday.

Tweed Museum of Art

In the 1920s and early 1930s, George P. Tweed and his wife, Alice, began collecting 19th and early 20th century European and American painting, including examples of the French Barbizon School and Impressionist-influenced American Landscape painting. After Tweed's death in 1946, his wife saw the collection's potential as an educational resource for the community and the University. She helped raise funds for the Tweed Museum of Art on the Duluth campus. The museum, dedicated in 1958, has more than 5,000 fine art objects from the 15th century to the present in its permanent collection. Hours are 9 a.m. to 8 p.m. Tuesday, 9 a.m. to 4:30 p.m. Wednesday to Friday, and 1 p.m. to 5 p.m. Saturday and Sunday. For information on current exhibits and educational programs, visit the Tweed Museum.

Weisman Art Museum

The Frederick R. Weisman Art Museum has been a landmark for the University of Minnesota and the Twin Cities since 1993. Renowned architect Frank Gehry designed the curvaceous stainless steel structure, located along the Mississippi River on the East Bank. The museum is home to more than 17,000 works of art, including Mimbres pottery, Korean furniture and paintings by early 20th century American artists such as Georgia O'Keeffe and Marsden Hartley.

To learn more about the current exhibit, read "Bringing it all back home". For information about the museum's upcoming expansion, which will add three new wings to the iconic building, read "Expansion in the wings".

Finding hidden lessons in reality TV

U professor Laurie Ouellette examines the current phenomenon

By Danny LaChance

From *eNews,* March 22, 2007


Laurie Ouellette

Forty years ago, says communication studies associate professor Laurie Ouellette, television executives saw the first incarnation of reality television as duds--frumpy, low-budget public television broadcasts that taught viewers how to paint or cook.

"The prevailing consensus within the industry was that nonfiction programming wasn't profitable and should be kept to a minimum," she says.

Now, on every night of the week, network executives rake in millions of dollars from nonfiction programs that depict actual people struggling with everything from unhygienic roommates to obese bodies to the ire of Donald Trump.

What happened?

At first glance, Ouellette says, it looks as if the genre gave itself one of its own extreme makeovers. Nearly 40 years ago, Julia Child dished out dessert recipes to viewers who watched with notebooks. Now, reality shows are filled with explosive confrontations between hip twenty-somethings and fierce competitions for jobs, money, or romantic partners. For viewers, Ouellette says, what once felt akin to taking vitamins is now like eating a candy bar.

"Then, when you'd tune into PBS, you got the idea that you were no longer watching television for pleasure; you were being taught something," explains Ouellette, who joined the department last fall. "Now, people assume that because contemporary reality television has all of the elements of popular culture it's just about entertainment."

While today's reality programming may have lots of added sugar, Ouellette says it's still packed with vitamins. The shows, she argues, have become powerful and subtle teachers of life skills and self-management techniques. Today's viewers may not be copying down recipes for cr?me caramel from Julia Child, but they are getting recipes for success and happiness from shows like "American Idol," "Extreme Makeover" and "The Bachelor."

Recipes for self-reliance

Those recipes for success have larger cultural implications, says Ouellette, noting that they have helped engineer a shift away from big government on the national political landscape. Programs that teach self-improvement techniques or demonstrate the power of the individual to transform himself or herself from a nobody to an American Idol, she explains, reflect skepticism about the power of the government to effect positive change in people's lives.

Well-being, in other words, becomes a matter of consumer choice and self-enterprise rather than a sense of social security guaranteed by the government.

"Makeover programs cultivate the idea that we all need to work on ourselves relentlessly to achieve happiness and success in these times," Ouellette says. "This is especially relevant at a time when reformers are promoting personal responsibility as an alternative to social programs."

Ultimately, she says, these programs teach viewers that personal willpower and easily digested folk wisdom, not government intervention, are what people need to secure a good future for themselves.

This idea has become the basis for Ouellette's next book, *Better Living through TV: Television and the Government of Everyday Life*, which she is writing with James Hay, an associate professor of speech communication at the University of Illinois.

Despite concerns she may have about the political implications of reality television programming, Ouellette is not out to replace these programs' conception of the good life with one of her own. She simply wants viewers to become more media literate, tuned in to the economic, political, and cultural context in which reality television has emerged.

"If you think about it, most people don't absorb their culture through fine arts, poetry, or opera," she says. "They get it from television and film. My hope is that the book will encourage us to have a more complicated and aware relationship to the media that are such a big part of our everyday lives."

Edited from an article in Communication, *the magazine of the Department of Communication Studies.*

Ouellette's most recent book is *Viewers Like You? How Public TV Failed the People* (Columbia University Press, 2002)

Gophers name Tubby Smith new basketball coach

By Rick Moore

March 23, 2007

Tubby Smith in action on the sideline

The wait for a new men's basketball coach is over. At a news conference today (March 23) at noon, the University of Minnesota announced Tubby Smith as the new head coach of the Gophers. He takes over for interim coach Jim Molinari, who has served since Dan Monson stepped down early this past season. Smith has spent the past 10 seasons as the head coach at the University of Kentucky. During his tenure at Kentucky, Smith, 55, led the Wildcats to the 1998 national championship, six Sweet Sixteen appearances, four Elite Eight finishes, five Southeastern Conference titles, and five SEC Tournament titles. His Wildcat team was eliminated in the second round of the NCAA tournament on Sunday by No. 1 seed Kansas. "It's an honor, it's a real privilege to be joining the Golden Gopher family," Smith said to the crowd of about 2,000 fans at Williams Arena who joined the media at the open press conference. "I feel the love already." Smith thanked his coaching predecessors at the U, and said he will hit the ground running at Minnesota. "We will guard this program, protect this program, and do everything in our power to accomplish the goals and the dreams that you have and that we have for Gopher basketball--and that's to win championships."

"Folks," Maturi said, "this guy can flat-out coach."

His head coaching career began at Tulsa, where he led the Golden Hurricane from 1991-95 before taking over as head coach at Georgia for two seasons (1995-97). Over his 16 seasons as a head coach, Smith has a record of 387-145 (a .727 winning percentage) and has posted 14 consecutive 20-win seasons and 14 straight appearances in the NCAA tournament. Athletics director Joel Maturi, in announcing Smith, said that the U was looking to "hire a proven and successful and high-profile coach. There are few coaches in America who are more proven, successful, and high profile than Tubby Smith." Maturi noted that Smith's teams have played in twice as many NCAA tournament games as the Gophers have in their history--and have won 29 of those. "Folks," Maturi said, "this guy can flat-out coach." Judging by the enthusiasm of the fans gathered at the Barn and the early buzz on campus, there's plenty of optimism for the near future of Gopher basketball. After the Rouser was played at the end of the press conference, a group of students started the first Williams Arena chant in the Smith era: "Tub-by! Tub-by! Tub-by!..." Smith and his wife, Donna, have three sons: G.G., Saul, and Brian. For more information on Smith, including a breakdown of his coaching career, go to GopherSports.

Two-way street

Statewide series on children's mental health exchanges knowledge from research and practice

By Stephanie Wilkes

Brief, March 28, 2007

U child development expert **Marti Erickson** and her granddaughter, Clara. Erickson kicked off the four-part 2006-07 Lessons From the Field series on attachment theory in October. "A researcher who studies children and families has a responsibility to give something back," says Erickson, and the series allows that to happen.

Hundreds of children's mental health experts are expected to gather in Coffman Union at the U's Twin Cities campus on March 29 for a workshop on attachment theory. But--based on the overwhelming response to a related workshop last month--the real turnout will be hundreds more statewide, participating through Internet and interactive TV at 35 host sites. They will include not only researchers and clinicians but parents and other health professionals.

Attachment refers to the enduring tie that forms between a child an another, usually a parent. The medical director of child and adolescent psychiatry at St. Cloud Hospital Behavioral Health Services, Read Sulik, will be the key presenter. Edward Taylor, associate professor in the School of Social Work, will be the respondent. It will be the third of four workshops in the 2006-07 Lessons From the Field series sponsored by the University's Center of Excellence in Children's Mental Health (CECMH).

"A workshop series like this has not been done before--not using this type of technology and not with this level of involvement in greater Minnesota," says CECMH coordinator Cari Michaels. "We have been really overwhelmed by the interest in this--which has been a great surprise. People all over the state are clamoring for this information."

Lessons From the Field is a series of events throughout the academic year where researchers and practitioners can inform each other about what's working well in the field, says Michaels. It's a place to bring people together to talk about crucial issues, creating a dialogue between the University and community members.

Lessons from the Field began during the center's first year. Events were held on various topics "to get a feel for what was happening out in the field," says Michaels. Fetal alcohol syndrome and the impact of maternal depression on children were just two of the topics.

Center of Excellence in Children's Mental Health

CECMH was created as part of President Bruininks's Initiative on Children, Youth, and Families. Launched in May 2003 and formally established in January 2004, the Center strives to bridge the gap between research and practice in the area of children's mental health.

Michaels came to CECMH in January 2005 and was joined by associate program coordinator Ellen Lepinski in February 2006. They decided that a more formal, sustained series based on a major theme would offer more in-depth discussions.

Each workshop features a key presenter--either a researcher or a practitioner--who gives an in-depth presentation on the topic. The presenter is followed by a panel of respondents with related expertise. If the presenter is a researcher, practitioners respond abut how that research applies to their practice. If the presenter is a practitioner, researchers identify why that practice might be effective based on their knowledge of the research. This exchange is at the heart of Lessons From the Field.

The importance of attachment

The idea to focus on attachment came primarily from evaluations completed by participants at previous CECMH events. With the involvement of several other organizations, the center chose attachment theory and research as the theme for the 2006-07 four-part series.

"We were really just responding to a need that had been addressed by members of the mental health community," says Lepinski.

LESSONS FROM THE FIELD

Learn more about the 2006-07 series in progress, including the third workshop, "Inter-Relationship Between Attachment and Other Mental Health Concerns," March 29.

The first event of the year, in October, introduced the issue of attachment and created a framework for the workshops to follow. The key presenter was Marti Erickson, developmental psychologist and director of the Harris Programs in the University's Center for Early Education and Development and cochair of the President's Initiative on Children, Youth, and Families.

Erickson was chosen because she's been involved for many years in attachment research and applying that research. Her early work in residential and in-patient child psychiatry fueled her desire to work proactively to help prevent mental health problems. She also strives to bring about systems change to address family and community factors in children's mental health.

"I provided the basics on what attachment is, how it develops, how it shapes later development, and what we need to consider if we want to increase the likelihood that children will have the foundation of a secure attachment," says Erickson.

The second event, in February, focused specifically on disturbances of attachment in early childhood, with Tulane Universitiy's Charles Zeanah as the key presenter.

The third event, this week, is devoted to the relationship between attachment and other mental health concerns.

"It's important for people to understand that attachment is an important issue, and it is a concept that we still do not completely understand," says Taylor. "We need to stimulate federal and state funding to support better studies on exactly what attachment is and how those children who are suffering from problems of attachment can be better treated."

> *"Lessons [From the Field] gives us the foundation...for a very large partnership," says Taylor.*

Taylor is currently working with the State of Minnesota on an evaluation of evidence-based practice in children's mental health clinics, exploring how it is being used and the outcomes in clinic settings. He says clinicians are overwhelmed with the number of patients and have limited access or time to read updated research information. He stresses the importance of providing clinicians with straightforward information they can apply to their everyday work. He sees Lessons From the Field as a step toward meeting that goal.

"This series sets the stage for work that equally involves the community and the University," says Taylor. "While right now Lessons is operating on a small scale, it gives us a foundation for this to become a very large partnership that involves a shared investigation into these important topics."

Beyond the metro

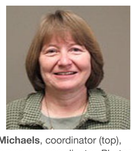
CECMH originally planned to host Lessons From the Field on campus, but staff members changed their minds after receiving many requests from greater Minnesota. It proved a wise choice: the first event involved 25 host sites, and that number has already grown to 35. The February workshop drew 1,100 participants, 300 on campus and 800 more statewide.

"It's been a challenge to get the technology to work," Michaels admits. "I think we have the people and the interest more than we have the technology worked out."

At the beginning of this year, CECMH relied on video stream technology to broadcast the workshop to host sites. Now a second option is offered--interactive television (ITV), which is often used for distance learning courses at universities. For tomorrow's event, about a third of the host sites have opted for ITV.

"[The technology] is creating a two-way street between the community and the University," says Michaels. "It is not just a talking head on a screen. Instead, the community can participate by e-mailing questions and providing feedback. It has brought about a dialogue."

To plan to run a series of events for over a thousand participants is a larger undertaking than Lepinski and Michaels initially anticipated. Lepinski functions as the events planner, coordinating the speakers and events on campus while staying in constant communication with the host-site coordinators. Michaels participates in planning the series to ensure it fits with the broader goals of CECMH. She is also exploring fund-raising options to help meet the center's growing need.



CECMH staff members **Cari Michaels**, coordinator (top), and **Ellen Lepinski**, associate program coordinator. Photos courtesy of CECMH.

Due to time and staffing constrictions, CECMH has been able to host only one site per community. Since each site holds a limited number, Lepinski estimates that, with current resources, the series will cap out around 1,200 participants.

"We've even received requests to get involved from 12 surrounding states and Canada," she says. "They've seen it on the Internet and are really interested in participating."

The level of enthusiasm and interest has prompted Michaels to make the series a priority within the center's goals and activities.

"Promoting this pattern of communication between researchers and practitioners, as well as the University and the community, is a goal we set for the series, and it is definitely a goal that is being met," says Michaels. "Our main goal for the future will be outreach, trying to fulfill all the requests we have received by working on our technology. We are seeking a sponsorship to start broadcasting over satellite so the events will be more widely available at a much higher quality."

On a broader level, Michaels views the series as an essential part of CECMH and hopes to continue developing lines of communication.

"It's so common that the direction of communication from the University is one way, especially with a large university like ours, where people are used to giving out knowledge without finding ways to create that important dialogue," says Michaels. "In this series, researchers are learning from clinicians, parents, and others about what needs to happen in future research to better inform practice."

Erickson agrees. She stresses the importance of applying the research and practice to those who really matter: the children.

"I believe that a researcher who studies children and families has a responsibility to give something back," says Erickson. "What better way to give back than to use the information to promote practices and policies that are grounded in solid research and are likely to improve the health and well-being of children and families in our communities?"

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Wishing they were here

University of Minnesota creates faculty recruiting Web site and brochures

By Pauline Oo

March 27, 2007

The "Wish You Were Here" Web site has rotating photos of Twin Cities attractions. Pictured here is Minnehaha Falls, which inspired Henry Wadsworth Longfellow's *The Song of Hiawatha.*

The University of Minnesota is in the market for the very best faculty in the world. So is every other university and college in the United States. Therein lies the challenge.

Last month, the increasingly competitive nature of faculty recruitment and recommendations from a task force on faculty culture spurred the University to create a Web site and brochure touting the benefits of living in the Twin Cities. The "Wish You Were Here"-themed brochure, along with a letter explaining its uses, recently arrived on the desks of college deans, department heads, and center directors, ready to be sent out to faculty prospects.

"The [new Wish You Were Here] brochures [and the Web site] are going to help, whether we do a targeted search or a national search," says Darlyne Bailey, dean of the College of Education and Human Development and one of the U's most recent high-profile hires. She came to the U from Columbia University, drawn by the opportunity to forge a new future for her college. "I am also thrilled with the cultural icings on the cake--the Walker, the Guthrie, some of the same orchestral groups and dance troupes that came to New York are coming here. And I get all this water around me."

"The primary goal of the brochure [and Web site] is to grab the interest of potential faculty who may consider Minnesota to be no more than fly-over territory," says Assistant Vice President Sharon Reich Paulsen. "Once we spark their curiosity with the brochure, we hope they'll visit the accompanying Web site, where they'll find a wealth of information designed to persuade even the most winter-reluctant visitor that Minnesota deserves a look."

"I am also thrilled with the cultural icings on the cake--the Walker, the Guthrie, some of the same orchestral groups and dance troupes that came to New York are coming here. And I get all this water around me," says Darlyne Bailey, dean of the College of Education and Human Development and one of the U's most recent high-profile hires.

Those who do visit the colorful Web site will be greeted by a voiceover from U alum Garrison Keillor "wishing they were here" while photos of the Twin Cities rotate on the screen.

Web site stats

>>In two months, the new "Wish You Were Here" Web site has recorded more than 1,600 unique visitors just from word-of-mouth publicity and some promotional e-mails.

>>Total visits number more than 3,500, so there's also strong evidence of return viewers.

>>U visitors are already in the minority (37 percent); 8 percent of the visits are international; and the remaining 55 percent have originated from other campus networks, including Notre Dame, NYU, Texas, Michigan, Indiana, Iowa, Ohio State, UC-San Diego, Stanford, Marquette, Georgia, Utah, Texas A&M, Oberlin, Wisconsin, Florida, Pepperdine, Bradley, Washington, MIT, Princeton, Brown, and Caltech.

The Web site, which has had just over 1,600 unique visitors since its official launch on Feb. 9 (see sidebar), features information about places to go and things to do, the family-friendly Twin Cities community, the depth of arts and culture in both Minneapolis and St. Paul, and, in a bow to perhaps the University's biggest recruiting challenge, highlights about Minnesota's "four seasons of fun."

There also are video links throughout the Web site that introduce visitors to University of Minnesota faculty who explain why they were drawn here and what keeps them here. After all, says Paulsen, "Who better to talk to faculty than faculty themselves?" Visitors who still have unanswered questions or simply want more details can get a personal e-mail response by clicking on the "Ask the Local" button.

With the University poised to hire 1,000 faculty over the next five years, attracting exceptional prospects from across the country and around the world will be critical to the effort to transform the University into one of the one of the top public research university systems in the world.

According to Gary Balas, head of the Department of Aerospace Engineering and Mechanics, "We frequently face the challenge of getting prospective faculty recruits to consider Minnesota as a place to live. Now we have a tool, directed specifically to them, that addresses their concerns and questions about life in Minnesota. And, at least in my department, it's already made a difference."

The "Wish You Were Here" Web site is at www.umn.edu/wishyouwerehere.

Further reading:

A transforming U takes shape

Highlighting P

Annual CAPA celebration will be April 20

By Pamela Stenhjem

Brief, March 28, 2007

As one of the most diverse employee groups at the University of Minnesota, academic professional and administrative (P&A) employees serve the U in a wide variety of ways. Their responsibilities range from implementing research to teaching and advising, from writing grants to providing administrative support and guidance, from writing publications for peer-reviewed journals to publishing newsletters, reports, and briefs. As a group of more than 4,000 individuals statewide, P&A employees provide an essential and eclectic role. Here's a look at just a few Twin Cities campus staff members to highlight the variety of P&A employees and the roles in they play at the U.

Karla Block has worked at the Bio-Medical Library since 1990 and is the coordinator of outreach, communications, and development. "For communications, it's very important for us to increase awareness of our services and resources--for our primary clientele in the Academic Health Center, more broadly on campus, and to outside audiences as well," she says. Currently, Block is managing an outreach project that is part of the National Library of Medicine's MedlinePlus Go Local project. "The aim is to take MedlinePlus to the next level, by linking people to local health services in their communities," she says. The goal is nationwide coverage, says Karla. The project is a collaboration of the U of M Health Sciences Libraries, Mayo Clinic Libraries, and MINITEX Library Information Network.

"DISCOVERED: P&A EXCELLENCE"
April 20, 2007
Noon-2 p.m.
Ted Mann Concert Hall

The Council of Academic Professionals and Administrators (CAPA) hosts its annual event in honor of P&A staff. Join your P&A colleagues for fun and good food as your contributions to the University are celebrated.

Please RSVP to georg038@umn.edu **by April 11** to accommodate food arrangements--but you may attend if you do not RSVP.

Marijo McBride has worked at the Institute on Community Integration in the College of Education and Human Development for 15 years. The institute is a research and training center on disability that employs about 200 and hosts upwards of 85 state and federal research projects. McBride is a research specialist who provides training, outreach, and technical assistance focused on improving support and services for individuals with developmental disabilities. An example of her daily routine includes training for the pediatric rotation at the Medical School and coordinatng the Certificate in Disability Policy and Services. McBride also teaches courses and supervises graduate students.

Kimberly Simon has worked as an equal opportunity consultant at the Office of Equal Opportunity and Affirmative Action for three years. She provides direct consultation to the U community--which includes faculty, staff, students, vendors, and other--to create and maintain environments that are free of unlawful discrimination or harassment. She also conducts and advises on informal resolutions through mediation of discrimination and harassment complaints with the goal of addressing and resolving complaints at the earliest stage possible. When appropriate, she investigates discrimination complaints that result in written findings.

Jennifer Engler is a licensed psychologist and associate director of Student and Professional Services in the College of Education and Human Development. Previously, she worked at University Counseling & Consulting Services (UCCS) for seven years, including her predoctoral internship in 1997-98. There she provided direct service in her role as staff psychologist while also serving as program director for Outreach and Consultation and Career Development.

Jill "JT" Trites is a senior teaching specialist in the Department of Postsecondary Teaching and Learning, formerly General College. She has worked at the U for 16 years and teaches first- and second-year college students in public speaking, small-group communications, multicultural communications, and reading classes. Nearly half of her teaching load is devoted to instructing immigrant students in the Commanding English program, a two-semester sequence of courses offered to freshmen for whom English is not the first language. In 2000, Trites received the Distinguished Teaching Award from the College of Continuing Education. Her specific areas of expertise include teaching oral, group, intercultural, and multicultural communications; evaluating and assessing spoken English; trivia; cultural orientation to the United States; and teaching English as a Second Language courses.

Janet Beyer has been with University of Minnesota Extension for 32 years. With Extension's reorganization in 2002, she was reassigned to work in community youth development for southeastern Minnesota out of the Rochester regional extension center. Beyer recently received an Extension Service Dean and Director's Award for distinguished field faculty, which was especially meaningful because recipients are nominated and selected by peers and the dean. Beyer led a team of coworkers to develop an educational CD, "Making the Case for Out-of-School Time," which has been distributed nationwide over the past three years. With the team's focus on this issue, Beyer also served as staff to President Bruininks's Commission for Out-of-School Time in 2003. The commission is a collaborative group of 27 people throughout the state looking at youth development and out-of-school programming, creating a blueprint for future goals.

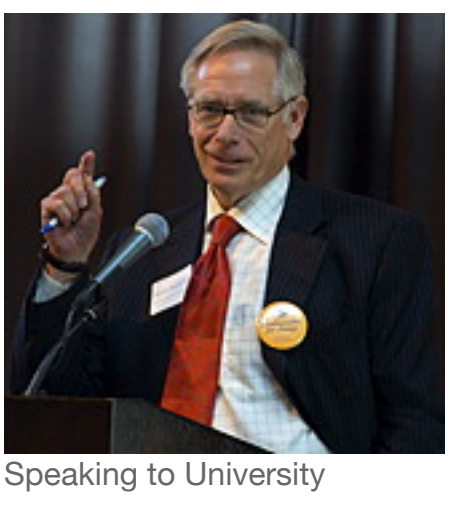
Pam Stenhjem is the professional development and recognition chair on the Council of Academic Professionals and Administrators. She is an education specialist in the Institute on Community Integration.

Concerted effort

Vision of sustained excellence paints 'top three' as way more than a numbers game

By Jim Thorp

Brief, March 28, 2007



Speaking to University constituents statewide this spring, President Bruininks is driving home the message that a cultural commitment to excellence is critical to achieving--and keeping--top-three stature.

Two years of strategic planning and implementation have yielded many noteworthy accomplishments--among them, the fact that University of Minnesota faculty and staff systemwide are acutely aware of the U's strategic goal: To become one of the top three public research universities in the world within 10 years.

At the March 2007 Board of Regents meeting, U president Robert Bruininks restated the University's commitment to the top-three goal. And while he drew the regents' attention to how far we've come, the underlying message was that there is no one method, no one measure, and no specific end date.

Engaged in excellence

For the regents, Bruininks highlighted several key initiatives currently underway in support of the four established "pillars" of strategic positioning: exceptional students, exceptional faculty and staff, exceptional organization, and exceptional innovation.

Student learning and success outcomes. The Council on Enhancing Student Learning has adopted seven undergraduate learning outcomes, currently being considered for wider endorsement by the University Senate. Once implemented, these outcomes mean that, at the time of receiving a bachelor's degree, students:

- can identify, define, and solve problems
- can locate and evaluate information critically
- have mastered a body of knowledge and a mode of inquiry
- understand diverse philosophies and cultures within and among societies
- be able to communicate effectively
- understand of the role of creativity, innovation, discovery, and expression across disciplines
- have acquired skills for effective citizenship and life-long learning

Additionally, staff and faculty have developed a second set of outcomes to foster citizenship and engagement. Upon earning a bachelor's degree, students will demonstrate:

- responsibility/accountability
- independence/interdependence
- goal orientation
- self-confidence/humility
- resilience
- appreciation of differences
- tolerance of ambiguity

The key is deep-seated cultural change: Vice provost for faculty and academic affairs Arlene Carney says that weaving these outcomes into the day-to-day work of not only students, but faculty and staff, is the distinguishing feature of the University of Minnesota's efforts in this area.

Faculty and staff leadership and recognition. The University's excellence stems from the quality of its human capital. Exceptional faculty and staff are critical to recruiting and retaining the best and brightest students; attracting research funding to the University; and garnering the attention of other world-class scholars.

To foster leadership and ensure recognition of performance, the U is working to:

- Develop more competitive compensation and benefits packages, including special merit increases and preventive retention packages for high-performing faculty
- Strengthen and improve promotion and tenure policies, standards, and procedures to create a culture that recognizes the breadth and diversity of legitimate academic work at the University (including interdisciplinary research)
- Cultivate new leaders through successful development programs such as the President's Emerging Leaders (PEL) program and the Office of Service and Continuous Improvement's Transformational Leadership Program (TLP)

Building on past successes is critical: PEL is recruiting for its seventh cohort for 2007-08--roughly 150 staff members have taken advantage so far. In addition, 19 Twin Cities campus staff members participated in TLP last year, and 20 are register for this year's program in Duluth.

An organization-wide commitment to excellence. A common theme in Bruininks' ongoing discussions of the U's transformation is that no aspect of the University can be overlooked.

"We must be as well known for the quality of our management practices as for the quality our academic endeavors," he says. "Our efforts to create an exceptional organization sometimes gets short-changed in the face of higher profile successes, but they are no less important."

Bruininks shared several examples of such successes with the regents, reflecting a top-to-bottom emphasis on transformation in University Services, in particular. From a low-risk competitive process for capital projects that has helped the U avoid tens of millions of dollars in redesign and construction costs to new ways of changing light bulbs that should save more than a million dollars in the next few years, University Services has embraced the vision of Transforming the U.

Even the six-year capital improvement plan presented to the regents by vice president for University Services Kathleen O'Brien and team incorporated the four-pillars model, with goals specific to the creation of learning and research spaces articulated for each of pillars.

Innovative responses to research opportunities. The president has long held that many of the most critical problems facing society today require an interdisciplinary approach to solve.

"The University is an established national leader in many disciplines--these disciplines of distinction must remain strong and continue to create new knowledge and ideas for collaborative research efforts," he says. "We believe that interdisciplinary institutes provide a flexible, responsive model for conducting research and attracting support in the future. The Academic Health Center's research-corridors concept provides another compelling model of an agile research organization."

But for the University to better support its external constituents, it must also facilitate industry partnerships and remove barriers to private investment. Outreach through the new corporate relations center and efforts to simplify cumbersome or unclear policies regarding intellectual property and start-ups are two initiatives focused on improving U responsiveness and fostering partnerships.

Seeing change
According to President Bruininks, nearly every decision is now discussed in the context of Transforming the U's stated commitment to exceptional students, exceptional faculty and staff, exceptional organization, and exceptional innovation. The three new colleges, for example, represent a new academic vision that supports:

* exceptional students, by making it easier for them to access classes and resources across separate but closely related disciplines.

* exceptional faculty, by encouraging interaction and cross-disciplinary collaboration.

* exceptional organization, by realizing efficiencies in business systems and processes.

* exceptional innovation, by facilitating the types of interdisciplinary inquiry required to solve society's most pressing questions and garner federal support.

In an organization the size of the University, transformative change is often difficult to see from within.

"Even those of us working on this every day often only see what's in front of us--only see Transforming the U as it impacts our jobs," says Bruininks. "It's easy to miss the bigger picture. We need to do a better job of making those connections for people."

Making it stick

"Stature" is another word that comes up time and again when Bruininks talks about "top three." From the beginning it was clear the strategic goal needed to be specific, time-definite, and audacious--and the University has identified an accomplished peer group with which to compare itself, as well as 20 indicators of success, many of which have multiple supporting measures that are already being tracked.

But the true goal, according to Bruininks, is "a deep and abiding commitment to achievement and contribution in everything we do."

"In that light, it's also much easier to imagine an equivalent standard of excellence for the coordinate campuses," he says. "The 'University 20' indicators show progress in certain critical areas, but even the best numbers can't sustain themselves. Transformation requires cultural change in order to last."

And that requires persistence--and the realization that, in today's competitive higher education environment, there is no finish line.

For more information, download the president's complete presentation to the board. (PPT 1.52 MB)

FURTHER READING Healthy optimism Up to the task First flight for fledgling institute Ascending U

Picturing health

A film series and public service announcement contest bring health messages home

By Toya Stewart

This nightmare of a driver's license photo is part of film that contains a serious public service announcement. The film is an entry in a contest at the University's School of Public Health.

Filmmakers from near and far rushed to heed the call for entries in the first-ever short filmmaking contest sponsored by the School of Public Health (SPH). The contest was designed as a way to engage the community--locally, nationally and internationally--and to give them a chance to weigh in on global health issues that matter most to them by creating short public service announcement films ranging from five to 30 seconds. Some of those short films will be screened next week at the National Public Health Week film festival, scheduled for April 2-6. The School of Public Health sponsors the annual festival. "The competition and the festival really add to each other," says Paul Bernhardt, a multimedia producer in the School of Public Health who helped to launch the school's first filmmaking contest. "The festival gives people entering the competition a place for their work to be seen, and the competition gives the festival works to show. The two projects can help promote each other--hearing about one, a person ought to hear about the other as well." Though planning for the film festival had long been under way, the time was right for the addition of the public service announcement contest, organizers said. The idea was born when film festival organizer and SPH Director of Alumni Relations Michelle Lian-Anderson asked Bernhardt if he would oversee a filmmaking competition. Her thought was that a contest could help promote public health messages as well as encourage community involvement. Bernhardt says the conversation with Lian-Anderson was "a huge personal revelation" for him, and the project matched his own interests. "I enjoy the challenge of crafting a message that's concise and impacts its audience, and I hoped to find others who do as well," says Bernhardt, who was pleased to see that others shared his passion. Entries about HIV, nutrition and climate change were among the 17 films submitted. Other topics included smoking, organ donation, fire safety, global awareness, global warming, refugee health, youth violence, and suicide prevention.

"The whole goal of [the contest] is [showing] what can you say about public health in a very brief period of time," Finnegan says.

Short videos from both professionals and amateurs are all the rage on the Internet, and the audience for these mini-messages continues to grow through sites such as YouTube. It seemed like a good time to capitalize on the trend, film festival organizers said. Entries fell in two categories: 10 seconds or shorter, and 30 seconds or shorter. Most submissions were in the 30-second category. School of Public Health Dean John R. Finnegan, Jr. praised the contest. "The whole goal of [the contest] is [showing] what can you say about public health in a very brief period of time," Finnegan says. "You can get some very, very profound and impactful messages crammed into a very short period of time. "Lots of people do it," he adds. "They can tell very compelling stories in 10 seconds--I like to think of it as the haiku of the media world." Besides challenging filmmakers, sasys Bernhardt, the contest serves as a public awareness campaign for a global audience; thanks to technology, viewers around the world may see these messages. With that idea, Bernhardt says he thinks the contest will continue to grow. "I really hope we receive more entries next year from people around the world," he says. "There have been a number of established film industries outside Hollywood for generations. And, of course, the mobile technology is available everywhere." **SPH Film Festival details:** The University of Minnesota School of Public Health and the Minnesota Public Health Association are sponsoring National Public Health Week (NPHW) with a slate of excellent films and discussions. The third annual NPHW Film Festival runs from Monday, April 2, through Friday, April 6. Activities begin at 5:30 p.m. Monday in Mayo Memorial Auditorium, 425 Delaware St. S.E., on the East Bank of the Twin Cities campus. Doors open at 5 p.m. The event is free and open to the public. Film themes include aging, immigrant health, HIV and AIDS, climate change and sex education. Panelists will discuss the films and related topics. The films include the Oscar-winning documentary "An Inconvenient Truth," Al Gore's quest to halt global warming; "The Split Horn: Life of a Hmong Shaman in America"; "State of Denial," about HIV/AIDS in South Africa; "Living Old," a look at chronic illness in the lives of America's older generation; and a series of short sex education films that includes some from the 1950s as well as the more contemporary "Think MTV: Campus Guide To Safer Sex" and "Abstinence comes to Albuquerque." For more information about the festival and its sponsors, click here. To view the PSA contest entries, click here.

A sea change in campus culture

New initiatives put undergraduates in the spotlight--and the driver's seat

By Deane Morrison

March 30, 2007

Physics professor Marvin Marshak, the new faculty director of the Office for Undergraduate Research, takes a global perspective in introducing students to the joys of discovery.

As an aspiring electrical engineer, freshman Tahnee Zerr is excited that the University is making good writing as integral to her studies as good wiring. "No matter what you do in life, you will need to be able to communicate clearly," says Zerr. "Not everybody's an engineer. I can't just use formulas to explain things." And the writing initiative isn't the only way the University is improving life for undergraduates on the Twin Cities campus. From more opportunities to study abroad or perform research, to more and closer contacts with advisers, the University is pulling out all the stops to change the very atmosphere on campus. The overhaul represents "a genuine culture change in the way the University structures the undergraduate experience for students," says Craig Swan, vice provost and dean of undergraduate education. The change won't be cosmetic; rather, it will be tangible and even intrusive, in the sense that the University will actively help students take responsibility for their own learning and forge their own path to both scholarly and personal success.

The overhaul represents "a genuine culture change in the way the University structures the undergraduate experience for students," says Craig Swan, vice provost and dean of undergraduate education.

For example, regardless of major, all students will be expected to master not only a body of knowledge but skills in communication, critical thinking, and problem-solving. At the same time, they will be guided to become responsible, resilient, self-confident adults who appreciate the differences among people. Much of the help will come from advisers. Generally, U freshmen work with a professional academic adviser in their college; then, as they declare a major, they may switch to a faculty adviser or have one of each. Now, the University is developing campuswide training and materials for all advisers. "We want everybody to have the same information and the same opportunities," says Laura Coffin Koch, associate vice provost for undergraduate education. "We want to make sure students get consistent and timely information in all colleges." Advisers will help students find not only the right courses but also opportunities for performing research, studying abroad, or getting involved in other activities that will allow them to grow in maturity and confidence as well as in academic knowledge. The dual emphasis on making sure its graduates shine both intellectually and personally sets the University apart and aims for a central outcome: alumni with all the tools of citizenship and the capacity to use them. **Then and now** One alumnus who appreciates the changes is Mark Lescher, who graduated with a degree in psychology 10 years ago. "I love the idea of the writing initiative and more aggressive advising," he says. "I was able to avoid having to talk to an adviser, except when I chose to. At the time, it helped me feel like an independent adult, but in retrospect, I might have gotten through the U earlier, especially if I'd had more of a 'goal' focus with respect to graduate school." As an undergraduate, he says, it was hard to find out much more about graduate schools than the required GPA and prerequisites. In 2002, Lescher returned to the U and earned a bachelor's degree in architecture; he is now pursuing a master's degree in the College of Design. Advising in the School of Architecture is very good, he says: "They seem more proactive than when I was here before." Lescher likes the idea of the writing initiative because, as a person who took several writing courses on his own, he clearly sees its value. Students like Lescher and Zerr will benefit further from a $996,000 Bush Foundation grant, awarded to the University in March, to help make good writing an integral part of work toward every undergraduate degree. **A head start** All freshmen are getting an early boost to their careers as university students. Several programs already help, such as the Nature of Life program, which takes incoming College of Biological Sciences freshmen to the University's Lake Itasca Field Station in August and gives them a rigorous introduction to the life of a biologist. On deck for 2007 is the Bridge to Academic Excellence, a free six-week program, starting in June, for about 80 incoming freshmen identified as in need of extra support. They will take one writing and one science course, tallying six credits by the time they begin fall semester classes. Starting in fall 2008, a campuswide Welcome Week, held the week before fall semester, will reach the entire freshman class. "Welcome Week will focus on getting students acclimated to their college, the University, and the community," says Koch. Besides receiving tips on navigating the University, freshmen will be encouraged to start thinking about how to take advantage of such once-in-a-lifetime opportunities as studying abroad, completing a degree with honors, or doing research with a faculty member and perhaps seeing their work published. **Expanding horizons** To keep students on track toward meeting goals in both academics and personal growth, the University will work hard to give every student at least one experience with a mentor before graduating. Besides giving them study, research, or service opportunities, mentors will help students reflect on their experiences and realize the progress they've made. For example, an undergraduate doing research may find herself learning how to schedule her time, set goals, and deal with the ambiguity and sometimes outright failure that every research scientist inevitably encounters. For students like Sarah Tupy, a junior chemical engineering major doing research in the laboratory of world-renowned Regents Professor Lanny Schmidt, the chance to work with a passionate, brilliant researcher is not to be missed. "Lanny's work is innovative, cutting-edge," says Tupy. "I plan to attend graduate school ... and my experience in the lab has stimulated my enthusiasm for a career in research." To encourage students to take advantage of such opportunities, the University is streamlining research programs. In February physics professor Marvin Marshak became the faculty director of the new Office for Undergraduate Research. It will include the Undergraduate Research Opportunities Program (UROP) and will connect with undergraduate research programs housed in colleges and elsewhere in the University. "Now, about 25 to 30 percent of graduating students have had some sort of research experience," says Marshak. "Our working goal is to get about half of undergraduates to have one by the time they graduate." If research is exciting, research in a foreign country can be even more enticing.

With Marvin Marshak, students always win

Few people have done more for students than physics professor Marvin Marshak, the new faculty director of the Office for Undergraduate Research.

The founding director of Residential College--the U's first living-learning program--and a Morse-Alumni Award-winning teacher, he likes to draw students into the academic life by taking them to big physics experiments everywhere from northern Minnesota to Europe.

But while his door is always open to students, he prefers conversations at the Rec Center.

"I play racquetball with students," says Marshak. "They win, and I get exercise chasing 20-year-olds around the court."

Also an avid bicyclist, Marshak grew up in Buffalo, N.Y., and graduated from Cornell University, where he wrote for the student paper. One week, just before a big Cornell-Princeton basketball game, Marshak and other newspaper staffers went to Princeton and replaced all the copies of the Princeton student paper with bogus editions predicting the demise of the Princeton team and its shining star, Bill Bradley.

Marshak is married to Anita Kolman, an artists' representative. They have two children: Rachel, a bond trader in New York; and Adam, a history graduate student at Yale.

Ten years of progress

Between 1996-97 and 2006-07, the undergraduate experience saw many changes, including online registration, a switch from quarters to semesters, a remodeled Coffman Union, more on-campus living quarters, and numerous changes in curricula. The difference between then and now shows up in many ways:

>Percentage of freshmen living on campus rose from 71.1 to 80.6

>Percentage of students rating the overall quality of academic programs as excellent or good rose from 37.4 to 64.4

>Percentage of students in the top 10 percent of their high school class rose from 28 to 38.7

>Four-year graduation rate rose from 15.2 to 40.7 percent

A pdf with these and more statistics is available.

"We need to expand the opportunities to do undergraduate research abroad," says Kathleen Sellew, associate director of the Office of International Programs. "We think making international opportunities an integral part of existing structures such as UROP or the honors program would be a good idea. We strive for 50 percent of students having a study abroad experience, and offering more research options can only increase the relevance of the program abroad to the undergraduate experience." Pursuing a degree with honors is another option for students who want to stretch their minds in new directions. By fall 2008, the honors programs now housed in individual colleges will be merged into a single campuswide University Honors Program under its founding director, physics professor Serge Rudaz. Academic excellence is, of course, central to the mission of the Honors Program, with the goal of helping students learn how to think like the best minds in their field of study. "They will be exposed to new perspectives through carefully crafted curricula and to a variety of opportunities to sample the intellectual life of the University, think for themselves, and apply what they have learned," Rudaz says. "We want to be proactive in taking students who are highly motivated and present them with every opportunity for growth." **Smoothing the way** Beginning this fall, students will be able to find information and resources through a new Web portal and will chart their progress toward graduation with a Web-based Graduation Planner. Also in the works is the Engagement Planner, another Web tool, which will help students find nonacademic activities such as arts, politics, and social service organizations that appeal to them while building character and broadening perspectives. Students looking for academic help can drop in one of the new SMART Learning Commons centers. The SMART Commons also house the Peer Assisted Learning Program, which provides students who lead group study on topics connected with specific courses. Now located in Wilson Library, Klaeber Court, and Magrath Library, the Commons will soon open a new branch in Walter Library. The University is also moving full speed ahead to supply new sources of financial support, such as the Founders Free Tuition Program and the Promise of Tomorrow scholarships. The ultimate reward for its efforts will be the trust that its graduates have achieved a command of knowledge and critical thinking skills, an appreciation of other cultures, the ability to communicate clearly, and all the other attributes necessary for citizens of a rapidly changing world.

Read more about writing

Learn about the University's writing initiative and the new Bush Foundation grant.

Go with the flow

MyLibrary portal moves the University of Minnesota Libraries into the student information stream

By Jim Thorp

Brief, May 9, 2007

Paul Bramscher, Shane Nackerud, and John Butler of the U's Digital Library Development Laboratory have developed a portal application that is changing the way users look at libraries.

Let's face it: With more than 6 million volumes and nearly 37,000 serial subscriptions, the University of Minnesota Libraries can be intimidating. And with more information easily available via the Internet, students are becoming less patient when it comes to navigating the stacks.

To make such virtual legwork less formidable, the U's Digital Library Development Laboratory has created MyLibrary, a new portal application that filters library resources and provides quick online access to the collections, tools, and library personnel most suited to the user's specific profile.

University librarian Wendy Pradt Lougee characterizes the project as a response to "Web-use trends and Amazoogle forces." It's also changing how people view libraries.

Window to the world

Although MyLibrary strongly complements the U's goal of becoming a top-three public research university, Lougee says the initiative is rooted in University Libraries' studies of faculty and graduate student behavior and Internet use. Those studies suggest that scholars across the academic disciplines are increasingly looking to the Web for information, and they want tools that better filter and integrate relevant sources and services into their scholarly workflow.

"As a result, we began thinking about how we could get the libraries in the flow and become more agile in response to researchers' needs," she says.

Enter John Butler, director of the Digital Library Development Laboratory. His team had worked with the University Libraries' Undergraduate Initiative team on the Undergraduate Virtual Library (UGVL), which launched in fall 2005 as an effort to bridge the gap between what a Web search can generate and what the libraries can offer. The UGVL offers new student researchers a Google-like search engine and interface, helping them navigate collections in a way that feels familiar to them.

"We've always had an interest in personalizing and customizing content to smaller units and developing specific library resources at a course level," Butler says. "Over the years we have developed a suite of tools that help librarians deliver reference, liaison, and instructional services to students. The challenge here is to provide *meaningful* services in the University's large-scale environment.

"The Libraries have about 100 professional staff and, of those, roughly 50 to 60 positioned to provide direct services to the student body. So, conservatively, we are challenged by a librarian-to-student ratio of 1:500--and it's probably a much larger ratio than that."

The University's MyU portal is home to a host of online resources for students, staff, and faculty, providing single sign-in access to most online administrative applications, personalized news and information, and secure areas for sharing and collaboration. Since MyU boasts more than 140,000 registered users and 17,000 unique logins each day, it's an ideal vehicle for delivering library resources to the masses.

About University Libraries

* Number of U library locations in the Twin Cities: 14

* Number of volumes: 6,200,669

* Number of serial subscriptions: 36,900

* Number of annual user visits: 2 million

* North American ranking (for collection size): 16 (of 113 research libraries)

* North American ranking for loans to other libraries: 1 (of 113 research libraries)

* Number of annual reference questions answered: 186,000

* Number of annual workshops/class sessions delivered: 1,100

Butler's team developed MyLibrary as a personalized view of library resources for students using the MyU portal. With their single MyU portal sign-on, users log in, then click the MyLibrary tab at the top of the page to access a University Libraries home page with convenient search tools, single-click access to discipline-specific collections and resources, and contact information for the most appropriate librarian for the user's field of study or role at the U.

"A lot of library sites are built like library buildings -- everything's there, but you have to go and find it," says Butler. "It's overwhelming." The U Libraries approach is fundamentally different.

Affinity strings--strings of data that track certain characteristics of a user, such as campus, role, unit, program, and degree--are used to personalize the content delivered to the user. These strings are mapped to MyLibrary page templates according a user's status or role (e.g., graduate student, incoming freshman, research staff, and such), then to the appropriate discipline or content area--effectively determining what information is likely to be important to a user and how best to present that content. Additional links provide access to the rest of the libraries' online resources.

As a result, the critical difference between the UGVL and the MyLibrary is personalization.

"When user X comes to the UGVL, he or she gets exactly the same view that user Y gets," explains Butler. "Although the UGVL is oriented to an undergraduate sensibility, the presentation is generic, flat, one-sized. In the [MyLibrary] portal, we differentiate users and present them with discipline-sensitive views."

Less is more

The University isn't the first organization to attempt to create a comprehensive online view of its library resources--but the approach has been fundamentally different than most such efforts.

"Information has reached a saturation point on the Web," Butler says. "A lot of library sites are built like library buildings--everything's there, but you have to go and find it. It's overwhelming."

Butler describes most early efforts to create online libraries as "pull-heavy" and says they were "high on novelty and abandonment." The U's goal, on the other hand, has always been a hybrid push-pull model.

"What becomes more important is what's excluded from that initial view," Butler says. "It's the notion of pushing content to the user based on our expertise. The typical user's attention span is getting shorter and shorter, so there's more value in identifying and privileging content based on what we know about the user."

Phase I of the MyLibrary rollout is almost exclusively a push model, with librarians and subject-matter experts advancing selected content based on what's-best principles and the use patterns of particular affinity groups.

Phase II will enable users to customize their view based on personal preferences and favorite resources. A third phase of development will enable the creation of community or mentoring views, in which the use patterns facilitate interaction and collaboration between users and affinity groups with similar interests and goals.

Graduate students were given access to Phase I of the MyLibrary portal in late December, and a gradual rollout continues. The team launched MyLibrary for all Academic Health Center audiences in February and for the Class of 2011 incoming freshman in April. The goal is deployment to all audiences by this summer.

Expanding MyLibrary services to other U of M campuses is also being explored.

FURTHER READING "Libraries for a new generation: Getting the Net Gen on the right information highway," spring 2006 "The past in the present," a feature on University Archives, Dec. 29, 2006

Teach locally, act globally

Award-winning U faculty illustrate the importance of putting the University's mission into action on the world stage

By Jim Thorp

The University of Minnesota has long taken pride in its mission of research, education and outreach, using its expertise and resources to benefit citizens of the state- and world-wide. Internationalization is nothing new to the U, but strategic positioning has given renewed energy to system-wide efforts to partner with international institutions and serve the global good.

In 2005, the University established the Award for Global Engagement in recognition of outstanding faculty members who put the University's service mission into action abroad. And as the 2006 award recipients show, when the U goes global, everyone wins.

Award for Global Engagement

The all-University Award for Global Engagement is given to faculty and staff members, active or retired, in recognition of outstanding contributions to global education and international programs in their field, discipline, or the University.

In 2006, the University selected three winners: Zbigniew Bochniarz, Harry Lando and Meredith McQuaid. The award is sponsored by the Office of the Senior Vice President for System Academic Administration and administered by the Office of International Programs.

Revolutionary research Polish-born professor and former senior fellow of the Hubert H. Humphrey Institute of Public Affairs Zbigniew Bochniarz turned challenges in his homeland into an exemplary career both here and abroad, helping former Soviet-bloc nations reform their economies. Bochniarz left Poland in late 1985 as a self-described "Solidarity trouble-maker" who had quickly fallen out of favor with the Communist leadership. He followed his wife to the U, where she had come in September 1985 as a Fulbright scholar.

"I wanted to help my country, the whole of Central and Eastern Europe, and build a bridge between the U.S. and that region," recalls Bochniarz. "It took me some time to establish my position, but by the fall of 1989, I was back in Poland with the best U.S. scholars and environmental experts to teach a country newly liberated by Solidarity how to use the market in favor of environmental protection and sustainable development."

For 12 years, Bochniarz directed the Humphrey Institute's Center for Nations in Transition, an umbrella organization for several multi-year research and training projects dealing with economic, ecological and institutional changes in Central and Eastern Europe. He sees several reasons for the University of Minnesota to help address global issues in the field and classroom.

"The U.S. economy, despite the fact that it's still the larges world economy, depends more and more on other economies," he says. "In recent years the American economy had allocated about 50 percent of its trade to emerging economies, mostly China, India, and Central and Eastern Europe. To retain leadership in the world and secure its competitive position requires continuing investment in generating new knowledge about these developing economies and preparing business leader to understand them."

In addition, he says, the U.S. is the world's largest polluter, particularly in terms of greenhouse gases, and must take responsibility not only for the pollution itself, but also for helping to educate the next generation of business and governmental leaders worldwide to be environmentally responsible. Firsthand experience with these issues in Central and Eastern Europe gives Bochniarz, his colleagues and his students perspectives they can't get anywhere else in the world.

"During the last 20 years, I've brought over 80 faculty members to the region. Many of them have published articles or books, or have developed case studies on Central and Eastern Europe and delivered them to the University and its students," says Bochniarz. "There are hundreds of publications as a result of these exchanges. In my case, over 90 percent of my publications are related to that region, and most of them are used by my students as required or recommended readings, giving them unique opportunities to study in depth the problems of systemic transformation in that region. About 10 of my students have taken advantage of CEE internships at our collaborative universities or think tanks. Several of them are also included as co-authors of my publications.

"Fast-growing globalization processes require academia to address them through research, teaching and outreach," he says. "Who will explain these processes to the society?"

Life-saving outreach Epidemiology professor Harry Lando of the University's School of Public Health is one of the world's preeminent researchers in the area of tobacco prevention and control. He has published more smoking intervention trials than anyone else in the world and now views tobacco prevention and control as a fundamental human rights issue.

International education

Under the leadership of U of M Law School associate dean Meredith McQuaid, both international and U.S. students have benefited from the expansion of international exchange programs-from new programs in Germany, Spain, the Netherlands and Uruguay to existing programs in Sweden and France. She may be best known for the new Summer Program for American Students in Beijing and has been involved at all stages of the development, management and oversight of the law school's efforts in China.

McQuaid was recently named interim associate vice president and dean for international programs, a role in which she will continue to work hard to advance the U's global imperative.

"I became involved in smoking cessation at the age of 23 when I was in the second year of my doctoral study," Lando says. "I began thinking globally in the past six to seven years. ... I was struck by survey data in China that indicated that 69 percent of smokers believed that smoking was doing them little or no harm. In our own National Institutes of Health-funded research in India and Indonesia, we found that physicians believed that smoking up to 10 cigarettes per day was safe!

"I believe that people have the right to be adequately informed about deadly and addictive products. ... By framing tobacco reduction as a human rights issue, we engage an important human rights constituency that has not previously been part of tobacco reduction efforts."

An estimated 5 million people per year currently die of tobacco-related disease; according to Lando, this number is projected to double to 10 million within the next 20 to 25 years -- with 70 percent of the deaths occurring in developing countries.

"Against this backdrop, much more needs to be done," he says. "The recently adopted World Health Organization treaty -- the Framework Convention on Tobacco Control -- is an important step in the right direction."

Lando says that U.S. universities -- and the University of Minnesota in particular -- can make a major difference internationally by actively doing the research and promoting the policies needed to effectively combat tobacco. "U.S. tobacco companies have been at the forefront of those spreading the tobacco epidemic internationally, working against effective public health initiatives, and distorting the scientific evidence. The U.S. government was one of the largest obstacles to the adoption of the Framework Convention," Lando says. "We are proposing a Tobacco Control Research and Policy Center at the University of Minnesota that should cement our reputation as the number one university in the world on this important public health topic. ... The School of Public Health is looking at opportunities to facilitate international exchange programs for students and faculty. The Program in Tobacco and Human Rights will provide opportunities for our students to gain important knowledge in this area.

"Much of what we need to do is already known -- it's a matter of having the political will and the resources to apply our knowledge," Lando says.

FURTHER READING University faculty members get recognized for global contributions
(From *Minnesota Daily* Web site) Bochniarz receives honorary doctorate
(From *Humphrey Institute News*,PDF 356 KB) Around the world in ten minutes: Global health's greatest challenges
(From *Advances* PDF 708 KB)

Talk to teens about alcohol use

By Colleen Gengler, University of Minnesota Extension

April 4, 2007

Parents of teens typically worry if their adolescent is experimenting with alcohol--and with good cause. Recent studies show that approximately 75 percent of high school students have tried alcohol. More than 25 percent are binge drinkers.

Worried that your teen might drink? Talk to him or her.

It is vital that parents talk with their teen about not using alcohol. Telling teens "you'd better not drink" or "just say no" isn't helpful or effective. Instead, parents need to have open and honest conversations about alcohol use. Consider these tips for communicating with your teen:

- Be a good listener. If you are in the habit of listening carefully and respectfully without jumping to conclusions, you are more likely to have a good relationship with your teen. That relationship will make it easier to talk about difficult topics such as the consequences of alcohol use.
- State your views. Take a firm position on no underage drinking.
- Be supportive in helping your teen live by his or her views. Tell them it is OK to say, "No, I'd rather not drink."

Teen attitudes toward alcohol are influenced by what their parents do. Parents need to behave in a manner consistent with family rules. Parents might say to teens, "Once you are 21, it is OK to have a drink with friends," or "It's not OK to drink to solve problems."

Parents often dread the question asked by many teens, "Did you drink when you were my age?" It is best to give an honest response. If you did drink, you needn't go into detail, but you can tell about negative consequences and what you learned from those. Teens will respect honesty and see you as someone who took responsibility for a mistake.

Sometimes, despite the best of intentions, teens do get in trouble with alcohol. Some of the signs of teen drinking include: changes in friends, appearance and mood; a difference in eating or sleeping habits; a sudden decline in grades; increased time alone; secretiveness and avoidance of family; and frequent disagreements with family members.

If parents observe these signs or have reason to believe their teen is using other drugs, they may need to ask for outside help through a mental health agency or the school. One tool is a drug testing kit. Parents can consult with a counselor or school nurse about the appropriateness of using a drug testing kit.

For more resources on communicating with your teen about these and many other issues, visit Extension's parenting education Web site.

Colleen Gengler is a family relations educator with the University of Minnesota Extension.

Engagement party

First Public Engagement Day will celebrate U-community partnerships

By Stephanie Wilkes

Brief, April 4, 2007

Elder Atum Azzahir, executive director of the Powderhorn Phillips Cultural Wellness Center in south Minneapolis, has worked with several University units over the ten years of the center. She will give the keynote address for Public Engagement Day.

Elder Atum Azzahir has plenty of experience with community-University partnerships. Over the ten-year history of the Powderhorn Phillips Cultural Wellness Center in south Minneapolis, its executive director has worked closely with the U's Center for Democracy and Citizenship at the Humphrey Institute as well as the Academic Health Center, the Center for Spirituality and Healing, and the Department of Nutrition.

In a keynote address for the University's first Public Engagement Day April 11, Azzahir will talk about the importance of generating community knowledge as well as University knowledge.

"It is about the vision the community has of these partnerships," says Azzahir. "I want this day to be a convergence of ways--a chance for the community and University teachers to come together to solve problems."

PUBLIC ENGAGEMENT DAY
Wednesday, April 11
8:30 a.m.-9 p.m.
Coffman Memorial Union
U of M-Twin Cities

8:30 a.m.-4 p.m. Registration is free but required to attend addresses, lunch, and workshops.
4-6 p.m. Open house celebration in the Great Hall - no registration required.
Evening awards dinner is by invitation only.

See the complete schedule.

Xolela Mangcu will be visiting the Twin Cities for events including a Tuesday lecture, "Which Way South Africa After Thebo Mbeki?" April 10, 8 p.m., Cowles Auditorium, Humphrey Center.

Azzahir's local community perspective will be complemented by a global perspective in opening remarks by Xolela Mangcu of South Africa. Mangcu is a leading voice in South African public life who has called for revitalization of the traditions, politics, and practices of broad democratic participation and community interaction. He directs the Centre for Public Engagement at the University of Witwatersrand in Johannesburg. *See box, left.* The day's schedule will include workshops and examples of current community-University partnerships across the state to give a deeper understanding of what public engagement means.

"This is a day for students, faculty, staff, and community partners to convene and celebrate mutual work," says Diana Martenson, organization and program development specialist, University of Minnesota Extension, and coordinator for the event. "It's a place to discuss how partnerships have developed and the knowledge created. We also want to address some of the challenges of community-and-University partnerships and work collectively to come to solutions."

After Mangcu's opening address, U associate vice president for public engagement Victor Bloomfield will talk about the history and context of public engagement work at the University of Minnesota.

Participants will choose among workshops--six in the morning and seven more in the afternoon--on public engagement in areas ranging from the local foods movement to best practices in U-community partnerships.

In addition to giving a keynote, Azzahir will speak in one of the afternoon workshops about the role of the community as a producer of knowledge.

"I want faculty members to see community and cultural groups as sources of valuable knowledge and as leaders in their own right," she says. "The process of community creating knowledge is the best kept secret, and, as University people realize and respect that strength, we can go on to create truly valuable partnerships."

The final afternoon session will showcase exhibits on campus-community partnerships in the Great Hall. Finally, at an evening dinner, winners of the Outstanding Community Service Award and Josie R. Johnson Award for Human Rights and Social Justice will be honored.

"Engagement is about closing the distance between knowledge and the people," says Azzahir.

Martenson says Public Engagement Day is an important way to celebrate the University's land-grant mission.

"Respectful community and university partnership working collectively to address an important issue results in a win-win," she says. "There is mutual benefit, for the community at large and for the research and teaching agenda at the University.

"Important issues are addressed in the community, research is advanced, teaching and learning stimulated," says Martenson. "Public Engagement Day is an opportunity to engage with people currently involved in partnerships, and it encourages others that are not involved by showing ways that they can engage their work."

Public Engagement Day coordinator **Diana Martenson** is an organization and program development specialist for University of Minnesota Extension.

Azzahir stresses the importance of public engagement to the University and society on a larger scale.

"If the University continues to produce knowledge that is distant from the people and their experiences, it will continue to have isolated ideas and concepts that do not work," she says. "I think that engagement is about closing the distance between knowledge and the people. A good education--a meaningful education--an education that will produce new leaders--has to close the gap between the scholars and the people on the ground."

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

U receives $22.5 million to study avian flu

University to establish Center of Excellence for Influenza Research and Surveillance

April 3, 2007

The majority of diagnostic testing and virus characterization will occur at the College of Veterinary Medicine's Veterinary Diagnostic Laboratory and Genomic Center.

The National Institute of Allergy and Infectious Disease (NIAID), part of the National Institutes of Health (NIH), has named the University of Minnesota as one of six sites across the country that will establish a Center of Excellence for Influenza Research and Surveillance.

The Minnesota NIH/NIAID Center of Excellence for Influenza Research and Surveillance (MCEIRS) will receive $22.5 million over seven years to focus on disease and virologic surveillance of avian influenza viruses, providing the federal government with useful information and public health strategies for controlling the impact of an influenza pandemic.

"The Center of Excellence established at the U of M will work to rapidly identify and characterize influenza viruses that have pandemic potential by monitoring domestic and international wild bird, poultry, and swine populations, said Marguerite Pappaioanou, principal investigator and professor of infectious disease and epidemiology at the University of Minnesota School of Public Health. "The center will be prepared to respond to research and public health needs in a time of increasing concern over the possibility of pandemic flu."

The MCEIRS will perform animal flu surveillance in eight countries and multiple states. Domestic research will include: monitoring wild birds in U.S. wetlands; identifying low pathologic influenza strains in Minnesota poultry; characterizing swine viruses in animal populations from Minnesota to North Carolina; and conducting virologic surveillance in live bird markets in the Midwest and Northeast.

Internationally, the center will conduct avian influenza surveillance of people, poultry, pigs, dogs, cats, and wild birds in rural Thailand; wild waterfowl in Vietnam; wild bird populations in Laos; and commercial poultry operations in other Asian countries.

"The University will help pave the way in influenza research and contribute valuable and influential information to the federal government regarding pandemic preparedness." -- Frank Cerra

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The majority of diagnostic testing and virus characterization will occur at the University of Minnesota College of Veterinary Medicine's Veterinary Diagnostic Laboratory and Genomic Center. Faculty will obtain and characterize multiple types of influenza viruses, adding to the world database that supports research on how humans become infected with influenza, what factors influence the severity of illness, and the development of vaccines and antiviral medications.

"This award showcases the strength of the University of Minnesota's interdisciplinary corridor of research in infectious disease," said Frank Cerra, the University's senior vice president of health sciences. "The University will help pave the way in influenza research and contribute valuable and influential information to the federal government regarding pandemic preparedness."

Together with University strengths in veterinary medicine, public health, and supercomputing, the MCEIRS' external partners include: Chulalongkorn University in Thailand; Southeastern Cooperative Wildlife Disease Study at the University of Georgia; the Wildlife Conservation Society; the U.S. Geological Survey National Wildlife Health Center; Cargill, Inc.; the Minnesota State Board of Animal Health; the Minnesota Department of Agriculture; and the Minnesota Department of Health.

Key advisors to the center will be Michael Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota School of Public Health; David A. Halvorson, professor of veterinary and biomedical sciences at the University of Minnesota College of Veterinary Medicine; and Vivek Kapur, director of the Advanced Genetic Analysis Center and professor of veterinary pathology at the University of Minnesota College of Veterinary Medicine.

In addition to the University of Minnesota, other Centers of Excellence for Influenza Research and Surveillance will be located at Emory University, Mount Sinai School of Medicine, the University of Rochester, the University of California at Los Angeles, and St. Jude Children's Research Hospital.

--From the Academic Health Center

Sharing success

Support groups help people live a healthier life

By Dana Setterholm and Christie Vogt

April 3, 2007

Several years ago, Sherre Rinkenberger was diagnosed with obsessive compulsive disorder (OCD). It's a challenge she shares with about one in 50 people; for them, constant obsessions and compulsions can make everyday life a nightmare. Remember Jack Nicholson's character in "As Good as It Gets?" He had OCD.

People with OCD can be paralyzed by fear of germs, fires, break-ins, and disease, or that harm will come to them or their loved ones. To manage those fears, they'll engage in rituals like obsessively checking the door locks, frequent hand washing, or not stepping on cracks. They want control because to them, control equals safety.

But that control is an illusion, and the only way to really handle those fears is through therapy. So Rinkenberger came to the U's Psychiatry Clinic and joined a 10-week program run by Chris Donahue, assistant psychiatry professor. The best therapy for OCD is cognitive behavioral therapy (CBT), also called exposure therapy, where the client is increasingly exposed to what frightens him or her. The other important component to treatment is support groups.

"OCD is a very secretive thing," says Donohue. "It can be embarrassing, and people may go to great lengths to hide it. Increasing awareness can help others to come out and seek treatment, and that's very valuable."

"We try to get [people with OCD] to stop all ritualizing--that's the ultimate goal of the therapy," says Donahue. But, he continues, "a support group can help to maintain progress and [allow members] to share success stories."

Rinkenberger took her positive experience at the U back to the OCD therapy group at the Mental Health Center in St. Cloud. She obtained a grant for the group, which has paid for a laptop to find information on the latest OCD research, and a workbook for dealing with OCD, which group members read and discuss during meetings. "We're really branching out to find lots of resources out there that we didn't know about," Rinkenberger says.

Her grant proposal also included a plan to increase awareness of OCD. "I went to St. Cloud State University and talked to social work students about what it's like to have OCD," she says. "And we want to do something like that in the [St. Cloud area] schools."

Donahue agrees about the importance of increased awareness. Living with OCD is often a balancing act--struggling to handle the effects and simultaneously striving to conceal them. "OCD is a very secretive thing," he says. "It can be embarrassing, and people may go to great lengths to hide it. Increasing awareness can help others to come out and seek treatment, and that's very valuable." And having the opportunity speak openly in an accepting environment can lessen fears.

The University's clinic also recognizes the valuable effects of support groups for other challenges people have and continues to develop additional resources for the community. Donahue is currently working with Jon Grant, associate professor of psychiatry, and his assistant Brian Odlaug to develop a support group for problem gamblers. "This group would be for patients that have completed our cognitive behavioral therapy program or had participated in Jon Grant's CBT for pathological gambling study," says Donahue. With impulse control problems like gambling, Donahue believes that "individuals need the one-to-one therapy concurrent with or prior to the support group." The group for problem gamblers would focus on relapse prevention and maintenance of progress, he says.

To learn more about the U's Psychiatry Clinic and how practitioners help people live a more normal life, visit its Web site.

Further reading:

Possible relief for obsessive compulsive disorder

Eyeing a virtual cure for anxiety disorders

U researchers test pill for gambling addiction

He takes the honors

Physics professor Serge Rudaz leads creation of a campuswide University Honors Program

By Deane Morrison

April 3, 2007

One of the U's most popular teachers, physics professor Serge Rudaz is heading the effort to create a campuswide University Honors Program.

As freshman challenges go, the three-semester honors sequence in physics is about as rigorous as it gets. So comprehensive are the first two semesters that honors physics students aren't required to take the third class. So why would anybody do it? Serge Rudaz is why. Turns out most students opt for the third class because of him. A favorite of students by any measure, Rudaz has a knack for bringing the most complicated concepts down to earth. In January his service to honors students took a quantum leap when he became founding director of the fledgling University Honors Program, which grew out of the strategic positioning process and will welcome its first students in fall 2008. Each college on the Twin Cities campus now has its own honors program, but the new campuswide program will integrate them all, bringing students from all walks of academia into close contact with each other and with mentors from both the University and the surrounding community. Students will be encouraged to explore opportunities of every conceivable kind, from scientific research to artistic creativity. And if projects cut across traditional lines, so much the better; often, it's exactly that kind of cross-pollination that sparks the most innovative ideas. Although he's been on the University faculty for 25 years, Rudaz finds the prospect of opening up new vistas for the U's best students fresh and exciting. "I think the new program is trying to provide as many students as possible a really universal experience," he says. "I want to build bridges and get students interrested in subjects that they didn't know about, and at a very high level." To pique the interest of students, the University must give them early access to solid advising and to faculty, Rudaz says. Besides leading the creation of the new honors program, he sees his job as making sure the students already in an honors program get the kind of experience they expect and are exposed to further opportunities. To do that, he wants to see more classes for honors students, more honors sections of regular courses, and more interactions between students and people from the Twin Cities' abundant supply of professionals in industry and the arts.

"I'd like students to learn not just the content, but how to think like a practitioner--that is, like a writer, a chemist, an economist, and so forth," says Rudaz.

"I hope to see science classes for nonscience honors students," Rudaz explains. "For example, classes on renewable energy, the human genome project and ethical issues. I'd like students to learn not just the content, but how to think like a practitioner--that is, like a writer, a chemist, an economist, and so forth." To bring the program to fruition, Rudaz has been consulting with representatives of all the colleges on the Twin Cities campus, who find the prospect of exposing students to vistas beyond their field of study appealing. "The effort that Serge is initiating campuswide offers all UMTC students greater access to knowledge resources throughout the University and beyond, including in communities outside the University walls," says Craig Hassel, chair of the undergraduate honors program in the College of Food, Agricultural and Natural Resource Sciences. The broad perspective required of a University Honors Program director comes naturally to Rudaz. Born and raised in bicultural Montreal, he did his undergraduate work at McGill University and earned two graduate degrees from Cornell University. He has an abiding love of classical music of all kinds and has traveled widely, including research appointments at the University of Paris and the European Center for Nuclear Research (CERN) in Geneva. As a physicist, Rudaz has an enviable record. A theoretician whose main tools are blackboard and chalk, he likes to say that he made "a small contribution" to what physicists call the Standard Model, the theory of how matter and energy interact. Among the very tiniest building blocks of matter are particles called quarks. Six quarks are known, but before the sixth was discovered, Rudaz helped work out how its presence would show up in experiments. In 1995 physicists recognized his contributions in this and other areas by electing him a fellow of the American Physical Society. He also is the only physicist working outside Canada to receive the Herzberg Medal, given by the leading Canadian scientific and engineering society to recognize not only achievement in research, but influence as well. Beyond developing and teaching the University of Minnesota's honors physics sequence, Rudaz has served as director of undergraduate studies and of the National Science Foundation-funded Research Experiences for Undergraduates program, which exposes promising undergraduates from around the country to the riches of the University and the Twin Cities. "It's a great recruiting tool," Rudaz observes. In the classroom, he is known for his ability to explain complex problems from a variety of angles. "He has his own personal style," says sophomore and honors engineering student Tracy Powell, who took all three semesters of honors physics from Rudaz. "He's really great about showing how everything ties together. But what I really learned was how to think. I learned how to reformulate my mind to approach problems, and that there are so many different ways to solve problems. Also, he was always willing to sit down with me. His door was always open." In honors classes, she adds, "everybody in the class wants to be there. That makes a difference." Nor did the intellectual energy flow in just one direction. "[After teaching the honors sequence], I realized how stimulating it was to teach physics to freshman students who were really motivated," Rudaz says. And speaking of honors, he has won the "Outstanding Instructor" (1992) and "Best Instructor" (1998) awards from the Institute of Technology Student Board and the George W. Taylor/ITAS Award for Distinguished Teaching (2006). The citation for the Taylor award includes "... for making difficult subjects engaging." As he continues the task of organizing the UHP, Rudaz hopes all students--not just honors--will share the excitement of learning. "Even the best-prepared students from high school may not know [the University] is a repository of knowledge through the ages," he says. "Music, law, languages, sciences--it's all here. I want them to know they can find anything here and that this will become part of every student's experience."

Bruininks delivers State of the U for 2007

By Rick Moore

April 6, 2007; updated April 10, 2007

President Robert Bruininks delivered his fifth State of the U address on April 5 at the Coffman Union Theater on the Twin Cities campus, and he used the address to highlight some of the many achievements made across the University system since the strategic positioning initiative was launched two years ago.

Robert Bruininks became president of the University in November of 2002 and on April 5 delivered his fifth State of the U address.

The goal of that initiative, to become one of the top three public research universities in the world, is designed to urge all U campuses to live up to their heritage of achievement and public responsibility, he said.

"The good news is that this goal is now well established," Bruininks said. "All of you know it, our supporters are drawn to it, and our peers are taking notice. 'Top three' is aspirational and audacious, but that's not to say it can't be achieved.

Listen to the State of the U

To view, listen to, or read the 2007 State of the U address, visit the Office of the President Web page.

"We must continue to set aggressive goals in critical areas of academic responsibility and to truly measure what we value, but we must not get caught up in rankings or begin 'teaching to the test.' We aspire not to ranking, but to stature--and achieving this aspiration requires a deep and abiding cultural commitment to excellence in everything we do, from the education of our students to advancement of knowledge for the public good."

Statewide, the U's five campuses and their students are flourishing. The University of Minnesota, Crookston continues to lead the system in online education, Bruininks noted, and recently received the maximum 10-year accreditation from the Higher Learning Commission.

At UMD, the Sieur Du Luth Summer Arts Festival has become internationally known for its opera program, with some 120 participants registered this year from Mexico, Europe, and Asia. This fall, Duluth will launch its first-ever doctoral degree, in education.

"We aspire not to ranking, but to stature--and achieving this aspiration requires a deep and abiding cultural commitment to excellence in everything we do, from the education of our students to advancement of knowledge for the public good," Bruininks said.

On the Morris campus, student Eagan Heath was recently named a 2007 Truman Scholar, Bruininks said, and last fall, UMM's Center for Small Towns and the city of Morris received a national Carter Center Partnership Award for Campus-Community Collaboration.

And the University of Minnesota, Rochester continues to expand its academic footprint to meet the education and research needs of southeast Minnesota, building on the U's relationships with Rochester Community and Technical College and Winona State University and its partnership with the Mayo Clinic. Bruininks praised the Rochester community for a recent vote to devote funds in support of the University campus there.

Partnerships and interdisciplinary efforts will define the University of Minnesota in the future, Bruininks said. Being a national leader in many fields will feed directly into the U's efforts to foster new collaborations through centers and institutes such as the Institute on the Environment, the Large Lakes Observatory in Duluth, the Institute for Translational Neuroscience, the Institute for the Advancement of Science and Technology, and the Institute for Advanced Study.

Bruininks also listed several new strategies for ensuring greater student success and higher graduation rates, as well as ongoing efforts designed to improve service and productivity across the University of Minnesota system.

Throughout the address, Bruininks recognized the hard work, perseverance, and ingenuity of staff and faculty members over the first two years of the strategic positioning effort, citing examples from academic departments as well as administration and facilities.

Despite many recent successes, the U's path forward is not without obstacles, Bruininks noted.

"All of our aspirations are contingent upon two resources: persistence and funding," he said. "I rank persistence first, most obviously because in this regard we control our own destiny. It is only fair that an institution committed to responsible stewardship would expect to be held accountable by the state and the public. We've identified important strategies that support our view of excellence, but we cannot expect continued investment without continuing reform.

"Two years ago, I said that Minnesota needs a great research university, and this University truly needs the state of Minnesota," Bruininks added. "I also said that strategic positioning would provide the basis for change and a commitment to excellence worthy of our heritage and our future.

"The inscription on Northrop *(right)* captures this beautifully: It expresses the spirit of a great University, its commitment to excellence, and its service to the greater good. It's a tremendous vision, and I'm humbled by your efforts to attain it--but we clearly still have more work to do."

AN INSCRIPTION FOR THE AGES

Bruininks invoked the inscription on the front of Northrop Memorial Auditorium on the Twin Cities campus, set in stone in 1936, as a continuing inspiration:

The University of Minnesota

Founded in the faith that men are ennobled by understanding

Dedicated to the advancement of learning and the search for truth

Devoted to the instruction of youth and the welfare of the state

FURTHER READING

"U of M President Bruininks praises Rochester City Council for support of higher education," April 6, 2007 "A sea change in campus culture: New initiatives put undergraduates in the spotlight--and the driver's seat," March 30, 2007

UMD graduates its first Transformational Leadership Program class

By Stephanie Vine

Brief, April 11, 2007

Nineteen UMD graduates of the TLP program celebrated April 3.

Ten inches of snow and 30 mile-per-hour winds did not stop University leaders from gathering April 3 to celebrate the accomplishments of UMD's first class of Transformational Leadership Program (TLP) graduates. The 19 honorees presented their TLP process-improvement projects to the audience and worked vigorously to garner support for continued efforts and proposed solutions.

The three-week intensive training program, delivered in segments since last October by Matt Larson and Scott Martens from the U's Office of Service and Continuous Improvement (OSCI), concluded March 29.

The curriculum is based on the world-renowned leadership development and process improvement methodology embraced by 3M, a corporate sponsor of University research and process improvement initiatives. Larson worked directly with 3M to customize the curriculum for the University.

"The great energy and progress at UMD drives home the importance of the three legs of success in transformational change work," says OSCI director Martens. He describes the components as:

1. The Right Projects: projects that are strategically aligned with clearly defined, quantifiable measures of success. *2. The Right Sponsors:* senior level people in the organization actively involved in the review, support, and success of the work. *3. The Right People:* proven or high potential leaders who are respected in the organization leading the work. "This is as much about the improvement in talent as it is about the improvement in our processes," he says.

Many participants agree that the program benefits the University as a whole as well as the trainees themselves.

"This was an incredibly valuable experience for me," says Julie Westlund, UMD Career Services director. "I felt like I completed a graduate-level course. People in industry pay thousands of dollars for this kind of training! I feel very fortunate to have had this opportunity.

"The best part," she adds, "is knowing that I have colleagues I can turn to in the future for help when problem-solving."

While the program itself has allowed for growth and new perspectives, direct value to UMD comes from leadership's project selection and from the teams' progress. The specific goals of each project result in meeting faculty, student, or staff needs more accurately and frequently.

"Overall, the program is really going to give my department some clear insight into what is working and what is not working in our program offerings," says Jennifer Niemi, advisor for Eni-gikendaasovang Center for Indigenous Knowledge Revitalization. "The information gathered from my TLP project has been well received by my team and, since the focus is on retention and graduation rates of students, it definitely fits with the larger strategic plan for UMD."

Eleven of the 19 TLP projects are specifically aligned with UMD's new strategic approach for improving retention and graduation rates. The retention framework, developed by the UMD Successful Student Work Team in 2006, identified numerous strategic priorities that influence student persistence.

By focusing on processes that are aligned with these priorities and the campus's retention and graduation goals, UMD will be better able to accommodate students' learning and support needs and positively impact student retention rates, says UMD TLP coordinator Stephanie Vine.

UMD Transformational Leadership Program graduates, 2006-07

* Sue Bosell, Business Office
* Kathy Chalupsky, Facilities Management
* Jeni Eltink, First-Year Experience Program
* Pat Keenan, Kirby Student Center
* Kathy Morris, Health Services
* Vince Repesh, Advisement Coordination Center
* Kay Smith, Disability Services and Resources
* Julie Westlund, Career Services

College offices
* Amanda Evans, College of Education and Human Service Professions (CEHSP) Technology
* Casey LaCore, CEHSP
* Jennifer Niemi, CEHSP Student Affairs
* Mary Keenan, College of Liberal Arts Student Affairs
* Tracey Bolen, Labovitz School of Business and Economics Student Affairs
* Stacey Crawford, School of Fine Arts Student Affairs

Information Technology Systems and Services
* Rick Brill
* Jason Davis
* Wendy Zolnowsky

Knowledge Management Center
* Lisa Reeves
* Paul Treuer

"After leading transformation efforts across many parts of the economy, domestically and abroad, I am most excited about the great potential we have to lead higher education into the future while improving life for faculty, students, and staff," Larson says.

The UMD program was made possible with funding and support from OSCI.

"Only by means of OSCI's generosity did the UMD TLP program become a reality," says Bruce Gildseth, UMD vice chancellor for academic support and student life. "UMD looks forward to continuing our relationship with the OSCI office in the months and years ahead."

FURTHER READING

"TLP heads north," October 18, 2006

Stephanie Vine, Health Services associate administrator, is a 2005-06 TLP graduate and coordinator of the UMD TLP program. She is also a member of the Successful Student Work Team.

Trouble in pollen nation

Bee shortage renews appreciation for hard-working insect

By Deane Morrison

April 11, 2007

Bee mites (round red spots) are just one of many sources of stress on honeybees, whose numbers plummeted this winter.

After a long trek from Minnesota in a flatbed truck, the honeybees arriving in California's Central Valley are stressed and hungry. They don't like being crammed together with lots of others of their species, yet pollinating California's almond crop requires a million colonies worth of bees. The hard labor of honeybees usually goes unnoticed and unappreciated by most Americans, but when the bees suffered steep mortality this winter--up to 80 percent of colonies lost in some beekeeping operations--the threat to the nation's food supply sent tremors through both producers and consumers. "For large monocultures of crops, you have to have honeybees," says Marla Spivak, an entomologist with University of Minnesota Extension. "We rely on honeybees to do the big jobs. Without honeybees and other bees to pollinate crops, grocery shelves would have about one-third fewer fruits and vegetables, and many flowers would not set seed." Honeybees aren't native to the United States, but were imported from Europe as early as 1622. Representing just a few of the 3,500 or more bee species in the Americas, they tend to pollinate a wide variety of plants and produce much more honey than other species. Their high sociability allows them to be transported long distances in large hives. Besides honeybees, the United States is home to many bees that live in the ground, as bumblebees prefer to do, or in other structures such as wood.

Without honeybees and other bees to pollinate crops, grocery shelves would have about one-third fewer fruits and vegetables, and many flowers would not set seed.

Given the honeybee's crucial importance to agriculture, scientists like Spivak are hard at work trying to improve bee health. This year's devastation is worrisome in part because its cause is still unknown. In many hives, large numbers of adult bees simply disappeared without a trace, leaving larvae and pupae but no dead bodies to be examined for disease, pesticide residues or other agents. And, unfortunately, the list of factors afflicting bees is long. One of the biggest players is, paradoxically, civilization itself. On the one hand, civilized peoples have cultivated honeybees; but on the other, urban sprawl has turned diverse native landscapes rich in clover and alfalfa into crop monocultures, houses, and pavement, destroying many sources of pollen and nectar that bees need. Another threat comes from parasitic mites, especially Varroa mites, which live on the external surfaces of both larval and adult bees. Mites, as well as bacterial and fungal diseases, spread easily among bee colonies concentrated in a small area, such as is the case during pollination season in agricultural areas. A third element is pesticides, which can sicken or kill nontarget species like bees. And even pesticides aimed at bee diseases and mites are becoming less effective as the organisms develop resistance. During the winter of 2004-05, for example, a die-off of bees occurred in part because mites became resistant to a pesticide.

Like bees? Spare those dandelions

Bees must have access to a variety of plant pollens to get all the amino acids and other nutrients they need, and weeds like dandelions, creeping charlie, and roadside plants are bee favorites. So before you spray that dandelion or rip up that nameless flowering weed, consider that you may be robbing your neighborhood bees of a food source.

A good reason to love bumblebees

If you grow juicy big tomatoes, thank the bumblebees in your neighborhood. Only they can pollinate tomatoes because the tomato plant won't release its pollen unless its pollen-making anthers (the orangish cones in the middle of the flowers) are shaken. Honeybees just roll around on the flowers, but bumblebees grasp the anthers with their mouthparts and vibrate their wings, triggering a cascade of pollen.

Whatever killed large numbers of bees this winter is most likely a combination of things that finally pushed them over the edge. "The bees' immune systems have been compromised from a number of causes," says Spivak. Yet, several factors are working in the bees' favor. New treatments reduce the risk of pests like mites or bacteria developing resistance, and people applying pesticides often choose ones that decompose quickly and have low toxicity to bees. Also, genetically modified crops have no known effects on honeybees. But, Spivak points out, "new classes of pesticides, such as those that move through plant tissue, may contribute to the stress on bees' immune and detoxification systems." Along with entomologist Gary Reuter and students, Spivak focuses her research on keeping bees healthy. In her lab, she breeds bees for hygienic behavior, a mechanism of resistance against bee diseases and parasitic mites. She and her colleagues are also researching ways to bolster the immune system of bees. For more on what the University is doing to help honeybees, visit the U of M Bee Lab Web site.

Heaven in your garden?

University of Minnesota releases new ornamental grass

By Pauline Oo

April 13, 2007

The University of Minnesota recently released a new selection of little bluestem called Blue Heaven.

In 1995, horticulturist Mary Meyer planted a selection of seeds from Benton County and 30 other Minnesota locations on the University of Minnesota's Twin Cities campus in St. Paul. Three years later, some superior individual plants were planted for further evaluation, and by 2004, one selection stood out. Blue Heaven, a new variety of little bluestem grass, is hitting garden centers this spring.

"I watched it [grow] in many sites and locations over 10 years," says Meyer, a horticulturist with the University of Minnesota Extension and a professor in the U's Department of Horticultural Science. "[Blue Heaven's] overall form, color and plant appearance is superior."

Ornamental grasses have been part of European and Asian gardens for centuries, but only in recent years have they become popular in the United States--largely because of their varied forms, colors and textures. Bluestem grasses, in particular, are one of the main group of native grasses on the Great Plains.

Meyer's prized Blue Heaven is taller and more upright than the typical little bluestem--a grass known for its tolerance for dry soil and full sun. It stands at 40 to 48 inches tall and doesn't fall down like some grasses tend to do, no matter the season.

Ornamental grasses at the University of Minnesota

The U's Landscape Arboretum has one of the largest grass collections in the United States--more than 200 different ornamental and native species. Plants are evaluated for winter survival, flowering time, and self-seeding. A six-year (1987-1993) winter hardiness study of 165 ornamental grasses located at the Arboretum found 85 that can be grown successfully in Minnesota or USDA Zone 4a. Minimum annual temperatures during the study ranged from -20? to -30? F. These temperatures are typical of many states, ranging from Maine to Montana.

Blue Heaven's summer foliage is light blue, with flower stems appearing in late July and early August. By late August the plant begins to turn a dark burgundy and small, fluffy white flowers mushroom along its stems. Blue Heaven will slowly turn to tan and remain upright during the winter months.

With parents from central Minnesota (Benton County), where the average annual minimum winter temperatures are between -30 to -35 degrees Farenheit (USDA Hardiness Zone 3b), it's no wonder that Blue Heaven has winter hardy genes. "Sandy soil is a good site for the little bluestem, although it will tolerate heavy clay soil," says Meyer. "Full sun is ideal, and fertilizer is not recommended. Water plants well the first month after planting, then allow them to dry out between waterings. After the first year, you should not need to water Blue Heaven."

Now, how can anyone go wrong with a plant like that.

To learn more about Blue Heaven, listen to Mary Meyer on University of Minnesota Moment. If you're interested in buying or planting Blue Heaven, do call your favorite garden center ahead to check that it's carrying it.

Getting out the vote

All-campus elections feature rallies, online voting

By Kristi Goldade

April 17, 2007

Sidewalk chalking is one of the many methods that students have used to attempt to get out the vote for this year's elections.

Yesterday, April 16, marked the official start of this year's student government elections. Although Monday's voting had some major technological glitches, electronic vote-casting is now up and running smoothly. Today and tomorrow, students can log on with their campus I.D.s to a one-stop voting shop to pick the officers and members of many of the student groups who assert their influence on the U's campuses.

The All-Campus Elections Commission is hosting the site and is a student group itself. Formed to help other groups participate in the election process, it also sets up debates that tackle issues like tuition, textbook prices, the "party patrol," and professor evaluations.

Any registered student group can have a presence on the voting site (see below for some of this year's groups) and it may be one of the few times it will have its name and message made public for the entire University community, says Ed Kim, Student Activities Advisor. "When students groups participate in all-campus elections, they experience so much more excitement and support than had they independently held an election," says Ed Kim.

To get the U out and voting, the committee has posted fliers on Facebook, MySpace, and the U's MyU portal, as well as chalked its message on sidewalks across campus. "Get out the vote" rallies on Tuesday (in front of Coffman Union) and Wednesday (at the student center on the St. Paul campus) will feature prizes, food--a sure student draw--and lap top computers for students to vote on.

So, if you're a University student reading this, do your part. Log on and vote. "The great thing about these elections," says Kim, "is the opportunity for the University student community to stand behind those working to make the U a better place."

Who to vote for

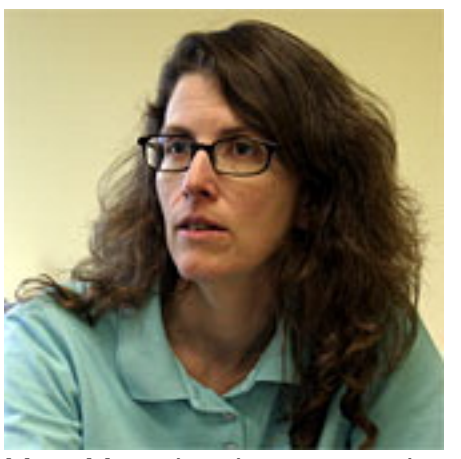
The student groups below are participating in the all-campus elections. Please click on their names for more information. **College of Liberal Arts Student Board** This is the student governing board for the college. Its mission is to represent and advocate for CLA students in policymaking and community building. **Minnesota Student Association** MSA offers a host of services to students, including MSA Express, a van taxi service to increase campus safety during the weekends, concerts to support student community service and spirit, and grants. It lobbies for two major issues: reduced tuition and textbook prices. **MPIRG (Minnesota Public Interest Research Group)** Empowering students and the community to take collective action since 1971, some of MPRIG'S current issues are the MinnCan pipeline, renewable energy, and homelessness. **Student Senate** The Student Senate is a body of student representatives from UMC, UMD, UMM, and UMTC campuses. It acts as an advisory board on matters of student academic integrity, behavior, government, organizations, and publications. **GAPSA (Graduate and Professional Student Assembly)** GAPSA advocates on behalf of the U's graduate and professional students.

Top advisers honored

Mary Moga is one of four recipients of Tate Award for Undergraduate Advising

By Christie Vogt

April 17, 2007



Mary Moga has been named one of four recipients of the 2007 John Tate Award for Excellence in Undergraduate Advising.

After much anticipation, most first-year students head off to the University determined to be independent, while also anxious for guidance. That's where Mary Moga comes in--one of four recipients of the 2007 John Tate Award for Excellence in Undergraduate Advising.

Student conversations with Moga are not limited to deciding between an astronomy and oceanography course or debating between a history and English major.

"Mary would compel me to view my life through a bigger lens outside of the academic arena," says Aasiya Somji, a recent advisee. "[She] pushed me to remember the joy of being thoughtful and purposeful," echoes former student Josh DoBell, "not only in my academic pursuits, but in my life."

Moga, who has been with the College of Liberal Arts honors program on the Twin Cities campus for eight years, brings with her a dedication and enthusiasm which are "quiet and powerful at the same time," according to Carole Anne Broad, co-chair of the Academic Advising Network.

John Tate Award for Excellence in Undergraduate Advising

The Tate Award was established in 1986 to recognize and honor top advisers U-wide. The other 2007 recipients include:

Pamela Holsinger-Fuchs, UMC Student Services

Julie Johnson Westlund, UMD Career Services

Gayle Woodruff, UMTC Learning Abroad Center, Office of International Programs

See also the Tate Awards.

"I think it would be difficult to find an adviser who has connected with students the way Mary has," adds Honors-CLA assistant program director Pamela Price Baker.

For four years, Moga has been in charge of freshman admissions and recruitment, one of the largest and most important tasks of the office. Despite Moga's hectic schedule, DoBell says that when he met with her, their conversation "felt like the most important thing she had to do that day."

"I love being an adviser," Moga says. "I get to work with amazing people who inspire me--and for whom I hope I return the favor--[and] challenge me, and help me to think in expanded ways."

Each year at the Honors Luncheon for graduating seniors, students cite her repeatedly for having had an impact on their lives at the University.

"We all joke each year about how often Mary is named," says Honors-CLA director Richard McCormick, "but in fact we are impressed by it--and very proud of her." Moga says of her colleagues, "Their constant cheer and willingness to share their lessons, triumphs, and sorrows has helped me to ground myself as an adviser and mentor."

A few years ago, Moga recruited a record number of faculty members--about 50--to participate at the CLA Commencement ceremonies. She "gave graduation the kind of significance that students deserve," McCormick says.

"This recognition by my students, peers, and supervisors for doing a job [that] I love means a lot," Moga says of the award. "I'm thrilled and honored--no pun intended!--to be among those selected."

When speaking of Moga, colleagues and students frequently note her empathy.

"I have observed students enter her office in tears and emerge with resolve and a plan in hand," Baker says. "I watch Mary emerge later, teary-eyed and ecstatic that she and the student had been able to tackle the situation together."

"I encourage them to take full advantage of all the University has to offer," Moga says, "and let them know that they are really the ones in charge of their lives now."

This seems to have been the case with Aasiya Somji: "There has never been a time that I have gone into her office without a paradigm shift in the way I view the world."

"This recognition by my students, peers, and supervisors for doing a job [that] I love means a lot," Moga says of the award. "I'm thrilled and honored--no pun intended!--to be among those selected."

As students leave the U, Moga travels with them through correspondence and well wishes, says Baker. "She does not forget them."

"Four years often rush by at the speed of light," Moga says, "and then they are gone, off to create themselves anew in their lives outside of college."

FURTHER READING

"A sea change in campus culture: New initiatives put undergraduates in the spotlight--and the driver's seat," March 30, 2007 "U advisers celebrate Tate Award winners," May 10, 2006

Christie Vogt is an editorial assistant in University Relations.

Fallout from environmental policy

U student looks at collateral damage of federal environmental policy

By Danny LaChance

From *eNews,* April 19, 2007

Moira McDonald by the Mississippi River as it flows south from Minneapolis toward the site of her Yazoo Delta research.

We all remember those images: stranded people awaiting rescue from New Orleans rooftops amid swirling dark water. These images were searing reminders of human fragility in the face of natural forces. But as stories of those unable to leave the devastated area began to circulate in the media, economics and race relations emerged alongside meteorology and geography as explanations for the human fallout of a natural disaster.

For Moira McDonald, a doctoral student in the Department of Geography, their plight raises some critical questions about race, class, and public policy. McDonald has spent the past three years studying federal flood control and agricultural policies in the Yazoo Delta of Mississippi. Her work explores whether federal agriculture and flood control policy plays a role in perpetuating historical economic and environmental inequalities.

"These programs do not exist in a vacuum to stabilize agriculture prices or improve the li ves of farmers," says McDonald. "They have social, economic, and environmental consequences."

In the culture of engineering, projects are often framed in stark bottom-line terms, she says. "In calculating the costs and benefits of its projects, the Army Corps of Engineers inevitably makes value judgments about what kinds of land and what kinds of people need protection," she explains. "These questions go to the very heart of the issue of ecological and economic sustainability. "

Just how those judgments get made is the focus of McDonald's work. McDonald studies the relationships federal agencies such as United States Department of Agriculture and the Army Corps of Engineers have with their local offices, members of Congress, and nonprofit organizations in the Delta. She also studies the culture of the area and how it shapes the ways people who work in regional offices interpret and implement directives from the agencies' Washington headquarters. Finally, she examines practices of large farming operations, the politics of race and poverty in the area, and the relationships of those interest groups to the federal agencies.

McDonald 's sources have been as multifaceted as the topic she's taken on. With fellowship support from the University and the Environmental Protection Agency, McDonald has been able to conduct extensive on-site research. In trips to Washington, D.C., and the Mississippi Delta, she has gathered agency documents that will help her understand how federal agricultural and flood control policy have operated in the Delta. She's interviewed federal workers and the Mississippi residents--agency personnel, black and white farmers, and representatives of environmental and agricultural organizations--who are major stakeholders in federal projects. And she has used a wide range of tools--geographic information systems data, spatial statistics, census data, and water quality reports--to examine the relationship between flood and agricultural subsidies, social and economic inequalities, and environmental quality.

"I'm particularly interested in whether the number and amounts of agricultural subsidies differ in areas with different levels of flood protection," she says. "I also want to tease out the relationship between flood protection, agricultural productivity, farm incomes, and racial characteristics of the population."

Her initial findings suggest that despite the pervasive African-American poverty--with roughly 50 percent of the African-American population living below the poverty line--flood control and agriculture debates consistently obscure racial and economic inequalities by pitting environmental and agricultural interests against one another.

A project evolves

Eric Sheppard, McDonald's adviser, says her research helps to bridge the gap between human and physical geographers. "There has been a tendency in the discipline in recent years for human and physical geographers to drift apart. Human geographers tend to neglect the significance of biophysical processes, and physical geographers often neglect the significance of social and cultural theory," Sheppard says. By examining the link between ecological and social processes, McDonald's work links those two geographical traditions.

McDonald has also brought a new rural perspective to the growing body of geography scholarship related to environmental justice, which looks at the disparate impact on human communities of the environmental consequences of human activity. Such work has focused almost exclusively on urban areas.

"Katrina forced a variety of state, local, and federal agencies to acknowledge that engineering cannot always overcome nature," says McDonald. "Inside the Army Corps of Engineers, the hurricane precipitated a real examination of how decisions were made in the past and a rethinking of how they can be made in the future."

McDonald hopes to contribute to that reexamination by helping policy makers think more broadly and critically about the social and cultural context and implications of proposed policies. She'll do that by bringing her knowledge and perspectives to higher education classrooms, where, she notes, tomorrow 's policy makers are spending their time today.

"I would like a teaching position where I can continue to examine natural resource use and conservation from an interdisciplinary perspective," McDonald says. "I want to bring students into contact with natural resource issues through direct involvement with local groups working to understand and protect wetlands and streams in their communities."

Better care for children with autism

From *eNews,* April 19, 2007

Children with autism do not receive the same quality of primary care as children with other special health care needs, according to research from the University of Minnesota Medical School.

Primary care for children should be family-centered and compassionate, according to the American Academy of Pediatrics.

A study published in the Archives of Pediatrics and Adolescent Medicine found that parents of children with autism were less likely to report that their children received the type of primary care advocated by the American Academy of Pediatrics (AAP) when compared to parents of children with other special health care needs. The "medical home model," which is defined by the AAP as accessible, continuous, comprehensive, family-centered, compassionate, culturally effective, and coordinated with specialized services, was used as a measure for ideal primary care of children.

"This study shows that children with autism are less likely to receive the type of primary medical care that we hope for all children," says principal investigator Allison Brachlow, a research fellow at the U's Department of Pediatrics. "With increasing numbers of children diagnosed with autism, it is imperative to understand how to provide optimal care for these children."

Specifically, Brachlow found that parents of children with autism were less likely to report their child's care was family-centered, comprehensive, or coordinated. For example, parents of children with autism were less likely to report that their child's primary care provider spent adequate time with them, offered understandable explanations, or discussed outside services, such as speech and occupational therapies. Furthermore, parents of children with autism were more likely to report difficulties obtaining subspecialty care, such as referrals to a gastroenterologist or other subspecialty doctor.

The researchers analyzed data from the National Survey for Children's Health (NSCH), which surveyed 102,353 parents or legal guardians of children under 18 across the nation. Of this number, 495 children were identified as having autism and 18,119 were defined as children with other special health care needs such as asthma, attention deficit disorder, behavioral conduct problems, and depression.

According to the Autism Society of America, autism is estimated to affect approximately one in every 150 births. Approximately 1.5 million Americans have been diagnosed with some form of autism, which varies in its severity. It is expected that the number could reach 4 million within 10 years. As a disease, autism presents challenges that may contribute to difficulties in providing primary care. "While there is a recognized genetic component to autism, the cause is still unknown," notes Brachlow. "Additionally, the diagnosis of autism is clinical, meaning there are no blood tests to determine if a patient has autism."

There are currently many therapies and treatments for autism, but each with varying degrees of supporting scientific evidence. "Further research is needed to determine and implement the best models of primary care delivery for children with complex medical conditions, such as autism," adds Brachlow.

Help for the naked ear

U professor studies hearing protection for construction workers

By Mame Osteen

From *eNews,* April 19, 2007

Construction worker Jeannette Quiros demonstrating how to wear a protective foam earplug.

Chain saws...pile drivers...roaring bulldozers.... Just thinking of them may give you a headache! Imagine what their decibels do to the delicate ear cilia of the construction workers exposed to them every day. It's no wonder that, according to some researchers, today's average 25-year-old construction worker has the hearing of a 50-year-old.

Noise-induced hearing loss is the most common occupational disease in the United States. It affects more than 10 million U.S. workers, impairing their quality of life and contributing to work-related accidents. It takes a particular toll on the nation's five million construction workers, who generally experience the highest level of noise, and who, unlike workers in the field of manufacturing, are minimally protected by the Occupational Health and Safety Administration.

University of Minnesota associate professor Madeleine Kerr has worked for the last 17 years to protect the hearing of these vulnerable workers. In fact, by the time noise and hearing loss was named a national research priority by the National Institute for Occupational Safety and Health (NIOSH) in 1996, she had been researching the subject for seven years. Her efforts have been nationally recognized. In 2006, she received the Honor a Researcher Award from the Midwest Nursing Research Society, acknowledging her important contribution to public health nursing research.

Working with workers

With help from the Minneapolis Building and Construction Trades Council, an umbrella group representing 20 Twin Cities unions, Kerr has built a strong network of resources and connections to fuel her ongoing research.

Her recently completed study involved 723 Twin Cities carpenters, laborers, and roofers. They participated in half-hour sessions with computers Kerr had programmed with audio, video, and graphics of real-life construction situations, paired with educational messages about workplace noise, the threat it poses to hearing, and how to protect against noise-induced hearing loss.

Madeleine Kerr (second from left) with some cast members for the Latino construction worker video.

The sessions were interactive; users asked, for example, to determine the safety of noises made by various machines from chop saws to snowmobiles. The computer responded with data about each specific noise.

Some workers also received personalized messages that addressed their perceived barriers to the use of hearing protectors. For example, if they told the computer they thought they'd have difficulty communicating with co-workers while wearing them, they were shown a video clip explaining that, assuming normal hearing, they would actually be able to communicate better if they wore the protection.

Results of Kerr's study will be published in the March 2007 issue of Canadian Journal of Nursing Research.

The Latino study

While reviewing the ethnicity distribution of the construction study, Kerr found that Latinos comprised a growing segment--23 percent--of construction workers. "I realized that there were Latinos participating in my research who would have preferred to do so using Spanish language," says Kerr. She decided to reach out to them directly. In 2004,she secured a $548,000 grant from the National Institute on Deafness and other Communication Disorders to build on her previous work.

Researching hearing loss among Latino workers was a natural for Kerr, who speaks Spanish and has previous research experience with Mexican-American migrant farm workers. A week at a Spanish immersion camp last summer helped Kerr prepare for her new challenge.

U Reads: who is reading what

List for U Reads 2007 is now available

From *eNews,* April 19, 2007

Each year, the U Reads program publishes a list of books recommended by a chosen number of people in the University of Minnesota community.

As a young boy living in Belgium, University of Minnesota professor Jon Hallberg fell in love with comic books. He read the standards like *Mickey Mouse, Uncle Scrooge,* and *Archie,* but the "Tintin" series was his favorite. Today, he continues to enjoy comics--with his 10-year-old son--and graphic novels. For U Reads 2007, he chose Marjane Satrapi's *Persepolis: The Story of a Childhood,* an engaging tale of modern Iran in a graphic novel form.

Hallberg's selection is one of 10 that appear on this year's U Reads list. Since 2002, the College of Continuing Education has selected people from the University community to recommend a book that has inspired them or that they would encourage others to read.

This year's list is especially diverse, and contains the U Reads program's first-ever book of poetry, *Incomplete Knowledge: Poems* by Jeffrey Harrison, and first graphic novel, *Persepolis: The Story of a Childhood* by Marjane Satrapi. Also new this year is a revamped Web site, featuring videos of the selected U readers talking about their choices and discussing why reading is important.

The U Reads 2007 selections are:

The Art of Possibility: Transforming Professional and Personal Life by Rosamund Stone Zander and Benjamin Zander
Recommended by Darlyne Bailey, dean, College of Education and Human Development

Telling to Live: Latina Feminist Testimonios by The Latina Feminist Group
Recommended by Rusty Barcel?, vice president and vice provost, Equity and Diversity

Field Notes from a Catastrophe: Man, Nature and Climate Change by Elizabeth Kolbert
Recommended by Robert Crabb, director, U of M Bookstores

Persepolis: The Story of a Childhood by Marjane Satrapi
Recommended by Jon Hallberg, professor of family medicine

Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World by Tracy Kidder
Recommended by Larry Jacobs, director, Center for the Study of Politics and Governance

The Year of Magical Thinking by Joan Didion
Recommended by Mary Jo Kane, director, Tucker Center for Research on Girls and Women in Sport

George Washington G?mez: A Mexicotexan Novel by Am?rico Paredes
Recommended by Louis Mendoza, chair, Department of Chicano Studies

On Late Style: Music and Literature Against the Grain by Edward W. Said
Recommended by Clarence Morgan, chair, Department of Art

Incomplete Knowledge: Poems by Jeffrey Harrison
Recommended by Julie Schumacher, director, Creative Writing Program

On Beauty by Zadie Smith
Recommended by Jenny Weber, U student and host of "Rock and Roll Over" on Radio K

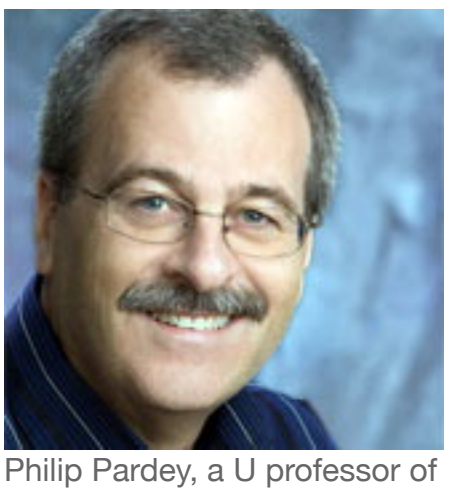
To learn more about these titles and read about their impact on the people who recommended them, see U Reads 2007. (The U Reads 2004, 2005, and 2006 lists are also available on the Web site.)

Open, sesame: finding the key to world food security

U professor Philip Pardey fights world hunger, with a little help from the Gates Foundation

By Deane Morrison

April 20, 2007; updated May 16, 2007



Philip Pardey, a U professor of applied economics, is tackling the problem of world hunger with help from the Gates Foundation.

In many areas of the world, local agriculture leaves people with inadequate food or nutrition. Plenty of international organizations want to remedy the situation, but all the will in the world won't substitute for solid and specific data on local conditions like soil, rainfall, climate, social and economic structure. A lack of information on such factors can make investments in anti-hunger programs miss the mark, leaving poor, hungry people with little benefit. The need for specific data recently led the Bill and Melinda Gates Foundation to commit $3.7 million to a project to generate detailed, localized information on food production practices worldwide, but with specific emphasis on Africa and South Asia. The initiative, called HarvestChoice, is led by Philip Pardey, a University professor of applied economics; and Stanley Wood, a senior research fellow at the Washington, D.C.-based International Food Policy Research Institute. The grant will expand the Gates Foundation's attack on poverty and hunger, which already includes many programs to combat diseases and conditions that disproportionately afflict the developing world. "The thinking was that you can't just treat disease to improve health. Clearly, food and nutrition are important as well," says Pardey. "More than 300 million people in Africa are living on less than a dollar a day, and 70 percent of the sub-Saharan population are farmers or landless workers linked to agriculture--mainly providing labor on farms but also working off-farm in transporting or processing food." Pardey sees the project's primary role as "answering tough questions, strategic questions, to help the Gates Foundation and others make tough decisions" about how to target investments "to achieve the biggest poverty and hunger bang for the buck."

"In developing countries, agriculture consumes upwards of 85 percent of potable water," Pardey says. "Making agriculture more water efficient is something we're looking at, for example, by increasing drought resistance of crops or shortening the growing period."

Much of the work will be analyses of data on income, food consumption, demographics and other characteristics gleaned from household surveys taken over the past five years by national statistical agencies, often with funding from the World Bank. The research may reveal, for example, new evidence on the link between poverty and hunger and the mix of crops (such as maize and cassava) that farmers grow in particular agro-ecosystems. If so, the next steps, says Pardey, would be to identify obstacles to improving the productivity of these crops, decide which obstacles can be overcome by technology, and make sure that the poor and hungry will benefit most. A basic problem in Africa is the fragmentation of farm land into ever smaller plots, leaving farmers with less room to grow crops. Another is that many agricultural areas tend to lack laborers at planting and harvest times, when labor is most needed. Water shortages, especially with rising populations and global warming, is a particularly thorny problem. "In developing countries, agriculture consumes upwards of 85 percent of potable water," Pardey says. "Making agriculture more water efficient is something we're looking at, for example, by increasing drought tolerance of crops or shortening the growing period." In the future, major areas of rice production in Asia will likely struggle to find enough water for flooding rice fields, as is now the common practice. A major reason for flooding is weed control, Pardey explains. But if the fields aren't flooded, then farmers must find other ways to deal with weeds. Solutions to this dilemma may be found through research in new varieties of rice and new management practices.

"In Africa, [the Program for African Seed Systems] aim to produce 200 master's degree and 50 Ph.D-level breeders to help build the local scientific capacity to help realize a sustainable Green Revolution for African agriculture," says Pardey.

Pardey, Wood, and their colleagues will also look for economic stumbling blocks on the road to agricultural development. Consider, for example, what could happen in many African countries if a crop breeder develops a new and improved variety of sorghum, a staple crop. If enough of this improved seed can be made available to seed suppliers or nongovernmental agencies like CARE, the seed and its attendant production benefits can be spread to a large number of farm households. But first there must be a network of skilled farmers who can multiply the small amounts of seed coming from the breeding programs by growing it up without contamination. "You could have both breeding and able distributors, but no intermediary system to multiply the number of seeds," Pardey explains. "The Gates Foundation is trying to identify those problems and see if they can be overcome. There are the beginnings of small-scale entrepreneurial seed production and distribution systems in Africa. The idea is to help them flourish." The Program for African Seed Systems, a joint project of the Gates and Rockefeller foundations, is putting more than $40 million into training crop breeders, Pardey says. "In Africa, they aim to produce 200 master's degree and 50 Ph.D-level breeders to help build the local scientific capacity to help realize a sustainable Green Revolution for African agriculture." Pardey and his colleagues systematically compile information on all kinds of agricultural constraints, in areas ranging from production and distribution systems to regulatory issues. "As economists, we think about the commercialization as well as production constraints. An explicit part of our evaluation is to do that," he says. The HarvestChoice grant will run for 39 months, ending Dec. 31, 2009. But the battle against hunger and malnutrition is only just being joined. "It will take decades for the full realization of the results of this research," Pardey says. "But the Gates Foundation is committed to staying the course so the science gets done and the new technologies find their way into farmers' fields."

Teachers at the top

The U honors faculty who make a profound impact on students

By Deane Morrison

April 20, 2007; updated for *Brief,* April 25, 2007

Twelve faculty members were honored with distinguished teacher awards April 23 at the McNamara Alumni Center.

She has the gift of fortitude, both intellectual and physical, to withstand the rigors of life as a full professor at a major university. But when she saw the letters from her former students, Maria Damon cried. "I felt that they 'got' me--they got what I'm about," says Damon, an associate professor of English, poet, and poetry expert. "It was very affirming." The students' tales of how Damon had transformed their experience of poetry and even their very lives helped her win a 2006-07 Graduate and Professional Teaching Award, an annual University-wide award that, along with the Morse-Alumni Undergraduate Teaching Award, honors the U's most outstanding teaching faculty.

Maria Damon, associate professor of English

Recipients of the two awards are inducted each year into the University's Academy of Distinguished Teachers and carry the title Distinguished University Teaching Professor for the rest of their careers at the University.

This year, five Graduate-Professional Teaching Award winners and seven Morse-Alumni winners received their honors at a ceremony April 23 in the McNamara Alumni Center on the Twin Cities campus. About 300 students, colleagues, and fans were on hand to celebrate with them.

What makes a good teacher, anyway? Damon says it's "someone who listens to what the student is saying." But it goes beyond merely hearing the words. "You have to read between the lines," she explains. "Especially with undergraduate teaching, you don't always know what effects you're having until much later, if ever." After more than 18 years on the University faculty, Damon believes that, just as everybody can become a poet, so can teachers can improve.

> *"Despite their differences, students are united by the desire to be independent adults, to build relationships with others, and to contribute to society," says Patricia James. "They are searching, in their own ways, for a better understanding of themselves--where they came from, and who they want to become."*

Thomas Molitor, another of this year's graduate teaching award winners, could not agree more. Many years ago, an administrator told Molitor, then a young faculty member in the College of Veterinary Medicine, not to waste his time trying to improve his teaching. Luckily, he paid no heed to that advice.

Thomas Molitor, professor of veterinary population medicine

After seeking aid from the University's Center for Teaching and Learning and teaching experts inside and outside his college, Molitor gave up the idea that a professor exists to pour information into the empty vessels of his students. Instead, he embraced the view that student learning styles are not one-size-fits-all and set out to find what works best.

"We are not born as outstanding teachers, but require training, experience, mentorship by other faculty, and an interest in experimentation," Molitor says. "Experimentation in teaching is crucial. What works best for instructor X in the classroom may not work for instructor Y." As a specialist in virology, Molitor helps his students master a field where the subject matter shifts and mutates as often as some of the viruses themselves. He has found that students do well when asked to become experts on, for example, individual groups of viruses, such as influenza and herpes, and then instruct their peers. At the graduate and professional level, teachers have more one-to-one contact with students and are concerned with guiding them on the road to becoming professional scholars in the same or a related field.

With undergraduates, however, teachers often find themselves facing classes of students in which many will have no other experience with the subject matter, if they aren't downright hostile to it. Some classes are full of students from low-income or immigrant families for whom a large university is terra incognita.

Patricia James, an art professor in the College of Education and Human Development, won the Morse-Alumni award this year partly for her mastery at reaching such students. "The absolute last thing I wanted to study after leaving high school was art," says one of James's former students, who is now a financial analyst. "I thought of it as being similar to studying 'gym,' a complete waste of time and money....Pat worked every day to make us *experience* art, not learn about it. We created art, listened to it, and performed it. You never knew what was going to happen in the next class, but you knew it was going to challenge you, make you laugh, make you think."

Patricia James, associate professor of postsecondary teaching and learning

In one of James's classes, students held a poster presentation of aesthetic artifacts from their own cultures. Not only did they learn about the cultures of unfamiliar places, whether Laos, Somalia, the Iron Range, or Minnetonka, but some found lessons about their own cultural heritage. "I learned that wearing Hmong clothing wasn't [just] for my parents, but for me, too," says one young Hmong American. "I have always thought that wearing Hmong clothing was kind of out of my style, but now I realized that it's in my culture, and I will always cherish this clothing." It is her role, says James, to help all her students build bridges to their own futures. "Despite their differences, students are united by the desire to be independent adults, to build relationships with others, and to contribute to society," she says. "They are searching, in their own ways, for a better understanding of themselves--where they came from, and who they want to become."

2006-07 DISTINGUISHED TEACHING AWARDS

Morse-Alumni Award for Outstanding Contributions to Undergraduate Education

* **Praveen Aggarwal**, business and economics, Duluth
* **Jay Bell**, soil, water, and climate
* **Thomas Hoye**, chemistry
* **Patricia James**, postsecondary teaching and learning
* **Ned Mohan**, electrical and computer engineering
* **Paula O'Loughlin**, political science, Morris
* **Joel Samaha**, sociology

Outstanding Contributions to Postbaccalaureate, Graduate, and Professional Education Award

* **Maria Damon**, English
* **John Day**, neurology and pediatrics
* **Ruth Lindquist**, adult and gerontological health
* **Thomas Molitor**, veterinary population medicine
* **Bruce Wollenberg**, electrical and computer engineering

Recipients teach on the Twin Cities campus except as noted.

Members of the academy

The wisdom of this year's award winners will add to the strength of the University's Academy of Distinguished Teachers. The academy was responsible for a full-day conference in advance of the ceremony, which featured 13 presentations, eight workshops, five workshops, and a poster session with 18 participants--all showcasing and sharing best teaching practices across the University system. Topics ranged from the psychology of online courses to working with different learning styles to the importance of the physical classroom. A keynote address was given by a guest professor who specializes in peer instruction.

A list of presentations is posted on the academy Web site, where conference proceedings will also be posted soon.

FURTHER READING

"Building strong communities" (April 26, 2006)

"Teaching through change" (October 12, 2005)

"Supporting great teaching" (April 21, 2005)

Dealing with a national tragedy

The University community confronts its feelings after the Virginia Tech killings

April 20, 2007

On Thursday, scores of students signed messages on a banner to be delivered to Virginia Tech.

The University of Minnesota, like all schools across the country this week, felt the shock waves rippling out from Virginia Tech along with their load of disbelief, anger, and sadness.

Since Monday, the day Cho Seung-Hui killed 32 people and himself, University students, staff, and faculty have been dealing with the tragedy, both personally--through their own thoughts and feelings--and collectively, when a bomb threat on Wednesday cleared seven Twin Cities campus buildings and when a memorial vigil on Thursday brought the University community together.

Provost Tom Sullivan sent out a University wide e-mail Monday after the news broke voicing solidarity with those affected by the shootings. He also encouraged students, faculty, and staff to pay attention to their surroundings, call 911 if concerned, seek counseling if they are struggling with personal challenges, and learn more about the U's emergency preparedness.

But the "big strong feeling," he says, was that there's a lot of good on campus and that we really do help each other out.

Ed Ehlinger, director of Boynton Health Service, met with several faculty, staff, and students this week to talk about their feelings since the shootings and was surprised to find that the meeting went on far longer than expected. "We just let the meeting continue, and people said 'I really needed that,'" says Ehlinger. "Once they started talking, they recognized that they felt better [because of it]. And that other people have similar kinds of thoughts."

Ehlinger says of the students, that some felt the incident was tragic, that it could happen [on the Twin Cities campus], and that they need to be paying attention to other students. They felt we needed to be kinder and show common courtesies. But the "big strong feeling," he says, was that there's a lot of good on campus and that we really do help each other out.

Harriett Haynes is director and senior psychologist at University Counseling and Consulting Services. She spoke at the vigil and was touched by the number of students who attended. "It's important to identify our reactions to this tragedy and do self-care," says Haynes.

Normal emotions, according to Haynes, include grief, difficulty focusing, and a need to check in with loved ones.

"People might need additional counseling support if they experience abrupt changes in their own behavior, high feelings of anxiety and fear that seem not to go away," she says. "Or if they have strong emotions like crying that feel unusual and don't seem to want to recede, or they feel rage or the desire to lash out and hurt others."

She urges students who feel the need for more help to contact University Counseling and Consulting Services faculty and staff can contact the Employee Assistance Program for their own needs.

"Sometimes we see people and it's late," says Haynes. "We could have been much more helpful if we'd encountered them earlier on when they were feeling unhappy. There are students out there who know their colleagues are not feeling well, and who are feeling psychologically fragile, but are keeping it to themselves. We want students, faculty, and staff to join with us to encourage people to get the help that they need. Seeking help is a sign of strength, not a sign of weakness."

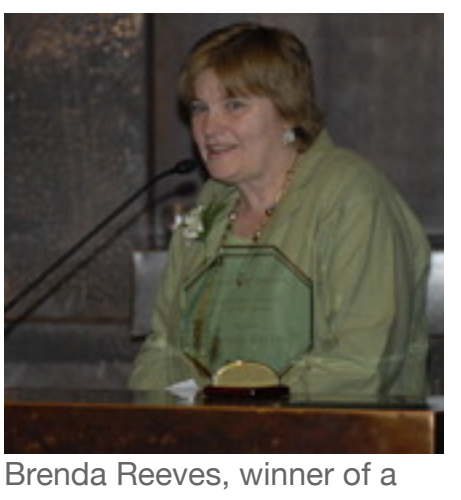
In the coming week, University officials will be reviewing policies and procedures in light of the Virginia Tech incident to make sure--as far as humanly possible--that such a disaster will not strike their school.

Energy givers

U honors five staff and faculty with the Outstanding Community Service Award

By Stephanie Wilkes

Brief, April 25, 2007



Brenda Reeves, winner of a 2007 Outstanding Community Service Award, spoke to the audience at the awards dinner as part of Public Engagement Day, April 11. By day, Reeves is an information technology professional at the Twin Cities campus. By night and on weekends, she's a community volunteer extraordinaire.

With long days of work and other obligations, many University staff and faculty members struggle to find time to engage with the community. Others, like Brenda Reeves, an information technology professional in the Department of Applications Development and Maintenance, Twin Cities campus, have made community service their first priority.

Reeves and four other U of M staff and faculty members were recognized April 11 as winners of the Outstanding Community Service Award. All of them are dedicated to integrating engagement with the public into their work and their lives.

The award, established in 1999 by President Bruininks, honors community outreach and service activities. It acknowledges members of the U community who have devoted time and talent to making substantial, enduring contributions to the community and the public good.

Reeves, who has worked with central financial applications for five years, views her engagement with the community as nothing out of the ordinary--a no-brainer.

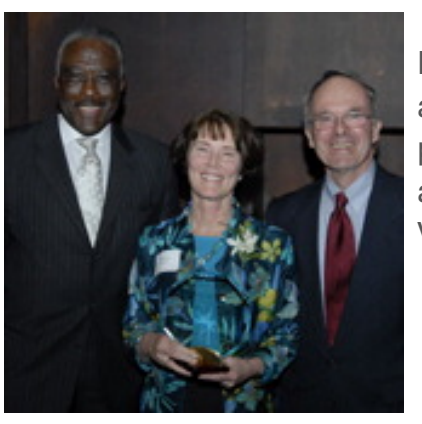
"If I see a need somewhere, a need that is not being met, and I can somehow help meet that need, I do," says Reeves. "It's as simple as that."

The depth and breadth of her work, however, is anything but simple. Reeves has been involved with youth exchange programs through the local Lions Club. For eight years, she's been involved in planning Brooklyn Park's annual Tater Daze festival. She volunteers in the kitchen at Club 3 Degrees, a multi-faith-based nightclub, and works with Mercy Ministry to provide worship services in resthomes. She spends one night a week with a hospice patient, giving the family a much-needed break and giving the patient a friend to talk to. As a survivor of domestic abuse, Reeves also spends Sunday evenings as a volunteer telephone advocate at Home Free, a domestic violence agency, talking with callers and helping them make plans to stay safe.

Reeves has been doing this kind of community work for almost ten years. She says that helping people out is something she and her husband enjoy, "something we like to do as a family."

Following the energy

Recipient Barbara Elliott also views public engagement as part of her everyday life. Elliott has been a professor in the UMD Department of Family Medicine since 1994. One of her efforts in Duluth has been the TeenLife Center, a project which has provided health care for pregnant, parenting, and homeless youth for 12 years. The center also tracks the personal and community outcomes of having this kind of access to health care.



Barbara Elliott received her award from senior vice president Robert Jones, left, and associate vice president Victor Bloomfield.

Elliott has been interested in social justice issues in public health care since the late 1970s. Her dedication to equal access for health care was cemented in the late '80s, when a Kellogg International Fellowship gave her the opportunity to learn about these issues in cultures all over the globe.

"There are certain projects that drain me and certain projects that give me energy," says Elliott, "and those projects that give me energy are the ones that I continue to do. TeenLife Center is a project that has fed me for a long time, and I know it will continue to do so."

The other three recipients of the 2007 award were also honored April 11.

Ernest Davenport, Jr., associate professor of educational psychology, has been on the U faculty for more than 21 years. He has integrated his expertise in the methodology, measurement, and statistics of standardized testing into an ACT/SAT review course for at-risk high school students. The program, held on Saturday mornings from January to March, provides minority and female students a means of "improving their college admission test scores and their overall preparedness for college," says Davenport. Developed in conjunction with Alpha Phi Alpha in 1991, the review course has grown with increasing demand and served more than 150 students in 2006.

James Rothenberger III, instructor of epidemiology, has been at the University since 1972. His introductory undergraduate service courses in alcohol and drug abuse and AIDS have provided essential knowledge to more than 60,000 students. His dedication to AIDS and substance abuse prevention has inspired him to serve on numerous committees and boards, ranging from the Governor's Alcohol and Drug Abuse Advisory Committee to the American College Health Association's HPV Task Force.

Rothenberger believes his commitment to engagement stems from his father and grandfather's dedication to the University as both students and staff.

"As a third-generation U of M student and [a] staff member, it's part of my genetic makeup that I contribute both to the University and spread knowledge to the larger community," says Rothenberger.

Travis Thompson, professor of pediatrics, has held appointments in the departments of psychiatry, psychology, pharmacology, and educational psychology since joining the University faculty in 1963. He is currently affiliated with the Department of Pediatrics autism program. Thompson's work in the field of developmental disabilities has been instrumental in improving the lives of children and adults with autism and related disabilities, focusing on research and advocacy.

Thompson sees his academic and engaged work as inseparable, and he finds the combination of the two very rewarding.

"I was very moved to learn that I had been selected as one of the recipients of the Outstanding Community Service Award," says Thompson. "I've received a number of awards for my scientific contributions over the years, but in many respects, being recognized as having done something worthwhile to improve the lives of other people is the most gratifying."

Reeves agrees and sees the award as yet another motivation to continue her engagement in the community.

"I am going to continue doing what I am doing, no matter what," she says. "But this award made me feel like somebody saw what was I was doing and realized the value in it, and I want to thank the University for that recognition."

Outstanding Community Service Award winner plaques are on display at the Campus Club in Coffman Union on the Twin Cities campus.

Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Johnson inaugurated at UMM

By Rick Moore

April 23, 2007

Jacqueline Johnson delivered a lighthearted yet poignant inauguration address. She was formally installled as the fifth chancellor of UMM on April 20.

Friday in Morris was a day Minnesotans dream about in the depths of February: a day with clear skies, temperatures inching toward 70 degrees, and a robust southerly wind that defines spring in the Upper Midwest.

Shortly before noon, a student sitting on a bench outside the Student Center at the Morris campus looked up at the sky and announced to his friends, "Great day for an inauguration."

Great day and, as it turned out, a great inauguration.

Jacqueline R. Johnson was formally installed as the fifth chancellor of the University of Minnesota, Morris during a day full of activities showcasing the campus and its students. As a testament to her later quote that Morris is "a community that doesn't stand on ceremony," Johnson purposely scheduled her inauguration to coincide with UMM's seventh annual Undergraduate Research Symposium, an event celebrating original research by more than 100 students.

Even though the students took center stage later in the day, it was Johnson who stole the show with her lighthearted yet inspirational address, "On the Edge of Tomorrow, In the Middle of Everywhere," which she delivered to members of the Board of Regents, President Robert Bruininks and other U dignitaries, UMM faculty, and other members of the Morris community gathered in the Student Center's Edson Auditorium.

"I am honored to be here today and so pleased to have this position," Johnson said. She thanked all of the Morris students "who make it such a joy to come here every day," and recognized her husband and children in attendance. And she playfully admonished the instructor of her daughter who couldn't come to the event because of a final exam at the University of Michigan.

"The University of Minnesota, Morris must claim and advance even further than we have before these objectives: the nurturing of global citizens for a diverse world, civic engagement, stewardship of natural resources and the environment...." --Jacqueline Johnson

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Johnson began her address by acknowledging the heritage of the Morris campus--which had its origins as an American Indian Boarding School--and the citizens who later imagined an institution that has become one of the top five public liberal arts colleges in the country.

Then she focused on the theme of her address--how the University of Minnesota, Morris is in "the middle of everywhere" and at "the edge of tomorrow."

In the middle of everywhere

"We are inclined, those of us who live in small communities distant from metropolitan areas, to describe ourselves, especially to newcomers, to outsiders, as in 'the middle of nowhere,'" Johnson said. "We are apologetic. And those of us who live in metropolitan areas are inclined to agree--to think of anything outside the range of the furthest suburbs as the middle of nowhere.... But I've got to tell you--and here I quote one of our most famous Minnesotans, Bob Dylan--'the times they are a changin'.' And I assure you, there is life and energy here.

"Suddenly, the middle of nowhere has become the middle of everywhere.... Small town heartland communities like Morris are suddenly a focal point, a destination place, a gathering spot for urban dwellers and international policy makers and business and educational leaders. And I, for one, have changed my mind about how I view the middle of nowhere. As the world turns from expendable sources of energy to renewable ones, the heartland, the prairie in all its beauty, takes on new meaning in the economic and environmental landscape, becomes a new focal point, becomes the middle of everywhere.

"Because of the vision of many people at UMM, we are poised to capitalize on that centrality, on that clarity of focus, and on the resources that are so abundant here."

On the edge of tomorrow

Johnson pointed out that the phrase "the edge of tomorrow" comes from Isaac Asimov's book of scientific essays and short stories by the same title, and that she's especially intrigued by his stories that contain an element of "back to the future"--"the idea that sometimes forward motion entails a return to and a renewed look at past achievements."

She used developments with biomass as an example. It's not new technology, she said, but "technology rethought, reinvented for the 21st century, technology that not only promotes environmental well being in developed countries like our own, but also in the developing world, technology that responds to new global values tied to sustainability and quality of life."

And Morris, she said, is positioned well to achieve learning outcomes that matter most in the 21st century, "that are the hallmarks of a liberal arts education and of liberal learning.

"The University of Minnesota, Morris must claim and advance even further than we have before these objectives: the nurturing of global citizens for a diverse world, civic engagement, stewardship of natural resources and the environment....

"Cross-disciplinary and interdisciplinary perspectives must prevail. Not only should our students understand that they are on the edge of tomorrow, they also must understand that deep learning occurs at the boundaries, on the edges where traditional disciplines intersect and where multiple ways of knowing come together."

She also stressed the need for strong programs in language, and cited Native American author Louise Erdrich's own efforts to learn her mother language of Ojibwe, in which two-thirds of the words are verbs--some with as many as 6,000 forms. "Language study is the yeast of cultural understanding," Johnson said, "and we need to expand boundaries for and interest in it, as well as opportunities for our students to engage in intercultural travel and exchange."

Johnson closed with one of two poems she recited during her address. "Northern Pike"--by James Wright, her freshman composition instructor at Macalester College in St. Paul--is an emotional piece that ends with the lines: *There must be something very beautiful in my body,*
I am so happy.

Said Johnson: "Like Wright, I am so happy... to be here today; for my family; for your trust and your friendship; for those who have paved the way; and for the very bright future that awaits us in the middle of everywhere on the edge of tomorrow, at the University of Minnesota, Morris."

And then, after a brief, low-key reception spiced with jazz music by the UMM group Opposite Day, Johnson headed over to the Undergraduate Research Symposium to hear what her students have been discovering.

Related reading Morris on the move: a Q&A with Jacqueline Johnson UMM names new chancellor

Boson buddies

U physicists are in for a smashing time as they stalk the Higgs boson, a highly creative subatomic particle

By Deane Morrison

April 24, 2007

Dwarfing the people in the lower corners of this photo, a single piece of the Large Hadron Collider is lowered into place by sturdy cables. U physicists are helping build the apparatus, which will search for the elusive subatomic particle called the Higgs boson.

It has been called the "God particle," and not without reason. Like Michelangelo's God bringing Adam to life with a touch, so the mysterious speck of matter known as the Higgs boson bestows tangible existence on the tiny constituents of all atoms and molecules. Or so the theory goes. Though its handiwork is everywhere, the Higgs boson itself has never been detected by physicists. Not yet, that is. The hunt for "the Higgs" is taking shape in a tunnel beneath the Swiss-French border, and four University physicists are in on it. It's the biggest project ever to probe the ultimate nature of the Universe. If the Higgs is found, physicists will have detected all the pieces of the "standard model" of the particles and forces that form our Universe. They'll also get a glimpse of how the Higgs endows particles with a quality called mass. A particle or object is said to have mass if it resists any force trying to move it or bring it to a stop. This is as true of atoms and molecules as it is of baseballs, speeding cars, or stubborn mules. Objects with mass can have weight, which is a measure of how much the object is attracted by gravity. All matter in the Universe is either mass or energy; without mass, the Universe, if it existed, would have neither form nor substance. Energy can be envisioned as a form of currency. Just as money allows us to do things, so energy, when transferred to an object with mass such as a baseball, allows it to do something--like sailing through the air or your neighbor's window. **The hottest thing in physics** University physicists Roger Rusack, Priscilla Cushman, Yuichi Kubota and Jeremiah Mans are part of an international team of about 2,350 scientists from more than 30 countries trying to detect the Higgs--and, they hope, other exotic particles. They're assembling one of two mammoth detectors at a new accelerator, known as the Large Hadron Collider (LHC), in a tunnel more than 300 feet underground between Lake Geneva and the Jura Mountains. The behemoth will whip two needle-thin beams of subatomic particles called protons through a 16.7-mile circular vacuum pipe in opposite directions; that is, on a collision course.

> *"Each beam has the stored energy of a Subaru going at more than 1,000 miles per hour," says Rusack. "It would cut a hole right through a person."*

Moving at nearly the speed of light, the protons will release tremendous energy when they collide. That energy should be enough to materialize Higgs bosons and allow them to be detected. "Each beam has the stored energy of a Subaru going at more than 1,000 miles per hour," says Rusack, who has been part of the project since 1993. "It would cut a hole right through a person." In fact, the collider is quite capable of self-destruction. If the proton beams ever veered off course, they would eat right through the wall of the vacuum pipe and destroy whatever piece of equipment they hit. To prevent this, sophisticated containment measures have been designed to keep them on track and harmlessly dispose of the beams should they stray. The Large Hadron Collider, a project of the European Center for Nuclear Research (CERN) in Geneva, Switzerland, has become the place to be for particle physicists. That's because when the proton beams are fully operational, they are likely to produce not only the Higgs, but other as yet unseen particles that will open up a new age of physics. **Let there be light--and understanding** When the protons collide, they will produce all sorts of subatomic debris. Somewhere in the rubble should be a pattern that signals the Higgs boson has been born. Since its mass has yet to be measured, however, just what that pattern, or patterns, will be isn't known yet. But physicists already have ideas to guide them in identifying the Higgs "signature." In other words, the Higgs won't be seen in the usual sense. Instead, its presence and characteristics will be inferred, much as one can infer the presence and size of a moose from its tracks. The LHC machine costs about $3.8 billion (including a $200 million contribution from the United States), and the detectors can weigh as much as 20,000 tons. To meet the budgetary and other challenges of the LHC, all the physicists building the detectors had to be inventive. For example, Rusack worked with a team to devise a new type of crystal detector to help track gamma rays and electrons given off in particle collisions, and Cushman was responsible for designing and building another one-of-a-kind apparatus to detect light produced in the experiment. **A very social science** Watching it all come together has been a source of great satisfaction for Cushman and her colleagues. "It's exciting when you build something and then you get to actually see it integrated into the whole and do what it was designed to do," she says. "[The Large Hadron Collider] is the highest-energy machine ever built for particle physics." Whether the experiment discovers the Higgs boson or not, it could reveal the existence of particles such as those that constitute "dark matter," a mysterious invisible material that makes up about 20 percent of the mass of the Universe. Cushman is part of a separate experiment to detect such particles. Beyond the physics and new types of detectors, the Large Hadron Collider is generating other benefits. The scientists are developing a new information network to handle the prodigious amounts of data that will be generated and allow people around the world access to it no matter where it is stored. Also, new technologies of interest to industry or consumers are bound to emerge from the project. As the collider is assembled, an atmosphere of congeniality reigns in Geneva. Physicists regularly meet over coffee to discuss the latest news and experimental results. "It's exceedingly social science," observes Jeremiah Mans. But competition is always in the air. No one wants their part of the project to be the one that doesn't work. The punishment, says Rusack, is personal, institutional, or national embarrassment. The project is expected to get under way late in December. Physicists will ease the proton beams up to full speed over the space of a year or so.

A taste of space

In the tunnel housing the Large Hadron Collider, physicists and engineers have recreated a little bit of outer space. They have captured the emptiness of space in the vacuum pipe housing the speeding protons, and the cold of space in the liquid helium that cools some very powerful magnets. At only three degrees Kelvin, the liquid helium is terrific at conducting heat away from the magnets. The magnets, wielding 100,000 times the strength of Earth's magnetic field, are used to steer the protons around their circular path.

Arabian Nights at the U: Riveting storytelling

U students bring to life tales from *The Book of the Thousand Nights and One Night*

By Pauline Oo

April 24, 2007

Editor's note: *We've just received word (1 p.m., April 26) that tickets to the remaining shows have sold out. You could, however, try your luck; someone may cancel reserved tickets or decide not attend.*

University of Minnesota student-actors Mark Rehani (King Shahryar) and Aida Leguizamon (Scheherezade).

You won't see Sinbad, Ali Baba, or Aladdin. Instead, you'll meet the Madman, Sympathy the Learned, Perfect Love, and a host of other lesser-known characters in the University of Minnesota theatre and dance department's *Arabian Nights*--a play adapted by Tony Award-winning Mary Zimmerman from *The Book of the Thousand Nights and One Night.*

Set in Baghdad, *Arabian Nights* follows the tale of the new queen Scheherazade's marriage to the Persian king Shahryar, who is known to marry a different woman every day, only to have her executed the next day at dawn. To stay alive, Scheherazade, played by Aida Leguizamon, tells the king elaborate stories that end in cliffhangers as dawn breaks. Scheherazade continues this for 1,001 nights, forcing the king to change his outlook on women--and, ultimately, saving the remaining virgins of her city from being killed.

Leguizamon and her 14 fellow cast members act out Scheherazade's stories, which deal with issues such as betrayal, trust, greed, and love. Not only are the students chameleons in their vocal and facial expressions--each having to take on multiple roles--they are quite adept at switching between singing and dancing or playing a musical instrument and any number of animals (donkey, camel, etc.) or things (a boat, a mountain...). The transitions from story to story are unique, with Leguizamon (Scheherazade) sometimes saying lines simultaneously with characters.

In the first part of the almost two-hour play, expect slapstick comedy and thigh-slapping guffaws to fill the intimate setting of the hexagonal stage in Rarig Center's Kilburn Arena Theatre. University senior Adri Mehra shines in his depiction of a decrepit old man stuck with an ugly daughter. He doesn't need a wig or makeup to disguise the fact that he is a college student in his 20s; his nasally speech and creaky mannerisms hide that fact. Mehra also plays the spiritual head of Islam Harun al-Rashid and Muslim scholar Sheikh al-Islam throughout the show.

After the 15-minute intermission, an air of seriousness takes over. Tales about manners and the ethics of survival in a complex world run by capricious tyrants but governed by a benevolent God can pluck at your heartstrings. In the second act you'll learn what is sharper than a knife, the purpose of copulation, and the most precious thing after health. Jasmine Rush, who plays Sympathy the Learned, will tell you. The theater major shows impressive talent in memorization, reciting long and complicated lists of information for her all-knowing character without missing a beat.

"Although *Arabian Nights* is primarily secular in the matters it treats, and cannot be said to be especially religious, nor its stories representative of Islam as practiced either now or in the past, nonetheless, some of the finest and most noble sentiments in Islam--fairness, compassion, a love of learning, and forgiveness--shine in the actions of the characters," says director Joel Sass. "I feel it is particularly desirable to do this piece now, when the part of the world where the *Nights* originated is threatened by such turmoil."

Arabian Nights continues through this weekend; remaining performances are Thursday, April 26, at 7:30 p.m.; Friday, April 27, at 8 p.m.; and Saturday, April 28, at 8 p.m. Tickets are $8 to $14. Buy online or call the University Arts Ticket Office at 612-624-2345.

Viewer tip: Wear layers or bring a fan. If the weather is muggy, like it was last Saturday when outdoor temps reached 82 degrees, the theatre can be hot and a little stuffy.

Dungy and Freese to highlight UMAA Annual Celebration

By Christie Vogt

April 27, 2007

In addition to being a world-class tuba player, Stan Freese is the talent casting and booking director for Disney Entertainment Productions.

The University of Minnesota Alumni Association's (UMAA) Annual Celebration on May 8 will feature special guests Tony Dungy and Stan Freese.

The theme for the evening is a celebration of the return of football to campus in the new TCF Bank Stadium, set to open in fall 2009. In that spirit, the UMAA wanted as guests U alumni that included the best football and band representatives. Dungy and Freese are perfect for this, says Denny Schulstad, volunteer president of the alumni association.

Dungy, head coach of the Super Bowl champion Indianapolis Colts, will be the keynote speaker for the event.

"Who among our alumni better epitomizes everything good about college athletics and has achieved greater football fame than Tony Dungy?" asks Schulstad.

Dungy is one of the most popular coaches in the National Football League and has led his teams to the playoffs for eight consecutive years. He had one of the top-ranked defenses each year during his tenure as defensive coordinator for the Minnesota Vikings.

Dungy was a quarterback for the Gopher football team in the '70s. While at the U of M, Dungy set career passing, touchdown, and total offense records and was named to two academic all-Big 10 teams.

In addition to his athletic achievements, Schulstad added that Dungy is a "decent, good person" who even came back to the U to help lobby the legislature for the new stadium.

The UMAA celebration will also include remarks and a performance by Freese, a world-renowned tuba soloist. Freese will be presented with the Outstanding Achievement Award--the University's highest award presented to alumni.

"I am totally blown away by this award from the U of M and am truly humbled and grateful and still in disbelief," says Freese.

Freese, talent casting and booking director at Disney, is considered one of the best tuba players in the world. He will perform with the Minnesota marching band as part of the evening's entertainment. The resumes of his two sons, which include performances with Green Day, Sting, Nine Inch Nails, and Jewel, demonstrate that the family is, as Freese describes, "a busy tribe of musicians."

The events--all held at Mariucci Area--include a reception at 5:30 p.m., dinner at 6 p.m., and program at 8 p.m. The dinner tickets sold out in only four days, but there are still program tickets available.

Reserve your seat for the 2007 UMAA Annual Celebration by calling the U's ticket office at 612-624-2345 or by going online at alumni. More details on the event are available at annual celebration.

Related reading

Dungy visits Minnesota to back new stadium

News coverage in the hot seat

In the wake of the Virginia Tech shootings, reporting becomes an issue

By Deane Morrison

April 27, 2007

Edward Schiappa, chair of the communication studies department, says the media should refrain from using content, especially images, that have the effect of glorifying killers.

In the aftermath of the Virginia Tech tragedy, the debate has turned to media coverage of violence. The shift became inevitable the instant NBC-TV flashed the first images of shooter Seung-Hui Cho's snarling visage and started the wheels of outrage rolling, as they do whenever a killer is given media exposure beyond the facts of his or her crime. Opinions have run the gamut from branding NBC's use of the Cho video irresponsible to vigorous defense of independent news. Two University professors, Jane Kirtley and Edward Schiappa, have weighed in on the controversy over showing the video. Though holding different viewpoints, neither calls for government intervention and both see room for the media to improve their handling of tragic news. **Is it news?** In any news organization, a news director's first question should always be about the newsworthiness of material. "I think the shooter's video is news," says Kirtley, professor and director of the Silha Center for the Study of Media Ethics and Law. "People had an intense interest in knowing about this individual, and the tape was his vision of himself." That, however, doesn't mean NBC is off the hook. Schiappa, chair of the communication studies department, takes issue with the sheer quantity of airtime given the video and teasers like "Tune in tonight" for more. On that score, he and Kirtley agree. But Schiappa also takes the media to task for showing a particular type of content. "Most disturbing was NBC's release of self-aggrandizing 'glamour' photos that the killer made of himself," he says. "Such visual images do not provide us 'insight' into the killer. They glorify him as a larger-than-life figure to be imitated by similarly depressed and unstable individuals." The perceived glorification of the killer was a major reason families of victims walked out of a planned appearance on NBC's "Today" show. That act raised the question of whether the media should hold back on coverage that would be distressing to families.

Jane Kirtley, director of the Silha Center for the Study of Media Ethics and Law, says the homemade video of Seung-Hui Cho is news.

"The media should always treat victims and families with respect, but victims' families shouldn't have veto power over whether something like this is aired," Kirtley says. "Where do we stop in accommodating people who object to this? I say turn off the TV or hit the mute button." Still, she says, "I think we're seeing a seismic shift in the way the news media cover tragedies. There was a lot [more coverage] done on victims as information became available." **The copycat trigger** At the hot core of the debate lies the question of whether giving a killer 15 minutes of fame--for any reason--leads to more tragedies at the hands of copycat killers. No one who isn't volatile to start with is likely to commit such a crime, so the issue comes down to whether coverage of the carnage like the 1999 killings at Columbine High School or Virginia Tech can push a borderline person over the edge. Schiappa says yes. "The evidence is abundantly clear that media coverage of school shootings such as the Virginia Tech massacre can inadvertently encourage 'copycat' behavior," he says. "A number of empirical studies have proven that media coverage serves as a 'priming effect' for aggressive individuals and increases the probability of subsequent violent behavior."

"The evidence is abundantly clear that media coverage of school shootings such as the Virginia Tech massacre can inadvertently encourage 'copycat' behavior"--Edward Schiappa

"The idea that any one thing like a videotape showing will trigger this behavior is very suspect"--Jane Kirtley

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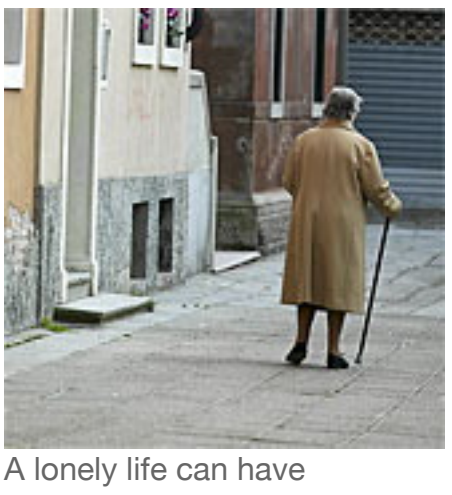
"The idea that any one thing like a videotape showing will trigger this behavior is very suspect," counters Kirtley. "What prompted [Cho] to do this wasn't the Columbine massacre--he was a sick individual. If the media stop reporting on anything that might lead to violent behavior, we couldn't report suicide bombings." From there, she believes, it's a short slippery slope to self-censorship. But Schiappa sees room to identify and desist from harmful coverage. "Let me be clear that we cannot avoid any and all stories that might lead to copycat behavior," he says. But, he adds, self-glorifying material like some of the images on Cho's video have the least legitimate news value but the most potential to romanticize a killer in the minds of depressed, suicidal, and angry viewers. The fact that potential copycat killers are suicidal depressive doesn't absolve the media from its role in facilitating the phenomenon, he concludes. In Kirtley's view, the media are damned if they do and damned if they don't. There's little doubt that if a news organization had a video like Cho's but refused to show it, that decision would be greeted by a chorus of protest. "Telling tough stories is part of what the media are about," says Kirtley. "You have to make a judgment about the public interest. Concern about people who might copy can't be the driving factor." **Bracing for the future** In covering tragedies like the Virginia Tech massacre, Schiappa says the media should refrain from showing self-promotional or glamorizing videos and emphasize that such events are not isolated; rather, they are part of a larger mental health problem and they can happen anywhere. Media, he says, should put more emphasis on the accounts of survivors and victims and provide contact information about hotlines, helplines, and other resources for the depressed and suicidal. Also, journalism training should "include knowledge about the copycat effect and the types of coverage most likely to encourage further violence." One thing that bothers Kirtley is the way the current controversy centers on the role of the traditional media, such as television and newspapers. Once a shooting has been reported, it takes on a life of its own on the Internet and any number of private communication circles, all of which are potential sources of influence. And Schiappa points out that there is "a whole Columbine culture out there," where the shooters have become cult figures. Entertainment media also feature a regular diet of violence; for example, there are reports that the movie "The Deer Hunter," which featured gruesome scenes of Russian roulette, inspired suicides. But shootings like those at Columbine and Virginia Tech aren't entertainment. They are real life, and real life is a laboratory where one can't control the experiment. We can't turn back the clock, erase Columbine, and then see what Seung-Hui Cho would have done. It's impossible to sort out what, if anything, about previous killings-images, cold hard facts like the number of victims, or other factors-might have made a crucial difference. Mass shootings have been around for a long time, and they won't go away. While the media can exercise restraint in the placement and duration of coverage so as not to glorify killers, the underlying problem is behaviors like bullying and conditions like depression and other forms of mental illness that help push vulnerable people over the edge. Mass shootings are very rare, but these breeding-ground conditions are much less so. Interventions have already short-circuited several apparent shootings-in-the-making; reducing the prevalence of contributing factors offers the best hope of preventing more suffering.

So lonely they could die

A lecturer explains how a metaphorical broken heart can lead to the real thing

By Kristin Pederson

April 27, 2007



A lonely life can have consequences for your health, says James J. Lynch. He will speak on the topic at the University Monday, May 7.

In his 1956 hit "Heartbreak Hotel," Elvis Presley laments, "I get so lonely, I could die." That may seem like just a metaphor, but the King may have been on to something. Researcher James J. Lynch, whose research indicates that loneliness indeed can contribute to an increased risk of disease and premature death, will speak at 3 p.m. Monday, May 7 in Mayo Auditorium, 420 Delaware St. S.E., Minneapolis. He is the guest of the University's Center for Spirituality and Healing. Lynch is the author of three books: "The Broken Heart: The Medical Consequences of Loneliness" (1976), "The Language of the Heart: The Human Body in Dialogue" (1985), and "A Cry Unheard: New Insights into the Medical Consequences of Loneliness" (2000). In these books, as well as in 15 chapters in medical textbooks, more than 100 articles in peer-reviewed medical journals, and numerous television and radio appearances, Lynch has shown that human loneliness is a major contributor to increased risk of disease and premature death. Lynch was a graduate and postdoctoral student under W. Horsley Gantt, M.D., the last American student of Ivan Pavlov, during the era in which Dr. Christiaan Barnard's celebrated heart transplant made headlines. The American health care system operated then almost entirely within a mechanistic framework, viewing the body as a sum of its parts and processes.

"And I was a major mechanist," says Lynch. "I was dragged kicking and screaming" into the emerging focus on mind/body medicine. The results of his own research soon became too powerful to ignore. As a psychiatry instructor at The Johns Hopkins Medical School in 1965, he worked on a hypertension study involving dogs as subjects. "We noticed that the dogs' blood pressure dropped dramatically when petted or touched," says Lynch, "so we wondered, if the human touch can affect the hearts of animals, what effect does this kind of interaction have on other human beings?" Lynch went on to serve on the faculty of the University of Pennsylvania Medical School, and in 1976 was appointed full professor in the psychiatry department of the University of Maryland Medical School. He continued studying the effect of human interaction, discovering that even patients in a coma experienced an immediate heart rate reaction when their hands were held by another person. "So if even this very transient touch affects the heart of an otherwise nonresponsive person, what effect does long-term lack of contact do to our cardiovascular health?" asks Lynch. From 1976 through 1989 Lynch directed the Center for the Study of Human Psychophysiology at that medical school. He continued research on the health consequences of human loneliness and the therapeutic health benefits of human companionship. His theory that social isolation (and, conversely, social connection) hugely affects human well-being is seen across settings and in multiple populations. Among his findings:

Lynch's talk, "New Insights Into the Medical Consequences of Loneliness," is the annual Ruth Stricker Mind-Body Lecture of the University's Center for Spirituality and Healing. It is free and open to the public. Registration is required. Call (612) 624-9459 or click the link above for more information. A reception and book signing will follow. The Center for Spirituality and Healing is a national leader in education, outreach and research in complementary, alternative and culturally based healing practices. It aims to enhance health and well-being through integrating the best of complementary and conventional care.

- Partnership is healthy: Lynch's study of male marital status showed that single, widowed and divorced men experienced a higher death rate, particularly due to heart ailments.
- Education fuels longevity: Staying in school safeguards against social isolation. Children who fail in school find themselves unable to talk with others without undue stress on their hearts. As they grow into adulthood, these children tend to withdraw from human relationships and from society in general, and often die younger than their former classmates
- Pets heal and help: Lynch's research on the health benefits of animal-companionship on human health was seminal. His "60 Minutes" segment on this phenomenon was rebroadcast numerous times, helping spur a movement of pet adoption in nursing homes, schools, and other institutions. This animal companionship has repeatedly been shown to alleviate human loneliness and improve patients' overall quality of life.

"We noticed that the dogs' blood pressure dropped dramatically when petted or touched," says Lynch, "so we wondered, if the human touch can affect the hearts of animals, what effect does this kind of interaction have on other human beings?"

Clearly, communication is an important part of connecting--but not just any communication. Lynch's most recent research indicates that the way people communicate also affects their health. Talk is not cheap, but is instead a very powerful form of currency. "You can literally talk your way into heart disease," says Lynch, pointing out the connection between Type A personalities (known for cardiovascular difficulty) and their communication style. "We know that Type A behavior is personified by rapid, explosive speech patterns," says Lynch. This communicative style actually places stress on the coronary arteries and weakens them, he says. "Human speech has a major impact on cardiovascular function, and is a mechanism that helps clarify why loneliness exerts such a lethal impact on human health," Lynch says. He has found, for example, that patients in Phase Two cardiac rehabilitation routinely show greater increases in blood pressure while talking, particularly about painful or emotional topics, than they do during maximal physical exertion on treadmills. These increases in pressure occur even in patients who take blood pressure medication. Lynch also underscores the immense impact words can wield on kids, reminding parents that nurturing communication styles begin at home. "Talk that consistently hurts, controls, and manipulates leads to feelings of depression and loneliness, and puts children at substantial risk of becoming socially isolated and dying prematurely," he says. Lynch currently divides his professional time between working with heart patients at Life Care Health in Baltimore and writing, and is currently at work on a book about love. *This article was taken from the spring 2007 issue of* Wellness Works.

Great minds do not think alike

U hosts national discussion on recruiting, retaining, and supporting faculty of color

By Ami Berger

May 1, 2007

More than 300 participants from 115 different institutions attended the conference in Minneapolis.

In the world of academia, there are few issues on which everyone agrees. But no one can disagree with the fact that, despite 30 years of affirmative action and hard work, the ranks of faculty of color in higher education remain frustratingly small.

In 2003 (the most recent year for which data are available) the *Chronicle of Higher Education* reported that less than 12 percent of full professors in America were people of color: 6 percent Asian, 3 percent African-American, 2 percent Hispanic, and .3 percent American Indian. And for female faculty of color, the numbers are even more dismal: in 2003 only 1.2 percent of full professors were African-American women, 1 percent were Asian women, .5 percent were Hispanic women, and .1 percent were American Indian.

Closer to home, the outlook isn't much brighter. The Committee on Institutional Cooperation (CIC), which represents the Big Ten institutions and the University of Chicago, reports that in 2005, the CIC school with the highest percentage of full-time tenured faculty of color was the University of Michigan, with 8 percent. The University of Minnesota reported that 4 percent of its full-time tenured faculty was faculty of color that year, the same percentage as the University of Iowa, Purdue University, and the University of Chicago.

According to Nancy "Rusty" Barcel?, the University of Minnesota's vice president and vice provost for equity and diversity, those low numbers reflect the academy's need for entirely new models in the faculty recruitment process. "Our advertising, our position postings, our mission statements, our compacts--all of our institutional documents and actions need to reflect that diversity is a core value in everything we do," Barcel? says.

"...Academia will not be able to keep up with the global economy and the educational needs of our students if we don't have all our minds--the minds of women, of racial and ethnic minorities, of all underrepresented groups--at the table and in the classroom." --Caroline Turner

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Faculty diversity at the University of Minnesota is at the heart of the U's "Keeping Our Faculties: Recruiting, Retaining, and Advancing Faculty of Color" symposium. Held at the University four times since 1998, Keeping Our Faculties is the nation's only conference focused entirely on increasing faculty of color in colleges and universities. The 2007 conference, held April 12-14, attracted over 300 participants and presenters from 115 different institutions, including Harvard, Columbia, Villanova, and New York Universities; the Universities of California-Berkeley, Massachusetts-Amherst, and Virginia; Smith, Carleton, and Macalester Colleges; and every institution in the Big Ten.

Keeping Our Faculties addresses issues which are multilayered and overlapping: How do we develop effective pipelines for undergraduate and graduate students of color? How can tenured faculty mentor junior faculty and graduate students of color effectively? And how can we redefine the merit-based system of faculty hiring and promotion to value the different kinds of contributions that faculty of color may bring?

Nancy "Rusty" BarcelÓ--one of many speakers at the symposium--is the U's first vice president and vice provost for equity and diversity.

"The idea of merit is so ingrained into the culture of higher education, but who's deciding what is 'meritorious'?" asks Caroline Turner, who originated the idea of the faculty-of-color discussion while an assistant professor at the U and is now a professor at Arizona State University. "If we're going to increase the numbers of faculty of color, we need to redefine merit to include more than just these academic journals or only those graduate schools," she says. "The lens has to be widened."

One notable success story in the effort to diversify the faculty is the McNair Post-Baccalaureate Achievement Program, nine-week summer research apprenticeships for undergraduates who are first-generation, low-income, or part of groups who are underrepresented in graduate programs. These research apprenticeships, which are directed by a faculty mentor, are designed to increase the rate of doctoral program completion by these students.

Hundreds of colleges and universities, including the University of Minnesota, participate in the program, which has shown significant success in building a "pipeline" of students of color into graduate school. In 2003-04 more than 2,100 students participated in the program, and of those students, more than 56 percent enrolled in graduate school in the fall of 2004.

U senior vice president for system academic administration **Robert Jones** was early in recognizing that a campus issue called for a national conversation. He played a leading role in establishing the Keeping Our Faculties symposium series.

The importance of mentoring graduate students and junior faculty of color was a common concern of symposium attendees. "If there was one theme I heard repeated throughout the conference, it was the need to provide mentoring for faculty of color," notes Barcel?. A number of breakout sessions focused on mentoring programs at institutions including the University of Georgia, Creighton University, and Indiana University, which have found some measure of success in retaining faculty of color.

Symposium attendee Frederik Palm, an assistant dean at Columbia University's school of engineering, was happy to see Keeping Our Faculties focusing on the diversity problems within the STEM (science, technology, engineering, and mathematics) fields. Palm calls Keeping Our Faculties 2007 "the best conference I have been to in a very long time," and laments the "tremendous waste of intelligence if we do not include all kinds of people in the dialogue of academia."

"I remember seeing a magazine ad years ago that said 'Great minds don't think alike'," adds Turner, "and I thought to myself, 'Wow, they've got it right!' Academia will not be able to keep up with the global economy and the educational needs of our students if we don't have all our minds--the minds of women, of racial and ethnic minorities, of all underrepresented groups--at the table and in the classroom."

Ami Berger is director of communications in the Office for Equity and Diversity.

Hanging up the keys

U researchers study the behaviors of older drivers

By Laine Bergeson

From *eNews,* May 3, 2007

For most Americans, driving equals autonomy. Getting to the grocery store, book club, or a family member's house, often requires an automobile. The car has rooted itself in American life as a tool for defining what we do and, by extension, how we perceive ourselves.

Which makes aging so potentially upending. While the years bring experience, they also can chip away visual acuity, hearing, muscle tone, and response time--skills vital for driving. When an individual or his or her loved ones senses that it might be time to retire from driving, the decision can feel like a blow to his or her very identity.

"The decision to stop driving is a real issue, and we need a more realistic way of looking at it," says Jim Reinardy, a gerontology expert who is director of graduate studies and interim director of the School of Social Work. "Driving cannot simply be experienced as something one gives up. It has to be seen as a change to a different alternative."

It's important for the senior and members of his or her support system to weigh the options. "When driving has to stop, you need to have a transportation plan or a whole life plan in place. Don't talk about giving up driving, talk about what driving led you to," says Reinardy, then arrange alternatives for getting there. Some people choose to live on bus routes. Others create intentional communities where members can still help out with driving duties. Some families devise schedules for helping meet an older person's transportation needs.

The question arises, then: How does one gauge when it's appropriate to retire from driving? While different aspects of aging will affect individuals to varying degrees, some changes are universal, says Curtis Hammond, a researcher in the School of Kinesiology. "As you age, you stiffen," says Hammond. "And you don't crane your head as you probably should. Turning around to spot a vehicle can be especially important if one's eyesight is deteriorating--another age-related concern."

In one of Hammond's studies of braking behaviors, researchers evaluated younger and older drivers using a full-sized car and a virtual environment. When the car that test subjects were following stopped at a prescribed distance, younger drivers tended to react more quickly but brake harder due to closer following distance. Older drivers did just the opposite; they had slower reaction time but needed less pressure to stop in time.

Hammond emphasizes, however, that age-related physical concerns are only half of the issue. More pressingly, he says, the system is broken.

"The traffic system is not designed with a wide range of tolerance for even healthy drivers," says Hammond, who conducted his research with principal investigator and U professor Michael Wade from kinesiology. "The road system [leaves] a very narrow band of what you can get away with. There are too many signs and merges that are too quick, too tight turns on off-ramps," he continues. "The traffic system as it now stands, taxes [even] a young, spry mind. We are already pushed to the limits."

Other issues that may affect older drivers include a decreased ability to track several moving objects at once, and spotting details, such as on a sign.

The American Association of Retired People offers a self-test for some of these abilities. Testing alone isn't enough to make the decision, says Hammond; the person facing the choice needs to be proactive. "Even if we put self-tests out there, the older person needs to make that decision first," he says. "If they can tell three years in advance that their vision is going down, they can test themselves and plan for the future. If one plans ahead, the decision doesn't have to be dramatic."

Reinardy suggests drawing up a contract well in advance that sets parameters so everyone can plan for the eventual decision to hang up the keys. He also emphasizes flexibility and a proactive approach. "The savvy older person, or their adult children, will think of alternatives as they age," he says. "Giving up driving is a fundamental and difficult change; it takes a long time. Treat this as a real decision, not a loss. With a lot of support, there are a lot of alternatives."

Commencements begin

Spring marks commencement ceremonies on the U's campuses

From *eNews,* May 5, 2007

After graduating from the University of Minnesota School of Dentistry in 1967 and following a stint in the Navy, David Engel joined the University of Washington where he collaborated with engineers to develop a prototype for a new electrical toothbrush. In 1992, the Sonicare toothbrush was born. Engel is one of several alums returning to the University of Minnesota this month as Class of 2007 commencement speakers.

Separate commencements for individual colleges at the University of Minnesota began in the 1970s. Prior to that, there was a single ceremony for the whole U.

On the Twin Cities campus ceremonies start with the Medical School on Friday and close with the School of Dentistry on May 18. Commencement activities take place on Saturday, May 5, on the Crookston campus; Thursday, May 10, and Saturday, May 12, at Duluth; and May 12, as well, in Morris. Each academic year the University of Minnesota confers about 10,000 degrees. (The Graduate School and the College of Liberal Arts also hold commencement ceremonies in December.)

Here is a sampling of commencement speakers: Michael Osterholm, director of the U's Center for Infectious Disease Research and Policy and associate director of the Department of Homeland Security's National Center for Food Protection and Defense, will speak on Friday, May 4, at the Medical School ceremony (2:30 to 4:30 p.m. Northrop Auditorium).

Former Gopher basketball and NBA standout Trent Tucker will speak on Saturday, May 5, at the College of Continuing Education ceremony (10 a.m. Northrop Auditorium).

Edward Toussaint Jr., Chief Justice, Minnesota Court of Appeals, on Saturday, May 12, at the Law School ceremony (10 a.m. Northrop Auditorium).

John Bul Dau, one of the "Lost Boys of Sudan" featured in the acclaimed film "God Grew Tired of Us" will speak on Sunday, May 13, at the College of Liberal Arts ceremonies (11 a.m. and 3 p.m. Northrop Auditorium).

Steve Forbes, president and CEO of Forbes, Inc. and editor-in-chief of Forbes Magazine, will address graduates on Monday, May 14, at the Carlson School of Management commencement (graduate students 9 to 10:30 a.m.; undergraduates noon to 2 p.m. Northrop Auditorium).

For a complete list of commencement events and speakers, see Crookston, UMD, Morris, or Twin Cities.

U alums and the economy Data collected from the recent "Connecting With Our Alumni" survey reveal that University of Minnesota graduates play a major role in the economic vibrancy of their communities. It's estimated that survey respondents have started 19,000 companies that employ some 1.1 million workers in all 50 states and in 63 foreign countries. An impressive 86 percent of those businesses are still operating, with projected annual revenues of $230 billion.

To read more about the survey results, see Surveying thealumni landscape."

Ceilings affect our thoughts and feelings

Room height can influence how we buy and how we study

By Kristi Goldade

May 1, 2007

High ceilings, like this one in Nolte Hall on the Twin Cities campus, encourage abstract thinking. Better find a low-ceiling room, which tends to focus thought, to study in for your statistics final.

Joan Meyers-Levy stood waiting to board a plane with a ceiling so low she'd have to duck to walk to her seat. As flight attendants herded passengers into the cramped cabin, she began to wonder whether ceiling height might have an effect on how we think.

Once she returned home, Meyers-Levy, a professor of marketing at the Carlson School of Management on the Twin Cities campus, looked for scholarly research on the topic and found virtually none. What she did find was hundreds of unfounded claims from people like real estate agents to a guru of transcendental meditation, all hailing the benefits of high ceilings. Her skepticism kicked in--it was time to investigate.

Meyers-Levy shared her ideas with fellow researcher Juliet Zhu of the Saunder School of Business, University of British Columbia. Together they conjectured that when people are reasonably aware of their environment and are in a high-ceiling room, they might experience a feeling of freedom. In turn, this feeling will prompt them to engage in a thought process called relational processing, a fancy term for abstract thinking.

Conversely, Meyers-Levy and Zhu reasoned that when people are in a low-ceiling room, they might experience a feeling of confinement. This feeling will lead them to engage in item-specific processing, which allows a person to think analytically and focus on details.

If a person is developing broad initiatives for a university, for example, a job requiring abstract thought, high ceilings should help make the task easier.

To test their theories, they performed several marketing related experiments. They used a pair of rooms identical but for ceiling height, which was 8-feet and 10-feet. Lamps were hung from the ceiling to draw attention to the height of the room; then they were placed on the floor to draw awareness down from the height. At each change of the light, participants then completed tasks on abstract and concrete thought.

The study confirmed their theories.

It revealed that when participants were aware of the height, high ceilings activated abstract thinking and thoughts of freedom, whereas low ceilings activated concrete thinking and thoughts of confinement.

In consumer theory, this means that in stores with noticeably high ceilings, people are more likely to see a big sale and buy, without much attention to the finer points of pricing. But when they walk into a low-ceiling store, they will see a big sale, notice items are only marked down by five percent, and walk away without purchase.

However, Meyers-Levy emphasizes that the advantages of high ceilings have much to do with the task at hand. If a person is developing broad initiatives for a university, for example, a job requiring abstract thought, high ceilings should help make the task easier. Yet if a person is studying financial data sheets for the same initiative, a lower ceiling will encourage detailed, analytical thought.

Meyers-Levy and Zhu feel hopeful about the broad applicability of their research. It suggests that higher ceilings would be advisable for travel agencies, encouraging prospective travelers to imagine the intriguing possibilities of their destination. And when it comes time for that vacation, travelers would benefit from packing in a lower ceiling room to remember easy-to-forget items.

Listen to Joan Meyers-Levy, marketing professor at the U, explain how ceiling height can affect how you think on University of Minnesota Moment.

Mini marvel

U students work on mini satellite for national competition

By Michelle Haschka

From *eNews,* May 3, 2007

Jason Mintz, Minnesat team student project manager, and Jim Pogemiller, a senior majoring in physics, work on last-minute adjustments to the U's mini-satellite.

Ask any kid what they want to be when they grow up and astronaut is likely to make the list. Whether it's the appeal of exploring uncharted territory or the chance to bounce around sans gravity, space travel is mysteriously alluring. Ellie Field admits she wanted to be an astronaut since she was 4 years old. She remembers dreaming of the day when she would be old enough to whiz through the atmosphere on a mission to Mars or the moon. Fast-forward more than 15 years Field is a sophomore studying aerospace engineering at the University's Institute of Technology. While her dreams of interplanetary travel have yet to be realized, she is already working on a spacecraft and is a pioneering member of a project that could influence the future of satellite design. Field is part of a team of about 25 University of Minnesota undergraduate students who embarked on a mission nearly two years ago to enter the University Nanosatellite Program, a nationwide mini-satellite competition that culminated this spring. The University of Minnesota's Nanosat-4 team placed fifth out of 11 teams. Pretty good, considering it was the team's first appearance in the competition. Top honors went to CUSat at Cornell.

Building a brighter future for aerospace engineering

Started in 1999, and run by the U.S. Air Force Office of Scientific Research, Air Force Research Labs, the American Institute of Aeronautics and Astronautics (AIAA), and the National Aeronautics and Space Administration (NASA), the University Nanosatellite Program challenges students to design and build a working satellite, from initial concept to final working vehicle stage. All entries must meet a specific research goal, measure no more than 18.5 inches high or wide, and weigh less than 30 kilograms (66 pounds). The winner gets a chance to see the fruits of their labor launched into space, with the $3 million launch tab picked up by the federal government. Approximately 2,500 college students and 25 institutions of higher learning have been involved in the competition since its inception. "Our primary goal is to attract students into the field of aerospace engineering and to give them experience working on real hardware," says Jeff Ganley, University Nanosat structural engineer at the Air Force Research Labs and University of Minnesota Institute of Technology alumnus. "This project is not about paper designs. These are real satellites and after working on the project, students are qualified to work in aerospace." The University of Minnesota's entry, named Minnesat, competed head-to-head with satellites from 10 other U.S. universities. According to the Air Force Research Labs, creating miniature spacecraft has many advantages, including inexpensive design, availability for mass production, reduced launch price, fuel economy, and low-risk cost.

Influencing the future of satellite design

While teams from other universities have the advantage of improving upon existing satellites, the Minnesat team built their model from scratch. In addition to learning the skills to build a satellite from the ground up, the team's experience is contributing to future University curriculum. (The U's proposal for the next competition, Nanosat-5, was recently accepted by the Air Force. The next round of competition will begin in January 2008.) "We are here to build an infrastructure in satellite design and space design into our department's curriculum," says Demoz Gebre-Egziabher, a professor of aerospace engineering and mechanics and the principal investigator for the project, which is housed in the Department of Aerospace Engineering and Mechanics. "We've started a program that we can integrate into the curriculum and build upon. And from the research aspect of the project, we will be a success. We have published papers, and whether or not we launch, I believe the Air Force will use our research."

A Global Positioning System receiver is just one of many parts used by the Minnesat team to build their mini satellite.

Research is a key component in the competition and differentiates each team's entry. The objective of Minnesat is to use the Global Positioning System (GPS) to determine the orientation of small satellites. Using GPS for navigation is not a new concept, says Gebre-Egziabher. It's currently used in large satellites and other projects. But to date, the concept has not been translated into a small scale, which is the goal of this project. "We are trying to design and build something that is much smaller and less expensive than the current system. Because the satellite has to be ready to fly, we will have verified on the ground that this research is viable," explains Gebre-Egziabher.

The University of Minnesota's mini-satellite features GPS antennas on an aluminum hexagonal structure covered with solar panels. The team has built a variety of components for the satellite, including a communication system, a flight computer, and a monitoring and control device.

Transforming students into engineers

For the students, the project has been a labor of love. Participation is completely voluntary, and team members don't earn traditional class credit for the work. Instead, they squeeze it into schedules bursting with course work and part-time jobs--holing up in the team's office in Akerman Hall seven to eight hours a day, five or six days a week. Teams participating in the national competition receive a budget from the sponsoring organizations, and Mintz says teams are allowed to use any additional money they raise and as many donated materials as they can secure. The University of Minnesota team received a donation from alumnus Richard DeLeo, a retired vice president of aeronautical research at the former Rosemount Aerospace, as well as help from companies such as Goodrich, Honeywell, Lockheed-Martin, and Tennent.

"This is real-world engineering, and we are doing the same things we'd be doing if we worked for a company," says Jason Mintz, the Minnesat student project manager who completed a degree in aerospace engineering in December 2006. "We get a big piece of the pie on this project because the team is so small. Instead of doing the same thing over and over again on a piece of the project, like you might do on other student projects, we get to work on a huge variety of things. That's something you don't often get to do as a student, other than at this University."

For more information, see Minnesat.

Talking to children about violence

From *eNews,* May 3, 2007

When disaster strikes--such as the recent school shooting at Virginia Tech in Blacksburg, Va., or the February shootings at a Salt Lake City mall?children can feel vulnerable and may need help coping with their feelings. Parents should check in with their children to see what they're thinking and how they're doing emotionally. The age of a child will make a difference in how you need to react. ** With preschoolers through age 5, who may have seen reports on the news, you can begin by saying, "That looks pretty scary, doesn't it? What do you think about it?"

When talking about thoughts and feelings, the age of a child will make a difference in how parents should respond.

** With school-age children, ask if they have seen the reports and talk about your own feelings by saying, "I'm very sad for all of those people and their families." Remember that young children react largely to the attitudes and emotional responses of those around them, more so than the event itself. ** With older children and teens, it is more effective to talk about your own feelings first--this may help your teen to talk about the tragedy and their own fears. For young adults on college campuses, you can also discuss the safety procedures of their specific campus. Children of all ages should be reassured about their own safety. The following are some specific things to discuss with older children and teens related to school violence:

- It's okay to express fear at what has been happening and compassion for the students and families who have survived this tragedy.
- Explain the distinction between being different from other students and having severe problems that lead to extreme violence.
- Express how important it is to let you or another adult know if they hear another student threatening violence towards him or her, or others.
- Talk about what it might feel like to be an outcast at school and find out if your teen is having trouble fitting in.
- Talk about solving problems constructively and peacefully, and help your teen find appropriate solutions to problems without using violence.

Distressed children may act in ways that aren't clearly connected to the event. They may mope or be irritable or aggressive. Be available over time. For some kids, these feelings won't heal immediately.

Ellie McCann and Kathleen Olson are family relations educators with University of Minnesota Extension.

Physicist elected to National Academy of Sciences

Election to the academy is an honor often considered second to the Nobel Prize

By Deane Morrison

May 1, 2007

Allen Goldman's election to the National Academy of Sciences honors a career filled with discoveries in the science of superconductivity.

Early the morning of May 1, Allen Goldman's phone started ringing. As head of the University's School of Physics and Astronomy, Goldman is used to that. But this time the message was one every American scientist longs to hear: Goldman, a pioneer in the field of superconductivity, had just been elected to the National Academy of Sciences. The academy, established in 1863 by Congress and President Abraham Lincoln to advise the federal government on scientific matters, meets every spring to elect new members. With the addition of Goldman and 71 others elected May 1, the active membership now stands at 2,025--a tiny proportion of all professional scientists in the country. "I feel honored by this," says Goldman. But, he hastens to add, "I feel my success is largely due to the many strong graduate students who have worked with me over the past 40 years." One of the joys of being a professor, in Goldman's eyes, is watching a highly capable graduate student take an idea and run with it, coming up with discoveries that the professor may never have gotten around to making. Goldman has shepherded 50 graduate students through to the doctoral level, with five more yet to finish. Several, like their mentor, are professors in research universities. The academy election recognizes Goldman's outstanding work in the field of superconductivity, the state in which materials lose their electrical resistance and electrons can flow freely. He and his team have found ways to construct and study films of metals only a few atoms thick. Around 1979, his team discovered electrons undulating through a superconducting material in sync--that is, in waves where all the electrons moved up and down together, "like sound waves," Goldman says.

"I feel honored by this," says Goldman. "But I feel my success is largely due to the many strong graduate students who have worked with me over the past 40 years."

That research caused a stir in the superconductivity community, as did a subsequent discovery of a way to switch a thin film of metal from being an insulator to being just the opposite--a superconductor--or vice versa. That work is cited by other scientists about a hundred times every year. Lately, he has found another way to induce superconductivity, this time by adding negative charges to thin films of metal that previously acted as insulators. Research in superconductivity is considered critical to the development of new materials for electronics and electrical technology. While superconductivity may be a hot field, the science is carried out at extremely low temperatures. Goldman jokes that his lab may contain "the coldest macroscopic space in Minnesota." It's only a small space, measured in cubic centimeters, but its temperature gets down to three-hundredths of a degree Kelvin. (Zero degrees Kelvin is defined as absolute zero--the coldest anything can get--and is equivalent to minus 459.67 F. Most of outer space is about 3 Kelvin.) A graduate of Harvard University, Goldman received a doctorate from Stanford University and joined the University of Minnesota in 1965 as an assistant professor. Now an Institute of Technology Professor of Physics, he has produced more than 250 research publications and has delivered hundreds of talks about his work to audiences around the world. He has been elected a fellow of the American Association for the Advancement of Science and the American Physical Society, and in 2002 he received the Fritz London Memorial Prize, one of the highest honors in physics. "We are very proud of Professor Goldman's accomplishments and his election to the National Academy of Sciences," said Steven Crouch, dean of the University's Institute of Technology. "Like many others on our faculty, he is humble about his ongoing, cutting-edge research. We're happy he's in the spotlight with this honor."

Vice President Mondale returns to the classroom

By Rick Moore

May 3, 2007; updated May 25

Vice President Walter Mondale shares a moment with President Jimmy Carter on the White House lawn.

"Once in a lifetime" will be coming around in a few short months for a couple hundred students at the University of Minnesota. They're the ones who were quick to sign up for this fall's public affairs course, Topics in Social Policy: America's Constitutional Crisis, with Walter Mondale.

That's right, the former Vice President of the United States (1977-1981), U.S. senator, and ambassador to Japan will be returning to his alma mater to teach a lower-level course examining the ongoing battle between the President and Congress over control of the country's most vital decisions.

Mondale will teach the class with Larry Jacobs, the Walter F. and Joan Mondale Chair for Political Studies and director of the Center for the Study of Politics and Governance at the Hubert H. Humphrey Institute. It will be the second time the two have paired to teach a public affairs course. Last fall they taught a public leadership seminar for 15 lucky students.

"I've been a teacher for 18 years, and I've never had such a stimulating experience," says Jacobs of that course.

The class went so well and feedback was so positive that Jacobs pitched the idea of teaching another class to Mondale, who was quick to accept the invitation. Says Jacobs: "He had such a good time in the fall that there wasn't a whole lot of discussion."

"Mr. Mondale is a very good teacher," Jacobs says. "His approach is to raise questions--to offer insight, but to get the students to think for themselves."

Prior to the start of registration, Jacobs figured about 100 students might sign up for the course. Instead, 100 signed up in the first couple of hours, and the totals kept climbing until the course was capped at about 245 students. (Students can still sign up to be on the wait list.)

According to the course description for PA 1490, "debate over whether the President or Congress has the authority to make domestic and, especially, foreign policy has riveted national attention for the past 40 years, disrupting government and undermining the legitimacy of American public policy."

The course will investigate that debate, using case studies dating back to the Truman presidency. According to Jacobs, Mondale feels that the United States needs a strong Congress and *also* a strong President. And despite the fact Mondale is a Democrat, "A lot of the issues you see him dealing with [and that students will be discussing] have nothing to do with being Democrat or Republican," Jacobs says.

Mondale is looking forward to returning to campus. "I love teaching students at Minnesota," he says. "They're very smart and hopeful, and they really learn fast. It's fun to be around them."

He received a bachelor of arts degree in political science from the U in 1951, as well as his law degree in 1956. After serving as Minnesota's attorney general from 1960-64 he was a two-term senator, from 1964-1976. He then was Vice President for a term with President Jimmy Carter, and later became ambassador to Japan (1993-1996). He rejoined the Minneapolis law firm Dorsey & Whitney as a partner in 1997. Six years ago the University's Board of Regents voted to name the U's law school after Mondale.

Jacobs notes that Mondale is a committed instructor and is "intense and very focused" on the upcoming class. And if his credentials and enthusiasm weren't enough, he's also teaching the course without pay, which Jacobs notes is "a very substantial and generous gift of his time."

"Mr. Mondale is a very good teacher," he adds. "His approach is to raise questions--to offer insight, but to get the students to think for themselves."

All of which leaves Jacobs as eager as his students to partake in what the class description says is "a once in a lifetime course."

"It's going to be an incredible class," Jacobs says. "I can't believe I get to teach with him [again]."

U celebrates new boathouse with grand opening

By Rick Moore

May 4, 2007

The U's new $4.6 million boathouse sits in East River Flats Park on the bank of the Mississippi. And it was recently adorned with it first Big Ten Championship banner.

Perhaps it was fitting that a steady, chilly rain fell as the University of Minnesota and the Minneapolis Parks and Recreation Board (MPRB) dedicated the new boathouse for the U rowing teams on Friday, May 4.

Because when the short ceremony ended, everyone--including special guests and athletes--was able to go inside to warm up. In addition to warmth, the new facility offers locker rooms, working space, and state-of-the-art training facilities for both the women's varsity team and the men's club team.

The boathouse has an erg room (for the rowing machines) and a tank room for winter training purposes, laundry services, and coaches' offices. The rowing teams moved into the boathouse in January with the use of the locker room and the erg room. On February 16 the boats were relocated from the tent where they'd been housed to the boathouse storage unit.

The last completion to the boathouse came in late February when the rowing tanks were installed. The facility rests on a half of an acre on the bank of the Mississippi River in East River Flats Park.

Friday's grand opening program was emceed by Regina Sullivan, senior associate athletics director, and featured remarks by several speakers, including athletics director Joel Maturi, Kathy Brown from the president's office, director of recreational sports Jim Turman, and Walt Dziedzic from the Minneapolis Parks and Recreational board member.

As part of its agreement to build the boathouse on that parcel of land, the University is joining with the MPRB to provide programming and other opportunities to community members. Programming will include youth clinics and camps in rowing along with other sports.

The grand opening was followed by a tour of the facility, demonstrations in the erg and tank rooms, and a men's and women's rowing alumni reception.

While everyone was wearing smiles, the student-athletes seemed especially happy to showcase their new building. "I love it," said junior rower Lauren Van Proosdy. "It's wonderful to be able to come off the water and have so much space."

Big Ten champions

On April 28, the Golden Gopher rowing team earned its first-ever Big Ten championship in Madison, Wisconsin, on Lake Wingra.

The Gophers dominated the championship and set a Big Ten Championship record for the most points scored with 150. The Gophers won four of six races and advanced all six boats to the Grand Finals. The Gophers finished with a 33-point advantage over second-place Michigan, which had 117 points. Ohio State rounded out the top three with 103 points. The Golden Gopher rowing program, under head coach Wendy Davis, has excelled every year it has been in competition since the start of it in 2000-01. The Gophers earned their first NCAA appearance berth when they were selected as an at-large team in 2006. Along with competing in their first NCAA championships last year, the Gophers finished second at the Big Ten Championships and won three events.

Barnes and Davis earn honors

Just days after a record-breaking performance by Minnesota at the Big Ten Women's Rowing Championships, the Golden Gophers earned additional postseason honors as Jenny Barnes and head coach Wendy Davis were named Athlete and Coach of the Year, announced by the Big Ten Conference.

Barnes is the first Gopher to earn Athlete of the Year since the award's inception in 2000. Davis earned her second straight Coach of the Year honor; last year, she shared the award with Ohio State's Andy Teitelbaum.

Rowing has become one of the fastest growing sports in Division I athletics. In 1992, 12.6 percent of Division I institutions had rowing as a varsity sport. By 2002, it doubled to 27.2 percent.

The history of the women's rowing program dates back to 1973 when Ron Korpi founded the women's club team. Minnesota was one of the first institutions to offer intercollegiate competition for women. It remained a club sport until 1982 when the team was awarded "Varsity-Club" status. During a time span from 1982-1986, the varsity club captured the lightweight eight championships and qualified for four consecutive national championships. Although the varsity club was discontinued after the 1985-86 season, the club team remained on campus until regaining varsity status in the fall of 2000.

The men's club program was established in 1957 and was founded by Oliver Bogen, Lloyd Ohme, and Dr. Charles Good. Bogen coached the program's first eight years of existence from 1957-1964. Since the program's beginning, the Minnesota men's crew has earned five national IRA Championship titles, including the 2003 men's Open 4+. The men's crew has also garnered 15 Dad Vail Championships and 25 Midwest Regional championships.

This story contains information courtesy of University Athletics. For more information on the rowing team, go to GopherSports.

Caught between a rock and a soft place

Sand and superhero expert Jim Kakalios expounds on the Spider-Man 3 nemesis Sandman, a villain shiftier than the Sahara

By Deane Morrison

May 4, 2007; updated May 24, 2007

Don?t you hate it when you punch a supervillain and your fist goes right through him? Physicist James Kakalios explains the fascinating properties of sand, a lesson Spider-Man learns the hard way.

When the movie Spider-Man 3 swung into theaters a few weeks ago, it found University physics professor James Kakalios waiting. A diehard fan of superhero comics, he takes a double interest in Spidey foe Sandman, who can transform all or part of his body into living sand. It doesn't always happen, but in the case of Sandman the writers manage to get much of the science right, Kakalios says. After 10 years researching the physics of sand and other granular materials--not to mention writing the bestselling book "The Physics of Superheroes"--he is delighted to see sand finally getting the billing it deserves. One characteristic of sand that comes through in the movie is its changeling nature. "Sand can go from light and fluffy in its loose-packed state to hard and rigid when densely packed," Kakalios explains. "Think of getting hit with a sandbag." That's exactly what Sandman has in mind as he battles Spider-Man. When Spidey tries to punch his shifty nemesis in the stomach, his fist sails right through Sandman's powdery midsection. But in the next instant, Sandman packs the sand grains of his fists into dense, rock-hard clubs and proceeds to pummel the hapless hero. **The powders that be** At first glance, working on the physics of sand and similar materials may seem a little odd. Kakalios, who once wrote a paper titled "Granular physics or nonlinear dynamics in a sandbox," would agree. But such studies are of intense interest to U.S. industries such as pharmaceuticals, agriculture, and construction, which together spend about $80 billion a year in powder processing. Take the pills in your medicine cabinet, for example. "The segregation of granular materials ... is a major concern for the pharmaceutical industry, for example, where granular systems need to be well mixed and homogenous over length scales of a pill diameter or less," Kakalios points out. In fact, he says, nearly 80 percent of everything manufactured or grown in the United States exists at some point as a granular material, and three percent of all electrical energy in the United States goes into grinding metal ores into powders.

"Sand can go from light and fluffy in its loose-packed state to hard and rigid when densely packed," Kakalios explains. "Think of getting hit with a sandbag."

The physics of grains also applies to breakfast cereals, boxes of which usually arrive in stores almost half empty and bearing the apologetic disclaimer "Contents may have settled during shipping." Even Isaac Newton was aware of the settling problem and studied how spherical objects could best be packed in containers. Perhaps he was influenced, Kakalios speculates, by a desire to wring more profit from the apple orchard he owned. **The times of sand** When we walk on a sandy ocean beach, we're treading on tiny grains of rock that were born on mountaintops lifted up by movements of the Earth's crust. As plants and the elements erode rock into smaller pieces, they find their way into valleys, where water washes the finer particles toward the sea. On average, says Kakalios, a grain of sand takes about 10,000 years to complete each mile of its journey. And there are plenty of journeys. "There is a lot of sand on the planet-approximately 10 million cubic miles, all told," he says. "That's enough to cover the United States three miles deep." Sandman may not know it, but as he changes the density of his body sand he is actually altering the stacking pattern of individual grains in rather startling ways. Sand, says Kakalios, is full of spaces between the grains that resist being squashed. In fact, the spaces expand when pressure is applied from the top. This explains why a person walking on wet beach sand leaves footprints that are temporarily dry. With each step, the pressure causes new spaces and pores to open up through the matrix of grains. Water drains in to fill the expanded voids, leaving the top surface of the prints drier than the surrounding sand. The presence of spaces also explains why sand, and not water, is used in hourglasses. Normal fluids respond to the pressure of their own weight by initially shooting through a hole in the bottom of their container rapidly, but their speed slackens as the chamber empties and the pressure head decreases. Sand's resistance to compression, however, keeps it from packing at the bottom and allows it to flow at an even rate. Another surprising ability of granular materials becomes evident when grains of different sizes are poured into a narrow space such as an ant farm. For example, if sand and sugar are well mixed and poured together, they will at first form an ordinary-looking pile. But after a while, the pile will display alternate horizontal stripes as the sand and sugar sort themselves out. Perhaps more astonishing is what happens when grains of different sizes are mixed in a rotating cylinder. If a uniform mixture of rice and dried peas, for example, is put into a horizontal glass cylinder and the cylinder is rotated at the right speed, the peas and rice will sort themselves into separate bands like rings on a finger. The physics behind these phenomena still fascinates Kakalios, although he has switched his research focus to semiconductor materials and neurological systems. As Hollywood continues to produce superhero movies, he hopes viewers will take home a lesson or two when the science is correct, and take the rest with a grain of salt.

Leap with a single bound to a story on Kakalios' book *The Physics of Superheroes*.

For the next generation

Student-parent resources are now Twin Cities campuswide and reaching out to create access for teen parents

By Bob San

Brief, May 9, 2007

Aerial, held by her aunt, Rachel, dressed up as a little Goldy Gopher on Student Parent Visiblity Day May 1. Aerial is the daughter of Stephanie Xiong.

Kristin Morris was just starting college at the University of Minnesota-Twin Cities when she found out she was pregnant. But she decided to stay in school.

"That's the best decision I ever made," says Morris.

With the support of her family and the Student Parent HELP Center, Morris excelled. She made the dean's list every semester and was admitted to the graduate school. Next year, she will complete her master's degree in human resource development.

Last week, Morris shared her story with about 100 high school teen parents at the University's second Student Parent Visibility Day, an event sponsored by the Student Parent HELP Center (SPHC) and the Student Parent Association (SPA).

More than 1,000 undergraduate student-parents are registered with the SPHC. The center provides services that encourage and support student-parent success at the U. It offers a warm, academically oriented facility where parents can study and develop community with other students facing the challenges and rewards that parenting offers. Assistance can include postsecondary childcare grants, private childcare grand, emergency funds, as well as counseling and advocacy for personal, academic, and family issues.

Last year, the Student Parent HELP Center moved from General College to the Office for Student Affairs. "Being part of OSA means that people [can] assume we are campuswide," says director Susan Warfield.

Under a blue sky and bright sunshine, SPHC and SPA representatives recognized U of M student parents for contributions they have made to the University and their commitment to securing a better future for their children.

The U of M student-parents also paired up with teen parents from three Twin Cities alternative high schools to discuss selecting a college major and career selection.

"We have more teen parents here than last year," Morris said. "They are very interested, and that makes us feel good....We can offer tips to stay motivated and set goals--'After you graduate from high school, go to college and do the best you can.'"

This year's event was bigger than last year's, and organizers were pleased with the outcome.

"It feels good to know that I was able to help some teen parents who are interested in college and answer some of their questions," said another member of the SPA, Krystle Klosterman.

Thanks to the presence of role models such as Morris and Klosterman, many high school parents left with a good understanding that, even though they have children, there are options beyond high school.

"I want to be at this event," Morris said. "I want to tell the teen parents that 'I am nobody special. I am the same person as you are. If I can do it, you can do it, too.'"

From a college to campuswide

Last year, the Student Parent HELP Center moved from General College to the Office for Student Affairs. Director Susan Warfield says the transfer and expanded scope has been a boon to visibility.

"Being part of OSA means that people assume we are campuswide, which is what we are," says Warfield.

The SPHC developed gradually, but it has served as a national model for delivering comprehensive services to students with children for more than 40 years. Warfield frequently gets calls from other universities seeking help in starting programs.

Several years ago, when she did a Google search for student-parent programs, only a handful of sites came up. Now there's a long list of universities with such programs. Non-traditional students--including students with children--are projected to become a major source of income in higher education, Warfield says, and universities are creating programs to try to meet their needs. But many existing student-parent programs are extensions of human resources departments that also serve faculty and staff.

SPHC is staffed by licensed social workers and currently serves about 350 of the 1,000 identified undergraduate student-parents at the Twin Cities campus. The total number of student-parents is much higher if graduate students are included.

Three years ago, with Warfield's guidance, student-parents founded the campus Student Parent Association to serve as a support and advocacy group for both undergraduate and graduate students with children. SPA organizes regular activities and acts as a collective voice on issues surrounding the everyday lives of student-parents.

Warfield expects the number of student-parents using the center will continue to increase as it gains more visibility on campus. Student Parent Visibility Day is part of that effort.

Some student-parents stopped by and said they didn't know the U had such a program.

"It shows the campus that we exist, we have kids, and we are in college," said SPA member Zer Xiong.

Continuing the work of a lifetime

Retiring Regents Professor Ed Schuh showed agriculture's importance to the global economy

By Mary Jo Pehl

May 8, 2007

The University saluted retiring Regents Professor Ed Schuh, shown here with his daughters, with a global symposium May 2 and 3 honoring his pioneering work.

You'd never know that Ed Schuh is about to retire. He has barely arrived in his office after teaching a class, and immediately sets about making travel arrangements to China. He settles into a chair, and consults with his assistant for the upcoming trip: He's been invited to give the keynote address at the 100th anniversary celebration of Sichuan Agricultural University. It's all in a day's--or life's--work for Schuh, Regents Professor at the Humphrey Institute for Public Affairs.

That life's work has entailed looking at the macroeconomics of agriculture--the role it plays in the larger context of the world's economy. "People tend to regard agriculture as an individual sector, but it is integral to the world economy as a whole," he points out. It is this research that has taken him all over the world.

On the occasion of Schuh's retirement, the University of Minnesota sponsored a global symposium May 2 and 3 at the Humphrey Institute of Public Affairs. "Toward a Global Food and Agricultural Policy for an Open International Economy" brought together scholars and policy experts--all former students or close colleagues of Schuh's--to honor his pioneering work of bringing agriculture into a position of importance vis-?-vis the global economy.

Global visions Schuh started young. He grew up on a vegetable farm in the suburbs of Indianapolis, and even then dreamed of far-off places. He recalls being "absolutely enthralled" with Brazil. "I was studying up on the Institute Butanta (a reptile research center) in Sao Paulo, something that not a lot of other kids were doing!" says Schuh.

He received a degree in agricultural education from Purdue University and was on the faculty for almost two decades. He went to Brazil in the winter of 1963 as part of a program to develop what eventually became the Federal University of Vicosa. At the time it was a rural university patterned after a U.S. land grant institution, and it had about 400 students in its agriculture college. The goal was to help establish the first graduate programs in the agricultural sciences in Latin America. Today the university has an enrollment of about 27,000, and over 75 graduate and doctoral programs. Schuh also happened to meet a certain Brazilian graduate student in the program, whom he married a few years later. "It was the easiest decision I ever made--and it's paid off a long time!" he laughs.

Along the way, Schuh received a master of science degree in agricultural economics from Michigan State University, and went on to earn a doctorate from the University of Chicago. Many of the faculty members there have received Nobel Prizes in economics, and Schuh studied under seven of them.

Schuh continued to have one foot firmly planted in Brazil. He helped develop the Empresa Brasileira de Pesquisa Agropecu?ria (EMBRAPA), a national agricultural research system, whose mission is to provide solutions for the sustainable development of Brazilian agribusiness. EMBRAPA is now one of the strongest systems of its kind in the developing world.

For his work in developing agricultural economics research and teaching institutions in Brazil, Schuh was named the first "Legendary Member" of the Brazilian Society of Rural Economics and Sociology in 2004. He also received Brazil's highest scientific award, the National Order of Scientific Merit, Gra Cruz, the equivalent of the U.S. Presidential Medal of Freedom.

"It was one of the great honors of my life," Schuh says. "The award means as much to me as being named a Regents Professor." Schuh received the U's Regents Professorship in 1998.

Beyond Brazil Schuh was part of the U.S. delegation that negotiated the first trade agreement with China. He was deputy undersecretary of agriculture in the Carter Administration at the time, and the only person in the delegation representing agriculture. Schuh also co-chaired a mission with agricultural scientist and Nobel laureate Norman Borlaug to North Korea to assess the food situation. Schuh also served as the World Bank's Director of Agriculture and Rural Development and found his tenure at the World Bank a tremendous learning experience, although it was difficult working with so many different ethnic groups, each of which had a different agenda. "I wouldn't trade it for a million dollars--but wouldn't give you a penny for another day of it," says Schuh.

After three years, he returned to the University of Minnesota and served as dean of the Humphrey Institute of Public Affairs from 1987 to 1997. As dean, he found its multidisciplinary scholars often as difficult to pull together as the various groups at the World Bank. "The fact that I continued as dean at the Humphrey Institute 10 years shows how stubborn I am," Schuh says.

More recently, Schuh's work addresses international trade problems. He is collaborating with colleagues at the University of Sao Paulo in Brazil on problems associated with the proposed Free Trade Agreement of the Americas. In addition, he is working on a book that addresses the global problems of world agriculture.

Schuh shows no signs of slowing down. He is working on a paper on global policy on food and agriculture and cites new initiatives to examine health issues as they relate to agriculture, like diseases and parasites associated with water in the tropics and ills associated with the use of pesticides and herbicides. Until recently, agricultural scientists and students of agricultural development have largely ignored these issues.

For Schuh, looking at his busy schedule and future work, the only difference retirement will make to his life is that he "won't get a paycheck at the end of the month."

CCE honors diverse group of graduates

By Christie Vogt

May 8, 2007

With aspirations of enhancing their personal and professional lives, thousands of adults each year choose the U's College of Continuing Education (CCE). CCE offers self-designed, interdisciplinary degrees, in which students draw on courses from throughout the many colleges of the U's Twin Cities campus.

On May 5, approximately 300 students graduated with bachelor's degrees from the college, and they carry with them a variety of ambitions.

Three of this year's graduates--Gao Vang, Sandra Dolinksi, and Keith Clepper--are strong representatives of the influence CCE and its students have on the greater community.

Gao Vang designed her own degree that concentrates on family social science, public health, and sociology. She plans to work for a social service agency and also wants to help bridge the gap between Hmong parents and their first-generation American children, who, according to Vang, feel pressure to be both the perfect Hmong child and a "cool" American child.

Former Gopher and NBA basketball star Trent Tucker was the keynote speaker at this year's College of Continuing Education commencement ceremony. Tucker is a 2005 CCE graduate.

CCE allows for a broad community of adult learners to further their education on both a credit and noncredit basis. Every year, the college serves nearly 4,000 adults who are working toward degrees or certificates, or are accessing the U's credit evening, distance, or summer courses.

Sandra Dolinski, who graduated with a degree in life sciences, public health, and the history of medicine, plans to study intellectual property law in graduate school. Dolinksi wants to work in the medical device industry, focusing on making devices safe and effective for future patients.

Keith Clepper received his degree in addiction studies, psychology, and coaching studies. He hopes to earn certification as a coach and psychologist. Clepper enrolled in CCE because he was attracted by the flexibility of creating his own degree. His long-term goal is to build a relapse prevention program incorporating alternative therapies and then to teach addiction studies at the University.

The keynote speaker at the commencement ceremony was former Gopher and NBA basketball player Trent Tucker, a 2005 CCE graduate. Tucker is a KFAN radio commentator and also works with Minnesota inner-city youth through the Trent Tucker Non-Profit Organization.

CCE allows for a broad community of adult learners to further their education on both a credit and noncredit basis. Every year, the college serves nearly 4,000 adults who are working toward degrees or certificates, or are accessing the U's credit evening, distance, or summer courses.

An additional 6,000 adults who are not seeking academic credit utilize CCE's short courses, seminars, workshops, retreats, and events.

The college also collaborates with organizations throughout the state to tailor public professional development offerings to the needs of their workforces. For instance, the college worked with the state of Minnesota to develop the Emerging Leaders Institute--a series of training seminars designed to help selected state employees transition into managerial positions that will be vacated by retiring baby boomers. Over half of Minnesota's state managers will become eligible for retirement in less than a decade; the Emerging Leaders Institute is helping the state prepare to fill that gap.

Related reading:
NBA star earns U degree after a 23-year hiatus

Riddle me this

U team wins College Bowl championship

by Kristi Goldade

May 11, 2007

The U's latest College Bowl champs celebrate their victory. Back row, l-r: Andrew Hart, Andrew Bockover, Rob Carson and Meredith Johnson. Front: Ezra Lyon holds their trophy.

Andrew Bockover does not start every morning with a power shake and a thousand trivia questions. He does, however, get a kick out of trivia. Bockover, a history and political science senior, is captain of the U's winning College Bowl team. Last weekend the five-member University of Minnesota College Bowl team won the College Bowl National Championship in Los Angeles, defeating the University of Southern California (USC) on its own turf.

"It's the feeling of accomplishment you get when you do well," says Bockover. "You feel great not only from winning, but from being able to beat everyone else in the room on a question."

Bockover joined forces with Meredith Johnson, a linguistics junior, computer science freshman Robert Carson, undeclared freshman Andrew Hart, and Erza Lyon, a graduate student in ecology, evolution, and behavior. 2007 marks the sixth year the U has taken the national title; previous wins came in 1984, 1987, 1989, 2004, and 2005.

College Bowl is a question-and-answer game of general knowledge and quick recall. Topics span history to geography, with sports and pop culture in between. Colleges across the country compete in this wits-and-speed challenge during the academic year, with regional winners advancing to the national tournament each spring.

Here is a sampling of questions from past Championships:

> The site: Kiowa, Kansas. The date: June 1, 1900. The speech began: "You're all Saturn-faced, beak-nosed donkey bedmates of Satan."
Name the speaker, debuting a form of uncivil protest she called 'hatchetation.'

> Most of the eye's retina handles peripheral vision. Only a tiny area in the center of the retina at the back of the eye is responsible for clear central vision.
What is the three-syllable name for that small area?

> Who was this pioneer of America's post-war electric blues, a Chicago artist nicknamed for the dirty creek he played in as a child?

Answers: Carry Nation, macula, Muddy Waters or McKinley Morganfield

Sixteen teams competed this year in the double-elimination playoffs. Minnesota beat Baylor University and USC to secure a spot in the finals. USC came back with a win over Williams College for a final match-up with Minnesota. In the first round of playoffs, USC shocked Minnesota.

"They beat us handily the first game," says Bockover. "So going into the second game, we were already nervous."

USC opened the second game with a 120-point lead, which Minnesota answered to tie up the match. In the second half USC again led the game, but the Gophers charged back, tying the score with only two-and-a-half minutes remaining. USC tried to recover, but couldn't. Final score: Gophers 330, USC 295.

"It's rewarding to see the results of our hard work--we practice six hours a week, compete many weekends a year, and quiz each other while traveling," says Johnson, the team coordinator. "I think our success has much to do with knowing one another well. We are fortunate to be so closely knit."

Lyon, the lone grad student on the team, was named to the tournament all-star team, an honor reserved for the eight highest individual scorers. Lyon, averaging 72 points per game, ranked fourth and received a plaque for his "outstanding ability."

The U's College Bowl team is a registered student group, open to players of all skill levels. Practices are held twice weekly in Coffman Union. The team welcomes new members.

U Libraries and Penumbra Theatre celebrate a birthday and recent archive acquisi

Penumbra Theatre and the U celebrate a birthday and recent archive acquisition

May 11, 2007

U associate professor Lou Bellamy is the founder and artistic director of Penumbra Theatre Company. Penumbra--Minnesota's sole professional African-American theatre--is one of only three professional African-American theaters in the nation.

Since August 2006, Penumbra Theatre Company's institutional archive has been part of the University's Givens Collection of African American Literature. This Wednesday, May 16, Penumbra and the Friends of the University of Minnesota Libraries will present "Backstage with Bellamy," an evening of festivity and performance to mark that historical acquisition and Penumbra's 30th anniversary.

The Givens Collection contains more than 5,000 items from the late 18th century to the present that cover such literary periods as the Harlem Renaissance and the Black Arts Movement. The Penumbra archive, which was a gift from the theatre--Minnesota's only professional African-American theatre--to the University, consists of more than 70 boxes of records and memorabilia chronicling Penumbra's history, including photographs, set and costume designs and sketches, administrative records, and programs.

"Marking the path is important," says Lou Bellamy, Penumbra's founder and artistic director. "So many people have given so much of themselves to build and maintain Penumbra. It is crucial to impart the knowledge we have gained on building community to future generations. This effort must ensure their access to the documentation that shows what we have done, that we were here, that we marked the path. It is our history."

Bellamy, who is also an associate professor in the Department of Theatre Arts and Dance at the University of Minnesota, will share personal and artistic memories at the May 16 event. Penumbra actors Benny Cannon, Shawn Hamilton, T. Mychael Rambo, Dennis Spears, and J.D. Steele will perform live as "The Doves," the smooth crooners of soul from Penumbra's upcoming show "Get Ready." Musician Sanford Moore will accompany on piano.

Lou Bellamy (center) with fellow actors in the Penumbra production of August Wilson's "The Piano Lesson."

The Penumbra archive is still being catalogued and processed, but once that's complete, the archive will be available for research and study to the general public and University students, faculty, and staff. A special exhibition of materials from the archive will be on display from May 16 through May 25 at Elmer L. Andersen Library on the West Bank.

"The acquisition of Penumbra Theatre's archive into the University Libraries' collection is a major boon for researchers from the university community, the state, and across the globe," says Steven Rosenstone, dean of the University's College of Liberal Arts. "Now everyone from serious scholars of the African-American experience to avocational theatre buffs can experience and learn from this rich trove of primary source material. Something quite extraordinary happens when a library visitor can touch, read, and examine original documents with her or his own eyes."

Penumbra, founded in 1976 by Bellamy, was born of the Civil Rights and Black Arts Movement and the tenet that an artist's ethics and aesthetics must be one. Under Bellamy's leadership, Penumbra has garnered critical acclaim for creating an authentic voice and style for African American theatre and achieved national recognition as a pioneer in cross-cultural dialogue. Penumbra is one of only three professional African-American theaters in the United States to offer a full season of performances.

"Backstage with Bellamy" takes place at 7:30 p.m. in Willey Hall Auditorium on the Twin Cities campus in Minneapolis. The event is free and open to the public.

Reducing teen pregnancy

University project to help Twin Cities girls has "breakthrough potential"

By Mary Pattock

eNews, May 17, 2007

University professor Renee Sieving is looking to reduce the rate of teen pregnancy in the U.S.--one of the highest in the industrialized world.

Why does the teen pregnancy rate in the United States remain one of the highest in the industrialized world? Associate Professor Renee Sieving has received a $3 million federal grant to help find the answer.

Sieving, leading a multi-disciplinary team of other University researchers, will use specific strategies to steer a group of 125 Twin Cities teens--all of whom are attending school and community health clinics--away from risky behaviors that can lead to pregnancy. At the end of 18 months in a program called "Prime Time: Health Promotion for Multiple Risk Behaviors," the group will be compared with a similar group of girls who have not participated in Prime Time but have continued to receive usual health clinic services.

Model has proved effective

"Previous research has shown that many factors contribute to teen pregnancy," says Sieving. "They include inadequate education, risky sexual behavior, involvement in violence, and not enough contact with adults who can provide resources and positive role models. The Prime Time intervention addresses all these factors--intensively and over a long enough period of time to have a lasting effect."

Prime Time involves girls in health promotion and youth leadership programs over 22 weeks, and then pays them to share health information with others. The girls will also take on community service projects, and meet at least monthly with a case manager with the goal of establishing a one-on-one relationship with an adult. In the process, Sieving says, they will become better connected at school, get help in coping with any violence they are dealing with in their lives, and become educated about the risks of sexual behavior. "Our goal is to help participants build the skills, confidence, motivation, opportunities, and social support that every teen needs to succeed," she says.

Sieving and her colleagues tested Prime Time strategies in a 1999-2004 pilot study and found the results encouraging. At the end of 12 months participants were reporting fewer sexual partners, and at the end of 18 months they were more consistently using contraception. "We also found that the program itself is highly acceptable to girls from resource-poor urban neighborhoods," Sieving says.

The current project is a more stringent test of the Prime Time intervention than the pilot study, since it randomly assigns girls to either Prime Time or a comparison group. Random assignment is considered the gold standard in intervention research.

Designed for use in clinics

Another goal of Prime Time is to improve the capacity of health clinics to prevent risky behaviors among their teenage patients by promoting healthy youth development. The project represents one of the first times such a youth development model has been adapted and tested for use by health clinics.

"We are excited--we think Prime Time has breakthrough potential," says Sieving. "Because many adolescent girls at high risk for early pregnancy do go to health clinics, it stands to reason that boosting clinics' ability to provide help that is proven to be effective could make a profound difference in the nation's teen pregnancy problem--and in the lives of thousands of young people."

Prime Time is funded by a five-year grant from the National Institute of Nursing Research, which is part of the National Institutes of Health.

Growing your own vitamins and minerals

By Mary Schroeder, University of Minnesota Extension

eNews, May 14, 2007

Ahh, summer is almost here, and people across Minnesota are anxiously awaiting delicious fresh summer vegetables. In addition to their taste, vegetables are loaded with vitamins, minerals, and phytochemicals that are great for your body.

Tomatoes are a great source of vitamin C. You can plant them in containers if you don't have a garden.

Here are a few nutrient-rich vegetables you may want to plant this summer:

Spinach: This leafy green vegetable is packed with nutrition. One cup of raw spinach contains 75 percent of your daily needs for vitamin A and 27 percent of your daily needs for vitamin C. Spinach is a good source of folate, which can reduce the risk of a baby being born with spina bifida. Spinach also contains the phytochemical lutein, which is important for eye health.

Broccoli: One-half cup of chopped, fresh broccoli contains 68 percent of your daily needs for vitamin C. Because it is a rich source of several different phytochemicals, broccoli has been shown to help reduce the risk of developing diabetes, heart disease, and certain types of cancer.

Squash: There are more than 40 different varieties of squash. Summer squashes such as zucchini contain a variety of vitamins and minerals, but in much smaller amounts than winter squash. In addition to summer squash, plant a variety of winter squash such as acorn or buttercup.

Tomatoes: A garden tomato is a favorite among many people. Enjoyed fresh, it is a good source of vitamin C. Tomatoes contain the phytochemical lycopene, which has been linked to a decreased risk of developing prostate cancer. An interesting fact is that the lycopene in tomatoes is more available to the body once it has been heated. So in addition to enjoying fresh tomatoes from the garden, consider processing tomatoes into canned tomatoes or spaghetti sauce.

If you do not have space for a garden, you can plant vegetables such as tomatoes and peppers in large containers. Or visit a local farmer's market to select from a wide variety of fresh vegetables.

Mary Schroeder is a health and nutrition educator with University of Minnesota Extension.

CAPA 2007 transition begins

By David Bernstein

Brief, May 16, 2007

In elections April 20, the Council of Academic Professionals and Administrators (CAPA) chose a new executive committee--including several first-time members--and nine new senators to represent academic professional and administrative (P&A) staff in the University Senate. CAPA will thus have quite a different public face in 2007-08, beginning July 1.

Attending a CAPA transition meeting May 14 were (left to right, standing) **Frank Douma, John Borchert,** and **David Bernstein**, and (seated) **Stacy Doepner-Hove** and **Pamela Stenhjem**.

As the U-wide governance body that represents more than 4,000 P&A employees, CAPA has made priorities of advocacy and strong P&A participation in the transformational process currently underway at the U. P&As teach and advise students, conduct research, direct programs, manage budgets, administer departments, and reach out to citizens all over Minnesota.

CAPA is guided by an executive committee made up of a chair, vice-chair, and chairs of four standing committees.

The new CAPA chair is Pamela Stenhjem, and the vice-chair is Mary Laeger-Hagemeister. New committee chairs on the executive committee will be Bill Roberts, benefits and compensation; John Borchert, communications; Ingrid Nuttall, professional development and recognition; and David Bernstein, representation and governance.

The nine senators will be Bernstein, Elaine Challacombe, Jaki Cottingham-Zierdt, William Craig, Stacy Doepner-Hove, Susan Doerr, Frank Douma, Kirsten Jamsen, and Caroline Rosen.

CAPA offers heartfelt gratitude to three members of the executive committee who are stepping down after years of dedicated service--but continue on with CAPA as unit representatives or senators: outgoing chair Cottingham-Zierdt, vice-chair Doepner-Hove, and benefits and compensation chair Douma. All three have been extremely effective in helping to put CAPA on the map as a thoughtful advisory body and strong advocate for concerns of P&A employees.

Next year's challenges

Increasing work loads have surfaced as a major concern of P&As across the U. Moreover, as a result of focus groups held this year by the Classification and Compensation Work Group--a U committee that included several CAPA members, other concerns of P&A employees were also raised. The new executive committee will want CAPA to address some of them in the coming year. To get an idea of the challenges CAPA will face, P&A staff are urged to read the summary of issues raised in the focus groups. See P&A Discussion Groups--Summary Themes on the Office of Human Resources's Classification and Compensation page.

In tandem with discerning P&A employees' concerns, CAPA has spent time this year thinking about P&A contributions. All P&A staff will soon receive an important survey that intends to allow CAPA to gauge these contributions more specifically and quantitatively. Please fill out this survey to show the University the range and quality of P&A contributions in order to argue that measures of P&A achievements be included as the U assess its progress in reaching the goal of becoming a top research and teaching institution. Currently, explicit metrics and measurements are in place for faculty contributions and student achievement, but there are none for staff. If CAPA gets a good response to the survey, the executive committee will be in a strong position to use those results to show how P&A contributions can be included among measures of what it takes to be a great university.

Executive committee members invite P&A members to contact their CAPA representative...to share thoughts about how CAPA might best address these upcoming challenges--or to find out more about CAPA--or to become involved in CAPA. Visit the CAPA Web site for more information, including how to contact your CAPA representative.

David Bernstein is the development coordinator and a teaching specialist for the Department of Theatre Arts and Dance, Twin Cities campus. He serves as one of two College of Liberal Arts representatives to CAPA, as a University senator, and as chair of CAPA's Representation and Governance Committee. Contact him at berns009@umn.edu.

The giving trees

Physical geographers are helping Minnesotans preserve and maximize the quality of their environment

For physical geographers like Susy Ziegler, there's no such thing as being unable to see the forest for the trees. Indeed, it's only by immersing yourself in those details, Ziegler says--in lake sediments, pollen, charcoal, macrofossils, tree rings--that you can really understand what an environment was, is, and can be.

Susy Ziegler is a physical geographer and an assistant professor at the U.

If you know how to read them, she says, those details will tell you stories about a landscape's past: tales of blazing fires and the regeneration that followed, of decades of gradual climate change and its lasting effects.

These are stories we need to hear, says Ziegler, an assistant professor at the University of Minnesota. "Understanding vegetation response to past climate and disturbance regimes helps predict the impact of environmental change on future vegetation patterns. If we can understand the past, we can manage land, forest, and water resources better; we can understand the influence people have had on vegetation and better think about what kind of environment we want--and what we want our protected land to look like."

Take, for instance, the region in southeastern Minnesota where the Zumbro River and Weaver Dunes abut the Upper Mississippi River Valley--a complex landscape made up of wetlands, tributaries to the Mississippi River, terraces, and upland sand dunes. Rare, threatened, and endangered species make their homes there. And sundry groups of people have vested interests in the region and its future for agriculture, recreation, conservation, water management, transportation, and utilities.

With the help of a grant from the U's Center for Urban and Regional Affairs Faculty Interactive Research Program, Ziegler is examining the physical characteristics and dynamics of this Minnesota landscape. She's finding out about its past and learning how humans have already affected the area. Based on her findings, Ziegler and her research assistant, Mary Williams, will propose changes in land-use planning and policy that best support the landscape's role as wildlife corridor, hunting and fishing ground, food source, and wastewater treatment area.

In conducting her research, Ziegler is carrying on the department's tradition of studying the connection between vegetation and its larger environment--factors such as climate, landforms, soils, nutrient cycles, and historical events.

Together, these scholars are constructing the knowledge that Minnesota residents need to make sound decisions about how to preserve and maximize the quality of open space and undeveloped land in the state.

Other physical geographers in the department are engaged in similar work. Kurt Kipfmueller conducts research on climate change in Itasca State Park and the Boundary Waters Canoe Area Wilderness and its effect on patterns of vegetation there. Bryan Shuman studies the effects of fire and climate change on the vegetation history of the Big Woods of southern Minnesota. Kathy Klink examines variations in wind speeds over space and through time in Minnesota.

Together, these scholars are constructing the knowledge that Minnesota residents need to make sound decisions about how to preserve and maximize the quality of open space and undeveloped land in the state.

Sharing their findings with Minnesota students in the classroom, Ziegler says, is an important part of that process. In a course called Biogeography of the Global Garden, Ziegler teaches students to understand in historical perspective the relationship of plants and animals with their larger habitat, including climate, soils, landforms, glaciers, and long-term environmental change.

"It's a challenging and fun class to teach," Ziegler says. "We take an evolutionary perspective, looking at change over a range of time scales from millions of years to seasonal cycles. We discuss current events such as the spread of bird flu and the SARS epidemic from a geographic perspective. And we cover a range of topics to help students become better informed global citizens who think about how their choices affect the environment."

Ultimately, Ziegler hopes, the course will prepare a generation to think intelligently and responsibly about how to use untapped land. That's an ambitious goal, but the class is a good beginning--more than 500 students, global citizens all, enroll annually in the course.

"We hope the class will inspire students to be excited about geography, explore the world around them, and embark on projects that will help them understand science and make the world better," Ziegler says. "That's what geography education is all about."

Topical geography

Study of earth's surface promotes understanding of current environment and prevention of future consequences

eNews, May 17, 2007

Steven Manson examines the earth's skin to discover what is not skin deep.

Steven Manson's research is "topical" in more ways than one. Manson trains his eye on the earth's "skin"; using a technique called "agent-based modeling," he examines the rate at which humans are altering the land surface of planet Earth. Given the alarming pace of change in the earth's surface and increasingly charged debates about global warming, his work couldn't be more timely.

Manson seeks to help people understand what is happening to the earth, why it is happening, and what we might do to avert potentially disastrous changes. "The major intellectual challenge," he says, "is trying to come up with an approach that captures the complexities of human-environmental interactions."

Since joining the Department of Geography in 2002, Manson has established himself as a rising star, working in an area that professor and department chair Robert McMaster has called "of extraordinary intellectual and practical importance." And one kudos keeps following another. Last spring, he was awarded a prestigious McKnight Land-Grant Professorship. A New Investigator grant from the National Aeronautics and Space Administration (NASA) followed a few months later.

In essence, what Manson does is create virtual landscapes based on information about particular geographic regions. In a study of the Yucatan Peninsula in Mexico, he collects a variety of data to describe the region, including household interviews, archival material, and satellite images. Feeding the data into a software program of his own creation, he models patterns, processes, and effects of environmental change within the region and places it in the context of global environmental change. In other words, he finds global patterns in local and regional phenomena.

Weighty stuff The transformation of the earth's land is happening at a mind-boggling pace, says Manson, affecting everything from the price of a cup of coffee to the lives of polar bears. "Land change is the key component of climate change," Manson explains. "A quarter to a third of anthropogenic, or human-caused, greenhouse gases originate in farming practices, including deforestation."

While studying at the University of Victoria in British Columbia, Manson was increasingly drawn to the growing link between geography and technology--a link that would one day find expression in programs like MapQuest and automobile navigation systems. And he grew increasingly aware that "technology, in and of itself, is rather useless unless we use it to ask or answer questions about the world." Working "in the geospatial world" for Microsoft's Encarta systems, he decided to chase after those questions in graduate school at Clark University in Worchester, Massachusetts--where a professor urged him to pursue his studies of the Yucatan Peninsula.

Working with colleagues and researchers across the social and natural sciences, Manson began collecting data for a virtual landscape program he named SYPRIA (Southern Yucatan Peninsular Region Integrated Assessment). The program could model not only actual current land use but also probable consequences. SYPRIA has since been renamed HELIA (Human Environmental Land Integration Assessment) to suggest the broadening of studies beyond the Yucatan Peninsula to embrace other geographies (e.g., in the Twin Cities). The program remains a powerful new way to examine interactions among individuals, organizations, and large social and environmental systems.

Thanks to the Land-Grant Professorship, Manson will be able to use his modeling program to examine the problems of urbanization in the Twin Cities with the same measure of detail that marked his study of deforestation in the Yucatan. He's already begun working with staff of the Metropolitan Council and the University's Center for Urban and Regional Affairs to begin collecting data for his future studies.

He will be using his NASA grant to continue his study of the patterns, processes, and impacts of urbanization in the United States and deforestation in Mexico. And he already has begun implementing the K-12 outreach component of the grant: He's working with the St. Paul-based science education group Eco-Education to create a curriculum centered on human-environment research, geographic information science, and remote sensing.

The outreach activities will include a new University course and K-12 classes offered in collaboration with Eco-Education.

"These outreach programs are as exciting as the research," says Manson. "And the research is pretty darn exciting."

Legacy of action continues

U of M student groups receive Tony Diggs Excellence Awards

By Bob San

Brief, May 16, 2007

Kappa Alpha Psi board members Damien Daniels, William Snowden, and Jerome Stewart accepted the Tony Diggs Award from senior vice President for system academic administration Robert Jones (right) and vice provost for student affairs Jerry Rinehart (left).

The University of Minnesota Student Unions & Activities hosted the first annual Tony Diggs Excellence Awards on April 19 to recognize the contributions made by outstanding student groups at the University.

Diggs began his career at the University of Minnesota more than 16 years ago. He was an advisor and director of the African American Learning Resource Center for many years, then served as director of the Student Activities Office (SAO) beginning in 2003. After a long battle with cancer, Diggs passed away on May 24, 2006.

Diggs approached his leadership role at SAO and at the University as he did all things in his life--with great energy and enthusiasm. Renowned for his advocacy for students, student organizations, and cultural centers, Diggs was instrumental in establishing a partnership grant for non-fee-receiving student groups, which the Student Services Fees Committee unanimously approved with a $50,000 fund. Due to the increasing volume of applications, the partnership grant received additional funding in spring 2006.

While working at the African American Learning Resource Center, Diggs began a male-mentoring program, Our Brother's Keeper, which is still active on campus.

"Tony's smile and enthusiasm could light up a room," said Patrick Troup, who worked with Diggs at the African American Learning Resource Center. "He truly cared about each student he worked with and was a mentor to many students and staff."

Tony Diggs

The Tony Diggs Excellence Awards recognize student groups for innovation, philanthropic efforts, outstanding events, and overall achievements of both new and established student organizations. Seventy-two nominations were received for more than 30 student organizations.

Recipients of the 2007 awards

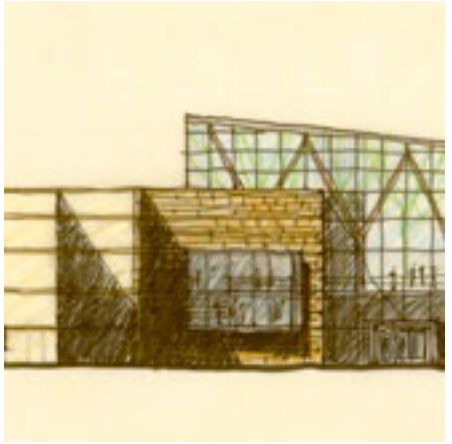
- Kappa Alpha Psi
- Residential Housing Association
- Christian Student Fellowship
- Students Today Leaders Forever
- Friendship Association of Chinese Students and Scholars
- Asian-American Student Union
- Forestry Club, Ltd.
- Colleges Against Cancer
- Hellenic Student Association
- Graduate & Professional Student Assembly
- Undergraduate Women in Business
- College of Biological Sciences Student Board
- Campus Atheists and Secular Humanists
- CLARION
- Student Network for Abuse Prevention
- The Diversity, Ethics & Peace Club

Creating the best places to learn and work

Regents approve six-year capital plan

By Gayla Marty

Brief, May 16, 2007



Schematic plans for the new Bell Museum of Natural History were reviewed by the Board of Regents Facilities Committee May 10, 2007. The museum is part of the ongoing six-year capital plan, approved by the full board the next day. This detail by Thorbeck Architects/ESG Architects shows part of the south face.

When the Board of Regents approved the University-wide six-year capital improvement plan May 11, 2007, they saw a plan firmly aligned with strategic goals and principles now well established.

"Eighty percent of capital planning is really academic planning," said associate vice president Robert Kvavik, presenting the plan with president Robert Bruininks, vice president for university services Kathleen O'Brien, and vice president for budget and finance Richard Pfutzenreuter. "This plan moves us to the forefront nationally in the creation of modern learning spaces."

- Renovation of Folwell and Pillsbury Halls and construction of a new Bell Museum on the Twin Cities campus and a civil engineering addition at UMD are anchored to the goal of recruiting and supporting top faculty and staff.
- Renewable energy projects at Morris, research and field station renewal, a systemwide data center, and Higher Education Asset Preservation and Replacement (HEAPR) components are tied to goals of exceptional organization through effective use of resources and infrastructure.
- Innovation, inspiration, and discovery are envisioned through a new Biomedical Sciences Research Facility Authority, a new science and technology building on the Twin Cities campus, facilities related to energy and the environment, and renovation of the 1939 Bell Museum for the College of Design.
- Recruiting and educating outstanding students is the goal supporting classroom renewal and, at Morris, a new residence hall that will function as an extension of learning environments and a library transformed into a learning commons.

"This is potentially one of the most exciting building projects I've seen in almost 40 years that I've been at the University," Kvavik told the board in describing plans for the Science Teaching and Student Services Building near the east end of the Washington Avenue bridge and Weisman Art Museum in Minneapolis. "I'm hopeful that, when this building is done, it will be one of the first places our admissions director will take students, and when they see this facility, their first reaction will be, 'This is where I want to learn science.'"

The plan envisions classrooms and buildings transformed from lecture halls to places for learning by doing--space flexible enough to be modified for new purposes within days.

Board of Regents policy directs the administration to develop a capital budget with a six-year horizon, updated annually. The rolling plan helps to guide capital budget requests and financial planning. The plan was reviewed in detail at the last regents meeting in March in preparation for the vote. It includes descriptions of items anticipated for the 2008, 2010, and 2012 state capital requests as well as potential federally funded projects, non-state-funded projects, and projects in the earliest stages of planning and development.

The board then previewed the annual capital improvement budget for fiscal year 2008, which will come for a vote in June.

Reports to the full board

Also on Friday, President Bruininks reported on the large number of national and international awards won by faculty and students this year: four Guggenheims, three elections to the American Academy of Arts and Sciences, one to the National Academy of Sciences, a Wolf Prize in Agriculture, and Rhodes and Truman Scholars, among many others.

President Bruininks outlined a tuition reform package that could be unveiled at the June meeting. It includes increased financial support for low- and middle-income students, changes in reciprocity with Wisconsin, lowering nonresident tuition on the Twin Cities and Duluth campuses, and establishing 13-credit bands on the Crookston and Morris campuses--essentially making all credits over 13 free, which would effectively lower tuition at Morris by about 10 percent.

The 2006-07 student representatives to the Board of Regents gave the second of their two reports of the year to the full board on Friday. They identified three issues of multi-campus and board-level concern: laptops in the classroom, student retention, and tuition reciprocity. The report is published in the docket along with campus-specific reports. The seven student representatives from all the U campuses, both undergraduate and graduate students, were honored at a Thursday luncheon.

Committee meeting highlights

On Thursday, the **Faculty, Staff, and Student Affairs Committee** reviewed changes proposed for regents policy on faculty tenure, which will come before the full board for a vote in June.

"We think today's recommendation to you is historic," said vice provost for faculty and academic affairs Arlene Carney. She cited the faculty senate's unanimous approval of the changes in April after three years of work by committees and a strategic positioning task force.

Proposed changes will make the tenure process more rigorous, improve work/life balance, and positively recognize interdisciplinary work, public engagement, international activities and initiatives, attention to questions of diversity, and technology transfer.

"I'd like to congratulate all of you for your work on this," Regent Larson responded, "not only that there is leadership but that there's ownership. I find that to be energizing." The University's system of shared governance is "going to be a competitive advantage," he added. The **Educational Policy and Planning Committee** heard an in-depth report on graduate education from Gail Dubrow, dean of the Graduate School and vice provost. She identified key challenges, including financial support for students, identifying ways to improve time-to-degree that are appropriate for various disciplines and are family-friendly, supporting interdisciplinary work, developing qualitative as well as quantitative benchmarks to measure excellence, and attracting top global talent.

"When you're talking about top three globally, you have to go beyond the state and region," said Dubrow. "It's appropriate to talk about attracting top talent in the world--including homegrown talent--because homegrown talent is getting offers from everyone else, too, and we have the advantage that they are more familiar with what is distinctive about our excellent education."

The committee also heard strategic positioning updates on UMD from chancellor Kathryn Martin and on Rochester from provost David Carl.

The **Audit Committee** heard a report on U-wide emergency preparedness from Vice President O'Brien. Discussion led to a request for a follow-up with a focus on prevention.

The **Facilities Committee** viewed preliminary designs for the new Bell Museum of Natural History, planned for an area just southwest of the intersection of Cleveland and Larpenteur avenues near the Twin Cities campus in St. Paul. The committee also got an update on light-rail transit and discussed principles to guide its development through the Twin Cities campus.

The **Finance and Operations Committee** got a project update on the Enterprise Financial System, which is on schedule to go live in July 2008. The functional design phase was completed March 30, and the technical design phase is now in progress, with a completion date of July 20, 2007; the building (coding) phase is scheduled to be done Nov. 2.

For more information about the May 2007 meetings, see the docket materials and video and audio streams of the May 11 meeting. See also the 2006-07 schedule, with links to related materials.

To view the six-year capital plan, follow the link to the docket, above, and see Board of Regents Meeting, May 11, 2007, pp. 23-35. For the report of the student representatives, see pp. 75-82.

FURTHER READING

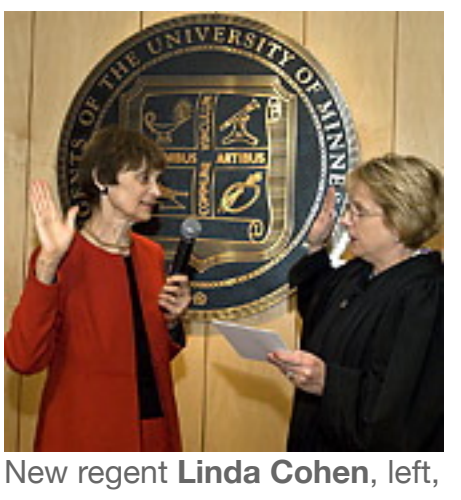
"Stage set for Northrop renewal"

Meet the new regents

Four members of the board sworn in for six-year terms

By Gayla Marty

Brief, May 16, 2007



New regent **Linda Cohen**, left, took the oath of office administered by Minnesota Supreme Court justice **Lorie Gildea** in the regents boardroom May 10, 2007.

Four new regents took the oath of office in Minneapolis May 10, 2007, at the onset of the board's monthly meetings. Maureen Cisneros of West St. Paul, Linda Cohen of Minnetonka, Venora Hung of Golden Valley, and Dean Johnson of Willmar were sworn in by Minnesota Supreme Court justice Lorie Gildea, UMM, '83, in a brief ceremony before an audience of about 70 people, including many family members and friends, in the boardroom on the sixth floor of the McNamara Alumni Center.

The ceremony followed a festive breakfast reception outside the boardroom. The new regents introduced family members to campus acquaintances including former deans and professors.

Taking the at-large student regent seat, Cisneros would graduate the same evening from the Master of Advocacy and Political Leadership (MAPL) program at the U of M-Duluth. A graduate of Marquette University who went on to graduate work at the U of Wisconsin-Madison, she has worked on the Twin Cities campus as an admissions counselor and an advisor in the TRiO Ronald E. McNair Post-Baccalaureate Achievement Program. Her committee work has included Growth and Justice's Rethinking Higher Education Steering Committee, the Citizens League's Immigration and Higher Education Study Committee, the U Senate Committee on Educational Policy, and the Access to Higher Education Coalition of Minnesota.

Regents, faculty, staff, family, and friends celebrated at a breakfast reception before the ceremony at the McNamara Alumnni Center. New regent **Venora Hung** is in the foreground on the left, and **Maureen Cisneros** is on the far left (wearing black).

On Thursday, she was greeted by UMD leaders as well as Twin Cities colleagues. Cisneros said a highlight of the day was sharing it with her family members and former coworkers, including Patricia Jones Whyte, now in the Graduate School's diversity office.

"She is the person who gave me my first job at the University, in the Office of Admissions," said Cisneros. "I'm very proud that she was able to share the experience with me."

Two more of the four at-large seats on the board were taken by Cohen and Johnson. Cohen is a licensed psychologist and therapist, in private practice since 1988, specializing in individual and family therapy and organization consultation. She has previously worked as a consultant for TCF Bank directing a business-education partnership with Patrick Henry High School in Minneapolis and in leadership roles at Blake Middle School. She has served on the Wayzata school district's board of education, the Humphrey Institute of Public Affairs advisory council, the Minneapolis Urban League board, and in Minnesota Women Psychologists. She is a Phi Beta Kappa graduate of Wellesley College and earned a master's in the history of science from Harvard and master's and doctoral degrees in educational psychology from the University of Minnesota.

Johnson's was a familiar face to many, having served as a member of the Minnesota State Legislature from 1978 to 2006. He's also been a parish pastor at Calvary Lutheran Church in Willmar for 35 years. Johnson grew up on a farm near Lanesboro, received a bachelor's degree in business administration from Luther College in Decorah, Iowa, and a master of divinity degree from Luther Theological Seminary in St. Paul. A brigadier general in the U.S. Army National Guard, Johnson has received the Legion of Merit and many other awards and commendations. He also earned a master's degree in strategic studies from the United States Army War College in 2002.

REGENTS OATH

I do solemnly swear that I will support the Constitution of the United States and the Constitution of the State of Minnesota and will faithfully discharge the duties of the office of Regent of the University of Minnesota to the best of my judgment and ability, so help me, God.

Hung, who will represent Minnesota's Fifth Congressional District on the board, was also familiar to many in the room because she served as a student representative to the Board of Regents from 2000 to 2002 as an undergraduate in the Carlson School of Management. Since earning her bachelor of science in finance, management information systems, and insurance and risk management, she has worked in finance roles for Cargill, both in Minnesota and in the United Kingdom. She is now a second-year student in the Law School and a member of the Golden Valley Building Board of Review.

Her father, whom she described as risking his life escaping from China so that one day his children could have access to higher education, attended the reception and ceremony and proudly looked on as she was sworn in.

"I truly care about higher education," said Hung afterward. "I am so honored and excited to be serving the University in this capacity."

The new members, elected by the state legislature March 8 for terms that expire in 2013, join Regents Allen (Moorhead), Baraga (Side Lake), Bohnsack (New Prague), Frobenius (St. Cloud), Hunter (St. Paul, at-large seat), Larson (Wayzata), Metzen (Sunfish Lake), and Simmons (Rochester).

"I was struck by the good will among all the board members, the comradery, and the way people were able to work together and include the new regents," said Cohen at the conclusion of the May 10-11, 2007, meetings.

New members sat with the full board for the first time May 10, 2007. Johnson is seated to the right, next to Hung, then Cisneros; Cohen is seated on the left.

Johnson concurred. "One thing so far that has been a delight is how smart and strategic people are at the U of M," he said Tuesday. "And I was really impressed with the emphasis on students--they were in meetings, they ate with us, they made presentations."

On Monday, Johnson participated in his first commencement as a regent, for the Carlson School of Management. "I didn't know how heavy those regents robes were!" he laughed.

The legislature elects one regent from each of Minnesota's eight congressional districts and four from the state at large. One of the four at-large regents must be a University student at the time of election. Regents serve without pay for six-year terms. The president of the University is *ex officio* president of the board. The board meets monthly, except for January and August, on the second Friday and the preceding Thursday.

Complete bios and photos will be available soon on the Board of Regents Web site.

In good company

Three CLA professors are elected to the American Academy of Arts and Sciences

By Deane Morrison

May 15, 2007

English Regents Professor Patricia Hampl, along with political science Regents Professor John Sullivan and philosophy professor Geoffrey Hellman, has been elected to the American Academy of Arts and Sciences.

Her career has been marked by one honor after another, but for writer and English Regents Professor Patricia Hampl, just being at a place like the University may be the greatest reward of all. As a freshman, she found the University "... the magical city of endeavor and possibility, a parallel universe that is not imaginary but where the imagination has property rights." (See, we told you she was a writer.) For Hampl, political science Regents Professor John Sullivan, and philosophy professor Geoffrey Hellman, following where their imaginations lead has just earned them election to the American Academy of Arts and Sciences. Among other 2007 electees to the 227-year-old academy are former Vice President Al Gore, former Supreme Court Justice Sandra Day O'Connor, filmmaker Spike Lee, and pianist Emanuel Ax. Since its founding in 1780 by John Adams, James Bowdoin, John Hancock and other scholar-patriots, the academy has chosen scientists, artists, civic, corporate and philanthropic leaders from across the spectrum to carry out, according to its Web site, "analyses of complex social, political, and intellectual topics in an objective environment." **Infinite possibilities** Topics don't get much more complex than the ones Hellman tackles. As a philosopher of mathematics and science, he is fond of plumbing the depths of these disciplines, asking questions that scientists and mathematicians don't usually ask. Of particular interest are axioms that deal with infinity, a symbol for which appears in many calculus equations. "For example, when you build a bridge or a building successfully, you're often relying on some mathematical operations that use infinity," Hellman explains.

"Too often, the arts are seen as decorative, merely an ornament on American intellectual life. But this inclusion reminds us that the arts are central to the American enterprise."--Patricia Hampl

He loves delving into questions such as what and how we really know about the infinite. "It's axiomatic that every line contains an infinite number of points, but ... that infinity of points could not possibly be counted," he says. "And, though it sounds paradoxical, a line from here to the moon has exactly the same number of points as a line measuring the diameter of a proton. Still, we do not know how large that number is. We seem to need new 'axioms' to decide that question. But how could we justify these even if we found them? "I feel fortunate that I've been able to find a niche where I could pursue these [and other] interests and keep up on my music," says Hellman, who is also an accomplished pianist. "It's an example of the possibilities an institution like the University of Minnesota provides." **Fear factor** It was students who first helped Sullivan find the path that led to one of his biggest contributions to political science. "I was teaching an undergraduate class on [political] tolerance in the early 1970s , using standard measurement procedures," he says. "But the students expressed uneasiness with them. We developed new methods of measurement and got new answers."

John Sullivan, Regents Professor of political science, is an authority on political intolerance.

What Sullivan was looking for was the roots of political intolerance, an attitude that groups of people who raise one's hackles should be denied certain political rights like the right to assemble or vote. Theories of intolerance had rested on tests of people's reactions to groups presented to them by the experimenters--that is, groups they may not have found objectionable at all. And the prevailing explanation for intolerance had been that people feared the despised group might have power and an agenda and could possibly enact their platform. "But we found that intolerance isn't based on that kind of rational assessment at all," says Sullivan. When he and his colleagues developed tests that measured people's reactions to groups that they actually disliked, it came out that the important reaction was the visceral one. "Whether the [disliked] group was powerful or not didn't matter. Mostly, it was a fear that they might do things out of the ordinary that violated norms," says Sullivan. Some people, he says, are able to think "sober second thoughts" about whether it's right to apply different standards to certain groups when deciding what a person's political rights should be. But not everybody can or does take the time to sort out negative "gut feelings" about others. It's possible, however, to overcome such feelings by emotional reassurances that dampen the negative emotional reaction directly, he says. In later work, Sullivan and psychology professor Eugene Borgida have studied how people in rural communities can avoid ending up on the wrong side of the "digital divide" between the Internet-savvy and the Internet-deprived. They found that where market forces were allowed free rein, a gap developed between rich and poor in terms of taking advantage of the Internet. But if a community invested in Internet technology for all citizens and offered training, poorer people who were civically involved also were able to benefit. **She can tell you stories** Few writers have been able to capture the thoughts and feelings of the contemplative mind as well as Patricia Hampl. The author of numerous essays, poems, and memoirs, Hampl was a National Book Critics Circle Award finalist for her book "I Could Tell You Stories: Sojourns in the Land of Memory" and received the Pushcart Prize for her short story "The Bill Collector's Vacation." As editor of the anthology "Burning Bright," she collected sacred poems from the Christian, Jewish and Islamic traditions. In her memoirs "Virgin Time" and "A Romantic Education," Hampl holds a magnifying glass to her Catholic and Czech-American roots, respectively. In "Blue Arabesque," she takes a journey through the art world and the artistic life, starting with her profound reaction to Matisse's "Woman before an Aquarium." All her books have won praise for their exquisite prose, and her last three have been named "Notable Books" of the year by the New York Times Book Review. In 1990 she won a MacArthur Fellowship--also called a "genius grant." Her latest book, "The Florist's Daughter," is due out in October. Her impressive resume notwithstanding, Hampl has reason to rejoice at her and her fellow CLA professors' election to the academy. "The real satisfaction for me is that the Academy includes artists along with scholars and scientists in its membership," she says. "Too often, the arts are seen as decorative, merely an ornament on American intellectual life. But this inclusion reminds us that the arts are central to the American enterprise. I'm delighted, too, that the University of Minnesota is being recognized by the Academy in a broad array of disciplines with new members."

Team Aphid packs a punch

The unbeatable power of University research, education, and teamwork

May 18, 2007

Lisa Behnken, George Haimpel, and Dave Ragsdale are part of a team of Extension educators and researchers working to defeat soybean aphids.

Not every gourmet experience turns out well. One that turned out especially rotten supposedly involved a tourist buying edamame in China, carrying it back to the United States, noticing bugs in the Asian delicacy, and tossing the edamame into trash near Chicago's O'Hare airport. The bugs were soybean aphids, and thus began their spread into Midwest soybean fields.

Only the rapid response from a team of field-based Extension educators, campus Extension specialists, University researchers, growers, crop consultants, and other partners could help reduce the economic and environmental damage from these accidental tourists.

In Minnesota, Lisa Behnken, regional Extension educator, first learned soybean aphids were invading when a southeastern Minnesota farmer came up to her at a July 2001 field day and said, "I think I have that insect you were talking about on the radio." A few days later Extension entomologists Ken Ostlie and Dave Ragsdale and a team of University of Minnesota scientists confirmed the worst.

The situation was bleak. Soybean aphids have voracious appetites and reproduce at rates that put rabbits to shame. One 100-acre soybean field could produce 4.4 billion soybean aphids in a growing season. And in 2001, nobody in Minnesota knew beans about soybean aphids. "It was a very painful birth of a new problem," Behnken said. "Most of the research we had access to was written in Chinese, and some didn't apply to our situation. We had to kick it in high gear fast."

"Our goal is a multitactic approach that combines aphid-resistant plants, natural predators and informed spraying decisions," Ragsdale said.

Team Aphid's first job was to figure out how to kill the darned things. Spraying pesticide was the quick answer, but how much and when? Farmers and crop consultants worked with Extension and other University of Minnesota experts to develop recommendations. By 2002 a sophisticated University of Minnesota computer model combined weather information with agronomic and entomology expertise to guide growers.

Ostlie estimated that in 2002 that model, combined with field scouting and Extension advice, saved growers $200 million in crop losses and reduced pesticide needs. Since then, aphids have spread into new areas and research-based information has become even more important.

The Soybean Aphid Growth Estimator computer simulation that drives the model continues to evolve. Future versions will factor in temperature, rainfall, planting date, plant growth stage, variety, soil type, and natural predators.

"Growers can combine this computer prediction of aphid growth with real-time data observed with field scouting to do the right thing in the field at the right time," Ragsdale said.

Spraying is a short-term fix. Team Aphid's long-term goal: finding a way to enlist nature to destroy the aphids, reducing the need for synthetic pesticides. In addition to interrupting the soybean aphid life cycle, researchers hope to develop soybeans that are less tasty to aphids. "Our goal is a multitactic approach that combines aphid-resistant plants, natural predators and informed spraying decisions," Ragsdale said.

The University of Minnesota soybean aphid response has attracted national recognition. But to Extension educators like Lisa Behnken it is all in a day's work.

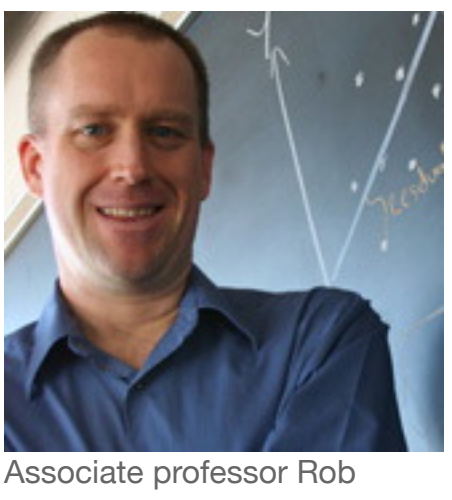
"We shine when we pull together and work together as a team of field-based educators, state specialists, and researchers to help producers make better decisions," Behnken said. "That's what we're best at doing."

For more information see soybeans.

Do they make the grade?

U professor researches the merit of high school exit exams

In addition to dealing with acne, first heartbreaks, and peer pressure at its worst, high school students now have something more substantial to fret about: exit exams. Over half of the states across the country now require that students pass exams before they can be granted high school diplomas. And like so many other issues involving public education (prayer in schools and No Child Left Behind, for example), mandatory exit exams are extremely controversial.



Associate professor Rob Warren makes it his mission to find out the merits of high school exit exams.

The exams are designed to ensure that students who receive high school diplomas have acquired at least basic reading, math, and science skills. Proponents of the exam see it as a way to make sure that students apply themselves throughout their high school careers--making an effort even when they're not being "graded." Supposedly, the exams also guard against diploma inflation, or the devaluation of a high school degree by a preponderance of unqualified recipients. Meanwhile, exam detractors argue that the tests measure only minimal levels of competence and--because teachers feel pressured to "teach to the test"--diminish the amount of "real learning" that happens in the classroom.

With a high school diploma riding on the results of exit exams, there is much at stake. Yet despite animated debate, until recently little research had been done on their actual effectiveness. To University of Minnesota sociologist Rob Warren, that seemed like a monumental oversight. So he set out to look for the facts behind the spin. "I've always done work on social inequality and education," he says. "And when I saw that the [political] discussion about exit exams was going on in the absence of real evidence, I decided that I needed to do that work."

Going back in time

Warren's first challenge was simply acquiring the relevant data-which was no easy task. Although some states have been conducting exit exams for several decades, in many cases they hadn't kept track of details that Warren needed for context.

"Researchers hadn't dug into minutiae of education policy in Utah in 1979, for example," he says. "So I spent a year and a half just finding out which states have had exit exam policies for which graduating classes from the late 1970s until today." Warren has made his findings publicly available so other researchers won't have to spend their time collecting this basic data.

In some cases, the results of Warren's research were unsurprising. For example, he concluded that in most cases, states with mandatory exit exams have slightly lower graduation rates than states that do not require the exams. Such a discrepancy is to be expected; it wasn't until Warren put this information in context that he saw reason for concern.

> *"Current policies on exit exams don't have the positive consequences that some people claim, but they do have the negative consequences that some people fear."*

"We might be willing to accept a higher dropout rate if the majority of kids are learning more and are better prepared for the labor market," he says. "But we've found almost no impact at all." According to Warren's research, students in states with exit exams perform almost identically on nationwide standardized tests as students from states without the exams.

That's unwelcome news for proponents of the exams. As Warren explains it, "Even if we can't show that these students are smarter or better citizens, we would hope that they would at least do better on standardized tests."

Meanwhile, students who fail the exit exam--of whom there are tens of thousands each year--suffer serious consequences. For some, failing the test means losing the chance to graduate with their classmates. For others, it means losing the chance to graduate altogether. In the latter case, students are labeled "high school dropouts," joining a demographic that faces grimmer economic prospects, a higher incidence of criminal activity, and greater potential for health problems.

An imperfect measure

Taken as a whole, the results of Warren's study suggest that the tests aren't accomplishing the purpose for which they were created. "Current policies on exit exams don't have the positive consequences that some people claim," he says, "but they do have the negative consequences that some people fear."

Warren sees no easy solutions for policy makers--but he does believe that change is in order.

"Getting rid of exit exams is not the solution," he says. "And lowering the standards so that graduation rates are politically palatable isn't great, either. But if we want to set a higher bar for students, we might need to consider more complete assessments that aren't just achievement tests."

Portfolios of students' work, writing assessments, and other alternative skill evaluators might provide a more complete picture of how prepared students are to enter college or the workforce--although Warren acknowledges that the cost would be significant. The key to a more effective assessment, he asserts, is creating a better balance in how students are evaluated. Such a solution might not end lengthy standardized exams, but it would put less weight on a single outcome.

The disappearing diplomas

Each year, the federal government releases statistics about high school graduation rates, and each year, the national average hovers around 90 percent. That's an encouraging number--if it's accurate. But Rob Warren has some concerns.

"The data being used are poorly suited for measuring this information," he says, noting that the data derive from notoriously unreliable self-reports of high school graduation and also count GEDs as equivalent to high school diplomas.

Statistics culled through other sources suggest that the percentage of those who don't earn a diploma may be as high as 30 percent. "If you do something simple, like look at how many ninth graders there were four years ago and how many students graduate this year, you'll find that you've lost about 30 percent," Warren says.

Also troubling is the fact that the students who don't graduate aren't randomly distributed across the population, but are concentrated in cities and among minorities.

Fighting words

Sociologist Ann Hironaka researches civil wars

May 22, 2007

Ann Hironaka's new research shows that civil wars are nearly three times longer than they were 60 years ago.

Long before she ever made war one of her primary academic interests, Associate Professor Ann Hironaka was busy taking stands against it. As an undergraduate during the 1980s, she was active in a variety of peace related causes; she even served a stint at the Center for Arms Control and Non-Proliferation, though she says she was enlisted mostly as a diligent copier and coffee fetcher, not as a policy analyst.

As Hironaka became interested in sociology, it might have made sense for her to leave war to the political scientists, who more commonly study the subject. But she was convinced that sociology would offer a unique perspective on conflict. As her new research demonstrates, her instinct was right.

From the beginning, Hironaka has been especially interested in the phenomenon of civil war. When she began her studies, she recalls, "There seemed to be a lot of civil wars going on in any given year, so I just assumed there were more civil wars breaking out than there were years ago."

But once she began digging through the actual data, Hironaka realized the reality was much more nuanced. In fact, the number of new civil wars each year hasn't changed much over the course of two centuries--what's changed is their length. During the first half of the 20th century, the average civil war lasted about a year and a half. By the second half, that average had nearly tripled.

A new kind of war

By way of context, Hironaka explains that the vast majority of civil wars are fought in developing countries, which tend to be in flux as political entities. They're what social scientists refer to as "weak states"--countries with very limited economic, organizational, and political strength. Unlike a strong state (the United States or France, for example), a weak state typically has a government that rebels can easily exploit. Since the rebels are likely to be just as weak as the government they overthrow, however, power may move back and forth for years--or even decades.

That process of exchanging power isn't something with which most Americans are familiar, Hironaka notes. "Americans see civil wars through the lens of Western history," she says. "We assume a prototypical war is like one of the French civil wars--there are rebels and there is the government, and whoever gets Paris takes over and that's it. It's decisive and short. But that's not how they work in the developing world."

"In the 19th century, great powers agreed where they were going to intervene, and they crushed movements," Hironaka says. "That doesn't mean we should encourage such actions, but it is one way to end a war."

In Chad, for example, which "can't even provide its people with food, clean water, and health care," civil war has raged for nine years, Hironaka observes. "It doesn't make sense that they can afford to have a costly civil war that goes on for so long," she says. The missing piece, she explains, is intervention by other countries.

"The international system plays a much more important role in states and their activities than it used to," Hironaka says. According to her data, 70 percent of civil wars involve intervention on one or both sides. In the case of Chad's ongoing conflict, France and Libya have helped fund the opposing groups, pouring resources into the war to achieve their own foreign policy ends. As with many other civil wars, support from partisan international sources has lengthened Chad's conflict.

While such intervention isn't new to civil wars, its impact has changed over time, particularly since World War II, Hironaka says. Years ago, intervention tended to be cooperative. "In the 19th century, great powers agreed where they were going to intervene, and they crushed movements," Hironaka says. "That doesn't mean we should encourage such actions, but it is one way to end a war."

The intersection of academia and Iraq

Hironaka is careful not to adopt a moral or political stance on these changes, but she does believe it's important to understand why they're happening. "As a scholar, I believe the first step is to correctly diagnose the problem," she says.

As the newspaper stories about Iraq have continued to pile up, Hironaka's research has become even more relevant than she initially imagined. "I feel like I can see my academic arguments unfolding in real time," she says. "Iraq had a brutal, repressive regime, but it was also a strong state. The United States created a weak state out of a strong state by taking out the central government, and now it's realizing how difficult it is to rebuild a strong state." Civil war, rare under Saddam Hussein's rule, now has the potential to last for years, she adds.

Although prospects for Iraq's near future may seem bleak, Hironaka points out that weak states can be built into strong states over time.

"The American state was disorganized for many years before becoming a strong state, and European states took centuries to develop stable organizational structures," she says. "Strong states don't just naturally occur."

As for the role of academia in the debate about Iraq, Hironaka says it's important for academics to "question the basic assumptions of what a state is, what a war is, and what wars are about--instead of relying on intuitive assumptions about these things. By doing that, I think we can gain an understanding of wars that will help lead to better policy."

Ann Hironaka's findings about civil war are detailed in her new book, *Neverending Wars: The International Community, Weak States, and the Perpetuation of Civil War*.

Republished from *Facets 2007*, a publication by the Department of Sociology in the College of Liberal Arts

Leading leaders

U professor and colleagues explain what makes for effective leadership

By Kermit Pattison

May 30, 2007

Joyce Bono, director of the U's Leadership Lab, has found that leadership isn't just do-goodism, it's a management strategy for enhancing effectiveness.

What makes good leaders so effective? And why do bad ones continue to haunt our cubicles with the stubbornness and misery of the common cold? Enter Joyce Bono, the U's Marvin D. Dunnette Professor in Industrial and Organizational Psychology, who has spent her career decoding the behavioral DNA of leadership.

"It's not that organizations don't care about leadership," says Bono, director and principal investigator of the University of Minnesota's Leadership Lab. "But everybody thinks they understand human behavior. So organizational psychologists pose the question: If good leadership skills are common sense, how come everybody doesn't behave that way?"

In truth, great leadership isn't so common. It's a precious commodity, partly innate, partly learned. Bono and her colleagues in the Department of Psychology are showing that it has a direct impact on organizational performance and the bottom line. It's an asset that organizations ignore at their peril.

Long before Bono explored leadership in her research, she understood it in her gut. In her first career, she rose through the ranks of a health care company and became a vice president at age 29--and hated it. "I got trained in this traditional male model that people are human resources--objects with which you accomplish your goals, the same as a copy machine," she recalls. Disillusioned, Bono quit and took career tests, which revealed the ideal job category for her personality: management of an entrepreneurial organization. But that was the very kind of position she had come to loathe. So what was wrong?

The problem, she realized, was not the position; it was the prevailing management culture. Next time around, when Bono took a position with another health care company, she vowed to manage people her way. She clearly communicated goals, and she assumed that most people wanted to do a good job if given the chance and treated with respect. She was far happier, and the company performed beyond expectations.

When Bono later returned to graduate school, she discovered an intellectual framework that validated everything she'd discovered through trial and error. It was Transformational Leadership Theory, an idea put forward by James MacGregor Burns in the 1978 book *Leadership* and later expanded by other scholars.

Today, Bono's Leadership Lab is itself a leader, providing leadership assessments, training workshops, and employee surveys for businesses and nonprofits ranging from Boeing to Grandma's Bakery to the cities of Minneapolis and St. Paul.

Healthy contagion

Leadership isn't just do-goodism, Bono has found, but is a management strategy for enhancing effectiveness. "If you believe your employees' performance matters to your bottom line, you care very much about leadership," says Bono. "It's a no-brainer. Maybe you don't care if your employees are happy and thriving, but your customers do, and your shareholders do."

Leaders are most effective, says Bono, when they have a vision, express optimism, show employees how their jobs contribute to a larger purpose, provide resources for success, and remain open to new ideas. Their employees tend to be happier--and so are customers.

"It's like a cascading or waterfall effect," says Bono. "Good leaders enhance the bottom line. Managers who are more optimistic and express more positive emotions put employees in better moods and make them more willing to work hard and help others. People call it mood contagion."

In one case, Bono and her colleagues hired an actor who delivered two versions of the exact same speech--one with enthusiasm and the other neutrally. Those who watched the enthusiastic speech reported better moods.

Unfortunately, even the best leadership can become too much of a good thing. Once, Bono armed 57 employees of a large health care organization with portable electronic devices and asked their bosses to beep them throughout the day to check in. Her data showed that merely dealing with their bosses dampened employees' spirits. Yet employees with good leaders bounced back. Even with setbacks, they experienced more positive emotions overall.

"Managers who are more optimistic and express more positive emotions put employees in better moods and make them more willing to work hard and help others. People call it mood contagion," says Bono.

Bono's research shows that some people more naturally practice leadership behaviors. They tend to be sociable, empathetic, aggressive, positive, achievement-oriented, and willing to listen to new ideas. They also rate high on personal magnetism.

In one study of six Twin Cities organizations, Bono found that the most influential managers were consistently sought out by employees, even those who did not report directly to them. Moreover, they created an aura of power; even their subordinates were perceived as influential.

Alas, organizations often ignore such "people skills" when selecting managers, promoting people simply because they're good at a job like engineering, sales, or accounting. And employees often seek leadership positions even if they dislike managing people. "The only way to status and promotion in most organizations is to manage people," says Bono. "Most bad managers don't want to manage people. They're forced to do it to achieve money, power, or status."

The role of expectations

In his own research on the role of power in social interactions, Bono's colleague Mark Snyder has found that styles of leadership "become self-fulfilling prophecies. Leaders who focus on employees' weaknesses tend to bring out the negatives in people they supervise. Those who focus on strengths tend to bring out the positives. The larger message is that what you expect is what you get."

Indeed, optimism is one of the signature traits of effective leaders, says David P. Campbell, Hellervik/PDI Visiting Professor in Adult Career Development in the College of Education and Human Development. An international authority on leadership, Campbell is widely known as co-author of the Strong-Campbell Interest Inventory and several other psychological assessment tools bearing his name.

At the Colorado campus of the Center for Creative Leadership, Campbell has coached the likes of computer magnate Michael Dell and retired general Norman Schwarzkopf. Campbell's research shows that people in more favored positions express more optimism. Is their brighter outlook a result of better pay, nicer offices, and a parking spot right outside the door? Or is optimism the cause of their success? Campbell's verdict: probably both.

Either way, the fact is that optimists create their own good fortune. They maintain a bright outlook and thus persist more. Progress often follows. When optimism spreads to the entire team, magic happens. And you don't need a survey to spot them as winners. "You can walk in and have morning coffee and detect it," says Campbell.

Further reading Born to lead Unmasking our true selves

Through the eyes of a resident

Future ophthalmologists are choosing U's residency program

By Faith Adams

June 21, 2007

U ophthalmology residents and faculty work closely together. Here, resident Peter Mellema (right) consults with attending physician Joseph Terry.

Motivated. Professional. Intelligent. Team player. These are the qualities that University of Minnesota ophthalmology residency program director Martha Wright looks for in prospective residents.

"We want people whom you would want for your doctor," she says.

The University's ophthalmology residency program continues to attract a talented group of applicants. "There is stiff competition," says Wright, who is also an associate professor in the Department of Ophthalmology. "We get over 200 applications for just four spots each year. Most of the people who apply are very bright."

And the University needs a bright, dedicated group of physicians who are up for a challenge. After completing medical school and a 12-month internship, new doctors spend another three years training in residency programs before becoming independent ophthalmologists. During their residencies, they work in ophthalmology clinics and operating rooms to hone and perfect their skills.

Twelve ophthalmology residents are currently participating in the University of Minnesota's program. Four residents enter the University's program each July, training at the University of Minnesota Medical Center, Fairview, and its affiliated teaching hospitals, which include Hennepin County Medical Center (HCMC) in Minneapolis, Regions Medical Center in St. Paul, and the Veterans Affairs Medical Center (VAMC) in Minneapolis.

Wright explains that while the residents in the University's program generally receive multiple job offers, the majority of them stay in Minnesota after completing their training.

Third-year resident Kevin Engel is one of them. Engel has accepted a faculty position at HCMC, where he will work as a general ophthalmologist upon the completion of his residency in the fall of 2007.

"During my residency I've learned that I like working with that group of people, both the staff and the population of patients," says Engel, whose doctorate is in the neuroscience of eye movements. "I like the variety and complexity of problems we see at Hennepin County, and I'm looking forward to being on staff there."

A rotating schedule

Over the course of their first year, residents spend three months at HCMC, three months at Regions Hospital, and six months at the University. HCMC and Regions are regional trauma centers and, as county hospitals, also provide care to large indigent and immigrant populations, giving residents exposure to a diverse range of patient needs. Because of the faculty's expertise in subspecialties of ophthalmology, patients with the most complex cases are generally seen at the University.

The first year of training focuses on the basics of ophthalmology, including diagnostics and clinical examination. Many Fridays are spent at teaching conferences, where residents present patient cases and discuss them with faculty members in the audience. Surgical training is part of the first year, as well.

Residents also have an on-call schedule, which is particularly demanding during the first year of residency, when they are on call for a week at a time.

The entire second year of the residency is spent at the University, with rotations to subspecialty clinics--including glaucoma, retina, and pediatrics--lasting three months each. Surgery is also included in second-year training.

In their third year, residents spend three months at each of the two county hospitals, and the remaining six months are spent at the Vet Med Center, where residents gain extensive experience performing cataract and other intraocular surgery.

Rewards of residency

For Wright, the most rewarding aspect of working with residents is "seeing their professional, medical, and surgical skills develop as they go through the program. There's a huge transformation over the three years."

Jill Melicher Larson, a second-year ophthalmology resident, finds that the best thing about completing her residency at the University is working with people who truly love what they do.

"The enthusiasm the ophthalmology faculty show toward their profession is unlike any other I've experienced," she says. "As residents, we get to work with people who are excited about what they do and who are experts in their field."

Jerry Kobrin, adjunct professor and director of the residency program at Regions, is equally impressed with the first- and third-year residents he has worked with over the years.

"It's wonderful to see the next generation coming up, and I marvel at how well qualified these people are, how skilled they are, and how much they've accomplished in their short careers," Kobrin says. "We teach them and mentor them about caring for people, not just eyes. There's a sense of payback, too--someone mentored me at one time, and now I'm doing the same for these young people."

For more information about the residency program, see the Department of Ophthalmology.

Pitfalls of percentages

A new study warns people to be on their toes when dealing with percentage changes

By Deane Morrison

May 25, 2007

Marketing expert Akshay Rao has found that smart people often miscalculate when dealing with percentages.

Several years ago, a nurse at a Twin Cities hospital temporarily filled in for a head nurse who took a short leave. The nurse was given a 10 percent raise; when she returned to her old job, she took a 10 percent pay cut. If that sounds equitable to you, Akshay Rao, General Mills Professor of Marketing at the Carlson School of Management, wishes to point out a few things. Rao and Haipeng Chen, a Carlson school Ph.D. who is now an assistant professor at the university of Miami, have completed a study showing that people often treat percentages like whole numbers, resulting in systematic calcuation errors. Their paper will be published in an upcoming issue of the *Journal of Consumer Research*. The nurse is a perfect example of the kind of error they're talking about. Suppose her original salary was $1,000 a week. A 10 percent raise would bump it up by $100, to $1,100. But 10 percent of that salary is $110, not $100. Subtracting $110 from $1,100 would leave her with only $990--a one percent cut from her original salary. "It took a month to convince [the human resources department] that she now earned less than before," says her husband. The error was corrected. In their paper, Rao and Chen report that a common problem with percentages arises when consumers are unaware of how multiple discounts work. For example, if a store offers 25 percent off everything but with "an extra 25 percent" off certain items, that doesn't mean 50 percent off the original price. Instead, the actual discount amounts to about 43 percent. That's because the store will take the second 25 percent off the discounted price. Therefore, on a $100 item, the second discount will be 25 percent of $75, for a final price of $56.25--not $50. Firms can benefit at the expense of consumers who don't realize this. In their study, Rao and Chen tested the impact of offering a 20 percent discount and an additional 25 percent discount versus an equivalent 40 percent discount in a retail store. When double discounts were offered, the store reported more buyers, sales volume, revenue, and profit. In the case of double discounts, it's understandable that consumers would not know how the second discount is computed. After all, the two discounts are applied only once, at the cash register.

"Imagine your stock portfolio went up 40 percent last period, and down 30 percent this period," Rao says. "You are not better off by 10 percent. Your portfolio is down two percent."

But in other cases, such as fluctuations in the stock market, time elapses between one percentage change and the next. Even then, some people forget that they must continually adjust base values when computing sequential percentage changes. When a value goes up and then down (or vice versa), things can really get interesting.

"Imagine your stock portfolio went up 40 percent last period, and down 30 percent this period," Rao says. "You are not better off by 10 percent. Your portfolio is down two percent." The problem with percentages isn't that we're not smart; it's just that percentages are a relatively new mental exercise. But with effort, we can compensate. "We argue for increased math education because there are some calculations that aren't innate to the mammalian brain," Rao explains. "For example, the brain can detect changes in light intensity. This is a very sophisticated calculation for the brain, but it confers an evolutionary advantage. For instance, a change in light intensity may mean a predator is approaching. But percentages are an artificial construct that requires learning. From a public policy standpoint, we have to teach people how to do this." Sometimes, mistakes can have national ramifications. Rao gives the hypothetical case of the Pentagon asking for the same percentage increase in its budget every year. But as a budget grows, so does the number of dollars represented by that percentage. If Congress tried to increase the appropriation by the same dollar amount rather than the same percentage, the story could be spun as Congress cutting the military budget, says Rao. Or, suppose Detroit improves the mileage of its fleet by, say, two miles per gallon each year. The percentage improvement will be less and less, even though the rate of progress toward a mileage goal remains the same. Rao's advice? "Make sure you know what the base of calculation is, especially for multiple percentage changes," he says. And if you're shopping for sales, bring a calculator.

The Times slipping away

Even experts make mistakes. In their paper, Rao and Chen offer this gem of miscalculation:

"The depression took a stiff wallop on the chin here today. Plumbers, plasterers, carpenters, painters and others affiliated with the Indianapolis Building Trades Unions were given a 5 percent increase in wages. That gave back to the men one-fourth of the 20 percent cut they took last winter." The New York Times, quoted in *How to Lie with Statistics* (Darrell Huff 1954, p. 111).

Planning bright futures

Student and Alumni Board at the new College of Design

by Kristi Goldade

May 25, 2007

Graphic design senior Jordon Noll (left) participates in a portfolio critique with Allan Peters, a senior designer and art director with Industrio, at the graphic design portfolio review event on May 8.

When the new College of Design opened in 2006, formed from an amalgam of several previously existing colleges, the students and alumni faced questions concerning transition and growth. They also looked to the student experience and what they could do to improve it. Preparing students for the realities of working in the design community was one of the issues that they wanted to address. To do that, the college formed the Student and Alumni Board, the first of its kind at the U.

"Most colleges have separate organizations that serve [students and alumni]," says board president Mike Lee. "This board is made of two groups with different perspectives, but with similar goals. I am certain the mix will lead to good ideas and community building in our new college."

The board is made of committees--led by student-alumni pairs--representing each area of study within the college. For example, masters of architecture student Catherine Sandlaund leads the architecture committee with Nick Sperides (B.Arch. 1983), principal of Welman Sperides Architects. Together they plan events and initiatives for architecture students.

"This board is made of two groups with different perspectives, but with similar goals," says board president Mike Lee. "I am certain the mix will lead to good ideas and community building in our new college."

This networking and leadership opportunity benefits participating students, who say they are honored to associate with committed alumni. Alumni, too, benefit from participation. They are able to take an active role in shaping the new college while developing the students who will someday work alongside them.

Although each committee advocates for its field, as a board they work to bridge the seeming unlike disciplines of design--like graphic design, housing studies, and architecture. Building community is their number one priority. They also keep connected with the College of Design administration, and can recommend courses and major tracks practical for the working world.

"Younger alums [on the board] will often speak to classes of incoming freshmen about the realities of a 'glamorous' job in design," says Lori Mollberg, director of alumni relations. "Many of them are recent grads, so they can really address the concerns of soon-to-be graduates." Mollberg says she has seen an increase in the participation of younger alums in the board.

The board also works with the University of Minnesota Alumni Association's Mentor Connection program, and together they match 175 design students with working professionals.

To develop student potential, the board works on several projects. It hosted a lunch series where students could meet college dean Thomas Fisher and discuss in an informal atmosphere such things as multi-disciplinary class projects and the growing public interest in sustainable design. In April, the board organized a tour of local graphic design firms.

"It has been great to be around a bunch of people excited about design and the new college." says Lee, "Though as students, we focus on our studies, the relationships we make here at the U are equally as important to our educational development as the coursework."

For more information on the College of Design's Student and Alumni Board, contact Anne Schultz at 612-626-9068 or schultz@umn.edu.

Saying it with rooftops

Grad student's Web site offers greetings with a twist

By Rick Moore

May 25, 2007; updated June 6, 2007

Jesse Vig's Web site GeoGreeting.com has received more than 800,000 visits since he launched it in November.

Never underestimate how hip it is to be geeky these days.

Not that Jesse Vig would necessarily apply that tag to himself. But the tagline on his oddly popular Web site--GeoGreeting.com--contains a nod to many of its users: "How geeks show they care."

GeoGreeting is a free site that allows users to send any electronic message to their friends, loved ones, or casual acquaintances. But the message comes across in a unique way---spelled out with the images of the tops of buildings (or other landmarks) shaped like letters. The message also shows where each building is located, be it in downtown Minneapolis or Hainburg, Austria.

Part geography lesson and part novelty Web site, Vig's creation has been popular beyond his imagination. Since it was launched in November of 2006, GeoGreeting has had more than 800,000 visits from users all around the world. And it was nominated as a finalist for the Best NetArt Web site for the 2007 Webby Awards competition.

"I've gotten e-mails from all over the world, like India and Japan," Vig says. "It's been interesting how international the response has been."

"It did a lot better than I expected," says Vig, a 34-year-old graduate student in computer science at the U. "I had no idea if anyone would use it."

The site came about almost by accident, he admits. In spring 2006 he took John Riedl's Advanced Internet Programming course, which got him interested in Google Maps and Web development. And while working on a different project using Google Maps, Vig noticed that "there were a few key buildings that stuck out as being shaped like letters." After searching some more he was struck by how many buildings were letter-shaped. "And that's how it got started."

He estimates that it took him about 100 hours to find enough buildings and landmarks to fill out the alphabet, and "to find the last five took probably half the time."

Vig's also been open to help from others. "I didn't have the question mark originally, because I couldn't find one, but then a user found one and I'm using that," he says. The question mark comes courtesy of a building in Omaha.

GeoGreeting.com has found a substantial worldwide audience, too. Vig points out that there were two articles about his site that appeared in the Netherlands, and that triggered a spike in usage from Dutch map geeks. "I got like 20 e-mails in one day [from Dutch users]," he notes. "There are several letters I've used from Holland because of that." In April, he had twice as many visitors from Holland and Belgium each as from the United States.

"I've gotten e-mails from all over the world, like India and Japan," Vig says. "It's been interesting how international the response has been."

As for his recognition in America, the Webby nomination was a big surprise. The Webby Awards (meant to be "the Oscars of the Internet," he says) have grown in scope and stature, and this year's awards gala was held June 5 in New York City. And while Vig did not claim Best NetArt Web site award and didn't attend the event, he did finish second for the online people's choice award.

The initial screen of GeoGreeting.com begins with an intriguing statement: "The surface of the earth holds a message for you. You just need to look a little closer..." Vig apparently took that advice to heart, and he's gotten a birds-eye view of success along the way.

Aiming for zero waste

Ninth annual CSBU Staff Day to celebrate energy and innovation of Twin Cities campus civil service and bargaining unit staff

By Gayla Marty

Brief, May 30, 2007

Longtime CSBU Staff Day volunteers Dana Donatucci, left, and Betty Jo Johnson preview the recycling system for the 2007 event.

For each of its nine years, CSBU Staff Day has consumed a share of Betty Jo Johnson's energy. Granted, she has a lot of energy. Johnson--who retires this year from the College of Education and Human Development after 30 years at the U--was one of the bargaining unit members who joined forces with civil service staff to plan the first Twin Cities campus celebration in 1999.

At the time, the campus held various events to celebrate faculty and academic professionals and administrative (P&A) staff, but there was no event devoted to recognizing CSBU staff.

"The thought was that everybody has done something extraordinary at some point!" Johnson says. "George Hoh--who was on the Civil Service Committee--really got it started.

"George wanted it all--like all of us on the committee do," she laughs. "And he got it! A choir, the U Marching Band, balloons, hot dogs, T-shirts--it was incredible."

Every year, the committee has made changes and adjustments--some successful, some not. T-shirts went away--too hard to order the right sizes for a crowd of 6,000 or more. Successful gifts have included such items as insulated lunch boxes and book bags.

Last year, the Coffman location was changed to the river side, but the lines were too long. This year, the Coffman location is back on the mall side, and the planning committee is planning for more lines and quicker service.

It's also aiming even higher--to zero.

Zero waste, that is.

CSBU STAFF DAY 2007
Wednesday, June 6

Lunch: Beef or veggie burger, chips, fruit, cookie, beverages

To be eligible for the raffle (June 6 only) and to claim your gift while supplies last, present the coupon that was sent to all CSBU staff by campus mail.

St. Paul
11:30 a.m.-1 p.m.
South area, Carter and Eckles avenues

Minneapolis
11:30 a.m.-1 p.m. and 6:30-8 p.m.
Coffman Union, front plaza

To request disability accommodations or ask questions, call Mary at 612-626-9462.

What is zero waste?

A zero-waste event is one in which no waste is disposed by incineration or landfilling, says Twin Cities campus recycling coordinator Dana Donatucci.

The first step is to reduce what's used at an event. For CSBU Staff Day, that will mean using bulk potato chips, bulk condiments, and bulk cookies and apples instead of individually wrapped items, and eating picnic style, which won't require utensils. The only waste item will be the plastic gloves worn by the servers.

The second step is changing the waste that *is* generated so it can be recycled or composted. For staff day, it means using bagasse plates (made of compostable sugar cane fiber), compostable paper napkins, and recylable cans and bottles.

Partiers can help by (1) moving quickly through the line and accepting standard servings and (2) sorting waste into two types of containers--one marked for cans and bottles, one for everything else--plates, napkins, and leftover food.

Donatucci is enthusiastic about this year's goal. He's been involved with CSBU Staff Day since its second or third year and is glad to be working with food service and other staff on a project close to his heart.

"Striving for zero waste mimics nature," says Donatucci. "This will make the CSBU Staff Day more pleasant and more environmental."

Live music on the plaza

"Summer at Northrop" returns with 26 free, outdoor concerts

May 30, 2007

For about 25 consecutive days each summer, Northrop plaza on the Twin Cities campus transforms itself into an outdoor concert hall. A large wooden stage is erected just a stone's throw away from the University's ever-popular brat stand. Picnic tables are set ... Invited performers take their turn on the stage ...

Northrop's free summer concerts have drawn a crowd to its plaza since the 1950s.

Since 1954 the U has offered these free noon concerts on Northrop plaza. "Summer at Northrop" is presented by the U's Summer Session program and Department of Concerts and Lectures, and it's funded by student services fees collected during the May and summer academic sessions. The series is one of hundreds of free public events held at the University of Minnesota that entertain, intellectually engage, or inform. Others include book readings, art gallery talks, and health screenings, such as Melanoma Monday each May. (See the U's online calendar for current events.)

Michael Hauser and Friends will officially kick off "Summer at Northrop" on Monday, June 11. Hauser, a.k.a "The Father of Flamenco in the Midwest," is one of a handful of flamenco guitar masters residing in the United States today. He has studied with a number of Spain's great flamenco guitarists and is a founder of the local dance company Zorongo Flamenco. In addition to flamenco music, June 11 concertgoers can catch flamenco dancers in action, enjoy free refreshments, and try their luck winning a door prize--like a Sun Country Airlines roundtrip ticket.

Other acts this season--from Monday, June 4, to Thursday, July 26--include Mick LaBriola with Gypsy cowboy (Urban folk with Bulgarian and Arabic), Charanga Tropical (Cuban salsa), Karibuni (Reggae-flavored African music), Jumbo Ya Ya (Zydeco and Tex-Mex), Minneapolis Pops Orchestra (Broadway hits), Flip the Cat (Traditional Irish), and Rio Nido (swing).

All concerts are noon to 1 p.m.. In case of rain, they'll be moved inside to Northrop Auditorium. For a complete list of bands and their types of music, see 2007 Summer at Northrop.

Longstanding tradition

In 1954 the Minnesota Orchestra first performed a free concert for University of Minnesota students, faculty, and staff on Northrop plaza. The event, which was offered in appreciation for its temporary digs at Northrop Auditorium, launched the tradition of free outdoor performances by local and international artists on the Twin Cities campus. Every year more than 20 concerts are held in June and July.

Sounding good

U student helps give new life to Ojibwe language

By Stephanie Wilkes

May 30, 2007

U student Amber Ruel's dedication to preserving the Ojibwe language has made her a state finalist for the national Frank Newman Leadership award.

Growing up in Wauwatosa, Wisconsin, outside of Milwaukee, Amber Ruel was aware of her heritage as a member of the Bay Mills Band of Ojibwe. But she didn't speak the language at home or have contact with her native community. She had an "identity crisis, of sorts," she says. Seeking a college, Ruel chose the University of Minnesota because of its American Indian studies program, hoping to meet other American Indians, learn the language, and figure out what being Indian meant to her.

After three years of Ojibwe language instruction and a range of community experience, Ruel's favorite phrase is simple but significant.

"*Giminotaagoz anishinaabemoyan*," she says. "It means, 'You sound good when you speak Ojibwe.' It's the most encouraging thing I have ever heard. Ojibwe is such a hard language to learn, but whenever I hear this phrase from my teachers or from elders in the community, it reminds me why I am doing what I am doing and how important the language is to me."

Dedication to preserving the Ojibwe language has made Ruel the state finalist for the national Campus Compact's Frank Newman Leadership Award. She has a chance to win $5,000 and national recognition for her work in Minnesota to prevent the extinction of Ojibwe language.

Ojibwe, currently spoken by about 55,000 people in Canada and the United States, was once the language of Great Lakes fur trade. Today an estimated 175,000 people of Ojibwe heritage live in North America, the largest group of First Nations people north of Mexico and the third largest group in the United States after the Cherokee and the Navajo.

> *"Amber has such clarity of purpose and passion for preservation of the language," says Meghan Paul-Cook, a program manager for Minnesota Campus Compact.*

"Ruel was an easy choice for the state finalist," says Meghan Paul-Cook, program manager for Minnesota Campus Compact, which chose her as state representative in the competition. "The decision was unanimous. We really could not choose anyone else. An incredible personal transformation has gone along with her engagement in the community, and Amber has such clarity of purpose and a passion for preservation of the language."

Ruel's engagement has spanned a range of activities on and off campus. But all of her work centers around the primary goal of getting younger generations to interact with the language.

"It was really scary the first time I heard the language was one generation away from extinction," says Ruel. "It made me think: How do you motivate younger people to learn it?"

Ruel's first connection on campus came in Comstock residence hall, living her freshman year in the American Indian Cultural House, a living and learning community. Then, as a sophomore, Ruel became the housing community's resident adviser, working to build a closer community and ensure greater successes of native students in college.

The greatest resource for language learning and personal support was Ojibwe classes, taught by Dennis Jones, a teaching specialist in the Department of American Indian Studies. Ruel and her classmates formed a close bond, meeting an hour a day, five days a week, for two years. Their strong relationship and eagerness to continue learning the language motivated the class to petition for a third year of Ojibwe instruction and then develop the curriculum. This spring, Ruel served as a teaching assistant for the first-year Ojibwe class.

"It was really cool to finally be able to teach the language in a formal setting, to test my knowledge," says Ruel.

Community engagement

Since her freshman year, Ruel has participated in the University's Community Engagement Scholars Program. Off campus, she has gained experience engaging with members of the local American Indian community. On Monday nights, she joins graduate student Brendan Fairbanks at the American Indian Opportunities Industrialization Center (AIOIC) on Franklin Avenue in Minneapolis for language tables. The weekly potluck brings together the local Ojibwe community for more lessons and a way to connect with elders.

Ruel also volunteers at the Ginew/Golden Eagle after-school program of the Minneapolis American Indian Center. *Ginew* (the Ojibwe word for golden eagle) encourages healthy living and strong academic habits among local American Indian youth.

"Some of the kids are in Ojibwe immersion programs, so sometimes they have learned things that I have not," says Ruel. "It is really great to be able to learn from each other and just be able to speak Ojibwe with someone who is younger than you are."

When Campus Compact announces the award winner, Ruel won't be sitting at home waiting to hear. She will be in Canada, working as an immersion language teacher at an American Indian language camp in Nigigoonsiminikaaning, a First Nation community in Ontario. And if she wins the award, she won't spend it on herself but on others.

Ruel wants to create tools to make Ojibwe language learning easier and more up to date. She wants to buy an iMac and language recording software to integrate podcasts, language conferencing, and other teaching supplements into the curriculum to make it more accessible. She would also like to give back to those who have helped her along the way, hiring community elders as consultants to contribute their knowledge about the language.

> *If the language dies out, it is only a matter of time before the people are no more, says Ruel. The University plays an important role in preserving the language and fostering community growth.*

Ruel's goals extend beyond language preservation. In addition to her American Indian studies major, she's pursuing a social justice minor. She finds the combination necessary and complementary.

"I cannot focus on the language alone," says Ruel. "The other half of my work is focused on social justice, teaching about white privilege and being responsible global citizens. Both the language and the social justice issues need to come together, which is something I learned through my service in the community."

"Public engagement has been a key part of Ruel's journey," says Laurel Hirt, the Twin Cities campus director of service-learning and community involvement, who recommended Ruel for the Campus Compact award. "She uncovered a part of herself, her history, and heritage that she did not know before, and it has been a very powerful experience for her."

In the boarding school era, many native people like Ruel's mother, were forced to speak English and lost much of their Ojibwe language. Today, Ruel hopes to breathe life back into the language.

"I want an immersion school," she says. "When kids go to math class or science class, it would be in Ojibwe. I want the curriculum to include culturally relevant material, and I know it can be done. For example, when students learn about astronomy in science class, they could learn about native constellations and the stories behind them. It would help them to know who they were, so they would not have to be lost anymore, like I was."

If the language dies out, it is only a matter of time before the people are no more, Ruel says. The University plays an important role in preserving the language and fostering community growth.

"The U of M is a land-grant university, but it is also built on American Indian land," says Ruel. "The University has a responsibility to serve its community, and the native population is a large part of that community."

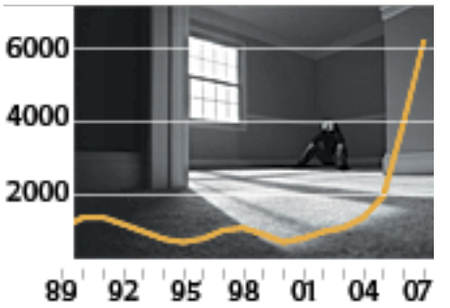
Stephanie Wilkes is a junior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Victory for the consumer

By Pauline Oo

From *M,* summer 2007

You've just bought a new home. Hurrah! Eight months later, the bills are piling up and you need to refinance. You jump on a deal you see on television. Next thing you know, you fall behind on mortgage payments and foreclosure beckons.



Hennepin County is facing an estimated 6,100 foreclosures this year, based on the first three months of 2007-up from about 1,100 in a typical year. Source: Hennepin County Sheriff's Office, University of Minnesota.

According to the nonprofit Center for Responsible Lending, millions of American households will lose their homes, and as much as $164 billion, because of subprime loans. The term "subprime" is an oxymoron, because subprime loans are actually offered at a rate well above the prime rate, and they target consumers with impaired or nonexistent credit histories. From 1998 to 2006, 15 percent of subprime mortgages resulted in foreclosure.

Hennepin County saw more than 3,000 home foreclosures in 2006, up more than 80 percent from 2005 and nearly 350 percent from 10 years ago. But things will soon start looking brighter for Minnesotans.

In May, Gov. Tim Pawlenty signed a law that would protect Minnesota residents against unscrupulous home mortgage lending. "This is the best predatory lending law in the country," says University of Minnesota Law School professor Prentiss Cox. "It is the first step in a comprehensive approach to abating foreclosures."

Cox and fellow Law School alum Amber Hawkins, an attorney with Legal Services Advocacy Project, were the principal drafters of the legislation. The law requires mortgage brokers to act in the homeowner's best interest and prohibits loans without proof of the borrower's repayment ability. It also bans prepayment penalties on subprime loans and requires homeowners with nonstandard loans made through organizations like Habitat for Humanity to get financial counseling before refinancing.

Right now, says Cox, former Minnesota assistant attorney general and manager of the Consumer Enforcement Division, "there is a huge backlog of subprime loans that will persist for several years. But we should see a reduction in the number of foreclosures on loans after August 1"--when the new law goes into effect.

Whether man

U alum is among the world's best at forecasting if products will sell

From *M*, summer 2007

Lin is among the world's top market researchers. He's predicted how many riders would use the "Chunnel" under the English Channel and the number of tourists who would cross Sydney's Harbor Bridge.

One of the world's top market researchers, Lynn Lin often returns to his alma mater to meet with students.

After earning his doctorate and working for Pillsbury (now part of General Mills), Lin became vice president at the management consulting firm Booz Allen Hamilton. There he developed the famed BASES system of sales forecasting. BASES is now used for 65 percent of new-product market research worldwide.

"I didn't want to publish papers or prove theorems that only three people would see," Lin says of his move from academia to industry. "I wanted to solve more immediate problems."

Even though he decided against teaching as a career, he enjoys it now and even lectures in some of America's top business schools. Lin returns to the U at least once a year to visit business and statistics classes. He also contributes through his financial support of graduate fellowships.

"I am very proud to see the University strive to become one of the best in the world," he explains. "Alumni should be proud of the U, and help it as much as we can."

Wired about science

From *M*, summer 2007

While a snowstorm hit Minnesota one Saturday in late February, nearly 500 people--from preschoolers to retirees--stormed TechFest to play with circuits, hydraulics, and robotics. The Institute of Technology Alumni Society joined with the Society of Women Engineers and The Works (a hands-on science and technology museum in Edina, Minnesota) to present the third annual TechFest. The day included experiments in electrical engineering in which kids learned to build circuits and wire buzzers, motors, and light bulbs. University students also demonstrated their homemade robots. "I think the hands-on aspect is a big reason why it's so successful and also why kids get so much more out of it," says Jim Pichler (B.S. '92, M.S. '03), who sits on the K-12 outreach committee for the IT alumni society and is senior director at Digital River, one of the event's sponsors. "The approach of 'experiment first, reflect later' helps capture the kids' attention because it plays to their motivations and natural inquisitive behavior." The University of Minnesota Alumni Association sponsors 16 college-based alumni societies and three affiliate societies, which provide alumni with an important link to the University and its colleges, faculty, students, and other alumni. Societies might act as an informal advisory board for a college; assist in fund-raising efforts; honor outstanding alumni, faculty, and students; help recruit prospective students; or provide educational and professional programs to alumni and students. Joining an alumni society is free for alumni association members. To learn more, visit the UMAA Web site or call 612-624-2323 or 800-862-5867.

With some instruction from University graduate student Vlad Makarov (right), Charlie and Erin Omodt learned about wiring electricity at TechFest, cosponsored by the Institute of Technology Alumni Society.

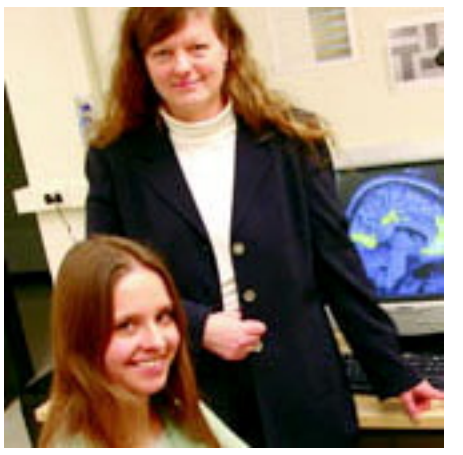
Thinking about thinking

Grad student Sara Kvidera goes where few have gone before

June 5, 2007

"Are you sure about that?"

This simple question captures a nettlesome mystery in psychology: How does the brain judge its own functioning? Sara Kvidera has broken new ground with her research in "metacognition" -- our ability to evaluate the reliability of our own thinking.



Sara Kvidera (seated) and her faculty advisor, Wilma Koutstaal, have formed a thoughtful research partnership.

Working with Wilma Koutstaal, Kvidera is examining whether the brain uses similar processes to evaluate both perceptual and conceptual decisions.

"While thinking about our own thinking is something most of us do every day, it's not often covered in much depth in psychology coursework," says Kvidera. "It's a new field. I like going where no one has gone before."

The answers are also long overdue. "This research addresses a question that has been in the literature for more than 50 years," explains Koutstaal, associate professor of psychology and Kvidera's adviser.

Seeing is believing

Metacognition has profound implications in everyday life. Can we trust an eyewitness who identifies a criminal suspect? Can we rely on our perceptions of distance when we're merging into rush hour traffic?

Previous studies showed that people tend to be overconfident about conceptual decisions, such as their answers to history or geography questions, and underconfident about perceptual decisions, such as judgments of an object's size.

This difference led other researchers to hypothesize that conceptual and perceptual confidence judgments rely on two different brain processes. Yet there is no consensus on this question.

Enter Kvidera and Koutstaal.

Koutstaal's research focuses on human memory and judgment and examines factors that affect how we gain access to or awareness of what we know and remember, and also how we evaluate those processes.

Kvidera, the first student to join Kout-staal's lab, began working on a project to examine "confidence calibration," or how well our confidence matches our accuracy in making decisions. Koutstaal entrusted Kvidera with many details of the study, such as creating the stimuli and analyzing data. Meanwhile, Kvidera, now a third-year graduate student and recipient of the Gloria J. Randahl Graduate Fellowship, earned a reputation in the department as an outstanding student and superb teacher.

"She's very persistent," says Koutstaal. "You have to be to do this kind of work. You also need to be able to move between attention to detail and the big picture, and she can do that."

Kvidera solved one methodological problem by using the same stimuli for both types of decisions. For example, subjects were shown the words India and France and were asked both conceptual questions (Which country is bigger?) and perceptual ones (Which word is bigger?).

The findings were surprising. Kvidera and Koutstaal found overconfidence on perceptual decisions and good calibration on conceptual ones. "We had thought it might go one of two ways, and it went a third way," says Kvidera.

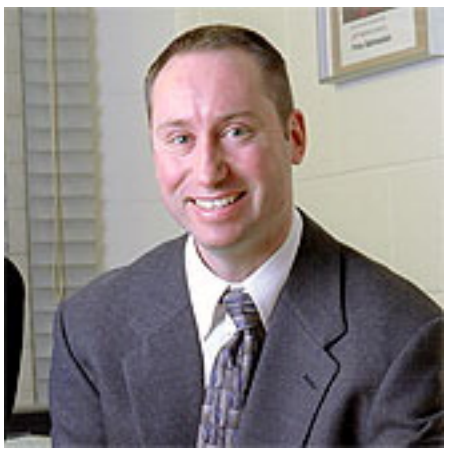
The two are conducting follow-up studies and expect to publish the findings, with Kvidera listed as first author in her first published paper. The Journal of Behavioral Decision Making reviewed an earlier version of the study and invited the researchers to resubmit the paper after performing additional experiments. Her partnership with Koutstaal in the lab has launched Kvidera into a fertile area of research. She plans to conduct imaging studies of the brain during confidence assessment--especially to explore error processing (what happens in the brain when we realize we have made a mistake). She also hopes to extend her interest in metacognition to study "lucid dreaming," the awareness that one is dreaming. So the next time you say "I must have been dreaming," maybe Kvidera can sort things out.

Edited from Psychology at Minnesota, *a publication by the Department of Psychology at the College of Liberal Arts.*

Growing up with disability

U student and professor focus on disability in a joint research project.

June 5, 2007



U professor Ross Macmillan is working with graduate student Gina Allen on a project that is considering what adulthood means to people with physical and mental disabilities.

Making the transitions from adolescence to adulthood is never easy--but for young people with disabilities, it can be especially daunting. That's something Gina Allen, a University of Minnesota graduate student in sociology, observed years ago when she and her next-door neighbor and classmate--who had physical and mental disabilities--both graduated from high school.

"I realized our lives would go in different directions," recalls Allen. "I thought a lot about what becoming an adult means to a handicapped person."

When Allen met Ross Macmillan, an associate professor at the U who has studied the transition to adulthood for 15 years, it occurred to her that her personal curiosity might make for a compelling research project. Macmillan immediately took to the idea. They applied for and received a grant--and set out to learn more about this understudied group of people.

Easing into adulthood

By some estimates, nearly 10 percent of the world's population has some sort of physical or mental disability. Yet disability issues tend to fly under the radar. "It's a black box in terms of information," says Macmillan. "We don't know much about how their lives unfold."

To begin filling in the gaps, Macmillan and Allen spent the summer of 2005 sorting through existing data on the transitions to adulthood of several thousand disabled and nondisabled people, noting variations in how individuals dealt with traditional markers of adulthood such as living independently, taking on a full-time job, getting married, and having children.

They discovered that people with disabilities--whether they are physical, mental, or both--tend to move more slowly into adult roles than their nondisabled counterparts.

"Youth with disabilities tend to become increasingly different from their nondisabled peers as they age," says Allen. "In high school, everyone looks pretty much the same-they're not really working, they're not married, they don't have kids. But as they get older and leave highly structured institutions, people with disabilities start looking very different from their nondisabled peers."

Signs of improvement

Such findings may seem discouraging, especially in the wake of more than a decade of key disability legislation, including the Americans with Disabilities Act and the Individuals with Disabilities Education Act. But Macmillan believes the opposite might be true.

"[Our findings may indicate] that these laws are doing what they're supposed to do," he says. "In the teenage years and early twenties, people don't look all that different from one another, and that may be because a large number of them are still in universities and high schools, which are legally mandated to be supportive of people with disabilities. It's when you move out of those institutions that you start to see more variation."

Both Macmillan and Allen plan to pursue longer-term research on disabilities. "If we follow [individuals with disabilities] over time," says Macmillan, "we can find the points at which they tend to have trouble making transitions, and we can pinpoint what types of people are better able to make these transitions. It helps identify where to put resources."

Further reading Adapted Sports Club rolls out membership Students with disabilities receive new U scholarship

Business is booming at the U

New business school buildings in Duluth and the Twin Cities make more room for undergrads

By Deane Morrison

from M summer 2007

A business school that's rolling in green? Sounds ordinary, until you realize the "green" is an environmental stamp of approval-for the UMD's Labovitz School of Business and Economics. Its new building, due to open next January, is the first University of Minnesota building to receive LEED (Leadership in Energy and Environmental Design) certification from the U.S. Green Building Council. "We don't see ourselves as the typical corporate business school," says Kjell Knudsen, dean of the Labovitz School. "We are very much concerned with having a business school oriented toward sustainability and wise use of resources." With a fall 2006 undergraduate enrollment of nearly 1,900, the school, which opened in 1974, is about 50 percent over the current building's capacity. The new three-story, 65,000-square-foot building will house classrooms, specialized academic teaching laboratories, a large lecture hall, and student gathering and study space, as well as offices. Built with efficient plumbing, heating, and cooling and recycled materials, the building is surrounded by landscaping sculpted to slow rain runoff into two local creeks. The Labovitz School has M.B.A. programs in Duluth and Rochester, but its prime focus is on undergraduates. "We're very proud of that," says Knudsen. "It is possible to give undergraduates an education that companies are in the market for." Many undergraduate schools like Labovitz are getting to where they can compete with MBA-focused schools, he says. And to top it off, about 85 percent of its graduates stay in Minnesota. AT UMTC, the Carlson School of Management has also been having growing pains. But thanks to a new building on the horizon, Herbert M. Hanson Hall, the school is expanding its undergraduate student body by almost 50 percent. The Carlson School has been admitting about 300 freshmen a year, but this fall that number will reach its maximum-about 450. With numbers of transfer students also increasing, the school will eventually have an undergraduate population of about 2,400, up nearly 50 percent from the fall 2003 enrollment of 1,653. Carlson has always been one of the smallest business schools in the Big 10, but, says Mary Maus Kosir, assistant dean of the undergraduate program, the new building will help bring it closer to average size-approximately 3,000. And none too soon. "We've seen double-digit increases in numbers of applicants since 1996, and also a big increase in student quality," says Kosir. "We had just under 4,000 applicants for the freshman class of 450. "A lot of students who apply here also apply to other Big 10 schools. We will lose them to those schools if we don't accept them." The 124,000-square-foot, half two-story, half three-story building will be connected to the current Carlson School, which occupies a corner of the West Bank campus. It will be home to classrooms, interview rooms, an undergraduate lounge, and collaborative space where students can plug in their laptops and project their work on a screen. It will also house the College of Liberal Arts' department of economics. A virtual tour of Hanson Hall is available on the school Web site, www.carlsonschool.umn.edu.

Study examines link between early sex and mental health

While most teens suffer no mental health side effects, some teens appear to be more at risk

June 5, 2007


Ann Meier

A new study by University of Minnesota assistant sociology professor Ann Meier has taken a close look at the mental health effects of teenage sex.

Overall, the study suggests that the risk of suffering mental health consequences from early sex is relatively low, with negative effects primarily found in a subset of teens--girls and boys who have sex earlier than their peers and whose relationships are uncommitted and ultimately fall apart. Among this group, girls were particularly vulnerable to depression.

Meier used data from the National Longitudinal Study of Adolescent Health, and studied 8,563 students in grades 7 through 12 over an 18-month period, measuring for depression and low self-esteem. The study compared the mental health of teens who didn't have sex at all to teens who were virgins at the beginning of the study, but had sex during the 18-month period.

She found that a majority of teens did not experience depression or low self-esteem as a result of first-time sex. But about 15 percent did--and those teens tended to be the youngest (girls who had sex before age 15 and boys who had sex before 14) and those whose relationships were not emotionally close and ended after the sex.

"Being female or younger than the average age at first-time sex among your peers increases the chance of depression, as does a lack of commitment or intimacy within the relationship and what happens to the relationship after first-time sex," says Meier. "For girls in uncommitted relationships, ending a relationship with sex [involved] has more of an impact on mental health than ending that same relationship if it did not involve sex."

Even though the majority of teens engaging in early sex do not suffer mental health consequences, "some do," Meier says, "and when half of all teens are having sex, that can lead to a large number in the population [having negative consequences]."

Meier points out that her study measured depressive symptoms in the teens on a depression scale, and was not meant to diagnose clinical depression.

The study could have ramifications as the federal government and states continue to define the role and efficacy of abstinence education in schools. Language contained in the 1996 welfare reform act mandates that schools receiving federal funding for sex education must adopt an abstinence curriculum. As one of eight guiding points, the curriculum is meant to teach that sexual activity outside of marriage "is likely to have harmful physical and psychological effects," Meier says. Her research does not suggest a strong correlation between teen sex and harmful psychological effects.

Meier cautions that the study does not suggest that positive effects result from first-time sex among teens and said she hopes it will help policy makers focus help on those most vulnerable rather than promoting a one-size-fits-all approach. Her study, "Adolescent First Sex and Subsequent Mental Health," will be published in the upcoming issue of the *American Journal of Sociology*.

U joins the Google Book Search Project

Along with those of 11 other Midwest universities, U holdings will go digital

By Patty Mattern and Christopher James

June 6, 2007

The Google Book Search Project will digitize up to 10 million bound volumes from 11 Midwest universities, including the University of Minnesota.

The University of Minnesota and 11 other Midwest universities in the Committee on Institutional Cooperation (CIC) have entered into a groundbreaking collective agreement with Google to digitize up to 10 million bound volumes, nearly doubling the number of universities participating in the Google Book Search Project.

For researchers, the digitization of so many books will revolutionize their work. Currently, researchers and members of the public can spend enormous amounts of time trying to track down a specific piece of content in a book by turning to the brief descriptions in card catalogs, tables of contents, and indexes.

"Through Google, individuals will be able to search every word in millions of books," says Wendy Pradt Lougee, University librarian at the University of Minnesota and member of the six-person team that negotiated the agreement with Google. "Researchers will be able to conduct in-depth searches and make connections across works that would have taken weeks--or even years--to make in the past."

The University and the CIC announced the agreement on June 6. The CIC agreement is unique among those executed with Google thus far in that it will include "collections of distinction"--areas of particular strength within each CIC library. Among the distinctive collections the University might include are Scandinavian history, literature and culture; forestry; bees and beekeeping; and the history of medicine, including oncology, radiology, and pediatrics.

"Through Google, individuals will be able to search every word in millions of books," says Wendy Pradt Lougee, University librarian.

This collaborative approach brings together the holdings of some of the world's largest libraries into one massive digital resource. The CIC comprises the University of Minnesota, University of Chicago, University of Illinois, Indiana University, University of Iowa, University of Michigan, Michigan State University, Northwestern University, Ohio State University, Pennsylvania State University, Purdue University, and the University of Wisconsin-Madison.

"The University of Minnesota is making history today," says University of Minnesota Provost Thomas Sullivan. "For our students and researchers, virtual access to printed volumes will change the face and pace of scholarly research. Digitizing these collections is also a public good and supports the land grant mission of the University of Minnesota."

This project also fits well into the University's aspiration to become one of the top three public research universities in the world, Sullivan says.

"With this agreement, the University joins the ranks of institutions like Harvard University, Stanford University, and Oxford University, who are already participating in the Google Book Search Project," says Sullivan.

The collaborative nature of this agreement makes it unique. In fact, this library digitization agreement is one of the largest cooperative actions of its kind in higher education, Lougee says.

"By harnessing the complementary strengths and resources of CIC institutions, this unprecedented agreement will give students, scholars, and the public access to an extraordinary range of collections of distinction," Lougee says. "Google's vast capacity for digitization far exceeds that of any of the participating institutions alone, making this effort a true partnership that reveals the historical depth of these collections from the heartland."

The contract between Google and the CIC institutions is for six years with an option to renew. Google will fund digitization of up to 10 million volumes in CIC library collections. In turn, each CIC institution will support the costs of retrieving and preparing the books for digitization. The University of Minnesota will contribute up to one million volumes from its University Libraries collections. Prior to the Google Book Library initiative, libraries estimated the costs of digitization at approximately $60 per volume, according to the CIC. Hence, the value of this project to the University of Minnesota could reach $60 million.

Once digitized, Google will make these volumes available through its free globally accessible search service. The digitization initiative will include both public domain and copyrighted materials in a manner consistent with copyright law, Lougee says. Google will make available brief "snippets" of copyrighted materials through its search engine, directing viewers to avenues to purchase the volume or borrow a library copy. Public domain materials can be viewed, searched, or downloaded for printing in their entirety from the Google site. For U.S. published material, "public domain" works generally include those published prior to 1923, as well as many federal, state, and local documents.

For the University of Minnesota Libraries and its peer CIC institutions, this initiative is also an important step to preserve and stabilize the libraries' legacy collections, providing broader and more thorough access to historically significant print resources.

"This partnership allows for library digitization at a scale and scope that would not be possible within the limited means available to the individual universities," says Lougee. "To preserve important intellectual content without incurring significant digitization costs is a great benefit to the University of Minnesota and the other institutions."

The University of Michigan and the University of Wisconsin-Madison have pre-existing digitization agreements with Google. This CIC agreement does not affect or supersede these earlier agreements but will complement and extend the digitization already underway.

As part of the agreement, the consortium also will create a first-of-its-kind shared digital repository to collectively archive and manage the full content of as many as five million public domain works held across the CIC libraries and ultimately provide access to a vast array of material with searches customized for scholarly activity.

Making a difference

U students are helping to change the world...while they're still in school

By Rick Moore

From *M*, summer 2007

Brian Peterson, one of the founding members of Students Today Leaders Forever and a four-year participant on the Pay It Forward Tour, helps clean up along the banks of the Anacostia River in Washington, D.C.

Brian Lucero sits at a campus bagel joint in mid-May with a grin the length of the nearby Scholars Walk. He may always be this cheerful, but the end of finals a day earlier is likely a contributing factor. Lucero graduated in December with a bachelor's degree in civil engineering and a minor in mathematics, and this spring he tacked on minors in Spanish studies and Asian languages and literatures. He received the Paul A. Cartwright/Institute of Technology (IT) Alumni Society award in recognition of his service to IT and the University. Over the past two years, Lucero has done construction and engineering relief work in Costa Rica and Pakistan (part of his involvement with the organization Engineers Without Borders) and participated in a senior civil engineering project aimed at bringing clean water to a village in Ghana. Closer to home, he has provided translation services for low-income Spanish speakers for their tax returns and helped tutor Spanish-speaking inner city schoolchildren.

In a time of heightened emphasis on the University's vast research endeavors, it's vital to remember how seriously the U takes its public and community engagement mission.

Despite the breadth of his travels, Lucero is not an anomaly. Across the University's campuses, students are engaged in community service projects great and small---from one-time cleanups and weeklong spring-break service trips to regular tutoring sessions and volunteer efforts in far-off countries. Tallying students' community service can be a bit like counting the waves on a windy day at Lake Mille Lacs. Not only is it a monumental task, the waves keep moving. But students like Lucero are a good place to start. A self-proclaimed average student through his first two years of college, Lucero says his work overseas gave him motivation to finish school and helped him to see how engineering can better the world. "It's cool to see how you can apply that knowledge to improve the lives of other people," he says.

Beyond research

In a time of heightened emphasis on the University's vast research endeavors, it's vital to remember how seriously the U takes its public and community engagement mission. Public engagement is a twist on what has traditionally been called "outreach." Outreach was more of a one-way street, with U experts going out into the community to impart their knowledge. Public engagement is a two-way street where U students, staff, and faculty give of their time and talents--as per the community's needs--and often receive as much as they give. It's an exchange of information and inspiration. The Carnegie Foundation for the Advancement of Teaching has included the University of Minnesota as one of 76 colleges and universities nationwide in its new "Community Engagement" classification. And earlier this spring, the U staged its first-ever Public Engagement Day to showcase the many ways the University connects with communities. For some students juggling busy class and work schedules, making a difference means giving up their free time. Four years ago, a group of Twin Cities campus freshmen founded the group Students Today Leaders Forever (STLF) and planned a spring break trip called the Pay It Forward Tour, where students travel across the country, stop in a different city each night, and perform a community service project each day. In 2004 one bus with 43 students traveled to Washington, D.C. STLF now has 11 chapters throughout the Midwest; this year, 15 buses carrying some 600 students made spring break journeys. For other students, public engagement has become part of their studies and is integrated into the curriculum on all the U's campuses. In this case, it is known as "service-learning"--a teaching methodology that incorporates community service projects into traditional classes as a way for students to gain a deeper understanding of the course objectives. A composition class, for example, may ask its students to volunteer regularly at a homeless shelter and to then use that experience as inspiration for their writing. According to Laurel Hirt, service-learning and community involvement director at the U's Career and Community Learning Center (CCLC), in 2006 there were 1,988 students participating in 63 courses that offered service-learning on the Twin Cities campus, up from 1,357 students and 55 courses in 2005. The Morris campus is experiencing similar growth. "We do somewhere between 20 and 30 classes a year, depending on the year," says Argie Manolis, UMM's director of service-learning since 2003. "It really has grown a lot in the last three years, and we plan to continue growing the program." Two Morris students who graduated this spring, Joe Coyle and Corina Bernstein, created a unique directed study experience with the help of their French adviser and service-learning funding. Through a series of workshops, they gave residents of Divine House (which teaches independent living skills to people with cognitive or developmental disabilities) photography instruction and cameras, so that they could create artistic photo collages. "We just felt like it would be great to have something like that in place--an outlet for creative expression," says Coyle, who is heading to Baton Rouge, Louisiana, this summer to work in the Teach For America program. Public engagement is becoming a part of graduate education, as well. Katie Peacock graduated from the University of Minnesota, Duluth in 2001 and now works with the CCLC. Two years ago, she enrolled part-time in the master's degree program in public policy at the Humphrey Institute, only to find there wasn't enough "public" in public policy. "I entered public policy with a complete desire to use it to make our communities better," Peacock says. But after finding the core curriculum too statistical and analytical, she and a group of students got together to address the question, "How can we hold on to the things that made us want to come here in the first place?" she says. The result is CHANCE, a yearlong curriculum that will expand civic engagement among Humphrey Institute students, staff, and faculty and build sustainable relationships with the neighboring Cedar-Riverside community.

A lasting impact

Occasionally, community involvement by University of Minnesota students creates an unexpected legacy. Witness the Pay it Forward spring break tours, which have grown in size every year and someday may be limited only by the availability of buses. Or the annual Fill the Bus event. This clothing drive, launched four years ago by U graduate Surbhi Madia and John Barber, has chugged along without losing momentum, filling multiple buses with winter clothing for the neediest of Minnesotans. And there's the work of Rebecca Mitchell (profiled in the winter 2007 *M*), who graduated this spring after completing a semester-long internship in Egypt through an A.I. Johnson Scholarship. Her work there involved research on the Life Wrap, a device designed to reduce the loss of blood--and ultimately women's lives--from obstetric hemorrhage. Mitchell was one of the U's 20 Community Engagement Scholars, who integrate extensive community involvement throughout their undergraduate careers, logging 400 hours of community engagement, 8 credits of service-learning coursework, a half dozen reflections, and an Integrative Community Engagement Project. As part of the program, she continued her work for Student Project Africa Network (SPAN), the nonprofit organization she created to connect students to service organizations in Africa. She now plans to take a year off--before attending medical school--to raise more funds for SPAN and ensure its viability and growth into the future. Aside from any legacy Brian Lucero might be leaving, he can't imagine a future without volunteering. He hopes to stay involved with Engineering Without Borders in developing countries and "continue using my engineering background to brainstorm ideas, even if I'm not physically there." He says his previous work has shown him how advantaged he is, and he figures his blessings come with an inherent opportunity to give back. "It's a two-part thing--it's a blessing-slash-responsibility to go out and do things for other people," he says.

Eating close to home

The University is helping change the way we think about food

by Martha Coventry

From *M*, summer 2007

The University named sisters Annette and Kathleen Fernholz a 2006 Farm Family of the Year. They run a CSA (Community Supported Agriculture) at Earthrise Farm in Madison, Minnesota, where shareholders financially support the production of garden vegetables, and in turn receive a box of food each week during the growing season. (See sidebar)

A forkful of food now travels an average of 1,500 miles to get to your plate. A lot of our food comes from much farther away, or course, like apples from New Zealand, asparagus from Argentina, and shrimp from Thailand. Even salmon from the Pacific Northwest may have first been sent to China for filleting before being shipped back the United States.

But in schools, restaurants, and kitchens all over the country, people are looking at food in a new way--with eyes focused close to home.

A spate of recent books, like Micheal Pollan's popular *The Omnivore's Dilemma*, Gary Paul Nabhan's *Coming Home to Eat*, and Barbara Kingsolver's new *Animal, Vegetable, Miracle*, as well as magazine articles like Time's cover story "Eating Better Than Organic," explore the wisdom and benefits of eating local foods--those grown or raised within about 100-200 miles of where you live.

With many thousands of mouths to feed each day at its various dining outlets, the University is taking the local foods movement to heart. And, thanks to some far-sighted work on the Morris campus, it is helping to change the way global food service companies do business.

Common sense The principles associated with buying locally and sustainably produced foods--meaning you preserve the health of the land for future generations--mesh well with the overall commitments of the University, such as conserving fossil fuel, helping protect the environment, and supporting the regional economy.

> *"If you go to a grocery store and buy organic lettuce that came in from China, like Trader Joe's sells, it doesn't make any sense in terms of environmental impact," Levine says. "A great reason to buy locally is that you're not using all the fuel to move food around. And that's an advantage."*

A recent study shows that shifting just 1 percent of consumer expenditures to direct purchasing of local food products would increase farmers' income by 5 percent. Last year the Twin Cities campus alone spent $1.7 million on locally produced and sustainably grown foods.

Eating locally builds community and puts people back in touch with where their food comes from, and returning to a more "whole foods" diet--fresh fruits, vegetables, grains, and legumes, which local foods tend to be--has been shown to be beneficial in helping keep a host of ills at bay.

How to eat locally

There are several great ways to buy sustainably raised and locally grown food.

>>Go to the source. Find a farm family who offers products you're interested in and pay them a visit.

>>Frequent your local food co-op. Ask where the food comes from and about the farmers who raise it.

>>Spend a morning at a farmer's market and talk to the growers.

>>Join a CSA (Community Supported Agriculture) farm where you pay the grower up front to produce vegetables, fruit, meat, or dairy for you.

Several Web sites offer information on how to find food, farmers, and farmers markets in Minnesota. See Pride of the Prairie, Local Harvest, and the Minnesota Department of Agriculture.

And for a little extra fun, join people all over the country who will strive to eat only local foods during September. See Eat Local Challenge.

As for food safety, animals and produce raised locally, on a smaller scale, and by people you can actually meet on farms you can visit, helps cut down on pathogens, including harmful bacteria, and the opportunity for anyone to meddle with the food before it gets to you.

According to Allen Levine, dean of the College of Food, Agricultural and Natural Resource Sciences (CFANS), the environment undoubtedly benefits from the smaller carbon footprint left from eating close to home. "If you go to a grocery store and buy organic lettuce that came in from China, like Trader Joe's sells, it doesn't make any sense in terms of environmental impact," Levine says. "A great reason to buy locally is that you're not using all the fuel to move food around. And that's an advantage."

But the local foods movement is struggling with how to more responsibly distribute its products, now that they are increasingly in demand. (Twenty new farmers markets have opened in central Minnesota in the past three years, for example.) Buying food close to home initially makes more sense than getting it from 1,500 miles away, but many small farmers making many trips to the city or campus to sell or deliver food still has an effect on the environment. Organizations like Food Alliance Midwest are working with farmers and food services to bring local products to customers in a more efficient way.

Setting the bar At the April 20 inauguration of UMM Chancellor Jacquie Johnson, guests enjoyed a local foods luncheon, with chickpeas from the nearby USDA research facility, wheat berries from Dry Weather Creek Farm in Milan, blue cheese made by Faribault Dairy, and ham from Pastures A Plenty in Kerkhoven. All the foods were labeled to highlight the producers.

The Morris campus is the granddaddy of local foods in the University system, largely due to the vision of Sandy Olson-Loy, vice chancellor for student affairs. And this small campus has had a big impact on how schools all over the region are feeding their students and how local farmers are making a living.

In 2001, Morris was in the process of rebidding the contract for a company to run its food service. "It seemed like the time for us to look at local foods as an economic development tool and another way to strengthen the partnerships in our region," says Olson-Loy. "We'd done some things like building a fitness center that was a campus-community partnership, but we hadn't connected much with the food and ag community that was so rich right around us in western Minnesota."

Morris wrote into its proposal that whoever got the contract had to commit to sustainably and locally grown foods. Sodexho ended up winning that contract, and the buying power of this international company is tremendous. Last year it spent nearly $12 million on food for its college and university accounts in the state.

Don Kulick is Sodexho's regional manager for Minnesota and North and South Dakota. He credits Olson-Loy and the Morris initiative with helping change his company's view of how it buys food. And that change has been profitable-featuring local foods has brought Sodexho an added $400,000 just through its higher education clients in Minnesota.

"Sandy Olson-Loy was the one who first started talking to me about sustainable, local foods and that was the critical starting point for us." says Kulick. "It's important for our company to be on the leading edge of this movement, because this is something that's not going to stop. We have to makes changes in the world, and we can make those changes in how we buy our products."

Sodexho has used this consciousness-raising experience to look at the food it provides to its K-12 accounts, too. It fries less food, provides water and juice instead of sodas, and offers fresh fruit for breaks instead of processed, sugary snacks. "If you can change a 7- to 8-year-old's relationship to food, you can change a nation," says Kulick.

Feeding a small city Larry Weger is director of University Dining Services (UDS) on the Twin Cities campus and works for Aramark, the global food service company that manages most of the campus's food outlets. Like Sodexho at Morris, Aramark plans the menus, buys and prepares the food, manages the staff, and, more and more, pays attention to larger issues of sustainability, health, and the environment.

Weger is trying to buy more vegetables from Cornercopia, the U's student-run organic farm, and cheese and ice cream from the U's Dairy Food Products department. For the past four years, he's worked closely with Sysco Foods, UDS's supplier, to identify and feature local products. "We will always default to the locally grown product if given a choice," says Weger. "More so than anything, [local foods] make sense from an ethical perspective. The whole concept of food coming from the regional area instead of moving it thousands of miles supports the overall agenda of sustainability."

Tasting the difference The Duluth campus has not yet jumped onto the local foods train, but it is offering its students buffalo burgers--which are healthier than those from conventionally raised beef--supplied by a rancher in nearby Twig. Last year it inaugurated an on-campus farmer's market, offering local fare each Wednesday afternoon in the summer.

And Crookston, although it doesn't yet serve students local foods on a regular basis, does feature them at catered events. "When we have an event, we call local farmers and let them know what we need," says Brent Melsa, head of dining services at Crookston. "Chancellor Casey wants me to start having local foods on a weekly basis starting next fall as part of the regular food service. We enjoy serving local foods to support the local farmers."

Sandy Olson-Loy has no doubts that the local foods effort is in line with the greater goals of the University. "[Our campuses] share a pride of place with their communities, and eating foods grown by people we know in these areas is a way of celebrating that pride," she says. "[The U] is committed to providing a transformational education for our students. We want to make sure they not only eat good food, but they think about the food choices they make and their impact on the environment, and about the politics of food, globally as well as locally."

And then there is simply the pleasure of an ear of sweet corn hours old, a tomato still warm from the sun, raspberries from your neighbor's patch, and fresh eggs with deep yellow yolks gathered that morning at a nearby farm or--more and more in the Twin Cities--in your own backyard. Locally grown food just tastes better.

Olson-Loy tells the story of a Morris professor running into a freshman from one of her seminars at the all-local foods dinners the campus serves each semester. "You've got to try the carrots!" the student gushed. "They're great!"

"When do you hear a first-year college student talking to you about carrots?" asks Olson-Loy.

An urban agenda for the 21st century

University Northside Partnership comes into focus

By Rick Moore

From *M*, summer 2007

Throughout the course of its 156-year history, the University of Minnesota has established a strong tradition of public engagement with rural communities. But as the 21st century unfolds, the U is widening its view on problems facing contemporary urban communities, and in particular, the broad swath of Minneapolis known as the Northside community.

The Northside of Minneapolis (shaded area) is home to about 63,000 residents.

Home to some 63,000 residents, the diverse Northside continues to face a host of challenges, including some striking economic and health disparities. The unemployment rate is 10 percent (compared to 3 percent for the city overall), and about 36 percent of children 5 and under live in poverty (compared to 11 percent for all of Hennepin County), with the number doubling from 1990 to 2000.

To help address some of these social and economic challenges, the University has teamed up with the community for a collaborative effort known as the University Northside Partnership (UNP). The U's many partners include NorthPoint Health and Wellness Center, the Northside Residents Redevelopment Council, Northway Community Trust, City of Minneapolis, Hennepin County, and the Coalition of Black Churches.

"The [Northside] has tremendous untapped assets and resources," says Taylor. "This is a great opportunity for the U to assist that community in actualizing its potential. And that's exciting."

According to Robert Jones, the U's senior vice president for system administration, the vision for the partnership is to create a first-of-its-kind urban equivalent of one of the University's highly successful research and outreach centers (ROC), which are hubs for public engagement with rural communities.

"We need a coherent 21st century urban agenda," Jones told the U's Board of Regents in a preliminary presentation about UNP in February. "Why? Because we live in an urban age." The ROC model, Jones adds, is "a good way of thinking about this, and better coordinating our resources to bring about systemic change."

The U will bring a host of resources-along with a prized recruit-to bear on the partnership. One issue greatly affecting the Northside is the number of children in foster care. To help address this concern, the University hired Dante Cicchetti as the new McKnight Presidential Chair and professor in the Institute of Child Development and Department of Psychiatry. Cicchetti developed a program at the University of Rochester in New York that significantly reduced the number of children placed in foster care, and he will bring his groundbreaking expertise in developmental psychopathology to the new Child and Family Center on the Northside, which will partner with NorthPoint Health and Wellness Center.

Darlyne Bailey, dean of the College of Education and Human Development (CEHD), will be the academic lead of the partnership, and faculty in CEHD will have extensive involvement, including Scott McConnell from the Center for Early Education and Development (CEED), and Geoff Maruyama, associate vice president for system academic administration and professor in educational psychology.

While in the past, University faculty from numerous colleges and departments have been involved with specific projects on the Northside, "It hasn't been what I would consider to be an organized, collective effort, where the University has intentionally marshaled a large amount of its resources to go in and accomplish certain objectives," says Craig Taylor, director of the U's Office for Business and Community Economic Development and a long-time north Minneapolis resident.

Taylor feels that over time, the U's collaborative efforts on the Northside could pay big dividends in terms of community health and educational attainment. And he feels UNP's potential to yield economic dividends should not be overlooked, since a stable economic platform underlies the ability for children to succeed.

"The [Northside] has tremendous untapped assets and resources," says Taylor. "This is a great opportunity for the U to assist that community in actualizing its potential. And that's exciting."

Letters to the Editor, summer 2007

From *M*, summer 2007

As a University of Minnesota employee (at the Morris campus), I automatically receive a copy of M magazine, which I always look through. However, I always stop to look at the small box in the lower left hand corner of the third page which reads "*M*: A publication for alumni, friends, faculty, and staff of the University of Minnesota--Crookston, Duluth, Morris, Rochester and Twin Cities." Such a statement seems to suggest that the information in this publication would represent all of the campuses of the U of M. However, very frequently, if ever, are there stories focusing on any of the "coordinate campuses." It would be great for all U of M alumni to hear about the events taking place system-wide...not just on the TC campus. Go Cougars--

Jillian Hiscock

Editor's note: We are trying harder every issue to include stories about all the University campuses. In this issue, see the cover story, pages 4 8, 9, and 10.

It's great that the U is beefing up its School of Design and recognizing the important role that design plays in both our natural and man-made environments, but I found the article in the winter 2007 issue of M somewhat frightening. In the article, Dean Thomas Fisher writes that the College of Design "educates students to be leaders in the field of social change via design, and to be visionaries for a better future," then works through a list of politically charged buzzwords that leave little doubt where his personal political allegiances lie. Must some unsuspecting 18-year-old, who enrolls at the U wanting to learn how to design Web pages, or blouses, or houses, or gardens-and maybe also make the world a better place in accordance with his or her own personal beliefs and vision-also get an entire load of ideology about exactly what that vision should be? What if a student has goals other than promoting global "equity" and combating greenhouse gases?

David W. Downing, St. Paul

I take strong issue with the upbeat message and feel-good tone of the M spring 2007 article about the new football stadium. I believe it is a total waste of taxpayer dollars and an insult and embarrassment to those of us who abhor the jock mentality that has spread from the Bierman Athletic Building to the office of Pres. Bruininks? How does a football stadium help Bruininks move toward his purported goal of making the U a top research university? Ski-U-Bah!

Willard B. Shapira

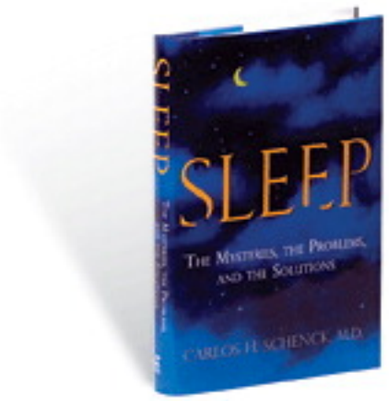
Minnesota Daily sportswriter 1954-58, *Daily* sports editor 1956-58. Minnesota Gopher (yearbook) sports editor 1956-58.

Book reviews summer 2007

New titles by University faculty, staff, and alumni authors

By Gayla Marty

From *M*, summer 2007



Sleep: The Mysteries, the Problems, and the Solutions

By Carlos H. Schenk, M.D.

This book may keep you up late, engrossed by common problems like insomnia and sleep apnea, as well as the more extreme parasomnias like dream enactments and sleep violence. Schenck is senior staff psychiatrist at the renowned Minnesota Regional Sleep Disorders Center and an associate professor at the U Medical School. *Avery, 2007; ISBN 978-1-58333-270-2; $24.95 hc*

The Chronic Job Hopper: My Ongoing Battle With Attention Deficit Disorder, 1969-2005

By David R. Wilkowske

From delivering the Waseca, Minnesota, newspaper in 1969 to winning corporate tech assignments to wading through raw sewage, Wilkowske ('82) raced through 63 jobs in 36 years (catalogued in the appendix)--almost all of them before his ADHD diagnosis in 2004. He credits the U's Inter-college Program for helping him survive. This self-published editor's pick describes Wilkowske's journey, both comic and tragic. Order online at www.iuniverse.com/bookstore. *iUniverse, 2006; ISBN 978-0-595-37342-0; $19.95 pb*

Voices of Hope: The Story of the Jane Addams School for Democracy

By Nan Kari and Nan Skelton, editors

Inspired by the democratic philosophy of its namesake--a leader in the U.S. settlement movement in Chicago in the early 1900s--this free school for all ages on the west side of St. Paul has helped more than 1,500 Hmong, East African, and Latin American immigrants become citizens since 1996. Twelve voices tell the story of the Jane Addams School's first decade as a grass-roots model that can be adapted in communities everywhere. Skelton, a cofounder, is also codirector of the Center for Democracy and Citizenship at the U's Humphrey Institute. *Kettering Foundation Press; ISBN 978-0-923993-19-1; $19.95 pb*

MORE INFO:

Contact the University of Minnesota Bookstores, located in Coffman Memorial Union and the St. Paul Student Center, at 612-626-0559 or generalbooks@umn.edu. Look for faculty authors at www.bookstores.umn.edu/genref.

Helping the next generation

Two multimillion-dollar gifts help U students embark on entrepreneurial pursuits

From *M*, summer 2007

Gary Holmes's $6 million gift to the Carlson School will go toward "developing the next generation of entrepreneurs."

At age 12, Gary Holmes had a bright idea--he began selling light bulbs in southwest Minneapolis, enlisting his fellow boy scouts as salesmen. By age 16, he had banked enough money to acquire a set of duplexes, launching a career that would grow into one of the nation's largest real estate development, leasing, and property management companies.

Holmes, president and owner of Minneapolis-based CSM Corporation and a 2006 Minnesota Entrepreneur of the Year, is now committed to "developing the next generation of entrepreneurs." He recently gave a lead gift of $6 million to the Carlson School of Management's $9 million effort to expand entrepreneurship teaching, research, and outreach programs. The school will rename its Center of Entrepreneurial Studies the Gary S. Holmes Center for Entrepreneurship.

"The future vitality of our state and our country is dependent upon innovative entrepreneurs who will grow the economy," says Carlson School dean Alison Davis-Blake of the investment in entrepreneurship--the school's fastest-growing undergraduate major.

Across the river at the Institute of Technology, the U wants to make sure "businesses" are on the list of things engineers know how to make run. An anonymous $4 million gift will establish the Gemini Chair in Engineering Entrepreneurship, the holder of which will teach a course that broadens the leadership capabilities, business knowledge, and entrepreneurial skills of Institute of Technology undergraduates.

Electrical and computer engineering professor Massoud Amin, who holds the H.W. Sweatt Chair in Technological Leadership and directs the U's Center for the Development of Technological Leadership (where the Gemini Chair will reside), designed the course in consultation with leaders in the Carlson School.

"To maintain our programs among the world's finest and to continue to innovate with increased impact for our graduates, we need to prepare students for success in all aspects of their careers," says Amin. "This gift will allow us to offer a richer, more comprehensive undergraduate experience."

The young and the generous

Recent grad jump-starts her philanthropy (even if it means going without caffeine)

From *M*, summer 2007

Kelly Hudick, '01 B.A., has gotten an early jump on her philanthropic goals by contributing to two U of M scholarships.

Once Kelly Hudick, '01 B.A., began her professional life, she wasn't about to wait around to start her philanthropic life. She doesn't buy into the idea that giving is only for wealthy, established individuals who can make six-figure contributions. A Twin Cities business consultant for Accenture, Hudick has a vision to start now and build while her career advances.

Hudick donates $5 a month to both psychology scholarships and the Learning Abroad Center Alumni Scholarship--contributions matched by her employer. "The University is investing more resources than ever for study abroad scholarships, but these can only assist a limited number of students," she says.

Her support grew from her own international experience - an intensive language program - as a U sophomore. "Being immersed in another culture and mastering another language changed me," she recalls. "I carry Toledo, Spain, with me wherever I go, and I continue to use my Spanish language skills."

Now, she's passing on the benefits. "Every student should have the opportunity to be immersed in another culture," she explains, "but some who would benefit the most do not have the financial means."

Does she miss the $10 a month? "It comes right out of my bank account. I don't even feel it. It's like two cups of coffee."

On exhibit: a lasting gift

Weisman acquires the $8 million collection of modern artist Charles Biederman

From *M*, summer 2007

Three-dimensional painted aluminum constructions are among a vast collection bequeathed to the Weisman by modern artist Charles Biederman (above).

Known as "the worldly sage of Red Wing," the reclusive artist Charles Biederman (1906-2004) was an acclaimed American abstract modernist who spent 60 years in the wooded bluffs outside Red Wing, Minnesota.

In the 1930s, Biederman visited the Paris studios of Leger, Mondrian, Picasso, Arp, and Brancusi, but turned his back on commercial success to chart his own course. From his secluded Red Wing farmhouse, Biederman pursued a pioneering, nature-inspired vision and played an essential role in the evolution of 20th century art.

Biederman's estate has bequeathed to the Weisman Art Museum a vast collection of his work, including paintings, sculptures, writings, and his signature three-dimensional painted aluminum constructions from the 1950s on--considered his lasting achievement. A single rich hue such as vibrant red covered a surface the size of a traditional painting, upon which Biederman constructed colorful squares and rectangles in rhythmic patterns. Art historians have called it "pure visual language."

"Expansion in the Wings

To display more works of Charles Biederman and other 20th century masters, the Weisman is expanding its gallery space. The Frank Gehry-designed addition will also house a caf? and the Target Studio for Creative Collaboration. A capital campaign, featuring $2 million in University matching funds, is underway to pay for the expansion.

"Because Minnesota inspired his artistic vision, he wanted his collection to stay in the state," said Lyndel King, director of the Weisman. "Biederman is better known in Europe than in the United States, but as time goes on, his work will take its rightful place here."

Goodall research more accessible

Private gifts spur digitization of Jane Goodalls' research; software provides better access to data

From *M*, summer 2007

Jane Goodall's breakthrough research on chimpanzees will be accessible worldwide thanks to the work of U faculty.

Nearly five decades of research material collected by famed primatologist Jane Goodall reside at the University--and access to the scientific treasure recently got a lot easier.

U ecologist Anne Pusey and computer scientists Shashi Shekhar and Jaideep Srivastava have developed a way to efficiently search the digitized archive of handwritten field notes, audio recordings, and some 600 hours of video footage from Gombe National Park in Tanzania. Private gifts have helped to start the digitization project, but more will be needed to complete it.

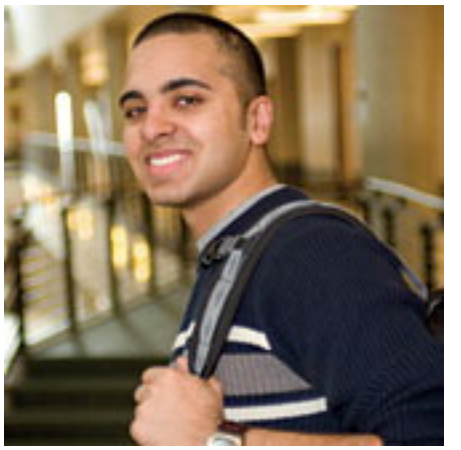
On a campus visit to test out the new software, which in part uses concept definition tags (for example, "aggression") to return search results, Goodall called the technology "extraordinary." She added, "Years and years of blood and toil, crawling through the forest, being scratched by thorns, having my hair caught have amazingly been amalgamated and will be useful to students all over the world."

Goodall hopes the new data analysis system will lead to more comprehensive and expedient studies of chimp behavior and attract researchers from diverse disciplines who "will ask new questions that maybe we wouldn't think of asking."

A joint effort

Two hotbeds of creativity come together to inspire tomorrow's innovators

From *M*, summer 2007



Freshman finance major Amin Aaser says, "The 3M Scholarship is why I'm at the University of Minnesota today."

"Innovation" and "teamwork" are terms that have come to define both 3M and the University of Minnesota. Those words also describe one of their most successful partnerships: the 3M Undergraduate/Alumni Merit Scholarship program, which is marking its fifth anniversary this year.

In 2002, when 3M committed $1 million to provide a 3-to-1 match for gifts from its employees and retirees interested in supporting students at the U of M, 362 donors rallied to the cause--including more than 300 U alumni.

Since then, the 3M Scholarship has attracted 91 of the best and brightest students in business, engineering, and science to the U, and provided the resources they need to thrive in a vibrant intellectual community.

Freshman Amin Aaser is a 3M scholar studying finance in the honors program at the Carlson School. "The 3M Scholarship is why I am at the University of Minnesota today," he says. "The U of M is giving me the tools I need to succeed in the business world."

Similar tools for success prompted Robert Youngquist, B.E.E., '48, M.S., '52, to contribute to the scholarship. "The U of M played a very important role in my education and I strongly believe talented young people should have the educational opportunity I had," he says. Now retired, Youngquist spent his career as a project engineer in recording technology at 3M. A more recent graduate and past 3M scholar, Maralyssa Bann, B.S., '06, honed the skills she gained at the U by doing Alzheimer's research at the Mayo Clinic. Next year, she'll attend medical school at Johns Hopkins. She attributes all of it to the generosity of others: "Because the University of Minnesota and 3M believed in me, I have been able to pursue the kinds of opportunities I have always dreamed of."

Meet more 3M Scholars at giving.umn.edu

The U comes to you

From *M*, summer 2007

This past winter, representatives from the University of Minnesota and the University of Minnesota Alumni Association went on a road trip, visiting 13 cities in 12 weeks. The purpose of this "road show" was to inform Minnesotans around the state about the importance of University education, research, and outreach to their communities. The group dropped in on Rotary and Kiwanis club meetings from Virginia to Marshall and places in between. They knew the membership of these service clubs would probably contain a high percentage of University alumni and asked for those people to stand up. Then they asked attendees to stand if they, for example: have an immediate family member who attended the U; have ever gone to a doctor, dentist, veterinarian, or other professional trained at the U; have ever attended a cultural or sports event at the U; have ever eaten a Honeycrisp apple or puffed wheat cereal; have ever worn a seatbelt. At every stop, nearly everyone was standing even before the seatbelt question. One thing quickly became clear: The reach and impact of the U is felt across the entire state, even for those who have never set foot on campus or don't have a diploma. Throughout the year, the alumni association is sponsoring more visits to service clubs throughout the state as a way to deliver the message about how the University is creating Minnesota's future and the U's statewide impact. University faculty and administrators will accompany the alumni association and share their latest research and where it might lead. If you would like the U to come to your service club, contact Mary Kay Delvo at 612-626-1417 or delvo003@umn.edu.

Access your U

From *M*, summer 2007

Membership in the University of Minnesota Alumni Association has many rewards, including discounts on a variety of entertainment, athletic, personal growth, and other activities and events. For example: **Live it up.** An exciting new benefit for life members of the alumni association is a discount on the rental of meeting spaces in the McNamara Alumni Center, one of the Twin Cities' premier event venues.

Sherlock's Last Case plays on the Showboat this summer.

The inside story

Minnesota magazine is a benefit of membership in the University of Minnesota Alumni Association. The May-June 2007 issue includes a Q&A with University alumnus and Super Bowl champion coach Tony Dungy; an article about public TV's start on campus 50 years ago; an essay on fear, intuition, and being stranded in open water on a scuba-diving trip; and Doug Ohman's photographs of the icon of summer: the cabin. Check out *Minnesota* content online, or become a UMAA member and every issue will be mailed to you. Call 612-624-2323 or 800-862-5867.

The McNamara Alumni Center, located on the East Bank, features stunning architecture, state-of-the-art audio-visual capabilities, food by D'Amico Catering, and accommodations for events of all varieties. The center regularly hosts wedding receptions, conferences, meetings, dinners, and parties. For details on discounts for life members, visit the UMAA Web site. **Listen in.** Another benefit for UMAA members is a discount on admission to Great Conversations, the popular personal enrichment series hosted by the College of Continuing Education. The June 5 conversation, the last of 2007, featured Richard Leider, senior fellow with the University's Center for Spirituality and Healing, and Richard Bolles, author of *What Color Is Your Parachute?*, the best-selling career planning book in history. UMAA members receive a 20 percent discount on individual program tickets. For more information call 612-624-2345 or visit the Great Conversations Web site. **Laugh out loud.** UMAA members also receive access to an exclusive post-show reception on the Minnesota Centennial Showboat. This summer, the Showboat players present *Sherlock's Last Case*, which picks up where the famous Sherlock Holmes stories left off and centers on a death threat against everyone's favorite sleuth. The show, which runs June 15 through August 25, is full of wit, retorts, humor, and suspense. The Showboat, docked on Harriet Island in downtown St. Paul, has Victorian-era decor and a 225-seat jewelbox theater. The UMAA post-show receptions take place on dates to be announced in June and July. For more information, visit the UMAA Web site or call 612-624-2323.

Teachers who reach

From *M*, summer 2007

When University of Minnesota research leads to life-saving medical techniques, you might see the results in the life of a friend or family member. When U faculty apply its expertise to the broader community, such as water quality data to farmers or transportation studies data to regional planners, you might notice the ways your community improves. But how do you describe what happens when U teachers pass knowledge on to their students and expand their minds? Though the learning and discovery process might be invisible to outside observers, U teachers--through their commitment to the next generation of scholars--are changing lives and advancing their fields. Their work is one of the benchmarks for excellence at the University, and every year the University of Minnesota Alumni Association honors these teachers for their contributions. This year, 12 faculty members have been named recipients of the Distinguished Teaching Award, the University's highest award for excellence in teaching. Seven have received the Horace T. Morse-University of Minnesota Alumni Association Award to Outstanding Contributions to Undergraduate Education, and five the Award for Outstanding Contributions to Postbaccalaureate, Graduate, and Professional Education. The awards include a salary stipend, a monetary award to the recipient's department, and induction into the Academy of Distinguished Teachers. The alumni association sponsors the Distinguished the Teaching Awards with the Senate Committee on Educational Policy and the Senior Vice President for Academic Affairs and Provost. Visit the Web site of the Academy of Distinguished Teachers to read profiles of the 2007 inductees.

Bruininks unveils tuition reform plan

Measures include expanded tuition banding and changes to reciprocity agreement

By Rick Moore

June 8, 2007; updated for *Brief,* June 13, 2007

Under the plan submitted to the U's Board of Regents June 7 and 8, the highest tuition increase for an undergraduate student would be 4.5 percent next year, and about 75 percent of students would see an increase of 2 percent or less.

Few topics are as relevant and sensitive for college students as the rising cost of tuition. And like death, taxes, and finals week, few things are seemingly as unavoidable.

But the University of Minnesota is taking concrete steps to soften the burden of tuition for students on all of its campuses. On June 7 President Bob Bruininks discussed with the Board of Regents a multifaceted plan for tuition reform systemwide.

The proposed "tuition reform" plan has four main components. It will:

- establish a 13-credit tuition band on the Crookston, Duluth, and Morris campuses like the one in place on the Twin Cities campus;
- lower the undergraduate tuition rates for the Duluth and Morris campuses to be below that of the Twin Cities campus;
- reduce the nonresident (and nonreciprocity) tuition rates for undergrads on the Duluth and Twin Cities campuses; and
- seek a change in the reciprocity agreement with Wisconsin, or a withdrawal from that agreement and an increase in tuition rates for students from Wisconsin.

In addition to making tuition more affordable for most of the U's students, the plan is designed to improve graduation rates, enhance the tuition competitiveness of the U's outstate campuses, and address future recruitment challenges posed by declining numbers of high school graduates in the region.

"We need to move away from the 'one-size-fits-all' approach to tuition to ensure more affordable access and graduate diverse students into the workforce," said Bruininks. "The level of legislative support--combined with expanded financial assistance and our planned tuition reforms--will mean most Minnesota undergraduates will see a tuition increase of less than 2 percent next year."

A closer look at the proposed reforms

The **13-credit tuition band** means that when students take more than 13 credits in a semester, all of the additional credits are free. Expanding the 13-credit band to the Crookston, Duluth, and Morris campuses will enable their students to significantly reduce the total cost of their education. Students who graduate in four years could see savings of as much as $20,000 compared to graduating in five years. The plan has also helped improve graduation rates on the Twin Cities campus.

Support for students from lower- and middle-income families: The Founders Free Tuition Program, which provides free tuition for all low-income Minnesota resident undergraduate students eligible for the federal Pell grant, will continue to provide an unprecedented level of financial support for those students.

Now, in addition, Minnesota resident students from families with an income of $150,000 or less will receive scholarship assistance that will make their effective tuition increase about 2 percent in for the coming year. The scholarship assistance is available through a provision in the higher education appropriations bill.

The tuition reform proposal also includes **resetting the tuition rates at the Duluth and Morris campuses**--which tend to be higher than comparable regional institutions--to be less than the Twin Cities campus. Additionally, and to address the challenges created by the decline in the number of high school graduates in Minnesota and neighboring states, the nonresident undergraduate tuition will be lowered to $2,000 more per semester than resident tuition on the Twin Cities campus and $1,000 more on the Duluth campus. The changes in nonresident tuition rates would be effective beginning fall semester of 2008.

"Historically, 10 percent of Minnesota's high school graduates have come to the U and we are committed to maintaining that level of resident enrollment," said Bruininks. "But with demographic changes and the number of high school graduates dropping, we need to protect our place as a magnet to bring the best and brightest talent to Minnesota."

In the current tuition **reciprocity agreement with Wisconsin**, Minnesota residents pay higher tuition at the University of Minnesota than students from Wisconsin. Unless changes are made, the University seeks to withdraw from the agreement and establish tuition rates for Wisconsin students that are the same as for Minnesota residents.

Bruininks illustrated the overall effect of the tuition reform proposals on the tuition increases--or decreases--various groups of students could expect to see this coming year.

No undergraduate student on any campus will see more than a 4.5 percent increase in tuition, he noted, and about 75 percent will see an increase of 2 percent or less. "I think that's an extraordinary story," he said, adding that it wouldn't be possible to tell without the support of the House and the Senate, which funded approximately 82 percent of the U's budget request.

And "the Morris campus is an extraordinarily good-news story," he added. There, where students typically take a higher credit load, an average student could expect a net tuition *decrease* of a little more than $1,000--or about 11.7 percent--for the upcoming academic year.

The regents will hold a public forum on the University's annual operating budget--which includes the President's tuition reform recommendations--**Wednesday, June 13,** from 1 to 2:30 p.m., in the Boardroom of the McNamara Alumni Center, Minneapolis.

Final action on the annual operating budget and tuition reform recommendations will be taken at a special meeting, **Wednesday, June 27**, at 1 p.m., also in the Boardroom of the McNamara Alumni Center.

Tenure code revisions approved; other action

In other action June 7 and 8, the board approved amendments to Board of Regents policy for faculty tenure, increasing the rigor of criteria for promotion and tenure and addressing work-life balance issues. For more information, see the docket materials, Faculty, Staff, and Student Affairs Committee, June 7, pp. 4-35.

The board also approved a biomass heating plant addition to the facilities on the Morris campus.

The Educational Policy and Planning Committee heard reports on positioning the University's libraries in the digital age and on information management and distribution in the 21st century research university, presented by senior vice president and provost Tom Sullivan, Wendy Pradt Lougee of University Libraries, and vice provost Billie Wahlstrom. The recently announced contract with Google to digitize selected University library resources was approved.

Recipients of the 2007 President's Award for Outstanding Service were recognized in the full board meeting June 8.

Regent Patricia Simmons was elected as the new chair of the board. Simmons, who lives in the Rochester area, joined the board in 2003 and has served as vice chair. A physician in the department of pediatrics and adolescent medicine, Mayo Clinic, and a professor of pediatrics in the Mayo Medical School, she received a bachelor's degree from Carleton College, magna cum laude, and a medical degree from the University of Chicago.

"Serving the public as a regent of the University of Minnesota is a great honor," said Simmons. "I look forward to working with my colleagues on the board and the president to help the university fulfill its mission and best meet the needs of Minnesota."

Clyde Allen, Jr., of Moorhead, a board member since 2003, was elected as the new vice chair. Allen is retired following a career in the private and public sectors. He most recently served as treasurer and vice president for business affairs for Concordia College, Moorhead, Minn. Allen is a graduate of Yale University with a degree in political science.

The 2007-08 Board of Regents schedule was approved and is now available at Board Meetings.

Contains information from the University News Service and and Gayla Marty.

Bring the kids

Conference and visiting child care service allows faculty and staff to combine professional and family opportunities

By Mary Everley

Brief, June 13, 2007

You've been invited to present a paper at your professional association's conference in San Francisco. It's a great career opportunity, and you've always wanted to explore the Bay Area. But what will you do with the kids while you're gone? It would be great to combine work and pleasure and take them with you--if only you had someone to take care of them while you're at the conference.

The conference and visiting child care service makes it possible.

Typical child care centers are open from 6:30 a.m. to 6 p.m., Monday through Friday, leaving those who need after-hour or weekend care without recourse. That means faculty and staff with young children often are discouraged from attending overnight meetings or longer conferences. In response to the need for extended care and to help retain new scholars in the tenure pipeline, the Relocation Assistance Program and the WorkLife Program explored local and national conference child care options.

Conference and visiting child care uses resources available through Career Life Alliance Services (CLAS), the University's child care resource and referral service, and provides child care information for the 50 states, the District of Columbia, and the United Kingdom. To access the network, log on to Conference and Visiting Child Care Services and click on the CLAS link. Select the state where you'll be attending the conference, and you're on your way to connecting with child care providers in the conference locale.

So pack your bags and start singing, "California, here I come!" Toss in the camera and the stroller along with our research paper. By using conference and visiting child care services, you can combine your roles as scholar and parent.

Event organizers can find resources, too

Conference and event organizers who are coordinating an upcoming conference on the Twin Cities campus and working to coordinate child care may also take advantage of this service. A limited listing of providers is available at WorkLife Child Care. These providers have agreed to offer conference or temporary child care for attendees of U of M events. The list includes nanny services and child care centers located near the Minneapolis and St. Paul campuses and within the vicinity of both downtown areas.

For conference care, individual or group care and site location may be negotiated with the provider. Some area hotels also provide rooms that may be used for cooperative child care. You'll need to check with hotels about their facilities, licensing expectations, and preferred providers. The University Child Care Center is occasionally able to accommodate requests for child care for those attending a conference on the Twin Cities campus, but arrangements must be made well in advance. Conference organizers should see the U of M Child Care Center for more information.

Need temporary resources in the Twin Cities?

The same system that works for U of M faculty and staff traveling to out-of-state locations also works locally. Faculty and staff from other colleges and universities who plan to attend conferences or meetings in Minnesota may use the CLAS system to search for child care providers in the Twin Cities. On the conference and visiting child care Web site, select Search Child Care in Minnesota.

Temporary child care is available for visitors to campus--candidates in town for interviews, new faculty and staff looking for housing, and faculty and staff from other U locations statewide who are attending meetings.

These same temporary child care options are also available for Twin Cities campus faculty and staff. If your child care provider is unexpectedly unavailable for the day or you're caught in a child care emergency situation, consider drop-in child care.

For more information on conference or visiting child care, contact the Relocation Assistance Program at 612-626-0775, or send an e-mail to rapland@umn.edu.

MORE RESOURCES

Caring for a parent or elderly family member? See the WorkLife Web site for elder care options, too.

Mary Everley is the program director for Relocation Assistance Program, Office of Human Resources, Twin Cities campus.

Brand aids

U professor says the line between advertising and reporting is becoming more difficult to decipher

June 15, 2007

Branding people, such as "Soccer Mom" and "NASCAR Dad," perpetuates outdated ideas about gender roles, says U researcher Mary Vavrus.

When we think of brands, Mary Vavrus says, we tend to think of objects that can be bought and sold: Bic pens, Pontiac minivans, Brooks Brothers ties, Kenmore washing machines. Successful brands create an aura around everything from sneakers to light bulbs. And that, in turn, can translate into big bucks for the companies hawking them.

But a few years ago, Vavrus, an associate professor of communication studies, began noticing a different kind of branding emerging in the United States, one that targets people rather than objects. With the introduction of phrases like "Soccer Moms" and "NASCAR Dads" into the news coverage of recent presidential elections, she says, the people who ostensibly constitute certain voting blocs have become as branded as the hamburgers they eat and the shoes they wear.

Like traditional brand names, Soccer Moms and NASCAR Dads have opened up powerful marketing opportunities for the corporations that manufacture the products they want associated with these people and for the networks on which those corporations advertise. That new trend--and its implication for the ways we think about gender--is the subject of Vavrus's forthcoming book, *Gendered Brands: Identity and the New Terrain of Media Politics*

When the media report on NASCAR Dads and Soccer Moms, Vavrus says, they show actual images of consumption: the soccer mom standing by her mini-van after practice, the NASCAR Dad wearing a Home Depot t-shirt and talking on a Nextel phone. Shown under the guise of news reporting, those images have become an additional form of free advertising for corporations and represent the further commercialization of everyday life.

Vavrus is part of a group of scholars who are concerned about the effect of commercialized news media on American society. Network news that is beholden to the commercial interests of its parent companies becomes an unreliable source of information, she says, as its reporters begin to pursue stories based on product placement opportunities rather than intrinsic newsworthiness.

Successful brands create an aura around everything from sneakers to light bulbs. And that, in turn, can translate into big bucks for the companies hawking them.

During the 2004 political campaign, for example, it became difficult to discern the relevance of stories on NASCAR Dads. "Early on, these news stories resolved that these guys were going to vote Republican," Vavrus says. "But stories on NASCAR Dads continued throughout the campaign season as if they were a swing voting bloc." The newsworthiness of this voting bloc quickly became much more manufactured than real, more a way to please advertisers than to inform the public.

The result of this branding is "a hyper-capitalistic way of seeing the world," Vavrus says. "It's not democratic. It's privileging the voice of corporations, who then frame what goes in the news."

Branding Gender

Of special concern to Vavrus is how branding people for financial gain perpetuates outdated ideas about gender roles. The "Soccer Mom" and "NASCAR Dad" monikers don't simply give the media the opportunity to promote programming and products; they also perpetuate myths about the domestic and political interests of men and women.

By focusing on Soccer Moms, Vavrus says, the news media represent women in ways that limit them. "The Soccer Moms are home with their kids. The kids are the focus of their lives, as are the products they use to cart their kids around and make dinner for them," she explains. As a result, "story after story frames these women in terms of their consumerism and not in terms of their political power or interests."

That, Vavrus says, is dangerous. "These news organizations cover women in politics through a lens that encourages traditional femininity and consumerism rather than encouraging them to really change the power structure," she says.

The political interests of NASCAR Dads, meanwhile, have nothing to do with their children. "Their paternity is virtually absent," Vavrus says, an absence that invokes outdated models of parenting that emphasize the mother as caregiver and the father as a more detached authority figure whose interests lie outside of the home.

Reforming Media

Vavrus would like her book to help readers recognize the powerful role of a capitalist economy in shaping the news they see and in delivering and reinforcing messages about gender especially in an age of corporate media consolidation and global media saturation.

"The relationship between media corporations and their advertisers is the most important one to understand if you want to understand what we do and don't see-and why-in the mainstream media," she says. "I hope the book makes a contribution to the burgeoning media reform movement, which works to increase media literacy and change media policy."

Vavrus's most recent book is *Postfeminist News: Political Women in Media Culture* (State University of New York Press, 2002).

A new year begins

Civil Service Committee begins leadership transition

By Peg Wolff

Brief, June 13, 2007

The 2007-08 CSC leadership team is (left to right) chair **Cathy Marquardt**, vice-chair **Susan Cable**, and treasurer **Karen Lovro**.

As the 2006-07 year comes to a close, I would like to thank this year's Civil Service Committee (CSC) members for all their hard work. These 18 members represent the needs of about 4,800 employees across all the U campuses.

Each year, we identify a range of issues to address for the coming year. Then subcommittees get to work. Here is a sample of what we accomplished in 2006-07.

* We clarified language for the job evaluation questionnaire (JEQ) and job review questionnaire (JRQ) appeals process to make it clearer to employees and supervisors.

* The CSC wrote a proposal for an increase in professional development funds available to civil service staff. We currently distribute $2,000 for professional development each year.

* With the Office of Human Resources, we reviewed the engineering, research compliance specialist, administrative director, and housing specialist job classifications.

* We convened civil service senators to the University Senate and civil service senate delegation representatives to begin a communications process that will benefit all civil service employees.

* We filled vacant seats on U Senate Boards and Committees. We now have 35 civil service staff in these positions, including representation on the Senate Retirement Committee. We also have membership on the Legislative Network's grassroots committee.

* The Rules subcommittee, in collaboration with the Office of Human Resources, spent many hours updating language in the Civil Service Rules Book in preparation for fall 2007 hearings. Thanks to staff who sent suggestions for possible rule language changes.

CSC STORY ARCHIVE

Find a list of previous Civil Service Committee updates and features in *Brief* in the UMNnews CSC Archive.

* A number of employee advocacy issues were addressed.

* We continue to monitor performance management and merit issues and the Minnesota State Retirement System (MSRS) Post Retirement Fund.

* This summer we will begin working with the Office of Human Resources on a broad review of civil service compensation and classification systems.

The 2007-08 committee

In April, the Civil Service Search Committee sent a list of names to President Bruininks for appointment to the Civil Service Committee. Five new members and five alternates were chosen and will join the CSC July 1 under the new leadership of **Cathy Marquardt**, chair; **Susan Cable**, vice chair; and **Karen Lovro**, treasurer.

Six new full members will join the CSC. *At-large:* **Susan Cable** and **Nancy Fulton** (Nancy was originally appointed as an alternate but will fill Katy Olson's full-member position when Katy resigns from the committee in June.)
Coordinate campuses: **Gary Willhite**, Crookston; **Alex Jokela**, Duluth
Academic Health Center: **Roxy McCann** and **Frank Strahan**

Four alternates will also serve on the committee for the 2007-08 year.

At-large: **Daniel Farrar** and **Rebecca Hintz**
Academic Affairs: **Gary French**
Academic Health Center: **Patrick Davern**

The above new members join those continuing--**Sharon Beckford-Babu, Chris Bucksa, Susann Jackson, Lori Nicol, Susan Rose,** and **Peg Wolff**--to complete the 2007-08 Committee.

A special thanks goes to **Diane Parker, Heather Powell, Karen Tschida, Katy Olson, Linda Olcott,** and **Rick Densmore**, who conclude their terms this year. They have worked on issues including compensation, benefits, advocacy, communications, and professional development.

What next?

Next year will bring some of the same concerns and some new challenges. The 2007-08 CSC has started to meet and set its strategic direction. It will meet in July at an all-day retreat to complete planning for 2007-08. If you have issues that you would like the committee to address, please send an e-mail message to the committee members at um-ucsc@lists.umn.edu.

Civil service representation in the University Senate

The Civil Service Committee congratulates the new civil service senators, elected in May.
Academic Affairs: **Josette Barsness, Joel Cable, Dorit Hafner,** and **M.E.G. Schmidtbauer**
At-large: **Keith Carlson** and **Ann Falken**
Academic Health Center: **Zadie Rodriques** and **Joanie Tool**

Thank you for volunteering to represent civil service staff in University governance.

Margaret "Peg" Wolff, 2006-07 chair of the CSC, is a principal public relations representative in University Relations, Twin Cities.

No dissing these dissertations

From the subatomic realm to the world stage, four award-winning dissertations cover the intellectual map

By Deane Morrison

June 12, 2007

What do people with borderline personality disorder have in common with the Pentagon's Vietnam travel brochures of the early 1960s? Two things, actually. Both are largely invisible to the public, and both have been brought to light by winners of the University Graduate School's Best Dissertation award for 2007. Every year, one graduate student from each of four major areas is selected for a dissertation that stands out from the pack. Going where no researcher has gone before, this year's winners have pulled back the curtain on worlds most of us never think about.

Pamela Bjorklund won a Best Dissertation prize for studies in the field of nursing.

Social and behavioral sciences and education:

Pamela Bjorklund, nursing

School of Nursing student and instructor Pamela Bjorklund wrote about the moral and ethical work to be done in helping the mentally ill function in society. The unseen world that drew her in was a small residential facility where women with borderline personality disorder, or BPD, tried to get their lives in order. People with BPD tend to be impulsive and to suffer instability in their relationships. Such women may walk among us every day, but their condition isn't obvious. Until, says Bjorklund, one such person, who is normally invisible, " ... suddenly shows up to disrupt the workaday world of more powerful others." In about 10 percent of diagnosed BPD cases, the patient eventually commits suicide. For these people, who are more often women than men, rational behavior is difficult for a variety of reasons. Yet, to function in society, they must learn to take the responsibility of becoming competent people in charge of their own lives. And, asks Bjorklund, how do professionals deal ethically and morally with such patients? "Taking responsibility has a variety of forms and meanings in that setting," she says. "[The condition has a] complex etiology. Some are episodically psychotic. They have issues about identity and attachment. There is not a drug to control symptoms per se." Caregivers have a moral responsibility to undertake the hard work of helping BPD patients normalize the chaos and "craziness" not just of individual lives, but of the "craziness" of the larger mental health system, Bjorklund concludes. It's a matter of "uncovering, recognizing, and resolving the paradoxes invisibly embedded in everyday life.

Biological and life sciences:

Laura Diaz-Martinez, genetics, cell biology, and development

It was a collaboration with a Spanish scientist that made Diaz-Martinez, who hails from Mexico, fall in love with chromosomes. For her dissertation, she examined how chromosomes--the strings of protein and DNA that harbor most of our genes--stay together until it's time for them to part.

Laura Diaz-Martinez won for her dissertation on chromosomal biology.

This happens whenever any cell in our body undergoes cell division. In almost all of our cells, we have two copies of every chromosome, one from our mother and one from our father. Each must be passed on to the two new cells created when a "mother" cell divides. To do that, the chromosomes first must duplicate themselves. After duplication, each chromosome exists as a double strand; that is, it is now two strands of identical material, bound together by rings of a protein called, appropriately, cohesin. When the cell divides, the two strands come apart and end up in separate "daughter" cells, and the cohesin dissolves. The role of cohesin is, therefore, to keep the strands from separating prematurely. Were the two strands not held together, they could easily end up in the same daughter cell, and genetic chaos would result. What Diaz-Martinez discovered was that in human cells, cohesin isn't the only thing holding the chromosomes together. "When we got rid of cohesin rings [artificially early], the two strands stayed together," she says. Diaz-Martinez' discovery of evidence for a new agent holding chromosomes together is bound to generate intense interest, given the importance of ensuring the proper function of chromosomes.

Physical sciences and engineering:

Nathan Schultz, chemistry

Just as the ways people interact in private can have profound implications for public life, so the ways in which small groups of atoms interact can control large-scale behavior of substances. Take, for example, powdered aluminum, which has a very public role as a rocket propellant.

Nathan Schultz won for his work on the chemistry of nanoparticles.

Looking at nanoparticles of aluminum containing between two and thousands of atoms, Schultz found a way to compute how easily any two particles come together--or don't. Such a measurement can only be done on a computer, Schultz says, but is important for calculating other properties of nanoparticle-based materials so that--as is crucial for rocket fuel--their behavior can be understood and controlled. As nanoparticles of different chemical composition increasingly become the building blocks of components for electronics and other uses, Schultz's work will find many more applications.

Arts and humanities:

Scott Laderman, American studies

The lens of travel and tourism may seem a strange way to view the history of the United States and Vietnam, but Laderman uses it to reveal how both countries attempt to shape opinions about present and past political situations.

Scott Laderman won for his dissertation on the role of tourism in shaping ideas about Vietnam.

Following the Geneva accords of 1954, the newly established South Vietnamese government saw tourism as a way of legitimizing itself. Besides pumping foreign currency into the treasury, tourism generated warm sentiments toward the new southern state "that would translate into popular support and diplomatic goodwill, thus serving the interests of both America and its client in multiple ways," Laderman says.

Back in the USA, the Pentagon published pocket guides for Vietnam in 1963, 1966, and 1971, using the allure of exotic travel to sell military service in Southeast Asia. The guides not only touted sightseeing and breathtaking beaches, but showed how U.S. servicemen were Cold War actors in the American campaign to defeat the revolutionary insurgency in southern Vietnam. "I argue that tourism has been--and, in important ways, has continued to be--intertwined with the projection of American power," says Laderman. Laderman is now an assistant professor at UMD. Bjorklund is an assistant professor at the College of St. Scholastica, Diaz-Martinez is a postdoctoral associate at the University of Texas, and Schultz is a senior research chemist at 3M.

Goldstein museum is 30

By Pauline Oo

June 12, 2007; updated June 20, 2007

Objects from the Goldstein collection can help students learn more about topics such as culture, time period, and method of construction.

Star Wars isn't the only thing turning 30 this year. The Goldstein Museum of Design at the University of Minnesota is also celebrating the big 3-0. The museum recently held a shindig on the Twin Cities campus in St. Paul to mark its anniversary.

"The Goldstein is the only design museum in the upper Midwest, and as far as we know, it's the only strictly design museum within a design college," says Lin Nelson-Mayson, museum director. (The Goldstein is part of the U's new College of Design.) "Often, other museums at design colleges combine art and design--known at one time as 'applied arts.' The U is able to offer the resources of both an art museum--the Weisman--and one devoted to design--the Goldstein."

The University created the Goldstein Museum, initially the Goldstein Gallery, in honor of sisters Harriet and Vetta Goldstein, who joined the home economics faculty in 1913. What started as a modest endowment of funds and objects from the sisters' personal collection of textiles and decorative art has today grown into more than 27,000 objects.

Most people know the museum as an exhibition space on the second floor of McNeal Hall, a stone's throw from the St. Paul Student Center. Affordable housing is featured in the current exhibit; past exhibitions have focused on items we usually take for granted, such as clothes, LP record covers, cereal boxes, and chairs. The Goldstein, though, is more than 1,200 square-feet of gallery space. It's also a workspace and hubbub of research and study.

Administrative offices are located on the third floor, along with the Goldstein Research Center, which is the place to view and perhaps handle (with special gloves) an item from the museum's collection or to peek at Vogue magazines dating back 115 years. The Goldstein library offers more than 3,000 noncirculating books and periodicals.

"Our library was initially assembled," says Nelson-Mayson, "as a resource for students working with our collections. Today, we get people like avid glass collectors and renowned textile researchers seeking our reference services." While the museum subscribes to such magazines as Vogue and catalogs from JC Penny and Sears, its library has amassed many of its treasures thanks to gifts or donations from current and retired professors.

In the bowels of Goldstein

Like all other museums, the Goldstein has a place--four storage rooms, to be precise--under lock and key to store its permanent collection.

A selection of objects from the Goldstein's decorative art collection.

In the Decorative Arts and Textiles Room, items are arranged by medium and culture. For example, a row of shelves holds Korean and Native American baskets; another displays pottery from the southern region of the United States. "The Goldstein sisters started this collection, and items from it are used [in classes or exhibits] to demonstrate what good design is like," explains Nelson-Mayson.

The Apparel Resource Room, complete with temperature and humidity control and more than 10 monstrous movable storage units, is organized by clothing designer. Casual wear and evening gowns hang on racks, and accessories, such as beaded clutch purses and fancy barrettes, nestle in drawers lined with acid-free paper. The room--Goldstein's only one outfitted with updated cabinetry appropriate for preserving delicate cloth and paper--also houses a shoe collection that can put Imelda Marcos's to shame.

The Textile and Historic Apparel Room is where the museum keeps rows and rows of floor-to-ceiling cabinets full of textiles and historic apparel from the 1700s to the present. There are baby blankets, mid-century-party dresses, hats, undergarments, and ethnic clothing.

The final storage room holds the museum's furniture collection, the source of last summer's chair exhibition.

(Pop quiz: Where can you find a woman's court shoe from the 1900s at the University of Minnesota? Yes, right here at the Goldstein.)

What the future holds

Recently, the Goldstein Museum received a Preservation Assistance Grant for Small Museums from the National Endowment for the Humanities to thoroughly assess the environment of its collections. Although the museum has had professional evaluations of its operations in the past, this is the first general survey of this type.

"Space is a problem for us right now," says Nelson-Mayson. "We're growing, and we want to develop--in addition to properly preserving--other collection areas so we can address the needs of our college."

While the museum has no immediate plans to move, rumor has the Goldstein relocating to the U's East Bank and adopting the space left when the Bell Museum of Natural History changes residence.

"The long-term goal is to have all parts of the [College of Design] together," says Nelson-Mayson. "The ideal home for us, of course, is a museum like the Bell or the Weisman that is more accessible to the campus and the community and that would have the space to display more from the collection."

The Goldstein Museum of Design is located at 241 McNeal Hall on the Twin Cities campus in St. Paul. Gallery hours are 10 a.m. to 4 p.m. Monday, Tuesday, Wednesday, and Friday; 10 a.m. to 8 p.m. Thursday; and 1:30 to 4:30 p.m. Saturday and Sunday. The Goldstein Research Center and Library are open 10-4, Tuesday through Thursday. To make an appointment to view an object from the collection, call 612-625-2737.

How can you help the Goldstein?

Give an item
If you think you have something of interest, call the museum at 612-625-2737. Assistant curator Kathleen Campbell can give you an answer over the phone, or she may have you bring in the item for further inspection.

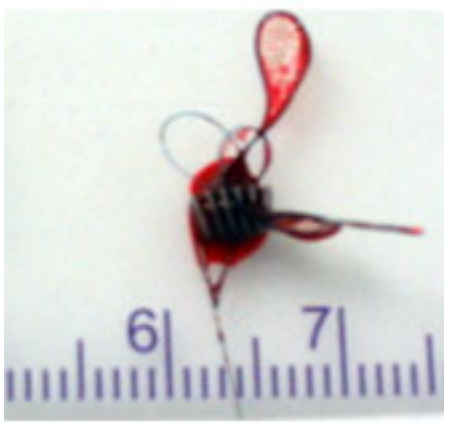
Give some money
You can contribute funds to buy preservation equipment or an item for the museum's collection, to host an exhibition, or to create the Curatorial Fellowship or Endowed Directorship programs. Call 612-624-7434 or e-mail gmd@umn.edu for more information.

A strike against stroke

The University's Minnesota Stroke Initiative takes aim at a swift, silent killer

By Deane Morrison

June 12, 2007



One way the University's interventional neurologists treat stroke is to physically remove blood clots from arteries in the brain.

For Sue Bardill, the morning of April 30 started like any other. After getting ready for work, the Minneapolis resident started to tell her husband it was time to go. Then the first warning sign hit. "I heard my voice change," says Bardill. "I heard myself saying 'Something's wrong.' I saw the right side of my face sliding. I knew it was a stroke." Bardill's husband called 911. In minutes, an ambulance crew was inserting an IV tube in Bardill--who now could neither speak coherently nor move anything on her right side--and radioing ahead to Fairview-University Hospital. Twenty minutes after the first symptom appeared, Bardill was in the emergency room, and within an hour University stroke neurologist Robert Taylor had administered a drug to dissolve the blood clot that was blocking an artery in her brain. Another 30 minutes, and it may have been too late for the drug to work. But it did, and Bardill was walking and talking in a matter of days. As Bardill's experience shows, strokes strike suddenly, but prompt and expert treatment can minimize the damage. That's the goal of the University's new Minnesota Stroke Initiative, an ambitious effort begun in August 2006 to counter this stealthy killer through top-quality research, clinical services and education. "We want to excel in all three components," says Adnan Qureshi, executive director of the initiative. Qureshi, along with Taylor and Vallabh Janardhan, forms the inner core of the initiative. All three are interventional neurologists trained to interrupt a stroke in progress. A neurosurgeon specializing in blood vessel repair and a neurocritical care specialist will join the University later this summer. **A formidable foe** Stroke is the leading cause of longterm disability in the United States and the third leading cause of death, after heart disease and cancer. According to Stroke Center statistics, stroke claims about 2,300 victims in Minnesota every year, and state hospitals report 10,000 admissions for stroke. The American Heart Association reports that adults over 55 have more than a one-in-six lifetime risk for stroke. "In the United States, there are about 700,000 new cases a year," says Janardhan. "But we've identified only about half the risk factors."

"We start worrying immediately," says Taylor. "Damage can be done very quickly."

Stroke comes in two varieties. About 85 percent are ischemic strokes, which are similar to heart attacks in that a blood clot blocks an artery--but in the brain, not the heart muscle. The remaining 15 percent are called hemorrhagic strokes. One type of hemorrhagic stroke occurs when an artery balloons out-an aneurysm-and ruptures. Another cause of hemorrhagic stroke is uncontrolled high blood pressure. The buildup of blood puts pressure on the brain and can cause widespread damage. Risk factors for stroke include smoking, high blood pressure, diabetes, high cholesterol, and lack of exercise. Among the symptoms are numbness or weakness in the face, arm, or leg, especially on one side; difficulty speaking or moving; dizziness or balance problems; and trouble seeing in one or both eyes. Often, hemorrhagic stroke is preceded by a severe headache. In every case, time is of the essence in treating stroke. "We start worrying immediately," says Taylor. "Damage can be done very quickly." Interventional neurologists can, if a patient's situation warrants, perform treatments to stop a stroke in its tracks. The clotbuster drug called TPA (tissue plasminogen activator) is used to dissolve the clots that form in ischemic strokes. The physicians may also insert a catheter into the blocked vessel in the skull; there, they use a tiny device to secure a clot, which they then pull out of the body. They can also administer drugs right to the site of the clot. Stents, too, can be placed in arteries to keep them open. To treat aneurysms, the weakened, expanded section of artery is plugged with a coiled platinum wire that aids in clotting and, therefore, helps disconnect the aneurysm from the blood vessel. Other blood vessel problems that cause hemorrhagic stroke include abnormal connections between arteries and veins that can be treated with injections of special substances that act like glue and seal the injury. **Cutting the wait, expanding the options** As Bardill's experience shows, the University is already well equipped to deal with strokes. But through the initiative, Qureshi and his colleagues aim to shorten the time between stroke onset and treatment and to improve existing therapies. The effects of all this work will be felt from the very beginning, with a dedicated emergency medical service for stroke patients. "This could reduce the time to treatment by half," says Qureshi. With strong support from neurology department head David C. Anderson, the Zeenat Qureshi Stroke Research Center at the University is opening new vistas for treatment. Taylor, for example, is studying gene function in the cells that line blood vessels to see if they hold clues to future "events" such as the deposition of plaque, which is as dangerous in arteries of the brain as in those of the heart. Also, Qureshi is conducting a multicenter clinical trial funded by the National Institutes of Health to test the safety and benefit of blood pressure medications in the treatment of hemorrhagic stroke. He is also studying new ways to inhibit future clot formation following an ischemic stroke. Working with colleagues at the U's Stem Cell Institute, Center for Magnetic Resonance Research, and the Stroke Center, Janardhan is investigating the use of stem cells from the same patient to repair stroke damage. Often, ischemic stroke patients arrive at a hospital with a core of dead brain cells surrounded by dying cells that can be saved if treated in time. "To salvage the dying cells, we use drugs to dissolve the clot, or tiny devices to pull out the clot," says Janardhan. "The next step would be to inject bone marrow stem cells from the patient through a catheter to replace the dead cells." The work is in the preliminary stages, but the University team is the first to try this approach. "The science of [stroke] is expanding rapidly," says Qureshi. Thanks to the initiative, the University has "the largest interventional neurology training program in the world." As for Bardill, her speech now sounds perfectly normal. But, she says, "I read and understand about two-thirds as fast as before. However, if I were to get no better than today, I'd have a full life."

University of Minnesota researchers call for sustainable bio-economy

MINNEAPOLIS / ST. PAUL (6/14/2007) -- New "green" energy crops have the potential to create sustainable economies and revive rural areas if policies are tailored to maximize that potential, according to researchers from the University of Minnesota.

Their call to action is published in the June 15 edition of the journal Science.

"We're calling for a more sustainable approach to developing biofuels and other new bio-products," said lead author Nick Jordan, a professor in the department of agronomy and plant genetics.

While most research on using grasses and other plants to create energy is focused on producing the highest yield for those crops, the authors suggest a broader approach that also considers concerns about climate change, wildlife habitat and healthy economies in rural areas.

In a multifunctional approach to farming, commodities such as fiber for energy production are produced in a way that also provides ecological benefits such as improving water quality. Biomass production, because it's generally less harmful to soil and water and provides habitat for wildlife, has the potential for significant ecological benefits, said Jordan.

The authors call for a network of research and demonstration projects that would test the economic viability of large-scale multifunctional systems of biomass production. The 2007 Farm Bill, currently under discussion in Congress, provides an opportunity to set up such a network.

"The idea of multi-functionality has just not been on the radar of most agricultural colleges," said Jordan. "Our goal is to raise that issue."

The researchers are part of the Green Lands, Blue Water initiative, www.greenlandsbluewaters.org, which is a consortium of land-grant universities and agricultural, environmental and rural development non-profit organizations. ----------

Good-looking and affordable

New exhibit at Goldstein Museum shows that good design is possible in low-cost housing

By Pauline Oo

June 15, 2007

Specially crafted, house-shaped panels at the Goldstein Museum's current illustrate a host of housing development successes, including low-income dwellings that incorporate energy-efficient technology or Feng Shui elements.

If you think low-cost or affordable housing is ugly and poorly built, and such a development is crawling with unsavory characters, then you're in for a surprise at the current twofer exhibit at the Goldstein Museum of Design.

"Affordable Housing: Designing an American Asset" and "Leading from Policy to Practice: Minnesota Affordable Housing," which runs through July 1, provides a peek at some eye-catching, innovative homes in the United States for low and moderate incomes. You could breeze through the exhibits in a pinch--gazing just at beautiful photos--or you could spend a whole hour or more if you also read all the accompanying information, which includes a timeline (late 19th century to present) of housing-related concerns and policies in the United States.

The U.S. government defines affordable or subsidized housing as housing for which the owner or tenant pays 30 per cent or less of his or her income. Based on this standard, the National Low Income Housing Coalition estimates that nearly 95 million Americans--35 per cent of U.S. households--have a housing affordability problem. And when families cannot secure housing that's in their reach, they face an uphill battle to get out of poverty and even risk becoming homeless. For cities that cannot add new affordable housing where new jobs are created, traffic congestion and air pollution increase.

"Designing an American Asset" is on loan from the National Building Museum in Washington D.C.--the Goldstein is one of the last venues on its national tour--while "Leading from Policy to Practice" is homegrown. Curator Marilyn Bruin, an associate professor of housing studies at the University of Minnesota, says the Minnesota-specific exhibit is an opportunity "to reflect on our accomplishments." For decades now, Minnesota has been the birthplace of innovation in affordable housing.

Did you know?

1908--Sears, Roebuck & Co. publishes its first Book of Modern homes and Building Plans. Mail-order models start at $650, including plans, specifications, and materials.

1937--President Franklin D. Roosevelt notes in his second inaugural address, "I see one-third of a nation ill housed, ill clad, and ill nourished."

1959--The first public housing project designed specially for the elderly, Victoria Plaza, is built in San Antonio, Texas.

1986--Congress enacts the low-income housing tax credit program, now the main mechanism for producing affordable housing.

Source: National Building Museum

"'Leading from Policy to Practice'" also inspires us to continue to address the needs of individuals and families with housing issues, and to design and build housing that provides stable, healthy homes with access to jobs, transportation, and services," says Bruin.

In Minnesota, more than one in three renters and one in six homeowners pay more than 30 percent of their income for housing, leaving little for expenses like food, clothing, health care, transportation, and emergencies. And the lack of affordable housing in Minnesota is a crisis that doesn't seem to be abating. By 2010, an additional 33,000 families statewide (22,000 in the metro area) will struggle to find affordable housing, reports a study funded by the Family Housing Fund, the Greater Minnesota Housing Fund, and the Minnesota Housing Finance Agency.

"I think we recognize that it does take a village to house people," says Becky Yust, professor of housing studies and head of the U's Department of Design, Housing, and Apparel. "This is not a situation of an individual being able to go out and get a job and buy housing. The working class does not earn enough money to pay for housing that doesn't take more than 30 percent of one's income. The cost of housing is rising faster than wages and the inflation rate."

Since 2000 prices of homes have risen four times faster than incomes, and rents have climbed three times faster. According to the exhibit, in-migration from neighboring Midwestern states and regulations to ensure quality housing are among the reasons housing cost exceeds ability to pay.

One way to develop effective affordable housing, says exhibit curator Bruin, is for government and community leaders, private industry, and charitable organizations to work together. One successful Minnesota collaboration--highlighted among the eight hanging on Goldstein's ochre walls--took place in St. Peter, where a tornado that struck the area in 1998 left many without homes.

Partners in the project included the architects, the school superintendent, bankers, business people, the city government, and other agencies such as the Southwest Minnesota Housing Partnership, the Greater Minnesota Housing Fund, and the Minnesota Housing Finance Agency. Together, they created homes that not only used an architectural style similar to that found in the old town of St. Peter, they developed a neighborhood that's now popular with families.

"The two exhibitions complement each other so well," says Lin Nelson-Mayson, Goldstein Museum director. "The National Building Museum's exhibition will provide a historical context and explore how projects from around the country serve their different communities. It's a nice backdrop to zero in on the topic in our own state. We'll see the national overview with an in-depth look at Minnesota."

The Goldstein Museum of Design is located in 241 McNeal Hall on the Twin Cities campus in St. Paul.

Let's talk about affordable housing

The U's College of Design will hold "Minnesota Affordable Housing Symposium: Celebrating, Designing, Innovating for the Future" Tuesday, June 19, and Wednesday, June 20, from 7:30 a.m. to 12:30 p.m. on the Twin Cities campus in St. Paul.

Panelists will review the individuals, organizations, policies, and programs that have brought Minnesota to the forefront of affordable housing, and symposium participants will have the chance--in small group discussions--to brainstorm design solutions to the affordable housing crisis. Those solutions will be shared in the symposium's closing session.

The cost is $150. (The keynote address will be held at 6:30 p.m. June 19 and is free and open to the public.) To register or learn more, visit the College of Design.

Further reading Goldstein turns 30

Long live the peregrine falcons

By Pauline Oo

June 15, 2007

A peregrine falcon chick about to be banded.

The former Multifoods Tower, now the City Center shopping center, is where you'll find the heart of Minneapolis' 69-block, 8-mile-long skyway system. It's also the place where you'll locate a peregrine falcon nest.

Yesterday, June 14, almost three dozen people gathered at the City Center atrium for the chance to come face to face with three peregrine chicks and celebrate 20 years of the species' conservation in Minneapolis. Volunteers from the University of Minnesota's Raptor Center were there to band the chicks, which had been carefully brought down from their perch high above the tower. (This was the last site on the center's 2007 Peregrine Falcon banding calendar; other banding cum nesting sites included the lock and dam south of the Ford Parkway Bridge, the Mayo Clinic in Rochester, and the Bank of the West in Fargo, North Dakota.)

The peregrine falcon, or Falco peregrinus, is a medium-sized hawk about as big as a crow. Adults have a distinctive dark hood and moustache, cream-colored throat, blue barring and yellow soft parts. In the mid 1900s, peregrine populations started to decline the world over, primarily because pesticide contamination affected its nesting. In 1972 the U.S. Fish and Wildlife Service declared the peregrine falcons endangered in North America.

One of the parents of the three peregrine falcon chicks perches on its nesting box.

Restoration programs began taking root. Patrick Redig, cofounder and director of the Raptor Center, and Bud Tordoff, professor emeritus of ecology, evolution, and behavior and former University of Minnesota Bell Museum director, led the efforts in the Midwest. They founded the Midwest Peregrine Falcon Restoration Project in 1982, and, together with the Nature Conservancy and the falconry community, obtained peregrine chicks that had been bred in captivity and released them into appropriate nesting sites on buildings, smokestacks, bridges, and cliffs.

Historically, peregrines, whose name comes from a Latin word for "wanderer," nested along cliffs and river bluffs, but skyscrapers are also attractive. This raptor needs a high enough perch to launch into its 200 mph dive to strike prey. It also needs relative solitude, especially as protection for its young from the predatory great horned owl.

In 1981 there were two known nesting pairs of peregrine falcons on the mid North American continent: southeastern Manitoba and the Lake Superior basin of Ontario. The first peregrine chicks successfully fledged from the City Center site in 1987; peregrine falcons generally reused nest sites every year. Today, there are more than 200 nesting pairs of peregrine falcons in nine Midwestern states and adjoining Canadian provinces. The peregrine falcon was removed from the endangered species list in 1999.

The Raptor Center on the Twin Cities campus in St. Paul has three peregrine falcons among its education birds: Annie, a 12-year-old female that was hit by a car (she has a fractured left wing and is blind in left eye); Chup, a seven-year-old male that fledged early and was found by banders with a broken bone in the wing; and Juneau, an 11-year-old female found shot (she has a fractured right wing).

To learn more about the peregrine falcon, including hearing their vocalizations, visit the Raptor Center on the St. Paul campus.

For a personal account of banding and caring for these raptors, read Jackie Fallon's field notes. Fallon, a zookeeper at the Minnesota Zoo, is a longtime volunteer at the Raptor Center; she coordinates the monitoring of peregrine falcons in Minnesota for more than 40 nesting sites.

Banding a bird

People have been banding (or ringing, as it is called in Europe) birds for centuries. It's an indispensable way to study the movement, survival, and behavior of birds. Researchers can reconstruct the movements of individual birds when banded birds are captured, released alive, and reported from somewhere else. There are 23 standard-sized bands and 5 specially sized bands made to accommodate the smallest hummingbird to the large trumpeter swan.

The first records of banding in North America are those of John James Audubon, the famous American naturalist and painter. In 1803 he tied silver cords to the legs of a brood of phoebes near Philadelphia and was able to identify two of the nestlings when they returned to the neighborhood the following year.

Source: U.S. Geological Survey

School is in for the summer

The White Earth Academy of Math and Science helps forge new futures

By Elizabeth Tollefson

June 19, 2007

Students work on a mask making project at The White Earth Academy of Math and Science.

School's out for the summer, but for students at the Circle of Life School in White Earth, Minnesota, school is still the place to be. For the past nine years, The White Earth Academy of Math and Science has welcomed students seeking advancement in these two crucial areas. This year, from June 4-29, nearly 60 students in grades 5 through 7 are participating, more than double the number from last year.

"This is the first time I have been able to come to summer school," said Shawna Rodenwald, a fifth grader. "I am looking forward to meeting new people and learning all kinds of new things. Every class has something exciting in it, and I am looking forward to every one of them."

Thanks to a partnership with the University of Minnesota, these students will study subjects from orienteering to rocketry and wild rice to archaeology, and along with everything else, they will learn about the Ojibwe culture and their vibrant heritage.

Regional University extension director Deb Zak, who works at the Crookston campus, helps keep people involved in the planning and works with University faculty who are on hand to teach the students. The hands-on approach they provide gives meaning and purpose to the learning.

First day

The classroom grew silent as the first session began and a group of students traced a pattern onto soft leather--a chance to learn an ancestral art. When the small leather pouches were all cut, needles were threaded and the beading began. Rodenwald quietly worked on her pouch and beaded her initials onto the soft tan leather. After an hour, the group moved on to another classroom and another opportunity to learn.

Across the hall, Ron Litzau, a teacher at Pine Point, helped a group of students working on mask making. Molds were made of each of the student's faces, and the molds would later be painted. "The students will paint the masks to reflect how they feel," Litzau said. "The colors and designs will tell a story of about each of the students." It is part of a curriculum on self-esteem called, "Live it."

Downstairs a study of soil erosion was taking place, and Victor Berglund, a ninth grader who has been a part of the White Earth Academy of Math and Science for a number of years, waited patiently for the session to begin.

"I am a mentor now," said Berglund. "I like to go on the trips, and I like the sciences. We learn about animals and plants, but one of my favorite things was learning about GPS [Global Positioning Systems]. If I had to pick the most amazing thing about this school, I would not be able to do it; everything we do has something amazing in it."

Results are obvious

Mitch Vogt, principal at the Circle of Life School, has been involved with the academy since it began. "We originally had a meeting with representatives from the University of Minnesota and the White Earth Indian Reservation. We wanted to help our students improve their scores in math and science," said Vogt.

Does the academy work? Vogt can attest to the higher scores in both subjects. Students participating in the academy have shown a gain of up to two years in math and one and a half years in science--just over the course of the four weeks they attend. "That is a huge jump and one that is much larger than we see over a regular school year," Vogt said.

A 21st Century Community Learning Center grant allows students attending schools in Naytahwaush, Mahnomen, Ponsford, and White Earth communities on the White Earth Reservation to attend the academy.

Grant monies have provided academy students with some unique opportunities. Several years ago, a grant from Toyota allowed them to study different modes of transportation. The students made snowshoes, human-powered three-wheeled vehicles, and even a birch bark canoe constructed just as their ancestors would have with birch bark, venison tallow, pine root, and pitch. That canoe now resides in the White Earth Health Center and the story of how it was made is part of that display.

"Thanks to the University of Minnesota, we are now working to ensure that the entire school year is embedded with math and science," Vogt said. "We have been applying for grant funding to make sure our students can explore and discover the excitement of these subjects, go on to college, and eventually into careers in these fields."

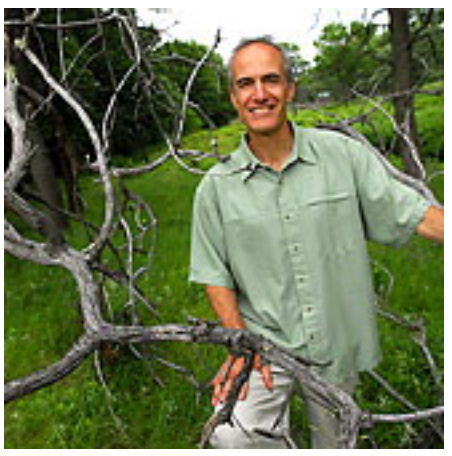
The outlook for the White Earth Academy is bright and there are ambitious goals for the future. Not only would Circle of Life and the University like to see the academy run all summer, they would like to expand it to other areas as well.

The whole world in his hands

From tiny plants to global climate patterns, new Regents Professor Peter Reich wants to understand how the world works

By Deane Morrison

June 19, 2007



New regents professor Peter Reich, seen here at the University's Cedar Creek Natural History Area, is one of the world's foremost researchers in the field of ecology.

As a college physics student, Peter Reich was intrigued by the forces of nature at work far, far away and dreamed of becoming an astrophysicist. But he soon discovered that even close to home, nature is ripe with tantalizing puzzles, and he became a forest ecologist instead. He's been doing stellar work ever since. Today, Reich, a University professor of forest resources, is one of five newly named regents professors, the highest faculty rank. He is known the world over for, among other things, his work on the different roles of plants in the global economy where energy, not money, is the currency and how plants are likely to respond to climate change. It would be hard to find a researcher with a broader range of interests, or one better at finding connections between seemingly unrelated observations. Born in New York City, Reich grew up in Connecticut and moved to leafy Vermont, where he enrolled at Goddard College. He studied creative writing and physics, but there in the woody environs of New England it came home to him that physical forces also shape the Earth and its inhabitants, and little is known about how these forces work.

Switching focus to ecology and plant biology, Reich received a master's degree from the University of Missouri and a doctorate from Cornell University. In 1991 he joined the University of Minnesota, where he holds the F.B. Hubachek, Sr. Chair in Forest Ecology and Tree Physiology and also is a Distinguished McKnight University Professor. At the University's Cedar Creek Natural History Area, Reich studies the ways in which changing levels of nutrients and water will affect the ability of vegetation to ameliorate greenhouse warming by absorbing and storing carbon dioxide from the atmosphere. "Some of his most interesting advances have been from combining data sets around the world and finding patterns no one else had seen," says Jeanine Cavender-Bares, an assistant professor of ecology who works with Reich at Cedar Creek. For instance, Reich discovered that the world's plants fall along a continuum of "lifestyles." He compares them to those quintessential opposites, the tortoise and the hare. The hares follow a "live fast, die young" strategy, Reich found. Weeds are a perfect example; they come in, grow fast, produce and spread seeds in the blink of an eye, and die. Poplars and soybeans are also hares. But slower-growing plants like pine trees have their advantages. "We think tortoises may do better with respect to absorbing excess carbon dioxide produced from human activities," says Reich, "because they'll hold onto it longer." The 2004 paper in which Reich and colleagues described the continuum made waves in the ecology community. It was part of a much bigger effort of Reich's to tackle a major question bedeviling scientists. "It's a global question--will vegetation be able to soak up more, less, or the same amount of carbon dioxide in the future as it does now," he explains. "Now, vegetation and soils take up about one-third of the carbon dioxide humans generate."

> *"I'm trying to write an owner's guide to ecosystems. I want to get people to think of our environment as a complex system, just as we think of our homes." --Peter Reich*

Five new regents professors

Five faculty members were named regents professors on June 8, 2007.

Frank Bates, chemical engineering and materials science, Institute of Technology

Richard Leppert, cultural studies and comparative literature, College of Liberal Arts

Elaine Tyler May, American studies and history, College of Liberal Arts

Matt McGue, psychology, College of Liberal Arts

Peter Reich, forest resources, College of Food, Agricultural and Natural Resource Sciences

Their appointments bring the total number of regents professors to 25, en route to 30 by 2010. Currently, each receives a salary stipend of $20,000 per year and an additional $30,000 research stipend. See the news release on their selection for more information.

Work at Cedar Creek is aimed at that precise question. Already, Reich has found evidence that if supplies of nitrogen--an essential plant nutrient--are sufficient, areas that are rich in different plant species will do best at absorbing and storing carbon dioxide. Species-rich areas will also store more carbon dioxide in response to greater supplies of nitrogen, which will arrive from human-generated engine exhaust gases and wind-borne fertilizer dust. On the other hand, if nitrogen is in short supply, Reich has found that vegetation won't be able to handle higher carbon dioxide levels as well, and it won't matter whether the vegetation is species-rich or not. Given that many of the world's soils are poor in nitrogen, the work implies that atmospheric carbon dioxide accumulation and, thus, global climate change could accelerate as nitrogen-limited plants lose their ability to absorb the gas. But plants also emit carbon dioxide whenever they use energy to grow, reproduce, repair damage, or perform other functions. Reich has found a way to use a plant's nitrogen content to calculate such emissions, filling a critical hole in models that predict the capacity of ecosystems to absorb carbon dioxide. Trying to sum up Peter Reich is like trying to sum up the world, but summing up the world is exactly what he wants to do. "We want to simplify ways of looking at the world," he says. "Nature is complicated and amazing. Nature's a giant puzzle. I want to turn the world in the right direction. It's like trying to turn around the Queen Mary--that is, society--to get people to control global warming and preserve nature, not just because it's nice to look at but because of all the services, such as clean water and air and productive soils, that it provides. "I'm trying to write an owner's guide to ecosystems. I want to get people to think of our environment as a complex system, just as we think of our homes."

Staff by day, artist by night

Nash exhibit features work by Art department staff

By Pauline Oo

June 20, 2007

A close-up of *Winded Suburbia* by Sonja Peterson. The handcut creation is one of many artworks featured in "After Hours," the Nash exhibit by art department staff.

When Sonja Peterson cuts paper, she invariably ends up taking over the first level of her house. The University of Minnesota research technician's almost floor-to-ceiling or wall-to-wall paper cuts are as intricate as they are massive. Peterson is one of seven Department of Art staff featured in "After Hours," the current exhibit at the Katherine E. Nash Gallery in the West Bank Arts Quarter.

"I originally became interested in paper cuts through a lot of travels in Latin America and seeing the papel picado, which is a lot of the paper designs you would see for festivals," says Peterson. "Then I started playing around with that, incorporating it into my own work."

Peterson has four large paper cuts in the Nash exhibit, which runs through July 13. *Soylandia,* a large, upright tree linked to another that's upside down, deals with the soy industry encroaching on the rainforest. "The bottom half of the piece that almost seems a reflection or roots," explains Peterson, "is actually soybean plants entwined within the root system below the canopy of the tree."

Art by "the lost boys"

When visiting the "After Hours" exhibit, do check out the back portion of the art gallery. *The Lost Boys of Sudan,* a bounty of paintings by artists who are or have been residents of the Kakuma Refugee Camp in Kenya (many known as the Lost Boys of Sudan because they were forced to flee their villages minus their parents), offers a startling portrayal of the atrocities of war.

Many of the paintings carry telling titles; these include "Looking for a place to stay," "Crying man," "Show me your culture," and "Fighter from the Dinka clan."

While Peterson's artwork is thought-provoking and entices you in for closer inspection (you'll find little people, animals, and houses almost hidden in her paper cuts), others, like Karen Haselmann's *Fish Trike,* are whimsical and beg for smiles. Haselmann's mixed-media sculpture--a blue Schwinn bike retrofitted with pulleys and hinges--comes complete with bright green fins, a tail, and two turquoise-colored googly eyes. A neat little touch to the media technician's artwork: little green fishes on the floor, marking a pathway to the gallery's front entrance.

Shows by art department staff, many of whom are practicing artists and have fine arts degrees under their belts, are sporadic occurrences at the Nash. This year's exhibit is true to its name because many of these artists do create their masterpieces after hours, either at night or on weekends.

"We always have exhibits by faculty and students, why not the staff," says gallery director Nicholas Shank. "They're also fine artists themselves, as you can tell [when you visit this exhibit]."

Fish Trike by Karen Haselmann.--*Photo by Pauline Oo*

A free public reception will be held on Friday, June 22, from 6 to 8:30 p.m. Visitors will feast on appetizers and ogle one-of-a-kind artwork, as well as meet the artists.

"[After Hours] is a wonderful opportunity for people who see us walking in the halls at work to see the other side of us," says Peterson. "We're really happy to share that and also very honored."

The Katherine E. Nash Gallery is located in the Regis Center for Art on the Twin Cities campus in Minneapolis. Summer hours are Tuesday, Wednesday, Friday, and Saturday from 10 a.m. to 4 p.m. Admission is free.

What to do with fresh berries?

By Carol Ann Burtness

June 21, 2007

As the fresh berry season arrives, it's a great time to make those summertime flavors last with homemade jams and jellies. Here are some tips from University of Minnesota food science specialists:

- Choose ripe fruit that is free of bruises or mold. Whenever possible, use fresh fruit at room temperature to help dissolve the sugar.
- Wash berries thoroughly, but don't allow them to soak--this reduces nutritional value and contributes to a soft product.
- Do not reduce the amount of sugar. To get a good jellied product, it's important to have the right proportion of sugar, fruit, and pectin. Sugar contributes flavor, but it's also a preservative because it helps prevent the growth of microorganisms. Granulated white sugar is usually used because other sweetener flavors can overpower the fruit's natural flavor and sweetness.
- Process jellied products in a boiling water bath to prevent mold growth. This should be done for six minutes in pre-sterilized jars or 11 minutes in un-sterilized jars. The additional five minutes of processing can result in a weak gel, so it's best to use sterilized jars.
- Sterilize empty jars by standing them upright on a rack in a boiling water canner. Fill the jars and canner with clean water to a level one to two inches above the tops of the jars. Bring the water to a boil and boil for 10 minutes. Keep jars in the water until they are ready to be filled. (You can save the hot water for processing filled jars.)
- Most homemade jams and jellies should keep their quality and flavor for up to one year if stored in a cool, dark, and dry place. Jellied products should be safe to eat if the jar seal remains unbroken and the product shows no visible signs of spoilage from molds or yeasts.

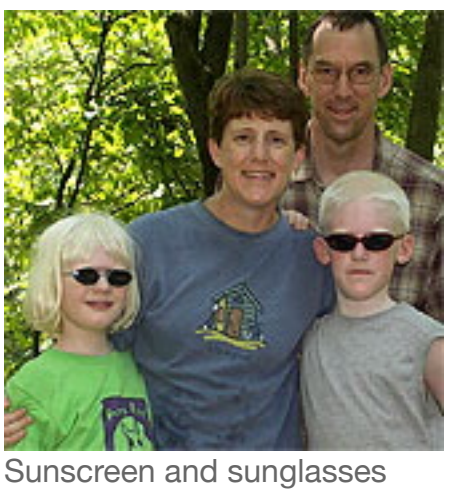
Carol Ann Burtness is a food science educator with University of Minnesota Extension.

Showing their gratitude

Grateful family gives monetary gift to International Albinism Center at the University of Minnesota

By Faith Adams

June 22, 2007



Sunscreen and sunglasses help protect Sarah and Riley Wheaton's skin and eyes when they're outside. Here, the children are pictured with their parents David Wheaton and Michele Moylan.

The morning after their son was born nine years ago, Michele Moylan and David Wheaton learned that little Riley had albinism.

It wasn't apparent to them right away. In fact, they had no idea Riley had albinism until their pediatrician came to the hospital to do a standard baby check the next day and noticed that Riley had white eyelashes and no pigment in his eyes.

Later that day, word of Riley's birth reached Richard King, a University of Minnesota geneticist and international expert in albinism, while he was driving home from work. King turned around and found his way to Riley's hospital room, where he shared helpful, honest, and encouraging information with the new parents.

King and C. Gail Summers, an ophthalmology professor, direct the renowned International Albinism Center at the University. They see patients from as far away as Singapore.

The impact of albinism

When King visited Riley and his parents in the hospital, "he gave us more information about albinism in a half-hour than most parents get in the first 10 years of their child's life," says Wheaton. "He told us Riley was going to have a happy, healthy life. He told us he has patients who are doctors, lawyers, engineers, and accountants. He was very matter-of-fact but clearly empathetic."

Later, Summers confirmed that Riley had no melanin pigment in his eyes. She told Wheaton and Moylan that their son's vision would slowly improve, but it would likely never be completely normal. However, with adaptation, Summers told them, Riley should be able to perform well in educational, social, and vocational settings.

Albinism is an often misunderstood and underdiagnosed condition. Many people think of albinism as being associated with the skin and hair because the absence of pigmentation--the pale skin and white hair--is often the most distinguishing physical characteristic. (see sidebar)

But Summers notes that for most people with albinism, reduced vision is the most challenging aspect of daily life.

Wheaton and Moylan agree but say that working with Summers throughout the years has made all the difference in their children's lives. (Sarah, who was born 18 months after Riley, also has albinism.)

"[Summers'] kind and gentle demeanor--overlaid with her technical competence and no-nonsense approach--has helped us through the difficult exams," Moylan says. "Her patience and willingness to explain things to our kids and to us was especially important in the early years when we were feeling raw and confused."

Sunscreen, hats, and clothing can protect the skin, but currently nothing can be done to correct the area of the retina, called the fovea, that does not develop properly in utero and in infancy--likely because melanin pigment is deficient, Summers says.

Albinism facts

In the United States, about one in 17,000 people has albinism, an inherited condition in which an altered recessive gene prevents the body from producing the usual amounts of a pigment called melanin.

There are many types of albinism. People with albinism have little or no pigment in their eyes, and sometimes in their skin and hair, as well.

Most children with albinism are born to parents who have normal hair and eye color for their racial and ethnic backgrounds. After one child is diagnosed with albinism, each of his or her siblings has a 1-in-4 chance of having the same diagnosis.

Albinism may cause reduced vision, sensitivity to bright light, jittery eye movements, or misalignment of the eyes. Vision can range from normal to legal blindness.

Giving back to research

Several years ago, Wheaton and Moylan received a substantial monetary gift from Wheaton's parents. They generously gave that money to the University's International Albinism Center for research.

"We wanted our gift to have as broad a reach as possible," says Wheaton, "and we wanted to let the researchers and the people on the ground direct the funding, to allow them the flexibility to respond to opportunities that might arise."

Summers is currently using part of the unrestricted gift for a pilot study on driving performance in people with albinism--a significant issue for many with the condition. The University's Department of Mechanical Engineering is providing a driving simulator for the study.

"Having this data in hand will give me so much more to go on when patients and their families ask me about driving," explains Summers, who is well-known for her clinical research on albinism. "Driving is so essential in our society."

U researcher Gail Summers is studying driving performance in people with albinism.

Summers hopes the study will garner enough information to secure funding for a subsequent larger study.

"Without the family's generosity, we wouldn't be able to do this project," she says.

Adapting to everyday life

For Riley, age 9, and Sarah, age 8, having reduced vision means that they sit in the front of the classroom to see the board during math class. They may not always see the ball during gym class or recess, and sometimes they end up getting hit in the face by a ball as a result.

Both children excel in school, love to read, enjoy the theater, and have impressive vocabularies for their ages. They ride bikes and competed on a swim team last summer.

When asked what it's like to have albinism, Riley says: "Well, I've never had it any other way. What's different for us? Large print books, mostly. Just bigger words."

Clean Hub travels to New Orleans

Prototype structure designed to provide relief for refugees and disaster victims

By Rick Moore

June 22, 2007; updated July 5

Students unveil the Clean Hub prototype behind Ralph Rapson Hall this spring.

For weeks it stood mysteriously on the "sand lot" behind Ralph Rapson Hall on the Twin Cities campus--this nondescript shipping container with no apparent purpose. Then on April 30 came the grand unveiling, when the container was transformed into a "clean hub," a structure designed by 16 U architecture students to provide sanitation services for victims of natural disasters.

Almost two months later, the Clean Hub prototype was sent off to its destination--a community park in New Orleans's Lower Ninth Ward, an area ravaged by Hurricane Katrina.

The Clean Hub is a portable, self-sustained structure that provides basic sanitation services. It contains a composting toilet and a 4,400-gallon water storage tank that is replenished by a rooftop tarp that catches rainwater. Electricity from solar panels powers the lights, water filtration system, and composting toilet.

The hub unfolds

View the animation of the Clean Hub prototype taking shape.

Under the direction of John Dwyer and Tom Westbrook, students in the Studio 4 architecture class started with an empty shipping container and, over the course of a semester, turned it into a structure capable of providing relief for people in great need.

"This will be the only functioning [sanitation] infrastructure in the whole neighborhood," said Dwyer.

According to Westbrook, the students were aided by the donation of many materials for the clean hub, including the shipping container itself, all of the steel, the toilet, solar panels, water tank, water filter, and sink. And the Clean Hub almost exclusively uses recycled or everyday materials, meaning the hub could be mass produced with relative ease and constructed on site using nearby materials.

For students, it was a chance to put their talents to work in producing something that may have a lasting legacy; in fact, FEMA is interested in the students' prototype.

Aaron Wilson, who worked on the "tank team," said that after three years of learning through books, it was wonderful to build something that will be used somewhere. "It was an amazing learning experience," he said.

"The students worked far more than they should have for this level of class," added Westbrook. What they were able to produce was "nothing short of a miracle."

Greta Gladney is a New Orleans community leader, and her family has lived in the Lower Ninth Ward for six generations near the site of the Clean Hub's deployment. She made the trip to Minneapolis for the initial unveiling of the structure, and proudly surveyed the process of the students "assembling" the hub, which took just under 50 minutes. "This is another example of the kindness of strangers helping with the rebuilding," Gladney said.

U celebrates sixth cohort of emerging leaders

Five projects on strategic issues presented

By Deborah Stull

Brief, June 27, 2007

Faculty Mentoring was the first PEL project with a significant focus on academic affairs. Team members were *(left to right)* Remi Douah, Todd Reubold, Nikki Letawsky Schultz, Shane Nackerud, and Peter Radcliffe.

The President's Emerging Leaders (PEL) program marked its sixth year June 20, recognizing the achievements of the 2006-07 cohort in a celebratory poster display at the Campus Club on the Twin Cities campus. The 26 participants presented recommendations for five projects carried out over the past year.

For the first time, one of this year's PEL projects was designed for a coordinate campus. Another team worked on the first PEL project with a significant focus on academic affairs.

The group that worked on a project about positioning the University of Minnesota-Rochester (UMR) approached Provost David Carl a year ago with their idea. Carl was enthusiastic because of the leadership development that UMR staff members have received through PEL in the past.

"The PEL group was agile in collecting data from the beginning of the study to the end," says Carl. "This was necessary since the image of UMR underwent a significant evolution during the year. They began collecting data when UMR was largely invisible. By the end of the study, the press was widely reporting on activities at UMR."

The study results indicated that knowledge and support of UMR and the University as a whole are extraordinarily high in Rochester and southeastern Minnesota. The PEL group documented that strong foundation, and UMR can build on it to strengthen its image and guide future marketing decisions.

TOP PHOTO: Positioning Rochester. *Left to right:* Jeremy Todd, Caitrin Mullan, Tricia Conway, and Ann Hagen. Absent: Andrew Hill. **BOTTOM PHOTO: Staff Engagement in the University Community.** *Left to right:* Janet Kendra, Mary Ellen Shaw, Michael Allen, and Laura Negrini. Absent: Asim Dorovic and Laureen Ross McCalib.

"The product is wonderful," says Carl, "and the process the PEL team members went through will empower them in their future roles at the University."

PEL is a University-wide program that helps to develop the leadership potential of academic professional and administrative (P&A), civil service, and bargaining unit staff. It includes educational and experiential components and promotes skill development to enhance leadership effectiveness.

"The experiential component of the program based in group project work really sets PEL up to be one of the stronger leadership development programs for high-potential staff," says Dave Dorman, interim coordinator for the program. "This year's cohort continued to meet our objectives to produce recommendations that will further the University's strategic positioning efforts."

2006-07 projects

Bios of the 2006-07 team members and project summaries are now posted on the PEL Web site. Final reports will be posted soon.

Directing Change Management at the University of Minnesota. Sponsor: Patricia Franklin, Office of the President. Team members: Kristin Berns, Darlene Charboneau, Carol Foth, Jay Hesley, and Peggy Korsmo-Kennon.

Faculty Mentoring. Sponsors: Arlene Carney and Karen Zentner-Bacig, Office of the Senior Vice President and Provost for Academic Affairs. Team members: Remi Douah, Nikki Letawsky Schultz, Shane Nackerud, Peter Radcliffe, and Todd Reubold.

TOP PHOTO: Directing Change Management at the University of Minnesota. *Left to right:* Darlene Charboneau, Kristin Berns, Jay Hesley, and Carol Foth. Absent: Peggy Korsmo-Kennon. **BOTTOM PHOTO: Internationalizing: Bringing the World to the U.** *Left to right:* Kristina Sticha, Nanette Hanks, Mary Moga, Lara Friedman-Shedlov, and David Imdieke.

Internationalizing: Bringing the World to the U. Sponsor: Kay Thomas, International Student and Scholar Services. Team members: Lara Friedman-Shedlov, Nanette Hanks, David Imdieke, Mary Moga, Kristina R. K. Sticha.

Positioning Rochester: Elements of Identity That Will Influence and Impact the Positioning of the University of Minnesota. Sponsor: David Carl, UMR Provost. Team members: Tricia Conway, Ann Hagen, Andrew Hill, Caitrin Mullan, and Jeremy Todd.

Staff Engagement in the University Community. Sponsors: Victor Bloomfield, Office of the Senior Vice President for System Academic Administration, and Carol Carrier, Office of Human Resources. Team members: Michael Allen, Asim Dorovic, Janet Kendra, Laureen Ross McCalib, Laura Negrini, and Mary Ellen Shaw.

Looking ahead

The primary goals of the President's Emerging Leaders program are to

- identify, prepare, and support new leadership within the University of Minnesota
- create a larger pool of candidates to fill open positions and leadership assignments
- create an organizational expectation whereby all administrators assume responsibility for identifying and nurturing potential leaders

Sample competencies that PEL intends to nurture in participants are abilities to do the following things.

- present ideas forcefully and persuasively
- influence the service culture of one's own organization to promote the University agenda for providing great service
- tap the talents and expertise of staff from a range of University units and operations to deliver higher quality outcomes than result from working within "silos"
- foster a healthy workplace environment that seeks and values diversity
- leverage technologies in creative ways to meet business needs
- contribute to successful completion of complex projects involving multiple constituent groups and multiple outcomes

The seventh cohort, for 2007-08, has been named, and projects will be announced by early September.

The application process for the 2008-09 PEL cohort will begin in January. For more information, see the PEL Web site or contact Dave Dorman at 612-626-0561 or dorma001@umn.edu.

Deborah Stull is a communication project manager in the Office of Human Resources.

The Coca-Cola kids

U journalism students take top advertising honors

June 24, 2007

Students from the School of Journalism and Mass Communication at the University of Minnesota placed first in the annual National Student Advertising Competition (NSAC), sponsored by the American Advertising Federation (AAF). The team won with an integrated marketing campaign created for the Coca-Cola Co.

A team from the School of Journalism won big at the National Student Advertising Competition with their campaign for Coca-Cola. From left to right: Brandon Miller, Michael Tsang, Matthew Nyquist, Brenna Whisney, and Meghan Norris.

The SJMC team defeated 170 regional winners in what is known in the industry as the "World Series" of advertising. It's the fifth time in the past six years they have advanced to the national competition, taking third place last year. No other school holds such an outstanding record. The recent win, however, is all the sweeter because it's the first time in history an SMJC team has brought home top honors.

"We practiced, practiced, and practiced--more than 100 hours," says team co-president Matt Nyquist, who graduated this past spring and now works for Olson & Co. in Minneapolis. "Within five minutes of giving our winning presentation, each presenter was asked by at least three companies if they wanted to come work for them. NSAC is regarded throughout the industry as the closest thing to actually working in an agency. In fact, many employers are beginning to consider it a necessary activity just to get in the door."

"Within five minutes of giving our winning presentation, each presenter was asked by at least three companies if they wanted to come work for them," says team co-president Matt Nyquist.

Coca-Cola invited AAF's college chapter members to develop an integrated marketing campaign for Coca-Cola Classic. The students' objective was to create a plan inclusive of advertising, media, retail activation, packaging, public relations, and promotions. For several months, the students--working in teams--conducted primary research to study the target market, including its media habits and its competition. Each team then pitched its campaign to a panel of judges.

In their "Together" campaign, the University team positioned Coca-Cola as "an uplifting part of youth's favorite shared experiences," focusing on the Millennial Group, also known as Generation Y. Their campaign featured an essential characteristic of the Coca-Cola brand: the role it plays in social connections.

Rick Zuroweste, group-marketing director of Coca-Cola, commended the team for having the "most thorough analysis" out of all competing teams.

Finishing behind the U were, in order, the University of Michigan, the University of Southern California, and Syracuse University.

"In talking about our students' campaign and commenting on their commercials, a senior executive from Coca Cola told students, 'We could run your commercials tomorrow,'" says Howard Liszt, senior fellow in the SJMC, a retired CEO of the Campbell Mithun advertising agency in Minneapolis, and the team's adviser. "That quote is my personal favorite and was the highest praise he could have paid to the students' work."

Putting a face on dementia

A weekly University group puts Alzheimer's sufferers in a teaching role

By Brigitt Martin

June 26, 2007

Participants during the weekly sessions at the U's Family Caregiving Center learn about the intricacies of long-term dementia care.

When we hear the word "epidemic," media warnings about killer bugs such as avian influenza or SARS tend to come to mind.

Not so for Wayne Caron, an assistant professor in the U's Department of Family Social Science at the College of Education and Human Development. Caron warns of an upcoming epidemic of chronic illness brought on by increasing longevity. As a licensed marriage and family therapist, Caron's research and interests focus on the way that families cope with chronic illness, particularly demential illnesses such as Alzheimer's disease. The Alzheimer's Foundation of America estimates that one in 10 persons over age 65 and nearly half of those 85 or older have Alzheimer's disease.

"We are entering a time when virtually all families will be care-giving families," Caron warns.

Every Saturday morning for the past six years, Caron, his team of volunteer students, and a part-time employee have welcomed to a Twin Cities campus classroom in St. Paul members of the community who have dementia and their family caregivers--on average, upwards of 25 participants each week. The mission of the University of Minnesota Family Caregiving Center (UMFCC), as this weekly gathering and related programs are known, is to prepare for a future epidemic of chronic illness by increasing knowledge of family care.

The center provides a collaborative learning community in which persons with dementia, their caregivers, students, and professionals can teach and learn from each other. The interactions and support that have emerged from the community have led to new insights and ideas into the nature of dementia and its care, Caron reports. The weekly sessions also offer an opportunity to develop and test innovative services not offered elsewhere.

"Medicare excludes people with dementia from receiving counseling or psycho[logical] care," notes Caron. "I chose this field because of this gap and to help prepare for the crisis in health care that's coming."

Teaching the teachers

Since 1999, the Saturday sessions have begun with a lecture by Caron or a volunteer from the professional community. Although Caron jokes that this portion of the program is "self-indulgent," Carmen Graumann, a licensed associate marriage and family therapist and the center's only paid employee, describes its value: "A place that is also about learning lifts the human spirit."

Carole Nimlos, a Saturday morning regular whose husband suffers from Alzheimer's, agrees. "I've learned a lot about the disease from Dr. Caron and how it affects us and our relationships," she says. "When my husband was able to attend, he always said he enjoyed the lectures--even if he couldn't remember them. I think they made him feel like he still could learn and had something to offer as a person."

Following the lecture, the group divides into subgroups of family caregivers and of those who suffer from dementia. During this time, individuals share stories about their personal experiences, feelings, and concerns that range from coping with multiple illnesses to estate planning.

"The [U's famiy caregiving] program offers hope that an Alzheimer's diagnosis doesn't mean that life is over," says Carole Nimlos.

"It sure feels good to find people who understand what your journey feels like and share similar experiences," says Nimlos.

Beyond such support for caregivers, the interactive experience allows those with dementia to feel normal and to not worry about mistakes they may make because of the disease, Caron explains. It also allows the participants to be important to others and to help those who may be more impaired. "I think you're looking at a context where who you are is more important than the problems you have," he adds.

Because of Caron's conviction that "care-giving can be learned but not taught," he developed an education model in which students are trained by the people they are supposed to help. After all, who knows more about what it's like to suffer from dementia than someone who is experiencing the disease? Students benefit from face-to-face interaction with caregivers and dementia sufferers and help facilitate the subgroups.

Undergrad Kathleen Beddow says that attending the Saturday meetings puts a face on dementia and on aging.

Reaching more Minnesotans

Beyond its Saturday sessions, UMFCC provides facilitated family consultations to those who have been diagnosed with dementia and any family members affected by the diagnosis. Online and in-person programs help families through seven different phases of the disease.

The center has few financial grants, and owes its existence to annual University support, private donations, and the volunteers who give their time. In its *2006 Annual Report,* Caron says that the center's "present level of activity is not sustainable at current funding levels, and our plans for growth require establishing new sources."

Learing more

To learn more about the Family Caregiving Center at the University of Minnesota or read more about current research on dementia, see the College of Education and Human Development.

Nevertheless, he concedes that the UMFCC's "growth is not measured in numbers of dollars, but in increased understanding and capacity to reach out to those who need help and guidance." One way the center is extending its reach is through virtual support groups that reach far beyond campus boundaries.

"In five years," he says, "we hope to be more present in the community and the state, to reach more families. We now touch about 50 families, but more than 100,000 people in Minnesota have dementia."

Nimlos agrees that, to the thousands of Minnesota families caring for a loved one with Alzheimer's or another demential disease, collaborative learning environments like the center's provide life-saving support services.

"The program offers hope that an Alzheimer's diagnosis doesn't mean that life is over," says Nimlos. "It showed me that there are still many avenues of satisfaction while taking this journey.

Gardens of Eastcliff

Friends get gardening tips at the historic home of the U president

By Gayla Marty

June 29, 2007

Yellow lilies welcome visitors near the gate at Eastcliff, a 1920s Colonial Revival home on the National Register of Historic Places.

Cascading pink roses, lilies in bright yellow and orange, fat white hydrangeas, beds of shiny red raspberries...the gardens are glorious at Eastcliff, the home of University of Minnesota presidents--currently Robert Bruininks and his wife, Susan Hagstrum.

Last Sunday, ladies' hats stole the show from the flowers and fruit. Wide-brimmed straw hats in colors from red to black-and-white, vintage hats with veils, dressy silk hats, and simply tasteful hats dotted the lawn under the blazing sun. Several men sported hats, too: regent and Friends of Eastcliff chair Dallas Bohnsack's Panama hat, with a maroon ribbon and maroon-and-gold feather, was clearly the sharpest.

The occasion was the annual Friends of Eastcliff garden party. The group's dues serve to support, preserve, and maintain Eastcliff, roughly two acres donated to the University in 1958, now on the National Register of Historic Places. Today, Eastcliff is not only the home of the president, but a venue for meetings and events used by thousands of visitors each year--commencement receptions, business and arts community meetings, faculty and staff events, youth visits, and historic home tours...Bruininks and Hagstrum have welcomed them all.

"These events are important because they give more people the opportunity to see and fall in love with this exceptional gathering place, as we have," Hagstrum says. "The garden party has become a favorite."

Nearly 200 Friends of Eastcliff roamed the grounds above the east bank of the Mississippi River, exploring the public treasure they support. To the easy sounds of the Hip-Pocket Jazz Quartet on the terrace, they enjoyed refreshments, explored the oval sculpture garden in the southeast corner, found the grave markers of beloved family dogs near the raspberry patch on the south lawn, rounded the house to gaze across the front lawn toward the river and Minneapolis skyline, and sought shady spots to sit and talk with new and long-time members.

'A most unusual year'

Minnesota celebrity horticulturist Deb Brown was the featured speaker of the day. Brown, who retired from the U two years ago, still actively advises gardeners of all kinds. Under a white and yellow striped tent, she talked about the unusual 2007 growing season. Early, compressed bloom times followed a mild winter and early warm-up. Some plants, such as bulbs, were damaged by a freeze after the warm-up, but other species bolted ahead.

Friends of Eastcliff Carol and Walt Wedin enjoyed gardening tips from featured speaker and longtime U horticulturist Deb Brown.

"This is a lesson in mulching, mulching, mulching, that I've tried to teach for many years," Brown said. "Mulching not only protects tender plants from cold but from early heat--it keeps them from coming up too early."

After the cold snap came a hot June. Lack of moisture in many areas is now making parts of Minnesota look more like August, Brown said. Among her watering tips: It's not true that plants will be harmed by watering in full sun, though that's not the most efficient time to water. She recommended watering long enough to soak the soil four to five inches deep. How long depends on the type of soil.

Eastcliff grounds keeper Jim Bernier was in the crowd, listening closely to the watering tips. Bernier, dressed for the day in immaculate black and white to serve refreshments to guests, spends most of his growing-season days caring for Eastcliff's dozens of species of flowers, trees, shrubs, and grass, along with several other staff members.

Stewards of a Minnesota treasure

A little more than 10 years ago, Eastcliff had no gardens--only a ten-foot wall of lilacs along the road. Former regent Peggy Craig, former Crookston campus chancellor and regent Stanley Sahlstrom, and Minnesota Landscape Arboretum professor and director Peter Olin are among those who had founded the Friends of Eastcliff in the 1980s to give the community a way to get involved and support the historic home. The Eastcliff Technical Advisory Committee (ETAC) also formed to give professional expertise on issues from tuck-pointing and historic preservation to handicap accessibility.

"I first got involved when the house was much further along than the grounds," says ETAC member Bob Gunderson, a landscape architect and adjunct assistant professor in the College of Design. Events could be held inside the house but, he said, "you couldn't have people outside, tripping on uneven surfaces."

Today, the grounds have become a network of paths and plantings that include U of M cultivars, such as cold-hardy Rosa 66 in the cutting garden and Kentucky Coffee Stately Manor trees, commonly found along the Mississippi River Valley. Space was configured to accommodate a tent for special occasions. The terrace's brick herringbone pattern was chosen to honor Eastcliff's original architect, Clarence Johnston, who also designed most of the buildings on Northrop Mall.

Landscape architect Damon Farber, who developed the master plan for the Eastcliff grounds, was among those in the gardens on Sunday. What's he most proud of?

"That the space is being used and it's so flexible," he says, "and it's handicap accessible."

At least one wheelchair navigated Sunday's party. Friends of Eastcliff founding member Peggy Craig--adorned in one of the day's truly lovely hats--surveyed the sea of guests with a twinkle in her eye.

"I guess we really started something, didn't we?" she said with a smile.

Beauties at Eastcliff
Volunteer guides can point out to visitors these and other garden highlights.

Flowers
Rosa 66*, limelight hydrangea, paniculata hydrangea, astilbe, cleome, day lilies, ditura, heucher (coral bells), hypoestes, nicotiana, water hyacinth

Trees and shrubs
Australian pine, barberry (pigmy burgundy), blue beech, copper birch, Japanese yew, juniper, Kentucky Coffee Stately Manor*, arborvitae, azalea, boxwood (emerald green and Korean), bridal wreath, pachysandra, rhododendron

Grasses and other plants
Castor beans, hosta (several varieties), Mexican heather, North American hops, purple fountain grass, water lettuce

**Minnesota Landscape Arboretum cultivar*

Anyone can join the Friends of Eastcliff to help support, preserve, and maintain the historic home. Individual membership is $100. Learn more at Friends of Eastcliff: Continuing the legacy.

This story was revised July 5, 2007.

Growing greener

The U's sustainability initiative seeks to protect and conserve Minnesota's environment and way of life

By Deane Morrison

June 29, 2007

Anne Kapuscinski, a professor of fisheries, wildlife, and conservation, is one of the principal researchers in the University's Sustainability Initiative.

The image is etched indelibly into the minds of Minnesotans: then-Gov. Wendell Anderson on the cover of Time, holding a freshly caught northern pike. "The Good Life in Minnesota," trumpeted the magazine. But for how long? If its lake home gets polluted, the northern could disappear; so, too, could the majestic moose, as development gobbles up its forest habitat. To prevent these and similar scenarios, the University is helping Minnesotans envision and create a future where their state's abundant natural resources are protected and life can continue to be good. The effort is a major thrust of the U's Sustainability Initiative, which also includes research on topics like energy use, housing, transportation, and food and fiber production. The initiative aims to educate students, teachers, and journalists, and, eventually, the whole public, with the ultimate goal of pointing the state toward a brighter future. "We're at a turning point in history," says Kris Johnson, program coordinator for the initiative. "We want to know what the right thing to do is."

Fast-forward to 2050

To design the future, one must first imagine it. Launched in summer 2004, the initiative has already convened six workshops, in collaboration with the University's Regional Sustainable Development Partnerships, to help Minnesotans envision how life might be in the year 2050--and not just how they'd like it to be. "One scenario might be that all the northern forests are totally fragmented by second homes," says Peter Reich, Regents Professor of forest resources and a leader of the initiative. "Another would be that such second home development is constrained and clustered. If we recognize as a state that there are consequences to unfettered second home and retirement home development in our most natural forest lands--such as lots of money for fire protection, roads, sewers, and phones--we could in theory decide how to manage it, for example, by incentives [not to develop land] and zoning.

> *"Minnesota is finally developed enough that every Minnesotan can see the effects of human domination of the environment, such as more people on trails," says Kapuscinski.*

"The question is, 'What are the possible futures, and how do we change our habits as individuals and communities so we don't end up with [undesirable consequences]?'" With that in mind, the state's Legislative and Citizen Commission on Minnesota Resources (LCCMR) has tapped the expertise of people in the initiative and the U's new Institute on the Environment (IonE) for help in conserving and preserving natural resources. A research team of 47 U faculty plus people from the private sector will supply research information to help LCCMR and the state as a whole take better care of the environment. "In the management of the environment there are separate [agencies] for water, air, soil, agriculture, and so on," says Anne Kapuscinski, an initiative leader and professor of fisheries, wildlife, and conservation biology. The idea, she says, is to take an integrated approach to problems. For example: "When people practice agriculture or have a home on a lake shore, they may fertilize the lawn or pull up cattails." As chemical nutrients, unimpeded by hungry cattails, run off into the water, walleye and northerns may give way to bass and panfish, then carp and bullheads. And as climate change raises lake temperatures, this effect could work in synchrony with pollution. But different sectors of government deal with water pollution, fisheries, and agriculture. "The impact cuts across sectors. We need an analysis to show how nutrient pollution will affect fish and interact with climate change," Kapuscinski says. Much of that job falls to Laura Schmidt, a postdoctoral associate. Using data on scientific, economic, and other factors, she is analyzing how they could all interact to produce different patterns of land use, pollution, impact on plants and animals, an so forth. Trends analysis is part of her work. "It's most useful for teasing out linkages, such as those among nitrogen fertilizer, fish, development, and temperature increases, and seeing the implications of different actions," she says. But, cautions Johnson, it can give "a false sense of confidence that you know where you're going." Therefore, the analysis is geared toward identifying multiple possible futures so that, as Kapuscinski says, "we have a chance of getting it right."

Milestones at Morris

The University of Minnesota, Morris has led the University in projects to improve environmental stewardship. Besides receiving a major portion of its energy from a wind turbine at the U's nearby West Central Research and Outreach Center (WCROC), UMM in early June received permission from the Board of Regents to construct a biomass plant. Morris Chancellor Jacqueline Johnson was among the more than 250 college and university presidents who pledged in mid-June to reduce and eventually eliminate their campuses' contributions to greenhouse warming. Look for future news on UMM's environmental leadership in these pages.

Planting the seeds

Of course, not much will happen unless people's attitudes change and the next generation learns to think in terms of the environmental and social consequences their actions will have. But the problem isn't just individuals. "People's behavior happens in a system," says Schmidt. "We're trying to change the system." There are, however, signs that the message is starting to get through. "Minnesota is finally developed enough that every Minnesotan can see the effects of human domination of the environment, such as more people on trails," says Kapuscinski. "And I think climate change has gotten the attention of people." The initiative is also spreading the word through workshops for journalists and teachers. Anna Pratt, a freelance journalist who writes for the Twin Cities Daily Planet, attended a recent one on water issues. "There were conflicts--for example, about eating fish," she says. "The business manager for a company that supplies fish to restaurants extolled the virtues of fish, but other speakers cautioned us not to eat too much fish from local waters and to eat small fish." That workshop also covered issues of who gets to use Great Lakes water, and for what. "Some people say that a lot of small withdrawals of water [by water bottling companies] can do some real damage and increase the disparities between people who have access to the Great Lakes and those who don't, or between people who can afford bottled water and those who can't," Pratt says. Workshops for teachers, led by Karen Oberhauser and Robert Blair--both faculty members in fisheries, wildlife, and conservation biology--and Barbara Coffin of the Bell Museum, help teachers incorporate concepts of sustainability into their curricula and teach ecological principles and scientific inquiry. In 2006 the University unveiled a new minor in sustainability studies, open to students from every major. Through its courses, students learn not only ecological sciences, but also the social and economic factors that affect human and environmental degradation. And a key course gives students real-life experience on campus. "Say the landscape management people want to decrease the use of fertilizer and runoff. Students could work with them, and also in the areas of energy use, building design, or transportation," says Kapuscinski. Also, the U's College of Design offers a master's degree in sustainable design. "It's a research degree," says architecture professor Stephen Weeks. "Students will get into areas such as how to change people's patterns of consumption or how to decrease energy use by natural lighting and ventilation." As she contemplates today's U students, Kapuscinski sees hope. "Seniors now are much more on the ball than 10 years ago," she observes. "We want the next generation of leaders, politicians, white-collar workers, and so on, to have been exposed to these ideas. We want them to be as much a part of the curriculum as algebra."

A greener UMTC

Some sustainable practices on the Twin Cities campus:

>University Dining Services (UDS) has committed to serving locally grown and produced food. The Bistro in the Humphrey Institute features such food all the time. Also, UDS supplies used deep-fat fryer oil from its residential restaurants to a vendor; it is then recycled into biodiesel fuel. In 2006 Centennial Hall supplied 12,000 gallons.

>The Molecular and Cellular Biology Building is on track to reduce its energy bill by $250,000, or more than 15 percent.

>Oat hulls now supply three percent of the steam heating for the Twin Cities campus.

>Storm water on the St. Paul campus is diverted to a large field, where it is filtered through soil before entering a wetland and, eventually, the Mississippi River.

>Sidewalks are treated with a compound that prevents snow from sticking. This allows snow to be scraped off, not melted by chemical treatments.

Spare-time activity curbs workplace idleness

Daily activities outside work may make up for sedentary hours in the office

by Kris Stouffer

Daily activities outside of work may make up for sedentary hours in the office, new School of Public Health research finds.

Researchers report that Minneapolis-St. Paul residents are expending significantly more energy through leisure activities than they were five years ago. As much as 70 percent of energy expended was on "personal lifestyle activities" that ranged from gardening and housework to biking and running.

That's good news, considering the same study found that the percentage of Twin Cities residents who sit for the majority of their work day increased from 57 percent to 71 percent since 1980.

"Physical activity has decreased over the past 20 years in the work place, which makes it difficult for people to meet daily exercise recommendations," says SPH assistant professor Lyn Steffen, lead researcher of the study. "But people can help fill the gap by participating in activities that are part of a daily routine, like walking their dog, playing with their kids, doing yard work, and cleaning."

In the study's most recent survey, only 20 percent of women and 30 percent of men were meeting the one hour of daily physical activity recommended by the Institute of Medicine. While the total hours spent exercising increased from 1980 to 2000 people still are not exercising enough, says Steffen.

Even simple things, like taking the stairs, parking your car away from the building and walking briskly are sources of physical activity, Steffen says. "Reengineering our culture and environment to include more opportunities for physical activity would go a long way to making our daily routines healthier."

Tapping a new pool of doctors

Students interested in rural medicine or from underrepresented groups taste the medical life

By Deane Morrison

July 3, 2007

College students in the Minnesota's Future Doctors program get a close up and personal look at the science and art of dentistry during a visit to the University's Dental School.

As an immigrant to the United States from Liberia in 2001, Georgette McCauley has seen more than her share of turmoil. But there's one thing in particular she would like to change in her home country: young women's lack of health information. "I'd like to go back to Liberia someday and educate young women on how to prevent sexual disease and how to take better care of their bodies," says McCauley, who has just completed her freshman year at St. Mary's University of Minnesota. She is one of 23 Minnesota college students in a new joint program of the University's Medical School and Mayo Medical School to help increase the numbers of minority, immigrant and rural doctors in the state. Called Minnesota's Future Doctors, the program is the brainchild of two U medical students, Gareth Forde and Matt Fitzpatrick. It brings in high-ability students during the summer and the academic year to learn about topics like the science behind medicine and how to take the Medical College Admission Test.
This summer's inaugural group has already toured the Mayo Clinic and UMD's Medical School, worked on a volunteer project, and shadowed doctors to see how medicine is practiced on a daily basis. "[Forde and Fitzpatrick] wanted to create future classmates who were more reflective of Minnesota," says program director Jo Peterson. "This project aims at narrowing the disparity and increasing the percentage of persons of color. "The reason that's important is that persons who work with doctors within their same cultural values [and] community of color feel they have better health care, and they continue to work with that doctor." Students are chosen in their freshman year and work with program staff through the rest of their undergraduate careers. They can spend either three summers or three academic years in the program, honing their skills and familiarizing themselves with the needs of underserved populations. Thuy Nguyen-Tran knows such needs first-hand. The daughter of parents who immigrated from Vietnam, she learned Vietnamese from them. "I know there might not be enough translators for Vietnamese people," she says. "There should be more health professionals who can help spread information [to nonnative English speakers].

"I've never been around so many different cultures at once," enthuses McCauley. "It's exciting to hear about the other cultures and to share mine."

A student at UMTC, Nguyen-Tran volunteers at a crisis nursery, where she cooks breakfast for children of parents going through some kind of difficulty. Most of the kids are six or younger, a group Nguyen-Tran enjoys because she hopes to become a pediatrician. While Asians are slightly overrepresented among Minnesota physicians (see sidebar), Hmong and Vietnamese are underrepresented. Besides Nguyen-Tran, this summer's Future Doctors group includes three Hmong students. For Jonna Maas, a UMM student from Walnut Grove (pop. ca. 500), one of the best things about the program was hearing from medical students. They clued the younger students in on what to expect when interviewing at medical schools to which they've applied. "They told us interview questions to look out for," Maas says. "For example, an interviewer may ask, 'What do you think about [some particular issue] in medicine,' so it's good to be prepared about all kinds of things in the news." Among the hands-on activities for the students was a stint working with a lifelike dental patient simulator (not "dummy," thank you). Guided by advanced dental students, the younger students tried their hand at applying dental sealants and, of course, drilling. Michael Madden, interim dean of admissions at the University's Dental School, exhorted them to be careful with sealants. As most of the sealant material hardens, the top layer remains liquid. And boy, does it taste awful. Message: Get rid of it before the patient's tongues touches it. Otherwise, said Madden, "the patient may gag. Or even leave a deposit of material in your chair for you to clean up, and you want to avoid that." Dental student Katie Cargill says that she has worked before with groups of potential dentists who use the simulators. "You can really tell who has natural ability with their hands," she observes. Besides the introduction to medicine, the students appreciate meeting and getting to know each other. "I've never been around so many different cultures at once," enthuses McCauley. "It's exciting to hear about the other cultures and to share mine." Another thing that impressed her was a family practitioner she shadowed at a local clinic. "I noticed he kept everything on a very professional level," she says. "He didn't get too personal. He listened very carefully to patients' needs and gave advice." For his part, co-founder Fitzpatrick praises Peterson for her "fantastic" job running the program and finds the inaugural group impressive. "They're pretty inspirational at this stage," he says. "It's nice to think what they're capable of doing." Read all about the Minnesota's Future Doctors program here.

By the numbers

Percentages of physicians in Minnesota don't reflect the strengths of minority communities.

American Indian: 2% of population, 0.7% of physicians

Asian: 4% of population, 7% of physicians (although Hmong and Vietnamese are underrepresented)

Black/African American: 5% of population, 1% of physicians

Latino: 4 percent of population, 2 percent of physicians

White: 85% of population, 86% of physicians

Source: AAMC report 2006 and Minnesota Department of Health 2007

The rat thing to do

The Bell Museum presents Rat Fest to celebrate a lovable but misunderstood mammal

By Deane Morrison

July 9, 2007

Rats make great pets and even great friends, as attendees at the Bell Museum's July 14 Rat Fest will find out.

Sometimes, when they're all in the bathtub together, Stacey De La Luna's three young children like a little extra company. But their mother has a better idea than tossing them a rubber ducky. "I'll just throw in a rat," says De La Luna, a Twin Cities-area rat breeder who keeps several as pets, including one that free-ranges in the house and loves bathing with kids. (No, she doesn't actually *throw* the rat in the tub.) De La Luna is just one rat expert who will be on hand at the Rat Fest, an all-day expo Saturday, July 14, at the University's Bell Museum of Natural History. It's part of the museum's "Animals Behaving Badly" series of summer events for all ages that playfully explores the quirks and calamities attendant on wildlife and humans sharing each other's back yards. Rat Fest will run from 10 a.m. to 5 p.m. at the Museum, 10 Church St. S.E., Minneapolis. If you meet enough rats at Rat Fest, you'll get a sense of them as individuals. "Each has a unique personality. It's amazing how different two rats can be," says Scout Sheffield, a former rat breeder who will attend the event. "One may be very kind to others and bring them food. Or, they may attack each other." But before going any further on the topic of rats as pets, let's get to the big question: Can you house train them? "Yes," says Sheffield. "Any rodent will typically use the same area [as a latrine] as long as it's kept clean. I would put different bedding in that area." Rats may have small brains compared to cats and dogs, but don't count them out in the smarts category, says Sharon Jansa, a University assistant professor of ecology, evolution and behavior and curator of mammals at the Bell Museum. "When I was a graduate student at the University of Michigan, we had pet hamsters and rats in the lab and would let them out of their cages during lunch," she says. "Hamsters were just the dumbest things on the planet. They would fall off the table. But rats never fell. They scampered over bookshelves and computers. "Rats are curious and problem-solving. They would try to get the lids off food containers." Laboratory rats and mice are not native to the Americas, says Jansa. They come from the Old World, most likely Southeast Asia.

"We used to put kittens with the rats," [De La Luna] explains. "The rats would beat them up, and they'd learn not to mess with them. Now, we have a 5-year-old cat that the rats chase."

The world's largest rat is the giant arboreal leaf-eating rat of the Philippines, which measures about two feet from snout to tip of tail. In western and central Africa, another large rat, the Gambian rat, is a delicacy. Its sensitive nose also makes it valuable in sweeping for land mines. But don't worry; the rat is too light to trigger a mine. The rat's phenomenal sense of smell impresses Sheffield. "I'd get chronic sinus infections, and they'd know it before I did," she says of her pets. "They'd sniff one of my nostrils. Two or three days later, I'd get an infection in that side." Unlike owners of cats with hairballs, owners of litter-trained rats never have to worry about "deposits" on their carpets. Rats are unable to vomit; in fact, they can't even burp. (Maybe that's one reason they evolved such a good sense of smell; they have to check out their food carefully, because every bite is a commitment.) Speaking of cats, De La Luna found an ingenious way to keep feline friends from attacking their natural prey when her back was turned. "We used to put kittens with the rats," she explains. "The rats would beat them up, and they'd learn not to mess with them. Now, we have a 5-year-old cat that the rats chase." Rats love to wrestle with each other, and will even go to the mat with a ferret, she adds. But Sheffield cautions against mixing rats with mice, guinea pigs or other "pocket pets"; rats will kill those species. They love to cuddle with their owners, though--especially older rats. Throughout history, rats have been hated for various reasons, says Jansa. "I think it's because they're a pest," she says. "They're not shy. They eat grain and meat and other human food. "Also, things that scurry seem to trigger a fear reaction in many people. Snakes, spiders, small rodents, and so on. But a rat is unlikely to hurt a person if healthy, well fed and not threatened." Rat Fest goers will get a chance to talk with Jansa about her research on wild rodent populations. Also, adoption representatives from the Animal Humane Society will answer questions about rats as pets, and experts from the museum's Wildlife Information Line will field questions about living with wildlife. Check the museum's Web site for more on "Animals Behaving Badly" or the museum's Thursday night outdoor film series, which begins Aug. 16.

Rodent or not?

Sharon Jansa offers a few tidbits about some well-known rodents and rodent-like critters:

All rodents, including squirrels, have a prominent pair of ever-growing incisors and a big gap between them and the cheek teeth.

Gophers are rodents; they eat vegetation.

Moles are insectivores, not rodents; they eat insects.

The muskrat is a type of vole.

Woodchucks, also called groundhogs, are squirrels.

Gerbils are closely related to rats and mice.

HBO actor returns to UMD

After 20 years away, Joel McKinnon Miller received his theatre degree this spring

By Cheryl Reitan

July 3, 2007

More than a decade ago, Joel McKinnon Miller got a flattop haircut, and its been one of his trademarks ever since.

Joel McKinnon Miller, recent University of Minnesota, Duluth alumnus and central cast member on HBO's new hit show "Big Love," is revisiting campus after a gap of more than 20 years. He left UMD lacking two classes for his degree. His circuitous route back to UMD took him around the country with a touring company performing Shakespeare, and then propelled him into television and film. In May 2007, Miller received his bachelor of fine arts degree in theatre.

A start at UMD

Miller's acting career began at UMD. During the summer theatre productions of 1980 he had the lead in *South Pacific,* he played Teddy in *Arsenic and Old Lace,* had a part in *A Funny Thing Happened on the Way to the Forum,* and acted in the premiere of an avant-garde play by a Finnish playwright.

"All that stuff in the summer made me a versatile actor," says Miller. "It was great experience."

He returned to UMD theatre in 1981 taking on the lead in *Roar of the Greasepaint--the Smell of the Crowd* and playing Sir Lionel in *Camelot.* "My fondest memory of UMD was during that summer because that's when I met my wife," he says. Miller's wife, Tammy McKinnon, a native Duluthian, had come up to UMD from the Twin Cities campus to work in the costume shop.

Traveling theatre

Two classes shy of his degree, Miller took on short stints at the Minnesota Opera and Children's Theatre Minneapolis. When Miller heard that The American National Theatre and Academy was interviewing for actors in Vermillion, South Dakota, he made his way to the auditions and landed a part.

The academy was the "minor league" team for John Houseman's The Acting Company, a classical theatre company out of New York, which launched the likes of Kevin Kline and Patty LuPone.

With a year's tour under his belt, Miller auditioned for The Acting Company. "It was in the actor's equity union and that meant a decent salary," he says. His wife landed a spot on the wig-and-wardrobe team. In May 1983, they married, and in July, the Millers launched three years of traveling together by bus.

Get me off the bus

At the end of their third season on the road, The Acting Company performed Off Broadway in New York City and Miller hired a theatre agent. He left the tour bus behind and worked Off Broadway and in regional theatres for a couple of years.

By 1991, Miller made his television debut as a guest star on "Murphy Brown." Since then, he has stayed in Los Angeles, acting for film and TV. His film credits include *The Truman Show, Friday After Next, The Family Man, and After the Sunset.* His guest star roles for television include "Deadwood," "Curb Your Enthusiasm," "Six Feet Under," "Boston Legal," "Las Vegas," "Everybody Loves Raymond," and "Cold Case."

Back to school

Miller has an incredible career, and he did it all without a degree. But something was missing in his life.

"A couple of years ago, my daughter, Caitlin, started thinking about college," he says. He realized that if he finished his degree it would send a strong message about the value of education to his kids. Miller contacted UMD about finishing up his degree, and learned that he needed to finish a science class and a language class.

Miller enrolled in classes in California. On the night he took his first geology test, Caitlin and his son Owen were waiting at the door to hear his grade. "Luckily, I got an 'A'," chuckles Miller. "That's when I realized my kids were watching every move I made."

His second class was in Spanish and on that first test he scored a "C." His son's response was: "What happened, man?" Miller cranked it up and got an "A" in the class.

"I did it for my kids, that's the bottom line," he says. "You can make it in life without a diploma, but a college degree gives you options. [So that's why] I came back and graduated in my cap and gown."

Life as a character actor

In 1996 Miller played the part of a sergeant and got a flattop haircut. His agent gave him one of the best pieces of advice he ever received, to keep the haircut and get a new publicity picture. Miller has been working steady ever since. The flattop haircut resonated with casting directors. They could envision him playing a wide variety of parts.

"I'm a character actor," Miller says. "The character guy is the supporting actor. I like it because it gives me anonymity. I get fun parts, the best lines, and sometimes I do comedy. Every part is completely out of the ordinary."

Things are changing slightly for Miller, with the HBO show "Big Love," which is about Utah Mormans and polygamy. "I've got a regular contract now. I am not a guest, and my name is in the front titles," says Miller, who plays the part of Don Embry, best friends with the show's protagonist, Bill Hendrickson, played by Bill Paxton. "My part is fairly busy, although I'm still considered a supporting actor," says Miller.

Mulch through hot, dry spells

By Nancy Rose

From *eNews,* July 5, 2007

Mulching can help your plants weather a dry spell.

Mulching is one of the best things you can do to help your plants through a dry summer. On hot days, bare soil heats up rapidly and soil moisture evaporates more quickly. But as little as an inch or two of mulch spread over bare soil can significantly lower soil temperature and reduce water loss.

There are many types of mulch for the home landscape available in two categories: organic and inorganic. Organic mulches include materials such as wood chips, bark nuggets, pine needles, shredded leaves, straw, grass clippings, and compost. Organic mulch breaks down over time, gradually adding nutrients and improving soil structure. Inorganic mulches, which include pea gravel, crushed rock, and landscape fabrics, will help hold soil moisture but are often more difficult to apply or remove and do not add to the soil.

What to choose? Think about your landscape situation. Coarse mulches that decompose slowly are ideal for landscaped areas that are rarely disturbed with digging. Mulches that break down more quickly are best for planting areas like vegetable and annual gardens where the soil is worked up annually.

Here are some specific recommendations:

Trees and shrubs (individual or group plantings): Apply 2 to 4 inches of coarse, long-lasting mulches like wood chips or bark nuggets.

Perennial flowerbeds: Apply 2 to 3 inches of finer mulch such as shredded leaves, pine needles or cocoa bean hulls. Coarser mulch can be used around perennials that are rarely dug and divided.

Annual flowerbeds: Apply 1 to 2 inches of attractive, fine-textured mulch such as cocoa bean hulls or finished compost.

Vegetable gardens: Apply 2 to 6 inches of fast-decomposing mulch such as straw, hay, grass clippings, partially decomposed compost, or shredded leaves.

Bagged or baled mulches are available at nurseries, garden centers, and home improvement stores. Also check with your municipality--many offer mulch and compost products to local residents.

For more information on mulching trees, shrubs, flowerbeds, and vegetable gardens, see "Mulching the Home Landscape" or "Mulch Vegetables FAQ."

Nancy Rose is a horticulture educator with University of Minnesota Extension.

Consciousness and consciences

Graduate students Thomas Johnson and Emanuelle Wessels are using critical media studies to fight media illiteracy

THOMAS JOHNSON AND EMANUELLE WESSELS know that critical media studies can sometimes be a tough sell. As graduate students in the department and emerging scholars in the field, they are working to convince skeptics that slasher flicks or WWF wrestling matches aren't just opportunities to escape reality, but powerful influencers that shape how we think about everything from women's rights to criminal intent.

That task, they say, is a difficult one. "People are resistant to the idea that politicized messages are encoded in media," Wessels says. "They don't want to approach media texts critically."

Johnson agrees. His research has focused on the ways gender is represented in televised sports, but he's reluctant to share his thoughts with fellow football fans-particularly when they are huddled around a television set watching Monday Night Football.

The two aren't giving up, though. As they move from the department's master's degree program into their doctoral work, both are continuing to study how viewers interpret the media they encounter and how those media, in turn, influence their behavior in other contexts.

Johnson has long been fascinated by the way sports broadcasts frame gender, often presenting women as sexual objects and male players as warriors. "I'll be watching a football game and notice the way they pan across the cheerleaders, usually from a low angle. Or the way they frame the game like a battle when, in reality, it's just a football game," he says. His observations led him to think about how viewers might internalize gender messages in the context of the media framing and surrounding belief systems.

After surveying undergraduates at the University, Johnson was able to show significant correlations between National Basketball Association game viewership and conformity to masculine norms. His data showed that those who regularly watch NBA and NFL broadcasts were more likely to place a premium on winning, think that women should be subservient to men, or want more than one sexual partner.

It's not that Johnson, himself an avid sports fan and former three-season athlete, wants young people to stop watching sports. But he does want them to be able to separate the socially positive messages, like teamwork and discipline, from harmful cultural baggage such as gender stereotyping.

Education for media literacy is the answer, not censorship, says Johnson: "We need to teach students how to become critical, active consumers of the media rather than listless, passive consumers."

Examining Subtexts

That's where the University comes in, says Emanuelle Wessels. Under the guidance of department chair Ed Schiappa, Wessels decided to study whether the University's own courses were cultivating media literacy in students.

To find out how well the University measured up, Wessels screened films like *Land of the Dead* and *Resident Evil* for undergraduates who had taken advanced coursework in critical media studies and for those that had not. The films, she says, represent strong women as those who were most able to emulate their violent, militarized male counterparts-not those who work to create larger-scale social change.

In post-screening focus groups, Wessels says, she was able to see just how crucial the undergraduate courses in the department are in promoting media literacy. Just as Wessels suspected, those who had done advanced coursework were better at "reading" the films' take on gender.

"Folks who had taken courses on feminism, film studies, gender studies, and other critical media classes were more receptive to reading the films critically. They were less likely to tell me that these movies were only made for entertainment's sake and that it's ridiculous to read so much into them," she says.

Wessel's project "helped to document that media courses do, in fact, make students more critical viewers who are able to analyze the subtextual messages of fictional films," says Schiappa, noting that critical media studies can play a crucial role in promoting an engaged and reflective citizenry.

That role is especially important, Wessels says, in an age when the line between news and entertainment is becoming increasingly blurred. With a ratings-conscious news media increasingly relying on the strategies used in more popular forms of entertainment, critical media studies gives students more than just the ability to recognize politics in Monday Night Football or *Resident Evil*. It allows them to see the politics at play in their news sources.

By emphasizing to students the utility of what they're learning in critical media studies courses, Wessels says, she's upending some of the resistance she typically encounters when she encourages students to look at popular texts with a critical eye.

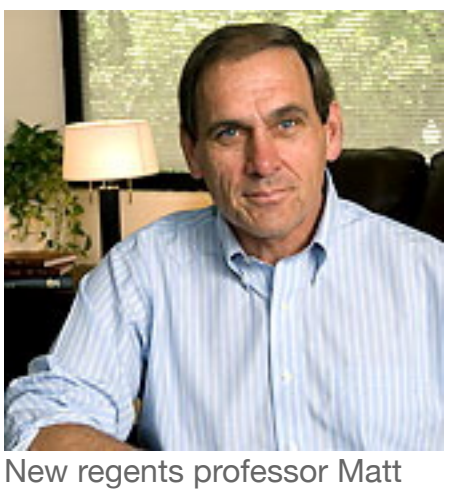
"We try to get students to realize that learning how to read popular texts critically isn't a drag; it doesn't ruin the fun," she says. "We tell them, 'These courses can open your eyes to levels of reality that you never knew existed.'"

Getting at the root of human behavior

New regents professor Matthew McGue is interested in why and how we differ

By Pauline Oo

July 10, 2007



New regents professor Matt McGue is one of the world's foremost researchers in the fields of behavioral and epidemiological genetics.

Matthew McGue wanted to become a high school math teacher, but in college he took a psychology class and soon became enamored with the topic of individual differences. Today, McGue, one of five newly named regents professors--the University of Minnesota's highest faculty rank--is among the world's leading behavioral geneticists. He is known for, among other things, his longitudinal studies on twins and adopted children that focus on adolescent substance abuse and aging.

"How people change and why they change is just a fascinating question, especially the transition from adolescence to early adulthood," says McGue, who joined the Department of Psychology faculty in 1985. "You're getting individuals as they leave their homes and they're setting their own life course, and [you get to see] how they navigate that and what's the impact of their previous life on the choices that they make."

The California-born McGue received a doctorate from the U in 1981. He cofounded and codirects the Minnesota Twin Family Study and the Sibling Interaction and Behavior Study, both longitudinal studies following twins, non-twin siblings, and adoptees from preadolescence into adulthood. Combined, the projects include some 2,500 families--or 10,000 participants--who visit the U's psychology labs every three years for comprehensive daylong assessments.

McGue has shown that the origins of many cases of adult substance abuse can be traced to childhood. Specifically, children who experiment with tobacco, alcohol, or other substances or who are sexually active at an early age are at extremely high risk for developing serious antisocial, drug, and alcohol problems and nicotine addiction by the time they reach their early 20s.

"It's not just genetics that underlie alcoholism," says McGue. "It's a set of experiences that may be very difficult to ever fully understand. We're never going to be able to talk to a 40-year-old alcoholic and understand how he really came to be alcoholic. He'll have forgotten key experiences along the way. His drinking would perhaps bias his recall of events ... you really have to see people as they change over time to try to understand why they change."

Another element of his work reveals that siblings are likely to be more important than parents in affecting adolescent substance behavior and delinquency.

"Let's say you have a 12-year-old girl, a 15-year-old, and a parent," says McGue. "Psychology would tell you that the 12-year-old is trying to be like her middle-aged mother, but really, who she's trying to model is her 15-year-old sister. Parents are important when you talk about achievement. But they are less important than we thought when you're talking about rule breaking. Siblings may be a more potent force within a family."

The other end of the life spectrum

McGue has played a pivotal role in launching several landmark longitudinal studies on late-life development with his Danish colleagues. Twice a year, the father of two adopted children hops on a plane for Denmark, where he spends anywhere from two weeks to a month. In a twin study there, the researchers are trying to determine if a person's experiences and environment in middle age influence how they function at age 70, 80, and 90.

"Aging is not a sexy topic for people," he says. "It's too bad. More people really should go into [this area of study] because there is a real shift in the population structure, and understanding the implications of that shift, and in some cases, trying to intervene--keeping people productive for longer periods of time and happy--I think are very important questions."

Speaking of aging, the 55-year-old McGue, who served as psychology department chair from 1999 to 2001, quips that he might not be around to see the end of the Danish study on middle-aged twins.

Ah, a down side of longitudinal studies. Or, maybe not, depending on whom you ask.

"Science is cumulative, and the contribution of any one person, at best, is going to be small compared to the overall progression of knowledge in the sciences," says McGue. "But your hope is that you make a contribution that other people will pick up and build on. Fifty years from now, nobody will talk about any of us here, but they might be working in the areas that we helped contribute to."

Five new regents professors

Five faculty members were named regents professors on June 8, 2007.

Frank Bates, chemical engineering and materials science, Institute of Technology

Richard Leppert, cultural studies and comparative literature, College of Liberal Arts

Elaine Tyler May, American studies and history, College of Liberal Arts

Matt McGue, psychology, College of Liberal Arts

Peter Reich, forest resources, College of Food, Agricultural and Natural Resource Sciences

Their appointments bring the total number of regents professors to 25, en route to 30 by 2010. Currently, each receives a salary stipend of $20,000 per year and an additional $30,000 research stipend. See the news release on their selection for more information.

Of teaching and students

In the classroom, McGue's contributions are equally commendable. His course in behavioral genetics is among the highest rated in the psychology department, and his statistical analysis of twin, family, and longitudinal data is considered the primary vehicle for graduate students to learn these methods.

"His classes were extremely well organized and thorough in content. He always challenged us to consider research issues from new perspectives and asked us very penetrating questions," says former student Yoon-Mi Hur, who founded a nationwide twin registry in his South Korean homeland. "By his own example, Professor McGue taught me the value of helping others and the importance of commitment."

If McGue had become the high school math teacher he'd dreamed about becoming, instead of a behavioral geneticist at one of the world's foremost hubs of twin research, would he have raked up as many accolades as he has? Probably. According to McGue, we have both our genes and family environment to thank for our ability and achievement.

When asked to name the best part about his job, McGue replies:

"It's the energy of the students every fall and those families [of new students who visit the campus in August] that is actually the most enjoyable part of what I do. People outside universities don't know what a benefit those things are."

Brighter biking ahead near U

TC campus area to become even more bike friendly

By Rick Moore

July 10, 2007

In recent years the Twin Cities campus has become more and more bike friendly, adding numerous paths and doubling the amount of bike parking.

As we settle into an era of $3-plus gas prices, commuting to work or school by bicycle is becoming a more lucrative path to choose. And for those in the vicinity of the U's Twin Cities campus, the number of trails and designated bike lanes is going to increase dramatically, filling in some gaps and making the two-wheel commuting option that much more pleasant.

The campus hasn't always been this bike friendly. A little more than a decade ago, there were no painted bike lanes and precious few racks for bike parking, according to Steve Sanders of Parking and Transportation Services, who assumed the new position of campus bicycle coordinator in 1996. "There are old *Minnesota Daily* pictures of bikes hanging on trees," he notes.

But the climate for biking around campus has improved significantly, in keeping with the broader Twin Cities area. (Minneapolis was recently ranked second among 50 American cities in the number of people who commute to work by bike--about 4,700 or 2.4 percent--trailing only Portland.)

Today, there are bike lanes painted on many of the major arteries on or near campus, including University Avenue, 4th Street, 15th Avenue, and Harvard Street. The old No. 9 railroad bridge has been converted to a quiet trail connecting the East Bank to an area just downstream from the new Guthrie Theater. In the fall and spring, students traversing the Mississippi River between classes pack the bike lanes on the upper level of the Washington Avenue bridge. And, perhaps best of all, bike parking has gone from being scarce to bountiful, with racks near virtually every building on campus.

"I think we stack up very well with other campuses," says Sanders, with "the way we've integrated [biking] into the overall transportation system."

"We're really getting tied into the city and a lot of its paths and trails," says Sanders. "Some of the critical gaps in the system are being funded through this [NTP] program."

He adds that when new buildings are being built, there are discussions about how to accommodate bicycle parking. "We work hard at trying to advise people on what they're going to need [for their building]," Sanders says.

Other improvements are just around the bend. Next year a path will be built that connects the No. 9 bridge to the Transitway--the road dedicated to buses and bikes running from the East Bank to the Twin Cities campus in St. Paul.

U students and staff will also be the beneficiaries of a number of projects recently funded by Transit for Livable Communities' Non-motorized Transportation Pilot (NTP) Program. Minneapolis and its surrounding communities are one of four pilot sites that will be receiving federal funding of more than $21 million over four years.

The projects will create bike lanes at the following locations:

- The Franklin Avenue Bridge, which will also be converted from four lanes of automobile traffic to three
- 27th Avenue S.E. from Franklin Avenue to University Avenue
- Riverside Avenue from Franklin Avenue to Cedar Avenue
- 19th Avenue and 10th Avenue S.E. from Riverside Avenue to Como Avenue (the road will be converted from four lanes of traffic to three north of University Avenue)
- In St. Paul, on Como Avenue west from Raymond Avenue to the city limits

"We're really getting tied into the city and a lot of its paths and trails," Sanders says. "Some of the critical gaps in the system are being funded through this [NTP] program."

Down the road, there may be other links to the Twin Cities' burgeoning Grand Rounds bike trail, the popular loop that circumnavigates numerous lakes and parkways in Minneapolis and St. Paul.

In the meantime, every new path or trail helps to make for "a much more robust, seamless system" that's more attractive for potential bicyclists, Sanders says. "People can see themselves [traveling by bike]. It kind of gets people's imagination going. That's going to be a really good thing."

Discovering bike safety accessories

About 100 yards from the Transportation and Safety Building is a sidewalk "cling" that's part of the U's Driven to Discover campaign. The question on the search bar is "Where can I buy a bike helmet or headlight?" The answer? "Get bike gear at Boynton Health Services. In an effort to increase bike safety on campus, the 'Lighten Up and Use Your Head!' program was created. Students can purchase a bike helmet and headlight together for the low cost of $20 at the pharmacy in Boynton. Just bring your U Card for a great deal."

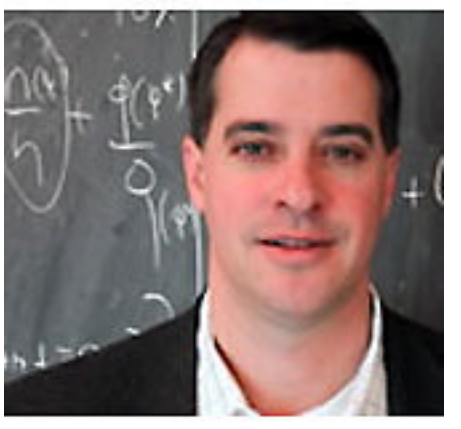
Related reading: A drive for more biking and walking options The road to biking bliss

Neither standard nor poor

Ten original and outstanding faculty join the economics department

By Deane Morrison

July 13, 2007



Christopher Phelan, an economist at the Federal Reserve Bank of Minneapolis, is one of 10 newly hired faculty in the University's economics department.

A few years ago, Stanford University economics professors Narayana Kocherlakota and Patrick Bajari taught a doctoral student named Minjung Park and rated her among the very top students they had seen. Today, Park is about to join them on the faculty of the University of Minnesota economics department, where Kocherlakota and Bajari have already spent a year. Park, whose credentials won her a spot even though she had yet to receive her doctorate, is among 10 new hires just announced for the department. The newcomers will boost the faculty to 27 full-time positions, says Kocherlakota, who chairs the department. The hires fall in the areas of macroeconomics, industrial organization, and economic theory. "We were already typically ranked as one of the top five departments worldwide in macroeconomics," says Kocherlakota. "We have added two high-quality full professors in this field, which will only enhance this reputation." A third macroeconomist, Fatih Guvenen, will arrive in January. The other nine new faculty will start this fall. The competition was stiff, from institutions like UCLA and the University of Pennsylvania. Guvenen, now of the University of Texas at Austin, even turned down a tenured appointment offer from Washington University to come to Minnesota as an untenured assistant professor. Perhaps the biggest fish landed in this catch is macroeconomist Jose-Victor Rios-Rull of the University of Pennsylvania, who will hold the Carlson Chair in the department and whom Kocherlakota calls "one of the world's greatest computational economists." Macroeconomics deals with nationwide issues such as inflation, unemployment, the gross national product, and federal tax policies. Traditionally, says Kocherlakota, models used to predict outcomes of changes in such entities made simplifying assumptions--namely, that affected persons were of uniform wealth, education, and so on, and belonged to only one sex.

> *"Economics is about the study of human behavior in the face of scarcity. Almost any social problem has this angle. I find it fascinating because it provides systematic and analytic tools to approach these problems."--Narayana Kocherlakota*

But Rios-Rull, whose doctorate is from the University of Minnesota, is introducing heterogeneity into such models and looking at how that changes conclusions about, for example, the effects of policies like Social Security. The influx of economics faculty will also strengthen longstanding research collaborations between the department and the Federal Reserve Bank of Minneapolis. The fruits of such ties include findings that may influence policy-making across the nation, according to Art Rolnick, senior vice president and director of research at the bank. "Examples of the effects of theory on the practice of policy include increased central bank independence and adoption of inflation targeting and other rules to guide monetary policy," say University economics professors V.V. Chari and Patrick Kehoe. Kehoe is also a staff economist, and Chari a consultant, in the bank's research department.

The next generation

Besides the sheer quality of the hirees, the economics department faculty is happy to have a healthy contingent of younger people. No matter what the field or how distinguished it may be, a department consisting of mostly senior faculty will face a traumatic turnover if it fails to hire fresh talent before retirements start piling up. That's why the 10 new faculty include five assistant and three associate professors, "none more than 10 years out of graduate school," according to Kocherlakota. The new breed of economists brings fresh ideas and tackles questions that may seem unanswerable. For instance, incoming associate professor Amil Petrin asked how much it's worth to people to have minivans available. Another way of framing the question is to ask how much people are willing to give up, say through taxation, to move to a location where nothing is different except that minivans are now available. It's really a question about how beneficial a new product is or isn't, and Petrin found a way to approach it. "It was extraordinary work," says Kocherlakota. "He had to collect new data sets, perform new statistics and find a new way of analyzing data. He found the benefits [to having minivans] substantial." It turned out that having the minivan available lowered some of what's called market, or monopoly, power of people selling existing cars, Kocherlakota explains, and lowering monopoly power is always a good thing. Equally impressive was the work of Park, who presented her work on the phenomenon of mergers to the economics faculty. It involved the use of "matching models," which economists use to think about issues like marriages. Mergers of companies are, of course, similar to marriages in many ways. "She's applying these models to think about motives for mergers and acquisitions," explains Kocherlakota. "The statistics of dealing with them is challenging. She had a clever way of dealing with these problems." Today, much of the "battle" in economics research is to keep models simple and free from too many variables, yet accurate," says Kocherlakota. "Economics is about the study of human behavior in the face of scarcity," he adds. "Almost any social problem has this angle. I find it fascinating because it provides systematic and analytic tools to approach these problems." As he looks over the new crop of economists heading for Heller Hall, his satisfaction is tempered by the conviction that the department must grow further still. "A department of 40 would not be unreasonable for a university this size," he says.

Here they come

The 10 new economics faculty hires, their specialties and faculty ranks:

Jose-Victor Rios-Rull, macroeconomics, Carlson Chair and professor

Christopher Phelan, macroeconomics, professor

Kim-Sau Chung, economic theory, associate professor with tenure

Ichiro Obara, economic theory, associate professor with tenure

Amil Petrin, industrial organization, associate professor with tenure

Fatih Guvenen, macroeconomics, assistant professor

Kyoo-il Kim, econometrics and industrial organization, assistant professor

Minjung Park, industrial organizational and financial economics, assistant professor

David Rahman, economic theory, assistant professor

Itai Sher, economic theory, assistant professor

The St. Paul campus shows off its research on July 19

The St. Paul campus shows off its research on July 19

Adapted by Kristi Goldade from a news release

July 13, 2007

U students Burke Bourne (left) and Jeremy Schacon do work related to research on combatting soybean aphids. It's an example of the many types of practical research happening on the Twin Cities campus in St. Paul.

If you live in Twin Cities, you've likely driven by the University's St. Paul campus, noting its proximity to those giant heifer statues proclaiming the Minnesota State Fair year round. But the St. Paul campus is more than Minneapolis's shy little State-Fair-lovin' sister. The campus is home to prominent researchers making groundbreaking discoveries about, among other things, our food and fuel. On Thursday, July 19, the campus will host an Agricultural Open House for its friends and neighbors to discover the research happening right in their backyards.

Where and when?

Agricultural Open House

>>Thursday, July 19th
>>4:00 - 7:30 p.m.
>>North end of the St. Paul campus
>>Free event parking will be available at the corner of Gortner and Larpenteur in St. Paul, near the Minnesota State Fairgrounds.

For more information, visit the open house Web site.

"The St. Paul campus is a unique treasure," says Bev Durgan, dean of University of Minnesota Extension and director of the Minnesota Agricultural Experiment Station. "No other large metropolitan area in the United States has a world-class research university where scientists can walk across the street from high-tech laboratories and conduct field-based applied research on renewable energy, food production, and the environment."

The open house will feature a variety of exhibits and events to educate the entire family. University master gardeners will be on hand to offer expert advice on weeds, diseases, and other lawn and garden problems. There will be tours of campus weather stations, greenhouses, soybean and potato research fields, and organic crop plots. Antique and modern farm equipment will be on display, as well as exhibits on beneficial insects, gardening, and renewable fuels.

Learn from U experts:

- **If bioenergy is so great, why isn't everybody doing it?**
  Steve Taff, applied economics professor, will talk about the economic potential of renewable fuels from corn, soybeans, switchgrass, and manure.

- **Spark up your life with plants**
  Horticulture professor Neil Anderson will share his expertise on using flowers and plants to add color and zest to your life.

- **Making sure your food is safe**
  Food science and nutrition professor Ted Labuza will share his five rules for a dependable food safety system.

- **Bugs: The good, the bad, and the ugly**
  Entomology professor Dave Ragsdale will talk about beneficial insects that do battle with the bad and ugly invasive insects.

Several U scientists are slated to speak about their work to show the public how relevant scientific research is to everyday life.

The College of Food, Agricultural and Natural Resource Sciences (CFANS) will team with University of Minnesota Extension and the Minnesota Agricultural Experiment Station to sponsor the event. Allen Levine, dean of CFANS, says he looks forward to his first Agricultural Open House because of the opportunity it provides to meet the folks who live around the campus and to talk with them about research.

"Part of our role as a land-grant university is to share our research findings with the public and to help solve community problems," says Levine. "That's why we use the phrase 'solution-driven science'--our college's mission is to put science to use in solving practical problems, particularly in the areas of future food and agriculture systems, the bioeconomy and bioresources, and the environment and global climate. The open house is a way to show our neighborhood how we're putting the land we've been entrusted with to good use."

Chips and soda are free, so bring your friends, your family, and yourself to learn what's happening in St. Paul.

Go to the U's Parking and Transportation Web site for directions and a map to the St. Paul campus.

From bridges to bones

A civil engineer by training, Roberto Ballarini studies how human bones work--and fail

By Cass Erickson and Deane Morrison

July 17, 2007

Roberto Ballarini holds a tiny MEMS device. He uses such devices to study how components of bone perform at every scale.

After 9-year-old Roberto Ballarini moved with his family from Italy to Brooklyn, he became fascinated by the Empire State Building, the World Trade Center, and, especially, the Verrazano-Narrows Bridge between Staten Island and Brooklyn. Little wonder he became a civil engineer. But instead of working with steel, he has chosen an even more complex structure: bone. Ballarini came to the University last year after 20 years at Case Western Reserve. This June, he was appointed head of the Department of Civil Engineering. In one research project, he is applying his knowledge of structural engineering and solid mechanics to understanding the mechanics of bone. The goal is to better predict the risk of fracture and to design synthetic materials to temporarily replace injured bones. He took the first step down this path by studying another of nature's engineering marvels. "The conch shell is what got me started in this business," he explains. While at Case Western Reserve, Ballarini and materials scientist Arthur Heurer found that conch shells are like buildings with a wealth of architecture. These beautiful shells, despite being 99 percent mineral (aragonite) and brittle, are made of the toughest ceramic material known. When comparing the structures of conch shells and bones, Ballarini found that nature uses design to prevent catastrophic failure in seashells, whereas bone is very sensitive to cracks and uses healing to stave off disaster. "You have cracks in your [bones] continuously, but they're usually very small and can be reabsorbed into the body," he says. "The conch shell can tolerate the presence of large cracks, but in order for bone to survive, it constantly heals itself and gets rid of all the little micro-cracks. If these cracks get too large, then you have catastrophic failure." The conch shell research prompted Ballarini to develop microelectromechanical systems (MEMS) devices to measure the mechanical properties of extremely minute structures. He and Case Western Reserve colleague Steve Eppell have targeted the protein known as collagen, which holds together skin, bones, cartilage, tendons, and other connective tissues.

"We're trying to understand how cracks behave in the [bone] structure, how they stop, how they propagate the failure, and what techniques we could develop to reduce the risk of fracture," says Ballarini.

On the microscopic scale, collagen exists in strands called fibrils. Ballarini and Eppell have measured stiffness, strength, and fatigue in a single collagen fibril. The two researchers are also studying bone at every other level, from the millimeter scale--where bone can be seen to contain numerous tiny, bony tubes enclosing blood vessels--to complete bones. "We're trying to understand how cracks behave in the structure, how they stop, how they propagate the failure, and what techniques we could develop to reduce the risk of fracture," says Ballarini. By understanding how the mechanical properties of collagen relate to the overall properties of bones, he and Eppell hope to develop better ways to assess a person's risk of bone fracture, as occurs in osteoporosis. Applying the tools of mechanical theories and mathematical techniques to bone, Ballarini hopes to create procedures for measuring risk of fracture. Someday, drugs that lower the risk may be developed. "If it's determined that stiffness is indeed a good indicator of fracture risk, then diagnostic tools or drug treatments that ensure acceptable levels of stiffness should be developed," he says. "If other characteristics prove to be more relevant--such as the level of mineralization, which is highly probable--then the focus should be shifted to developing diagnoses and drug treatments for that." Ultimately, Ballarini and Eppell would like to make synthetic bone that could replace damaged or broken bones while the real ones heal and regrow. The synthetic bone would then be reabsorbed by the body. To be compatible with the human body, it must be just right--neither too rigid nor too soft. With colleagues in the departments of biosystems engineering civil engineering, Ballarini is exploring the processing of synthetic mother of pearl on the smallest possible scale. He looks forward to working with more faculty from the University's cornucopia of engineers and scientists. As he puts it, "I feel like a kid in a candy store here." *A version of this story appeared in* Civil Engineer, *the civil engineering department magazine.*

Salamanders of Appalachia

By Jennifer Amie

July 17, 2007

A *Pseudotriton ruber,* one of 15 salamander species found in the Appalachian mountains. The word "salamander" means fire lizard when translated from its Greek origin.

In the southern Appalachian mountains, more than 60 species of Plethodontid salamanders make their homes in swift-running streams, under cool rocks, and along the damp forest floor. (Appalachia stretches from southern New York to northern Alabama, Mississippi, and Georgia.)

For the past 10 to 15 million years, salamanders have inhabited this mountain environment, which is well suited to lungless amphibians that require cool, moist conditions to "breathe" through their skin.

As many as 15 salamander species can be found living side by side in these mountains, each inhabiting a specific ecological niche. The Appalachian forests are so moist that some species can live their whole lives out of water. At the same time, giant predatory salamanders prowl the streams and have the longest aquatic larval period on earth, lasting up to four years. The tremendous diversity and density of salamanders in this region is the research focus of herpetologist Kenneth Kozak, who has joined the University of Minnesota's Bell Museum of Natural History as curator of reptiles and amphibians.

"A lot of salamander species appear to be originating in these mountains," says Kozak, who is also an assistant professor in the Department of Fisheries, Wildlife, and Conservation Biology on the Twin Cities campus. "And we want to know what it is about this environment that enables so many species to accumulate there." Using information from museum collections, DNA analysis, and sophisticated climate data, "we're getting closer to understanding how species interact with their environment in space and time to increase species diversity," he says.

Today's advanced geographical information systems (GIS) provide a wealth of environmental data useful to biologists. For example, if a particular salamander species is known to inhabit a certain mountaintop in southern Appalachia, Kozak can use GIS data--gathered by weather stations, remote sensing, and other means--to identify locations that share the same, or similar, environmental conditions. A neighboring mountaintop identified that way may also harbor the salamander or one of its close relatives. In addition to helping scientists determine where species live, and under what conditions, the data can shed light on a number of interesting questions, such as how species have adapted to changing environments over time.

University of Minnesota herpetologist Kenneth Kozak.

"With GIS maps, you can instantly obtain information on temperature, precipitation, and seasonality," says Kozak. "This is a new, sophisticated technique that we didn't have before. For the first time, we are able to obtain detailed predictions on the geographic locations of suitable habitats now, in the past, and in the future."

Sisters in shedding

One fascinating phenomenon is the discovery of salamander "sister species" that inhabit different mountaintops widely separated by inhospitable (warmer and drier) valleys. Sister species are two species that are each other's closest relatives--in other words, they most recently shared a common ancestor. Kozak is particularly interested in how new species originate, a fundamental question in evolutionary biology since Darwin.

"We know that populations need to get isolated and separated to become new species," he says, "but we lack information as to how they became isolated in the first place." In this case, climate models indicate that the valley was once cooler and wetter--a habitat that was able to support the ancestor shared by the sister salamander species. "As the climate becomes warmer and drier over time, salamander species can either go extinct, adapt to drier conditions in the valleys, or track the cool, moist conditions as they recede up the side of the mountain," says Kozak.

What Kozak has found is that the salamanders were unable to adapt to the drier, warmer valleys that emerged in a hotter climate. Instead, the changing environmental conditions pushed the salamanders further up the mountainsides in search of suitable habitat, eventually isolating two populations on separate mountaintops. The population, which can no longer interbreed, evolve into separate species as each adapts to slightly different environmental conditions in different locations, and through random loss of genetic traits.

The fact that these salamander species were unable to adapt to a drier, warmer climate raises concerns for the amphibians' survival in an era of rapid global climate change.

"In the past, the climate changed less rapidly and oscillated between warmer and cooler periods," says Kozak. "What will happen as the climate changes more rapidly and more drastically, and if it does not cool down again? The salamanders may have nowhere to go."

Sherlock and Watson on the Showboat

By Pauline Oo

July 18, 2007

University of Minnesota students Christopher Kehoe and Elizabeth Grullon as Sherlock Holmes and Liza in *Sherlock's Last Case*.

When Sir Arthur Conan Doyle killed off Sherlock Holmes in *The Final Problem,* readers the world over demanded his resurrection. In 1903 Doyle brought the fictitious pipe-smoking detective back in *The Adventure of the Empty House.* And so began the string of contemporary creations that have prolonged Holmes's life and adventures. The play *Sherlock's Last Case* is one such example, and it's the University of Minnesota Showboat Players' offering this summer.

Full of surprises and twists, as well as creepy music and the occasional gunshot, *Sherlock's Last Case* revolves around a death threat against everybody's favorite sleuth by the supposed son of his late nemesis, Professor Moriarty. Charles Marowitz, a former theater critic for the now-defunct *Los Angeles Herald Examiner,* wrote the play in 1984, and his story cleverly digs for humor in Holmes's persona and attempts to fill in some blanks in the long-standing Holmes-Watson partnership. Stephen Kanee, University of Minnesota professor emeritus of theatre arts and dance, directs the showboat version.

The lanky Christopher Kehoe does a convincing job playing the piercingly intelligent, bitingly arrogant, and cocaine-addicted Holmes. The University student's Cheshire cat grin shows just how much the ace detective loves his nasty habit. It's hard to fully like this persnickety character with the cultured British accent--kudos to Kehoe--because Holmes is rude to his housekeeper Mrs. Hudson (a bubbly Elizabeth Griffith), dismissive of Scotland Yard's inspector Lestrade (Chris Peltier) and downright demeaning to his stalwart friend and sidekick Dr. John Watson (Stuart Gates).

Watson, by comparison, is good-natured and lovable. So, it's hard not to wonder when watching the show, why Watson has been so loyal to Holmes. *Sherlock's Last Case* is the playwright's attempt to answer that question. U student Gates, in a fully ranged performance, does well as the respectable doctor "who never gets it quite right"--only because Holmes is so far in front.

Another character worth noting is Liza a.k.a Eliza Moriarty. Elizabeth Grullon is as dramatic a seductress as Kehoe/Holmes is narcissistic. Grullon is in her vixen best--and wearing a gorgeous maroon lace and embroidered taffeta gown--when she calls on Holmes in Act 1 to warn him that his life is in danger.

Sherlock's Last Case begins in September 1897 and ends fourteen months later in November 1898 on Guy Fawkes' Day--and the whole story unfolds on stage in just two places: Holmes's well-known 221B Baker Street sitting room and a musty cellar. Erin Huntly, who is working toward her master's degree in design and technology, designed the excellently detailed sets. (While her fellow graduate student Katrina Benedict was responsible for the realistic Victorian dresses and long men's frock coats.)

Unlike any other show in town, a University Showboat performance is just plain fun because you can boo and hiss--as loud as you possibly can or want to. The "olios" are the other unique feature. Those vaudeville-like vignettes between each scene offer respite from dialogue and allow you to see how truly talented these University student actors are. Yes, they can act, but watch out, they can also sing and dance. This season's olios, with titles such as "The Buskers of Bow Street" and "A Scottish Highland Fling," are written and directed by professor emeritus Vern Sutton.

Did you know?

The Minnesota Centennial Showboat and its 220-seat, Victorian-style, jewel box theater is a training ground for University of Minnesota students, who are paid competitively for their work as actors, managers, and designers. The boat is owned and operated through a public/private partnership between the University of Minnesota and the Padelford Packet Boat Company.

Tickets for *Sherlock's Last Case* are between $19 and $22, with discounted $16 tickets on select dates (July 19, 20, 24, 26, and 31 and August 2, 3, 7, 8, 9, and 10). Evening performances are 8 p.m. Tuesdays through Saturdays; matinee performances are 2:30 p.m. Tuesdays, Thursdays, and Saturdays. To buy your ticket, call the Padelford Packet Boat Co. at 651-227-1100 or see University of Minnesota Showboat.

More on Sherlock Holmes

If you're a Sherlock Holmes fan, don't miss "Victorian Secrets and Edwardian Enigmas: The Riddles of the Rooms of 221B Baker Street." This University of Minnesota Libraries exhibit includes renderings of Sherlock Holmes' famous sitting room at 221B Baker Street in London and other materials from the U's Sherlock Holmes Collections. The free exhibit runs through August 20 at Elmer L. Andersen Library on the Twin Cities campus in Minneapolis.

Eating fish: being healthy and safe

By Deborah Swackhamer

From eNews July 19, 2007


You should eat fish, but avoid unlimited consumption.

Fish is an important part of a healthy, balanced diet. High in heart-healthy omega 3 fatty acids, fish is a low-fat source of protein and nutrients. Reports about chemical contamination in water, however, raise questions about how these chemicals may affect your health. It's a balancing act: to be both healthy and safe, you should eat fish, but avoid unlimited consumption.

All fish--whether caught locally or purchased in restaurants and stores--contain some environmental chemical contaminants. Three types of chemicals are found in Minnesota fish: mercury, polychlorinated biphenyls (PCBs), and perfluorinated compounds (PFCs). These chemicals come largely from industrial sources and man-made products that pollute air and landfills. Over time, they enter lakes, rivers, or oceans and move up through the food web, eventually accumulating in fish. Fish that are bigger, older, or higher in the food web have the most contaminants.

The government regulates the safety of commercially sold fish and issues advisories about fish consumption. Minnesota was one of the first states to develop these advisories and has some of the most rigorous procedures for determining advice it provides. The Minnesota Department of Health's Web site includes a fish consumption advice section, offering resources for anglers and fish consumers.

Mercury, PCBs, and PFCs have negative effects on human health, particularly on early development. Because of the impact of these chemicals on developing fetuses, infants, and young children, fish consumption guidelines are stricter for women who are pregnant or might become pregnant, women who are breastfeeding, and children under the age of 15 than they are for the general population. For example, women of childbearing age and children should avoid shark, swordfish, tilefish, and king mackerel because they have high mercury levels, while the general population should limit consumption.

At the University of Minnesota, scientists are studying why fish have higher levels of chemical contamination than other meats, such as beef or chicken. The length of the food web appears to be important. While cows and poultry are part of a short food web, fish are near the end of a longer food web. Because each step in a food web has an additive effect on chemical build-up, contaminants can reach significant concentrations in the fish on your dinner table. Understanding this "bioaccumulation" of chemicals may be the first step in developing strategies to interrupt or minimize the process, improving food safety.

When it comes to eating fish:

- eat a balanced diet that includes some fish;
- choose smaller varieties when eating local fish; and
- remove skin and fat to lower the level of PCBs. Mercury cannot be removed by cooking or cleaning fish.

Deborah Swackhamer is professor of environmental health sciences in the School of Public Health and interim director of the Institute on the Environment.

Working on leisure

Jo-Ida Hansen applies vocational psychology to our free time

By Kermit Pattison

From *eNews* July 19, 2007

Vocational psychologist Jo-Ida Hansen has created a questionnaire to help recent retirees find meaningful leisure activities.

Jo-Ida Hansen has spent her career connecting people to the right job. Now she's doing the fun part: matching them with leisure activity.

Hansen is opening a new area of research at an opportune time as more than 75 million baby boomers approach retirement. "We know that vocational interests drive much of what people do in their work lives," says Hansen. "That stimulated my interest in trying to understand if leisure interests did the same thing."

Hansen is well positioned for this task. She is best known for her work in vocational interest assessment--including research that shows how interests remain stable over time and predict an individual's career path. She also directs the department's Ph.D. program in counseling psychology and co-directs the Vocational Assessment Clinic, an in-house laboratory. She currently is serving a three-year stint as associate dean for graduate programs in the College of Liberal Arts.

Hansen's influence has extended far beyond the University. She developed the third and fourth editions of the Strong Interest Inventory. She has won the E. K. Strong, Jr., Gold Medal and the Leona Tyler Award, the highest honor in counseling psychology, which recognized her "eminent scholarship and her untiring commitment to the discipline and its scientific base." She served as president of the Association for Measurement and Evaluation in Counseling and Development, as president of the Society for Counseling Psychology, and as editor of the *Journal of Counseling Psychology*.

Given this long list of professional responsibilities, leisure might not be the first word that people associate with Hansen. Even so, her recent research takes a basic notion of vocational psychology--the match between individual and environment--and applies it to life outside work.

"When they think about retirement, historically most companies and most people worry about things like benefits, their pension or IRA," says Hansen. "They're less concerned about how people make the transition from work to retirement, have life satisfaction, and integrate that with the consequences of aging: bad health, lack of physical ability, and the dissolution of relationships."

Many retirees, says Hansen, become unmoored when they stop working. "A lot of people, particularly in the corporate world, come to retirement and feel they're no longer engaged in useful activities," she says. "Suddenly they have way too much time on their hands."

That's where her new work begins. Over the last 10 years, Hansen has developed a 325-item questionnaire on leisure interests that runs the gamut from adventure sports to travel to volunteering. This tool will help people find activities that suit their tastes, improve their quality of life, and reduce stress.

This vein of research already has yielded interesting revelations. One study examined patterns of leisure interests between generations. For thirty-somethings, social contacts tended to be integrated with other pursuits like sports, perhaps because they focus on family activities with their children.

"For college students, social activities still have a primary role," says Hansen. "Retirees look quite similar to the young adults in that the social factor of leisure interests reappears."

In another study, Hansen and her colleagues surveyed a group of University alumni at their 50th reunion along with faculty and staff who had reached retirement. They found that people with higher energy levels were content with a wider range of community activities; those with lower energy levels were pickier, and finding a match with the right activity became more important.

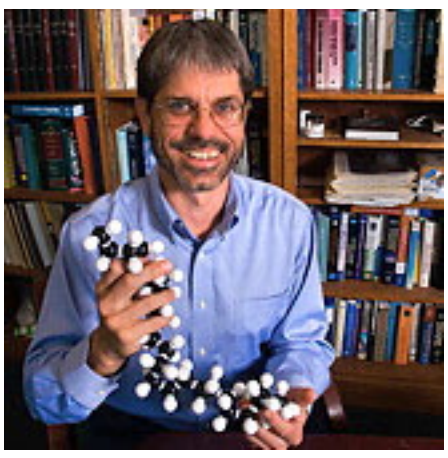
Millions of Americans will make the transition to retirement in the years ahead. As baby boomers leave the workforce, Hansen's research may help them find the gold in their golden years.

A material success

From walk-on graduate student to Regents Professor, Frank Bates has set the standard in his profession

By Deane Morrison

July 20, 2007



New regents professor Frank Bates is one of the best polymer scientists in the world.

He was fresh out of college, and the one thing Frank Bates knew was that he didn't want to stay a professional truck driver for the rest of his life. The Queens, N.Y., native had just earned a bachelor's degree in mathematics from SUNY-Albany but couldn't see himself as a mathematician. So he drove his truck to MIT in Cambridge, Mass., and walked straight into the chemical engineering building. Within days, he was accepted as a graduate student there. From these unlikely beginnings sprang a career as a standout professor in the University of Minnesota's Department of Chemical Engineering and Materials Science, consistently ranked among the nation's top three in chemical engineering. This summer, Bates and four other professors joined the roster of regents professors, the U's highest faculty rank. *(See box, below right.)* "It's very gratifying and a little intimidating," says Bates of his new position. As head since 1999 of a powerhouse department, he already bears a mantle worn by legendary figures in his field.

New kid on the blocks

Even as a walk-on, Bates excelled in graduate school. After receiving his doctorate from MIT in 1982, he landed a job at one of the country's foremost research institutions: Bell Labs in Murray Hill, N.J. But he felt that a university was the ideal place for him. One day in July 1987 the chance came. Matt Tirrell, then an up-and-coming chemical engineering faculty member at the University of Minnesota, visited Bates at his New Jersey home and casually mentioned that Bates might think about coming to the U. "I decided to come here in a microsecond," says Bates. After arriving in 1989, he proceeded to make a name for himself in the same field as Tirrell: polymers. That word may be unfamiliar, but polymers themselves are everyday materials like plastics and adhesives. On the microscopic scale, they are long chains of repeating chemical units, like beads on a string. Bates's specialty is block co-polymers, which are combinations of different polymer types chemically bonded together, like a string with alternating stretches of red and green beads. Because a single polymer molecule contains so many flexible bonds, it's no wonder polymers tend to coil or ball up in highly complex patterns that have kept many a chemical engineer employed trying to figure out their structure. Bates has synthesized and studied the structures and properties of many block co-polymers, including one so transparent and tough that it may ultimately be used as window material.

"Being wrong is just as important as being right, as long as you can accept it and learn from it," Bates says.

"I like to work on fundamental problems, but also ones with practical applications," explains Bates, whose work has led to 15 issued and pending patents. Other block co-polymers that Bates has made can be used as plastics that bend better in one direction than another. To illustrate, he picks up a thin, square slab of plastic and bends it as if it were rubber. But when he moves his hands to the other two sides of the slab and bends, it resists. A similar material could be made into, say, a plastic bag that doesn't have the same strength in all directions. "Biomedical devices like a balloon catheter might benefit from this," he explains. "Doctors would want it to expand only radially [toward the walls of an artery], not farther down the blood vessel." Another area where Bates and his students have broken ground is in the design of microscopic hollow balls of block co-polymers that are stable in the face of changing temperature and chemical environments. Such "vesicles," if put in the bloodstream, have potential as drug-delivery systems. Or, says Bates, one might put nontoxic fluorescent dyes in the wall of the vesicle. Dyes that emit light in the near-infrared part of the spectrum are ideal because such light penetrates tissue about 100 times better than visual light. If, for example, such vesicles can be made to attach to cancer cells, the light will signal where cancer cells are hiding. "Then, if a surgeon wants to see if a tumor has metastasized to the lymph nodes, he or she can cut out only the affected nodes," Bates says. Bates has also synthesized block co-polymers that, when added to epoxy resin, make the epoxy tougher and less brittle. The material could be used in epoxy coatings on floors, or to coat steel rods in structural concrete so they won't rust if water should penetrate small cracks in the concrete. This work is being commercialized, not just because the material works so well but because it will cost no more than the resin it would replace. "He is currently the leader worldwide" when it comes to block co-polymers, said the late Pierre-Gilles de Gennes, a French physicist and Nobel laureate. Despite all his professional successes, Bates regards his graduate students, especially the 38 who received doctorates under his tutelage, as the source of his greatest pride. But he retains a healthy humility. On a shelf in his office he keeps a breadbox-sized sculpture of marshmallows connected by toothpicks. It reminds him of the time he thought he had figured out the structure of a complex type of block co-polymer. He went home and built the structure with the marshmallows--but it turned out that his ideas were wrong. "Being wrong is just as important as being right, as long as you can accept it and learn from it," he says.

Five new regents professors

Five faculty members were named regents professors on June 8, 2007.

Frank Bates, chemical engineering and materials science, Institute of Technology

Richard Leppert, cultural studies and comparative literature, College of Liberal Arts

Elaine Tyler May, American studies and history, College of Liberal Arts

Matt McGue, psychology, College of Liberal Arts

Peter Reich, forest resources, College of Food, Agricultural and Natural Resource Sciences

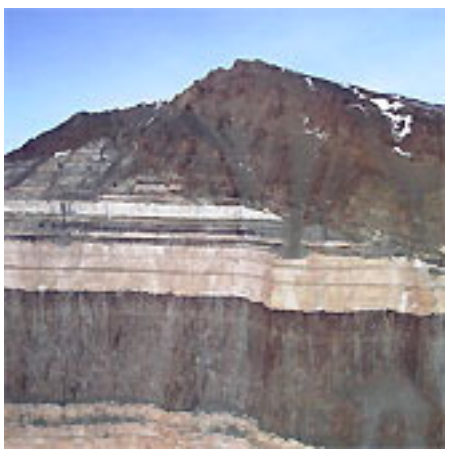
Their appointments bring the total number of regents professors to 25, en route to 30 by 2010. Currently, each receives a salary stipend of $20,000 per year and an additional $30,000 research stipend. See the news release on their selection for more information.

Unearthing Antarctica

UMD scientist studies Minnesota's rock in Antarctica

By June Kallestad

July 20, 2007



An intrusion (the forcible entry of molten rock or magma into or between other rock formations) in Antarctica. Unlike Minnesota, geologists get a perfectly clear view of intrusions in Antarctica.

Geologists learn by looking at rocks. Of course, it's not that simple. Here in Minnesota, the tapestry of mineral-laden geology lies buried under forests, soils and parking lots. This makes Dean Peterson's job difficult. As one of the economic geologists at the University of Minnesota, Duluth's Natural Resources Research Institute (NRRI), his job is to understand the state's geology--where and what types of ore minerals were deposited some 1.1 to 2.7 billion years ago. In Minnesota, geologists figure it out by reading scattered outcroppings and drilling holes. It's doable, but it's difficult.

So when Peterson was offered an opportunity to spend a month in Antarctica's Dry Valleys, he jumped at the chance. Yes, that's a long way from Minnesota, but surprisingly, the geology is the same. Both areas were focal points of dynamic magmatic systems associated with continental rifting-molten rock flowed up from the earth's mantle, forming intrusions in the upper crust. The geologic setting was the same.

But the beauty of Antarctica for geologists is the 100 percent exposure of rock. They can look at layer upon ancient layer of deposits, up to 10,000 feet high. In Minnesota, the Duluth Complex, a large, composite of mafic rocks (rich in dark-colored minerals like magnesium and ireon) in northeastern Minnesota, was the hot spot for dynamic magmatic molten movement. It's where NRRI's economic geologists go to identify valuable mineral deposits.

Understanding local deposits

"In the Duluth Complex, I study the 'plumbing' of the intrusions. That's the key to finding the higher grade ore deposits," says Peterson. "So in the Dry Valleys I can actually see how the magma moves up from the earth's crust, how it crosses certain rock bodies, and where it picks up sulfur to form sulfide minerals. In Antarctica I could see the 'plumbing' that I can't see in Minnesota."

If that wasn't exciting enough for Peterson (and it was) he also spent a month with one of the most renowned geologists in the country, Bruce Marsh of Johns Hopkins University.

"Spending time seeing this fabulous geology and learning from Dr. Marsh is really something special," says Peterson.

Paul Morin, a visualization expert in the geology and geophysics department on the U's Twin Cities campus, and researchers from Poland and Slippery Rock University in Pennsylvania joined Peterson on the expedition. The trip was funded by a grant from the National Science Foundation.

Did you know?

Antarctica is the coldest, windiest, and harshest continent. The continent is covered in continuous darkness during the austral winter and continuous sunlight in the summer. (The average annual temperature is -56?F at the Amundsen-Scott South Pole Station, the southernmost continually inhabited place on the planet).

Source U.S. Antarctic Program

From Peterson's travel notebook:

- Antarctica is not as cold as people might think. Temperatures were, on average, in the 20s to 30s Fahrenheit and sometimes down to 10 at night, but we got used to it right away. After a day we were in shirtsleeves and a windbreaker. The sun is always out and intense.

- When the wind stops blowing there is utter silence. There is nothing to make a noise. It's eerie at first, but then I got used to it. The silence really gives you time to think. When we went back to McMurdo (U.S. Field Station) the noise created by 1,100 people living in close quarters was unbelievable.

- Humans have evolved in humid environments where water vapor in the atmosphere selectively absorbs light--as you look into the distance things get bluer and bluer. We unconsciously perceive distance using the air's absorption of light. Antarctica is the driest place on earth. The humidity in the Dry Valleys averages about 1 or 2 percent. The air's dryness adds an additional dimension to an Antarctic experience--light doesn't change color with distance. Mount Erebus, 120 miles away, will look exactly like it would if you were right next to it. It's hard to visually calculate any distance.

The path to merit pay

Consultative process benefits University Libraries in the effort to reward high performance

By Lindsey Dickenson

Brief, July 25, 2007

U Libraries performance management/merit pay project group members worked carefully for months to develop the new system. They are (left to right) Mary Schoenborn, Linda DeBeau-Melting, Peter Weinhold, Matt Bowers, Sue Hallgren, and (not pictured) Arlys Totushek and Brent Allison.

This month, civil service staff in the Twin Cities campus libraries moved to a merit pay plan--a compensation system in which base-pay increases are individual instead of across the board.

University Libraries staff and managers are using their new performance management system to set goals for the 2007-08 fiscal year. Civil service staff will first be awarded merit pay at the end of the fiscal year, beginning in 2008.

The change hasn't come overnight. The path began one year ago and has been marked by careful research, employee involvement, and lots of healthy debate.

Recognizing and rewarding high performance was a key recommendation that emerged from the University's strategic positioning process over the past two years. With the approval of several new policies and a revised tenure code in 2007, the Board of Regents has set the stage for stronger performance management and wide use of merit pay. *(See box, below right.)*

University Libraries support the movement to reward excellence, says Linda DeBeau-Melting, associate University librarian for organization development. DeBeau-Melting is also the project lead for the libraries' civil service performance management and merit pay program. She says University Libraries benefited from work of the Office of Human Resources (OHR) and the Civil Service Committee (CSC).

In 2005 and 2006, OHR and the CSC collaborated to review performance management and merit pay for civil service staff at the University. Two task forces developed and improved University-wide guidelines, templates, support tools, and communication materials to help colleges and departments improve performance management systems and move to merit pay.

University Libraries took full advantage of the work of the task forces. Matt Bowers is head of borrowing privileges and fines and libraries security and safety coordinator. Bowers also chaired the CSC in 2005-06 and is a current member of the Libraries Civil Service Committee.

"The Libraries have placed a high value on the professionalism and work ethic of the library staff," says Bowers. "An improved performance evaluation system and better communication between managers and staff will build on that tradition."

Some library employees expressed concerns based on previous efforts at the University, he says. Bowers believes that improving performance management is key to implementing a merit pay plan.

"Merit pay crashed over two issues: low-percentage pay plans and perceived favoritism," says Bowers. "These are still potential problems. A merit plan needs what we are now building--a strong performance management system that looks at all aspects of a particular job. We also have stronger support across the entire University administration."

DeBeau-Melting says the Libraries' highly consultative approach has also been beneficial. The plan to move to merit pay initially received a mixed review from the Libraries Civil Service Committee and the Libraries Leadership Council, composed of department directors across the system.

"On one hand, they were excited to move with the University's focus of rewarding high performers," says DeBeau-Melting. "But they had significant concerns about the culture change involved in moving to a merit-based program after many years of across-the-board increases, the relatively small amount of dollars available for distribution each year, and the equitable application of the performance criteria."

In discussions with both groups, staff members of the performance management/merit pay project group agreed that a larger pool of dollars was desirable to distribute with a merit pay program. They also emphasized that performance management sessions for supervisors would stress strong communication with employees throughout the performance-year cycle, establishment of clear performance standards and goals, equitable application of performance standards, annual evaluations that would be both evaluative and developmental, and an annual assessment of the program.

REWARDING HIGH PERFORMANCE

*The Board of Regents approved two new policies March 9--(1) Employee Performance Evaluation and Development and (2) Employee Compensation and Recognition. The first holds leaders, administrators, and supervisors accountable for fair performance evaluation. The second describes the U's commitment to reward meritorious employee performance and contributions.

*The revised faculty tenure code, passed by the University Senate in April and approved by the Board of Regents June 8, strengthens the U's commitment to rewarding high faculty performance and identifies more rigorous criteria.

*All academic professional and administrative (P&A) staff and faculty members are expected to receive annual performance reviews that determine merit-based pay increases.

* Currently, about 8.2 percent of the University's 5,064 civil service staff members are in merit-pay programs.

* For bargaining unit employees to be eligible for merit pay, the contract governing each unit would need to be negotiated to specify increases based on individual meritorious performance instead of across the board.

Note: Official Board of Regents policies are published in PDF format.

Making the merit plan work means rigorous review of the evaluation process and continuous training and support, says Bowers.

While not always easy, the feedback-rich process has continued to improve the tools and educate employees about performance management and merit pay programs.

"We just finished five performance management sessions for civil service staff and four for supervisors," says DeBeau-Melting. "We purposely kept them small to encourage discussion, and we had some very excellent dialogues. We will continue to offer these sessions for new supervisors and staff who join the Libraries."

These thorough discussions and training sessions are helping to build confidence that the merit pay plan will work.

"We will still need to do a lot of work to ensure this merit plan works effectively," says Bowers. "That means rigorous review of the evaluation process and continuous training and support for managers and staff."

University Libraries administration is planning for continued training and program evaluation once the merit pay program is in place. DeBeau-Melting says the Libraries Civil Service Committee will work with Libraries administration to develop an assessment process that will include ideas for continually improving performance management system and the education and training that support it. So far, she is satisfied with the process.

"There has been anxiety about this, and Libraries managers and staff have really wanted to discuss and understand how the system would be built and function," says DeBeau-Melting. "While there have been bumps, we are coming out with a stronger performance management system with a more focused evaluation process and support for continuing development of our civil service staff members. Staff feedback has been essential in achieving that outcome."

University Libraries became one of 13 University units using merit pay for civil service employees in 2007-08 *(see box, right)*. The total number of civil service employees in those 13 units is estimated at 417, about 8.2 percent of the civil service workforce of more than 5,000 at the U. As the University looks for ways to implement regents policies and reward outstanding performance, merit pay for civil service employees is expected to become a bigger focus.

"We are looking at ways to enhance performance management across the University and then more widely implement merit pay plans," says vice president for human resources Carol Carrier. "It will take time and resources to implement improved performance management practices where needed, and once we're confident those tools and systems exist, it will take more time and resources to shift all eligible employees to merit pay.

MERIT PAY UNITS

The following units are now using merit pay systems for civil service staff.

* Carlson School of Management
* U of M Foundation
* Office of the General Counsel
* Office of Human Resources
* Dept. of Civil Engineering, Institute of Technology
* Minnesota Geologic Survey, Institute of Technology
* University Libraries
* University Relations
* University Services (CPPM, EHS, Fin&Acct, IS)

"I'm happy with the progress that's being made in departments across the University," Carrier says, "and I commend University Libraries for its thorough process."

FURTHER READING Performance Management, OHR Merit Pay Programs, OHR Civil Service Committee update, May 2005, including background on the OHR/CSC task forces on performance management and merit pay.

Board of Regents Policies Employee Performance Evaluation and Development (PDF) Employee Compensation and Recognition (PDF) Faculty Tenure (PDF) See a list of all Board of Regents Policies in both HTML and PDF format.

Cool country, warm ties

U delegation celebrates 25 years of collaboration with the University of Iceland

By Jim Thorp

July 11, 2007

The U of M delegation took a walking tour of the historic port village of Eyrarbakki with U of Iceland faculty guides.

A University of Minnesota delegation visited Iceland in May 2007 to celebrate 25 years of collaboration with the country's premier higher education institution, the University of Iceland, and to explore new opportunities for collaboration.

From the glittering nightlife of Reykjavik to the windswept beauty of the president's residence at Bessastaðir, from medieval farmsteads made famous in sagas to massive geothermal and hydroelectric energy reserves to power most of the nation, Iceland defies expectations and redefines cool.

Public health, clinical sciences, renewable energy, and the environment are fields central to the future of both universities and to both nations.

U president Robert Bruininks, senior vice president for the Academic Health Center Frank Cerra, School of Public Health dean John Finnegan, and School of Nursing dean Connie Delaney--who also holds a faculty appointment at the University of Iceland--led the Minnesota delegation.

They met with University of Iceland rector Kristín IngÓlfsdÓttir and other officials to renew and expand the existing agreement, particularly in the area of health sciences. *See photo, right.*

A partnership renewed. Left to right: Stefán B. Sigurdsson, dean, UI Faculty of Medicine; Connie Delaney, dean, UM School of Nursing; President Bruininks, president, UM; Kristín IngÓlfsdÓttir, rector, UI; Erla Kolbrún SvavarsdÓttir, dean, UI Faculty of Nursing; John Finnegan, dean, UM School of Public Health.

Common ground

The cooperative agreement with the University of Minnesota in 1982 was the first of its kind for the University of Iceland. A successful student exchange program has developed, primarily in the liberal arts and sciences. The relationship has resulted in scores of students, alumni, and scholars with close ties to both institutions.

In meetings over several days, the partners uncovered significant common ground in the two institutions' visions for the future.

"Both universities have undertaken strategic and transformative change in recent years," says Bruininks. "The University of Iceland has modeled its approach to strategic planning in part on what we've done. From the U's perspective, the University of Iceland's five-year contract with the national government to provide set levels of funding to achieve specific results is particularly intriguing."

Members of the U delegation also met with Icelandic president Ólafur Ragnar Grímsson, U.S. ambassador Carol van Voorst, and executive director of the Fulbright Commission in Iceland Lára JÓnsdÓttir to discuss additional opportunities to foster collaboration, exchange, and cross-cultural understanding.

'A good day'

The University of Minnesota took the opportunity to honor one of its own, granting Icelandic prime minister and U economics alumnus Geir H. Haarde, M.A. '77, its highest academic honor. Haarde became a member of the Icelandic parliament in 1987 and was elected prime minister in June 2006.

Bruininks and Jim Parente, associate dean of the College of Liberal Arts, Twin Cities, presented Haarde with an honorary doctor of laws degree for his distinguished record of leadership and public service. Haarde is one of several U economics alumni holding prominent national positions worldwide.

Iceland's prime minister, Geir Haarde (center), received the honorary doctor of laws degree in a ceremony May 24. He was hooded by President Bruininks, left, and College of Liberal Arts associate dean Jim Parente. Photo by Kathleen Sellew.

The ceremony took place May 24, the same afternoon that Iceland's new government was announced, with Haarde continuing as prime minister.

"It's been a good day," Haarde said.

The honorary degree is the highest award conferred by the University of Minnesota. Slightly more than 200 honorary degrees have been awarded since the University was founded in 1851. Past recipients have included archibishop Desmond Tutu, former Supreme Court justice Sandra Day O'Connor, and architect Frank Gehry.

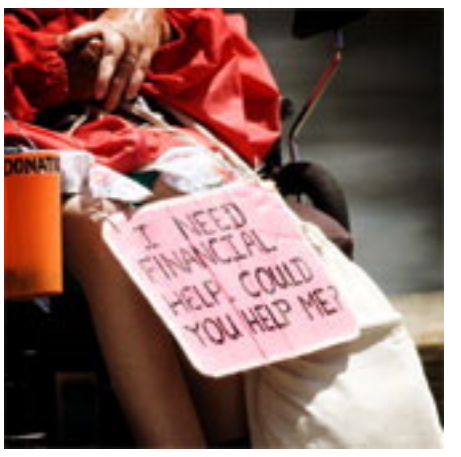
FURTHER READING When the land of fire and ice meets the land of 10,000 lakes (April 30, 2005) From international student to world leader (Dec. 1, 2006) U delegation to Norway advances research teamwork on renewable energy and food safety (June 14, 2006) Putting the pieces together: Bruininks reflects on whirlwind trip to China (Nov. 25, 2005)

Dying on the streets

U professors gather homeless people's thoughts on death and dying

by Kristi Goldade

July 24, 2007



In 1997, there were approximately 15,000 homeless people in Minnesota; by 2003, the number had risen to over 20,000.

"I've had a lot of tragedy. My girlfriend died in my arms with my baby." "Me? I'd just like to be remembered by somebody." "The only thing I'm worried about is that I don't want to die on the streets." "...They'll throw you in a pauper's grave someplace and nobody's going to mourn you."

Listen to them. Hear the concerns of the homeless, the disenfranchised, the hopeless. These voices come from people around the Twin Cities included in a study by the Center for Bioethics called *Dying on the streets: homeless persons' concerns and desires about end of life care*. Researchers John Song, Edward Ratner, and Dianne Bartels combined their experience in ethics, clinical work, and end of life issues to answer questions such as, "What do homeless people think about the end of life?" and "What barriers to a dignified death do they face?"

The investigators began their study by first speaking with people at shelters and meal programs, and then by hosting a community-wide meeting of service providers, end-of-life care professionals, and homeless people. They wanted to see if death indeed was an issue that this community wanted addressed. The groups responded vigorously. Yes, they all agreed, this was an issue, and one that especially needed attention from the medical community.

Homeless people suffer disproportionately high rates of illness and death, and the National Institute of Health (NIH) funded the study to explore further this public health crisis. The average age of death for a homeless person is 40, often due to lack of basic human needs such as food and shelter. And the prevalence of homelessness is growing. In 1997, there were approximately 15,000 homeless people in Minnesota; by 2003, the number had risen to over 20,000.

Song, Ratner, and Bartels carried out the study as a series of interviews at several homeless programs. They asked about health, what makes a good death, about trusting family and friends, service providers and social workers, and, perhaps most importantly, how the problem might be amended.

The average age of death for a homeless person is 40, often due to lack of basic human needs such as food and shelter.

The results were surprising. Because homeless people are faced with death more often than the average citizen--due to lack of health care, exposure to the elements, and a daily struggle to survive--they voice unique concerns.

They fear not being found or recognized, and dying anonymously without any memorial. They favor advance care planning like appointing surrogate decision-makers and creating living wills. And they note barriers to respectful care among the very poor and estranged.

"They think because we live on the streets, we're all junkies that don't feel no pain," one person said.

They also echoed many people's concerns when facing the end of their life: not wishing to be a burden, wanting to avoid "heroic measures" like life support, and needing to reconnect with family members.

So, how can we, the public, be sensitive to this issue?

Ratner suggests "recognizing that there are significant numbers of homeless people, even in the winter. This is a real problem with real people. The public must overcome the presumption that all homeless people are lazy, dangerous, or mentally impaired." Of homeless people involved in a one-day study by the Wilder Center, 26 percent were full-time workers.

Simple acts, like the promise of a memorial service, provided much comfort. The Minnesota Coalition for the Homeless annually hosts a memorial, march, and vigil on December 21, the national Homeless Person's Memorial Day to honor those who have died during the year.

Ratner, Bartels, and Song are testing a written tool to aid the elderly in end-of-life issues. "The importance of our research extends beyond issues of the homeless," says Ratner. "We are trying to understand attitudes and issues among the disadvantaged, and especially, the estranged. Looking at extreme examples helps us to understand end-of-life care for broader populations."

Visit the Web site of the Minnesota Coalition for the Homeless.

A bug-eat-bug world

University researchers are leading the charge against soybean aphids

July 24, 2007

University of Minnesota entomologists Dave Ragsdale (left) and George Heimpel are shown with a cage used to test a beneficial insect that kills soybean aphids.

The days of soybean aphids feasting on Minnesota's soybean fields may be numbered.

University of Minnesota scientists are field testing a beneficial insect--a stingless wasp also known as *Binodoxys communis*--that kills soybean aphids. The U received permission from the federal government to proceed with the research and is the leading institution in the testing.

A successful field test would be a major breakthrough in controlling a damaging Minnesota crop pest. The soybean aphid appeared in Minnesota fields in 2000 and today costs Minnesota soybean growers an estimated $200 million annually in lost crop yields and spraying costs.

"The soybean aphid was imported without any of its natural enemies, the organisms that keeps aphids in check in China," said Dave Ragsdale, a University of Minnesota entomologist. "Our researchers and Extension experts are working to provide that check-and-balance system in Minnesota."

Multiple stages of evaluation and testing have been completed at the Insect Quarantine Facility, a joint effort between the Minnesota Department of Agriculture and the Minnesota Agricultural Experiment Station on the U's Twin Cities campus in St. Paul. Special security and air filtration systems ensure that the insects being evaluated don't venture out on their own. Field testing will take place in a limited number of grower fields and at Research and Outreach Centers.

Binodoxys communis was approved for release based upon four years of laboratory safety testing. It is an especially promising species for control of soybean aphid because it comes from a region in China that is a good climate match to Minnesota. The stingless wasp specializes in soybean aphid and has been observed apparently controlling it in China.

A cooperative effort between the University, the state, and soybean growers like New Richland farmer Larry Muff have made this experiment possible.

"The soybean check-off (a farmer financed fund to research and promote the crop) is committed to supporting research that will mitigate this devastating pest," said Muff, co-chair of the Minnesota Soybean Research and Tech Transfer Committee. "Organic growers will also benefit from this biological control of aphids."

University researchers and Minnesota Department of Agriculture scientists will monitor the ability of *Binodoxys communis* to kill soybean aphids this summer and continue the attack this fall when soybean aphids move to buckthorn plants. And the researchers will test to see whether *Binodoxys communis* will survive the winter to battle soybean aphids in 2008.

There's also a backup plan. Eleven other species and strains of stingless wasps are under evaluation and some of these that have shown promise from both a safety and efficacy standpoint may be field tested in 2008.

More information on the field testing is available at soybeans.

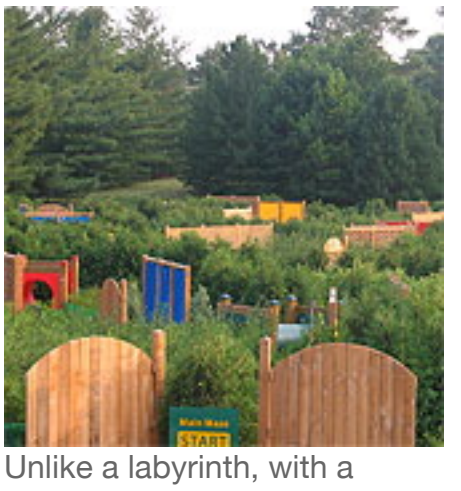
Related reading: Team Aphid packs a punch: the unbeatable power of University research, education, and teamwork

Not a dead end

Arboretum's new garden bewilders and entertains

By Pauline Oo

July 27, 2007



Unlike a labyrinth, with a single, winding path that leads to a center, the Arboretum's new Maze Garden has an entry point at one end and an exit on the other.

What do you get when you mix flowering plants and shrubs with lattice woodwork, crawl spaces, benches, and fabric walls? The Minnesota Landscape Arboretum's Maze Garden. The permanent new addition, which opened to the public earlier this summer, is nestled in the Arboretum's pine tree collection on Three-Mile Drive, the road snaking along the exterior of the Arboretum.

University of Minnesota alum and Northfield landscape architect William Frost has made the maze special by incorporating two mazes in one: a maze for adults with an intricate network of passageways and a simpler, shorter maze for younger children that features four brightly colored crawl tunnels. Both, though, end at the same place: the Lookout Tower--the perfect spot to see where you've been or to watch others attempt to solve the navigation puzzle.

"The design is a combination of nonlinear geometry, horticulture, and chance," says Frost, who was inspired by the patterns in nature like the veins of leaves and rivulets of rivers.

Some of the walls that line the maze are made of non-plant material, including panels of colored fabric, bamboo, and lattice. Other walls are a combination of deciduous and evergreen plants, which gives the maze an ever-changing look and feel as the plants mature.

"Your experience as you walk through is going to change from one turn around the corner to the next, from one season to the next, from one year to the next," says Frost, who holds a master's degree in landscape architecture from the University. "There's always a new reason to come back and go through it again."

"We've had [the Maze Garden] on the horizon for some time," says Sandy Tanck, interpretation and public programs manager. And now that it's a reality, "the maze is going to be a visitor favorite for a long time to come."


The Green Grump by designer Marjorie Pitz is one of 15 art installations along the path to the new Maze Garden. *Photo by Pauline Oo*

An advantage to visiting the garden now--at least through September 30--is the Art To A-Maze juried exhibit. The 15 whimsical art installations that make up this exhibit will turn the experience of getting to the new permanent garden from the Oswald Visitor Center into an adventure that is as intriguing as the Maze Garden itself. (If you choose to drive to the maze, you'll miss out on sculptures such as the "Hand-Powered Fountain," "The Grotto of Narcissus," "Prayer Flags for Mother Nature," and "Chairology.")

The Minnesota Landscape Arboretum on Highway 5 in Chaska comprises 1,040 acres of gardens, plant collections, and natural landscapes, and is the largest public garden in the Upper Midwest. It is part of the U's College of Food, Agricultural, and Natural Resource Sciences. Admission is $7 for adults; free for children under 15.

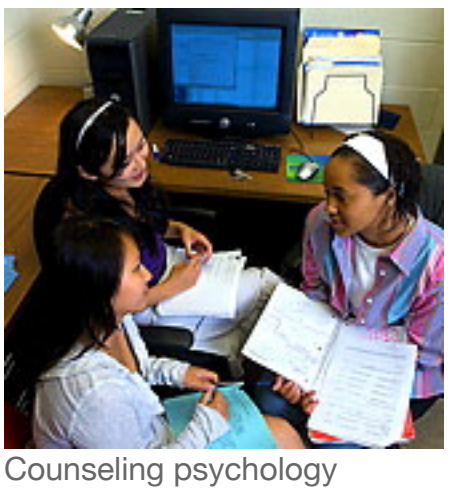
Summer hours are Monday through Saturday 7:30 a.m. to 6 p.m., Thursday 7:30 a.m. to 8 p.m., and Sunday 10 a.m. to 6 p.m. For directions, see visitor information.

Early exposure

New program uses research projects to promote higher education

By Christie Vogt

July 31, 2007



Counseling psychology graduate student Alisia Tran (middle), senior undergraduate Nicole Trinh (left), and high school junior Mikesha Barnes (right) are studying racial/ethnic minority mental health as part of this summer's VIRTEx program.

An innovative program made its debut at the University this summer, giving high school and college students an exceptional opportunity in the world of research.

Based in the social sciences departments of the College of Liberal Arts, the VIRTEx (Vertically-Integrated Research Team Experience) program creates research teams made up of a high school student, an undergraduate student, a graduate student, and a faculty mentor to work on a project throughout the summer.

The VIRTEx program is designed to increase the representation of students of color and first-generation college students in undergraduate and graduate education. So none of the students has to give up potential summer income in order to participate, the U gives them all stipends for their work.

As one of three research groups this summer, the team led by clinical psychology graduate student Vina Goghari includes senior undergraduate Joanna Mark and high school senior Martin Campbell. They are investigating schizophrenia.

Barnes says her high school friends are remarkably surprised to hear that her summer plans involve stepping into the realm of university research. They don't expect someone her age to have the chance to be involved in such a project, she explains.

"It's cool to teach people about something you're interested in," Goghari says of her experience as the team leader. Their project investigates cognitive functioning in people with schizophrenia, their healthy relatives, and non-psychiatric controls.

Mark says that she is becoming more prepared for future endeavors with this early exposure to graduate work. Getting an even earlier start is Campbell, who states that this is a good opportunity for him because most other high school students never get to see beforehand what college research is like. Given that his brother has been diagnosed with schizophrenia, Campbell has a unique connection to the project and hopes that his future may include being part of a breakthrough in the study of the disorder.

"These are the students we need as future scientists," says psychology professor Angus MacDonald III, director of VIRTEx. "By providing this opportunity early in their careers, the University gives them a close-up of the world of social science. Something is going to click."

Counseling psychology graduate student Alisia Tran, along with senior undergraduate Nicole Trinh and high school junior Mikesha Barnes, are studying racial/ethnic minority mental health.

Tran loves to mentor and believes that what she is doing will significantly elevate the critical thinking level of the students.

Barnes says her high school friends are surprised to hear that her summer plans involve stepping into the realm of university research. They don't expect someone her age to have the chance to be involved in such a project, she explains.

Social psychology graduate student Damla Ergun and her team are exploring how emotions influence political decision-making. Ergun's research team includes junior undergraduate Jeff Hunger and high school junior Gauri Shambhavi.

Ergun and her students are running two studies simultaneously. In the first one, they ask people to report their emotions with respect to how they are feeling in general or with respect to their political party. In the second experiment, they actually manipulate people's feelings by asking them to think about a time they felt anxious, enthusiastic, or angry.

"Working on this project with students from different educational levels has been great," says Ergun. "These students bring equally interesting and challenging questions to our research team that improve our research. Their contribution to data collection is indispensable."

The program ends on August 9, and many of the students have said they wish they had more time to spend in their role as researchers.

VIRTEx hopes to expand for summer 2008 to include 12 departments, including psychology, economics, sociology, anthropology, and language and hearing sciences.

To learn more about VIRTEx, contact Anise McDowell at amm@umn.edu

Faces of Beijing in Quarter Gallery

U's art department is collaborating with the Beijing Film Academy

By Pauline Oo

July 31, 2007

Digital images line the wall of the Quarter Gallery on the Twin Cities campus. Several short films are all on exhibit at "Between Collaborations: Beijing-Minneapolis," which runs August 2 to 23.

Vivid colors and unlikely subjects--an egg yolk, water droplets on a window pane, the bird's nest (better known as the Beijing National Stadium for the 2008 Summer Olympics)--will vie for your attention as you stroll through the U's Quarter Gallery this August. The gallery is hosting "Between Collaborations: Beijing-Minneapolis," a showcase of about 100 digital images and video pieces by faculty and students of the Beijing Film Academy.

The free exhibit includes a public reception on Thursday, August 2, from 5 to 7 p.m. for the 15 visiting artists and an Artists Talk on Friday, August 3, at 9:30 a.m. The exhibit is part of a budding partnership between the film academy and University of Minnesota's Department of Art--that has flourished because of a couple of mutual visits.

In April 2006, the Beijing Film Academy sent a delegation to Minneapolis and several other U.S. cities with the intent of establishing institutional collaborations. "The Beijing Film Academy is to China what Hollywood is to the United States," says M.F.A. candidate Cheryl Wilgren Clyne, who is the current 10-day tour planner. "I hear the group was very impressed with our Department of Art and with the people they met."

Since that visit, members of U's art department have traveled to Beijing twice, and more visits--in person and through cyberspace--are forthcoming.

In June, a small contingent of students and film faculty, including Wilgren Clyne, were invited to exhibit their work at the film academy--the biggest and oldest film school in Asia--which incidentally is the alma mater of internationally acclaimed filmmaker Zhang Yimou (*Hero, House of Flying Daggers,* and *Curse of the Golden Flower*). In October, several U students and faculty will participate in the Bamboo Festival, an international photography exhibit at the Bamboo Forest National Park outside Shanghai. And during the fall semester, University art students will correspond via e-mail with their Chinese peers from a variety of disciplines on thematic projects. The end result of this cyber exchange will be published in a catalogue by the film academy.

"[This alliance] will diversify our program and provide our students with access to world culture," says University professor and project leader Tom Rose. The students will also gain a better understanding of technique in the areas of animation and film and video production. (Film academy students are strong in those areas, but they aren't exposed to experimentation as much as U students.) "This is an opportunity for the faculties of both institutions to benefit from the cross-fertilization of ideas."

(From L to R) U faculty members Andrea Stanislav and Diane Willow with instructors from the Beijing Film Academy Jing Mi and Meng Tang. *Photo by Cheryl Wilgren Clyne*

For visiting artist and film academy instructor Meng Tang, the partnership--and resulting exhibits--offers her a chance to both learn from her peers in the United States and share her views as a artist from China.

Art--the way it is conceived, produced, and viewed--is "totally different" in the West than it is in the East, she says. And that's largely because "we have different backgrounds and we choose different content." Just like "the artist idea in New York is different from the artist idea in the Midwest," adds Tang, who teaches lighting design and composition for photography in the Beijing Film Academy's cinematography department.

At the University exhibit, Tang explores human existence in her pieces entitled "Butterfly," four fairly large, color photographs printed on an almost twin-bed-sized backdrop of Chinese characters. "As an artist, I have to travel a lot," she says. "I learn a lot from seeing how another artist works."

For University graduate student Wilgren Clyne, the creative collaboration has meant, among other things, a trip to China--her first outside North America.

"Any time you take yourself out of your everyday situation, you begin to think differently about your work," says Wilgren Clyne. "And you start to develop new ways to do something that you've done for a long time. I was very inspired by the work I saw [in Beijing] and I don't even speak Chinese."

The University of Minnesota has had academic connections with China since it formed the China Center in 1979. Today there are more than 1,200 visiting Chinese scholars and students at the University--the largest population of Chinese students on a North American campus.

"Between Collaborations: Beijing-Minneapolis" runs August 2 to 23 in the Quarter Gallery located at street-level in the Regis Center for Art on the Twin Cities campus in Minneapolis. The gallery's summer hours are 9 a.m. to 4 p.m. on weekdays.

Further reading Did You Know? The Minnesota-China connection Red envelopes for China study Carlson School program rated No. 1 in China

New release

Ph.D. candidate Rachel Raimist unsettles settled ideas about prisoners

By Danny LaChance

From *eNews,* August 2, 2007; updated (with video link) August 7

Filmaker and Ph.D. student Rachel Raimist is currently editing a film she made of a weekly poetry workshop in a maximum security prison.

For just a moment, David Doppler looks and acts like the prisoner he is. A white t-shirt two sizes too large hangs off his torso. Slouching in a chair with his arms and legs splayed about, he seems consciously to be occupying as much space as his body and clothes will allow. "I'm the ass kicker," Doppler says to the camera, smirking. "I kick ass."

But the menacing image doesn't last. The ass kicking he's referring to? He pesters guys who haven't submitted poems to the weekly poetry workshop he coordinates at the maximum-security prison in Stillwater, Minnesota.

Two years ago, filmmaker and Ph.D. student in Gender, Women and Sexuality Studies (GWSS) Rachel Raimist spent eight months filming Doppler and other incarcerated men who meet weekly to read, write, and respond to poetry, often with the collaboration of well-known spoken word artists from the Twin Cities--Reggie Harris, Desdamona, Ed Bok Lee, Emmanuel Ortiz. Now, she's sifting through hours and hours of footage, editing the piece.

From the first day she lugged her camera equipment into the prison, Raimist says, she wrestled with the question of how best to represent her subjects on film. It wasn't that she lacked experience as a documentary filmmaker. She'd completed an M.F.A. in filmmaking from UCLA in 1999, and her master's project, a documentary on female hip hop artists titled "Nobody Knows My Name," had gained critical acclaim and was still being shown at conferences and film festivals. But from the beginning, she says, this project felt different.

"This wasn't a space like hip hop, where I live it, I'm part of it, I can theorize it from the inside," she explains. "I was an outsider." And so, she notes, are those who are often responsible for our conceptions of prison life. Prison documentaries, she explains, are typically produced by people who "come into the space, and it feels like they're doing a drive-through, a tour, an expos?--interviewing through bars, filming down on people. They seem to have this entitlement, this claiming."

Just as her previous film captured the side of hip hop that never gets airtime--its progressive politics, its feminist roots--Raimist wanted her depiction of the poetry workshop to unsettle our perceived ideas about prisons and prisoners. In her documentary, prison isn't a place where time stops or people devolve into animals. It is, rather, a site of growth and change, a place where men find--or fail to find--dignity amid trying conditions.

To document that complex reality, Raimist tried to bridge the physical and psychological distance between filmmaker and subject as much as possible. Along with the other visiting artists, she participated in the workshops, reading her own poems, talking with the men about the joys of being the mother of a fourth-grader, recounting memories of her adolescence in Middletown, New York, her half-shaved head bobbing incessantly to hip hop.

From the first day she lugged her camera equipment into the prison, Raimist says, she wrestled with the question of how best to represent her subjects on film.

When Raimist did turn on the camera, she was careful about how she was framing the men. She intentionally never shot film in the parts of the prison that looked the most prison-like. There are no bars, no coils of barbed wire in this film. To capture the uniqueness of each participant, she zoomed in on individual faces rather than the cellblocks so frequently seen in film.

The focus, she says, was always on the community within the walls of the prison--not the walls themselves. She sometimes ceded the camera to the inmates, who became, in those moments, the producers as well as the subjects of their own stories.

Those methods make this documentary exceptional, says Louis Mendoza, chair of the Department of Chicano Studies, who has studied the depiction of prisons in literature. "She's capturing questions," he says of Raimist's work. "It's not just simply 'let's put them on display.' It's about the process, the struggle, the need for clarity, even as there is a willingness to embrace ambiguity or uncertainty about what the outcome is going to be."

To see a working version of Raimist's documentary, go to reach.cla.umn.edu/raimist

precisely the effect Raimist hopes to generate. "Many people in that circle didn't get any real education. A lot of them barely had junior high educations," she notes. "Giving them some tools to look critically at their environment, their space, their lives, their background--it's a really powerful, transformative thing." And while her documentary will inevitably reflect her own biases, Raimist is hoping that it will throw a wrench into the media machinery that keeps cranking out images of prisoners as lost causes. "Prison gets a very skewed, bad rap," she says.

To be sure, she's experienced its darker side. She's been catcalled in the hallways, and in one of her first weeks in the prison, a prisoner reached underneath the table and pinched her. But she has also seen in the Stillwater Poets, as she calls them, glimpses of her brother, her cousins, and the guys she used to date in high school.

She's seen and documented guys with their arms defiantly crossed in March sitting shoulder-to-shoulder in August, talking about the children they never see or will never have. She's seen guys carrying each other's poems around in their pockets, talking about masculinity and the American dream.

People came to the workshop with very limited perspectives, she says. "And what they gained was an infinite amount: pockets of hope and spaces of possibility."

Hot enough to fry an egg?

U expert has tips on keeping food fresh during summer heat waves

By Carol Ann Burtness

From *eNews,* August 2, 2007

In the summer, make grocery shopping the last stop on your to-do list.

If you're running errands on a really hot day this summer--and grocery shopping is on your list--make sure the grocery store is your last stop. The temperature inside your parked car can easily exceed 140 degrees within a few minutes when you are shopping. In this warm environment, bacteria multiply rapidly in food and there is a greater chance a food-borne illness will occur. Follow some simple tips for grocery shopping this summer to reduce your risk of food-borne illnesses:

- Shop for groceries early in the morning or in the late evening when it's cooler.
- Organize your list and shop in the following way: pick up dry foods first, then produce, and then refrigerated and frozen items last.
- Put packages of raw meat, poultry, and seafood in separate plastic bags to prevent cross-contamination, and place them in your cart so juices do not drip on other foods.
- Buy foods labeled "Keep Refrigerated" only if they are stored in a refrigerated case. Look for a thermometer, which should read 41 degrees or lower.
- Buy frozen foods only if they are frozen to the touch.

- Buy cut melons only if they are stored in a refrigerated case or on ice. Bacteria grow rapidly on the warm, moist environment of cut melons stored at room temperature.
- Bag frozen and cold foods into double paper bags to help keep them cold.
- If you live more than 30 minutes from the store, transport your cold foods in a clean, insulated container or cooler. Fill the cooler with ice or ice packs to maintain cold temperatures longer. Carry foods in the air-conditioned part of your vehicle, not in the trunk.
- If you buy hot food from the grocery store deli, get the food home quickly. Or, eat it as soon as possible or within one hour if it's a warm day (90 degrees or warmer).
- Wash your hands before storing your food, especially after made a stop for gas.
- Unpack groceries as soon as you arrive home. If you don't refrigerate perishable food within one to two hours after leaving the store, harmful bacteria will multiply.

Carol Ann Burtness is a food science educator with University of Minnesota Extension.

Staying safe in summer heat

Between 1995 and 2004, the National Weather Service reported an annual average of 235 fatalities from hot weather. "Heat-related illness kills as many people each year in the United States as floods, tornadoes, lightning, and cold weather combined," says John Shutske, a safety and health specialist with University of Minnesota Extension. Heat-related illness includes heat exhaustion, which can rapidly progress to heat stroke, a life-threatening emergency.

According to the American Red Cross, signs of heat exhaustion include cool, moist, pale, or flushed skin; heavy sweating; headache; nausea or vomiting; dizziness; and exhaustion. And signs of heat stroke include hot, red skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. Body temperature can be very high, reaching 105 degrees Fahrenheit.

For more tips, read "Exercising in summer heat."

The next generation on the star track

Summer internships at NASA help students launch aerospace careers

By Deane Morrison

August 3, 2007

Tom Chouinard, a fresh University graduate in aerospace engineering and mechanics, is working on the MESSENGER mission to Mercury as a NASA summer intern.

They may not be going to the moon, but several University students are already enjoying the next best thing. As interns at NASA installations around the country, they're living the lives of space scientists and engineers as they work side-by-side with professionals. When the chance came up, they all took a giant leap--for themselves if not for mankind. "In Minnesota there aren't a lot of opportunities to work in the space industry," says Tom Chouinard, a freshly graduated aerospace engineering and mechanics (AEM) student from Andover, Minn., interning at Johns Hopkins University's Applied Physics Laboratory (APL). He and 10 other students--eight from the University, two from other Minnesota higher education institutions--are spending 10 weeks this summer working on NASA projects as part of NASA's Space Grant Consortium program, a series of 52 grants that bring together colleges and universities in every state, the District of Columbia, and Puerto Rico to train the next generation of space scientists and engineers. "It's NASA's largest educational program," says William Garrard, University professor of aerospace engineering and mechanics and director of the Minnesota Space Grant Consortium, which receives $580,000 in NASA funding. That money is matched one-to-one by the Institute of Technology dean's office and other contributors, bringing the total budget to more than $1 million. The program also aims to bring more women and students from underrepresented groups into the aerospace field. With 20 to 25 percent of scholarships and fellowships going to minority applicants and 50 percent to women, the Minnesota consortium is more than meeting its goals, Garrard adds.

MESSENGER to Mercury

At this moment, NASA's MESSENGER spacecraft is speeding toward Mercury, where its mission includes photographing the poorly known planet's entire surface. Launched in August 2004, the spacecraft has completed one "flyby" of Earth and two of Venus to use the planets' gravity as slingshots to assist its flight. It will perform three flybys of Mercury before settling into orbit. "It has a five-billion-mile [journey]," says Zane Nitzkorski, a senior from Harwood, N.D., majoring in AEM and mathematics now interning at APL along with Chouinard. "We're positioning it for its first Mercury flyby."

"Just being here and talking the lingo with people who have been in the business 10 to 20 years is invaluable, something you can't learn any other way," says Chouinard.

For his part, Chouinard is dealing with the problems of keeping MESSENGER on course, with its antennas pointed correctly, even though fuel sloshing around in its tank keeps changing the spacecraft's center of gravity and momentum.

The moon is a harsh mistress

Future missions to the moon occupy interns like Erik Semrud, an AEM senior from Hugo, Minn. He's working on a project to determine if an unmanned mission to collect lunar samples can be done. The moon shows no sign of cooperating. "The moon has a really messy gravitational field," Semrud explains. "If you put something in orbit around the moon, it will crash." That's because the moon's craters and mountains, plus other irregularities, create local highs and lows in the lunar gravity that are hard to navigate around. But Semrud likes a challenge. He's at NASA Goddard Space Flight Center in Greenbelt, Md., researching the optimal lunar orbit for such a spacecraft and how to correct an orbit if necessary.

Erik Semrud, a senior in aerospace engineering and mechanics, is helping design a possible moon mission as a NASA summer intern.

Nitzkorski is working on mapping the moon's profile. He uses data, dating back to the 1950s, from widely separated observers who watched the moon "graze" stars as it moved across the night sky. The observers recorded the times the stars blinked off and on behind mountains at the edge of the moon as it passed; by triangulating from two or more observations, the positions of the mountains, and thus their sizes, can be estimated. In another project, AEM senior Jamie Wilt, from Rockford, Ill., is at Goddard, where she is calculating optimal orbits for the vehicles of a potential manned moon mission in 2012. She's looking at orbits around both Earth and the moon with an eye toward minimizing fuel consumption and travel time between the two bodies. "I've always liked orbital dynamics and astrophysics, but this is the first chance I've had to work in the field," she says.

Murmurs from Mars

If Erik Axdahl has his way, Mars will be a bit less mysterious after a payload he is helping design lands on the Red Planet. Interning at the Jet Propulsion Laboratory in Pasadena, Calif., he is working on a computer system to sustain, and process data from, an experiment to record seismic activity. "Seismic activity ranges from shudders due to the cooling of the planet--called Marsquakes--to [the tremors from] impacts," says Axdahl, a newly graduated AEM major from Duluth. Mars has shown no evidence of tectonic plates like the ones in Earth's crust that continually bang into each other, "but we'll be searching for them," he says. The work aims to become "a legacy project" for Space Grant students; Axdahl's group, which includes Space Grant students from several states, is laying the groundwork. All the students raved about their internships. "Just being here and talking the lingo with people who have been in the business 10 to 20 years is invaluable, something you can't learn any other way," says Chouinard.

Relocating support

Dual-career services offer job resources for spouses and partners of new faculty and staff

By Mary Everley

Brief, Aug. 8, 2007

A spouse or partner's employment situation is important to personal and professional adjustment for new faculty members.

They're here! New faculty and staff members are moving into their offices and gearing up for fall semester. They're also settling into new homes and lives. Because many academics are members of dual-career couples, their spouses and partners may need help finding a job. The good news is that the U's Relocation Assistance Program (RAP) can provide support for this often daunting and distracting task. The spouse or partner of any new faculty or staff member that has relocated to the Twin Cities within the past year is eligible for career services. Individuals may be referred through the primary hire's department or they may directly contact the RAP office. Whether the spouse or partner is seeking an academic or nonacademic position within the University or in the larger higher education or business communities, RAP will help them explore employment options. Following a vitae/resume review, connections are made to U departments and colleges, area institutions, companies, government units, schools, and other profit and nonprofit entities. RAP collaborates with the Academic and Corporate Relations Center, campus career offices, University alumni, and corporate human resources staff to identify potential places of employment. A spouse or partner may post his or her vitae/resume on RAP's community employers Web site for viewing by recruiting and hiring managers.

To jump-start the job search each fall, RAP sponsors a workshop, "Conducting a Job Search in the Twin Cities," designed to help newcomers identify potential places of employment, conduct informational interviews, and make contacts through networking. It is particularly valuable for people who are unfamiliar with hiring practices in the United States or who have never sought employment outside of established networks. The workshop also provides a comfortable place for spouses or partners to meet others in the job market, connect with area job clubs, share relocation stories and advice, and begin to establish social circles. For more information or to register, go to the workshop Web site. Through the Relocation Assistance Program, spouses or partners are also eligible to attend other career development workshops offered during the year by various campus units. Spouses and partners are encouraged to take advantage of contacts they may already have in place. For example, they should get in touch with the officers of the Minnesota chapter of their professional association, companies affiliated with their former employers, and their college's alumni living in the Twin Cities. Some accompanying spouses or partners may view the move to a new area as an opportune time to reevaluate their career directions. Career counseling is available to help them determine interests and learn about educational options. The Employee Assistance Program (EAP) offers spouses or partners support in dealing with personal or family issues surrounding career transition and relocation. Find out more at EAP.

Crookston, Duluth, Morris, Rochester

For new faculty and staff at **UMD**, spouse or partner employment assistance is available through the UMD Career Services office.
Contact:
Julie Westlund, director
UMD Career Services
218-726-8964

For spouse or partner employment assistance on the **Crookston, Morris, and Rochester** campuses, contact the RAP office at 612-626-0775 or 1-800-227-8636.

While this year's cohort of new faculty and staff is just arriving, plans for fall 2008 searches are already under way. Research on new faculty shows that personal as well as professional challenges affect early career success. Concern for a spouse's or partner's employment situation can carry over into the lab or classroom.

By mentioning RAP's dual career service to candidates early in the interview process, colleges and departments can bring up the topic of spouse/partner employment before it becomes a time-sensitive issue. As RAP demystifies the Twin Cities job market and helps to make important initial connections, it provides resources for an accompanying spouse or partner in finding a satisfying and rewarding position. Current faculty and staff can make the first connection by referring new employees to RAP.

For more information on RAP and spouse or partner employment, see the Relocation Assistance Program or e-mail rapland@umn.edu.

Mary Everley, Ph.D., is director of the Relocation Assistance Program through the Office of Human Resources, Twin Cities campus.

Expanding horizons

New regents professor explores how music and art shape society and why they matter

By Gayla Marty

Aug. 7, 2007

New regents professor Richard Leppert is one of the world's leading intellectuals in musicology, art history, and other fields. He's also an expert on Theodor Adorno, whose works fill more than one shelf in his office in Nicholson Hall.

Richard Leppert grew up on a grain farm and cattle ranch where the closest neighbor was more than a mile away. Today, the world of ideas that Leppert occupies is just as expansive, spanning disciplines and national boundaries like so many crop varieties and quarter sections on the North Dakota plains he once called home. Where others see distance, he sees--and hears--connections.

Leppert is a professor of cultural studies and comparative literature at the Twin Cities campus. He's also one of the most important intellectuals now working in the humanities at the overlapping boundaries of fields including musicology and art history. He's an award-winning teacher at both the undergraduate and graduate level and the principal architect of one of the top graduate humanities programs in the country, one that competes successfully with Stanford and Berkeley, Harvard and Duke, for the best graduate students in the world.

This summer, Leppert was named one of five new regents professors at the University, its highest faculty honor. The award could not be more timely. By year's end, he'll have three new books out--bringing his total to 10--in addition to dozens of articles and book chapters and at least 150 conference papers. His books have been reviewed in nearly 60 different academic journals in not only musicology and art history but also philosophy, anthropology, sociology, cultural studies, literary studies, history, and critical theory, as well as in newspapers such as the *New York Times, Los Angeles Times,* and *London Observer*. They've been translated and used in graduate and undergraduate courses throughout North America, Europe, the Middle East, and Asia.

"I can think of nobody who is accorded such high regard across what were once regarded as unbridgeable gaps between disciplines," says British musicologist Derek Scott.

Clear writing is one of Leppert's hallmarks. He concentrates on how music and visual culture shape society and culture, with special attention to issues of gender, class, and race. Much of his work is about European "high" culture from early modern times to the present, but he has also published on American music, art, and popular culture, including the country music of Hank Williams and Patsy Cline.

> *"Music and other human discourses are more than just occasions for pleasure and entertainment. They articulate how the world works, or is thought to work, or might work. It's something we have to take seriously and spend time talking about."*

Music was how it all began for Leppert, and that started with his parents.

"My dad loved music, although he couldn't carry a tune to save his life," he laughs. "But my mother was a terrific singer. Her mother, in turn, sang in the chorus for the Chicago Opera in the late 19th century until she moved to a homestead on the Montana line of North Dakota. So I basically grew up around music. I wanted to be an opera singer."

Leppert was a goof-off in high school until he encountered a teacher--the only Ph.D. teaching high school in North Dakota, he adds--with very broad, interdisciplinary interests: literature, architecture, music, art, and more.

"He basically taught me some intellectual discipline," Leppert says. So, despite hail storms and crop failures that wiped out family savings for several years running, Leppert attended what was then Moorhead State College. He graduated first in his class with three majors--in music, English, and German--plus a lot of credits in art history.

Singing did finance Leppert's first trip to Europe. He figures it took three years to save up the money by working in church choirs (at one point, he was in four simultaneously) and at weddings and funerals during high school and college. He stayed for two months.

"It was life changing," he says. "It's the sort of thing you do when you're 20, hitting every conceivable museum and looking at every possible historical building you can get entrance into, from early in the morning until the last light of the day. It was hugely exciting, particularly, I think, for a kid who grew up a long way from cities."

Music and meaning

It was during graduate work at Indiana University that Leppert and many of his friends were profoundly changed by the experience of studying music during the Vietnam War and the fight for civil rights.

"During the day we labeled chords," he remembers, "but at night we listened to music that wasn't allowed in the hallowed halls--music that *meant,* and the meanings went beyond the lyrics."

When a general campus strike was called after students were killed during a demonstration at Kent State--not far away--one professor declared that he didn't see what Vietnam, Kent State, or student actions had to do with studying to be musicologists.

"In a fundamental sense, he was right," Leppert says. "That was the problem."

Ever since, Leppert has been searching out how music matters, and how music is more than notes.

"Music has a long history of shaping societies, sometimes for good, sometimes for ill," he says. "Music and other human discourses are more than just occasions for pleasure and entertainment. They articulate how the world works, or is thought to work, or might work. It's something we have to take seriously and spend time talking about."

Leppert's search led him to Theodor Adorno, a key German intellectual who wrote on a wide range of subjects, music in particular. A Jew who fled Germany during the 1930s and '40s, Adorno struggled with the relationship of music and art to humanity and inhumanity.

"It was through teaching that I became more interested in Adorno," Leppert says. "I was a little skeptical when I started, but students seemed to really take to him. Over the last 20 years, his impact in the American academy, in about six different disciplines, has been profound."

Leppert became so well-versed in Adorno's work that he finally edited and wrote extensive commentary for a fat volume, *Theodor W. Adorno: Essays on Music*. It became the surprise top seller of 2003 on the music list for the University of California Press and is now in its fourth printing.

This fall, Ashgate Press--third in the U.K. after Oxford and Cambridge--will publish *Sound Judgment,* a collection of Leppert's writings, one of six volumes in its series Contemporary Thinkers on Critical Musicology.

A good place to work hard

Leppert's impressive output might be attributed to his farm upbringing. He rises between 5 and 6 a.m., gets to the keyboard at 7, and reads late in the evenings. During academic terms, he squeezes meetings between class times and writes on days he's not teaching.

Summer is not a time to slow down. On the contrary, it's Leppert's chance to not only finish demanding writing projects but pack in the intense physical challenges he craves--"I don't deal well with confined spaces," he says. "I need to get outdoors." That includes regular trips to the Boundary Waters Canoe Area and mountain backpacking, as well as home maintenance. He was cleaning a paintbrush in the basement when he got the call about the regents professorship.

The award means Leppert will not have to spend precious time applying for research funding--an enormous task. It also confirms that, despite offers from competing institutions, Minnesota is the right place for him to be--a place that he says "keeps you on your toes" because of top graduate student talent, an interdisciplinary department with colleagues reading and writing in many areas, and opportunities to work with members of a truly comprehensive university faculty.

"The few scholars who have produced work as extensive and important as Leppert's might well be expected to close up shop at this point in their careers," says Brown University musicologist and Adorno expert Rose Subotnik. "By contrast, he continues to produce scholarship that is staggering in its quantity and incomparably fine in its quality."

For Leppert, the horizon has never been wider.

Five new regents professors

Five faculty members were named regents professors on June 8, 2007.

Frank Bates, chemical engineering and materials science, Institute of Technology

Richard Leppert, cultural studies and comparative literature, College of Liberal Arts

Elaine Tyler May, American studies and history, College of Liberal Arts

Matt McGue, psychology, College of Liberal Arts

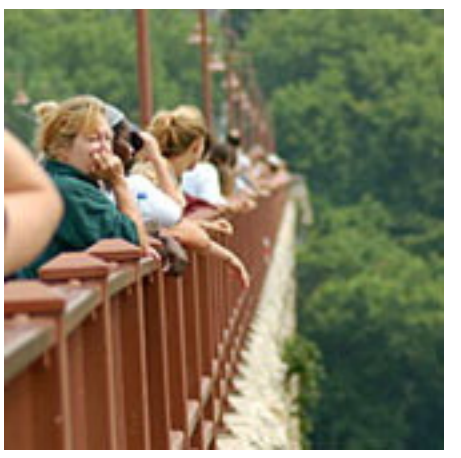
Peter Reich, forest resources, College of Food, Agricultural and Natural Resource Sciences

Their appointments bring the total number of regents professors to 25, en route to 30 by 2010. Currently, each receives a salary stipend of $20,000 per year and an additional $30,000 research stipend. See the news release on their selection for more information.

U responds to I-35W bridge collapse

By Martha Coventry and Gayla Marty

Aug. 6, 2007



People have flocked by the thousands to the reopened Stone Arch Bridge, just upriver from the I-35W bridge, to try to comprehend the scope of the Interstate bridge collapse. Makeshift memorials grace the bridge as well as the nearby Gold Medal Park.

The University of Minnesota response to the collapse of the I-35W bridge over the Mississippi River in Minneapolis Aug. 1 involved countless employees and students living in the surrounding neighborhoods.

Associate professor of sociology Ross MacMillan was one of the first civilians on the scene. Traveling home from his west bank office, he helped to rescue several people near the east bank.

U of M medical students Nicole Kopari, Melissa "Missy" Wayne, and Heather Nelson helped a doctor in triage efforts on the east bank of the river, treating about 10 people. Four architecture students rushed from their studio to help, joining a team organized by a construction worker on the scene. They used sheets of plywood as stretchers to carry people from the wreckage.

From the first moments after the tragedy, the U of M Police Department and emergency management staff have been part of the integrated incident command. Eleven UMPD officers were first responders on the east bank end of the bridge. They helped survivors to safety, tended the injured, and secured the area. Police chief Greg Hestness and deputy chief Steve Johnson staffed the incident command posts on both the east and west banks. Four police officers from the U of M-Duluth came to assist with security.

The Department of Emergency Management's mobile command post and both University ambulances were deployed to the scene. Deputy director Lance Ross acted as the U's liaison at the Minneapolis Emergency Operations Center.

Parking and Transportation Services (PTS) staff responded by providing barricades and transporting people up the bank, many to waiting ambulances.

At least 40 victims were treated at the University of Minnesota Medical Center, just downstream from the bridge. The U's Medical Reserve Corps (MRC) mental health response team provided support at the emergency room and where concerned families gathered at the Masonic Cancer Center. Experts from the Academic Health Center, U of M Extension, and the College of Education and Human Development immediately provided information to the media about how parents should talk to their children about images on TV and about the therapeutic role of online message boards in response to the disaster.

The U provided the west bank ball fields next the Law School as a helicopter landing site for the FBI and the Minnesota State Patrol. PTS turned over the top level of the West Bank Office Building parking ramp to local authorities to use as a staging area for recovery operations.

The Law School's Mondale Hall became the site of a joint information center for many state, local, and national agencies--the Federal Emergency Management Agency (FEMA), National Transportation and Safety Board (NTSB), Minnesota Department of Transportation (MnDOT), Minnesota State Patrol, Minneapolis Police Department, and Metro Transit.

Facilities Management provided the location and technical assistance for a camera monitoring location on top of the Tandem Accelerator Laboratory. They also helped national and local media gain access to filming locations for what fast became and the top international news story.

To date, none of the fatalities or those missing have been identified as U faculty, staff, or students. But the disaster has made an indelible mark on the University's landscape as well as the minds and hearts of its community members.

As recovery efforts continue, the Medical Reserve Corps mental health response team has provided psychological first aid and support to families of the missing, working in partnership with the Red Cross, Minneapolis Police Chaplaincy, and other local mental health agencies. Team members are still on call or working. A MRC physician will staff the Family Assistance Center Medical Station at the American Red Cross building, which is located on the west bank, near the bridge.

Everyone in the U of M Police Department and Security Monitor Program has been deployed in response. Many officers have worked on scheduled days off. Members of the Security Monitor Program--students who help with campus safety--have played an important role in traffic control on and around campus, especially on East River Road.

Two to three press conferences per day will be held throughout the week at the Law School.

I-35W has been the primary access artery for UMTC in Minneapolis. Exits fed traffic onto University Avenue on the east bank and onto Washington and Cedar avenues on the west bank. PTS is now working hard to plan for the onset of classes on Sept. 4.

Updates are posted at Bridge collapse information.

The next generation of U students

CLA's new K-12 outreach office is encouraging Minnesota's youngest citizens to think big

By Emily Sohn

August 10, 2007; updated August 16

Creating change (left to right): Tracy Blackmon, Keith Mayes, and Naima Bashir

As an African-American kid growing up in a working class household in Houston, Tracy Blackmon never got the sense that college was in her future. She lived with her grandmother, who taught her to cook and clean so that she could snag a husband. Even at school, guidance counselors inadvertently discouraged attempts to break out of a powerful socioeconomic rut--college was never on the tips of their tongues.

"There was a subtle knowing that if you lived in the neighborhood where I'm from, you were maybe not going to college," says Blackmon, now a 23-year-old senior at the U's College of Liberal Arts (CLA).

That same discouraging message is regularly delivered to low-income kids of color throughout the country. But through student-driven documentaries, summer research programs, campus visits, and more, it's a message that CLA is working hard to change.

"If you reach students while they're young, there is evidence that they're more likely to go to college, have better grades, less absenteeism, and fewer behavioral issues," says Anise McDowell, who became CLA's first K-12 outreach coordinator last August.

With that in mind, members of the CLA community are increasingly reaching out to communities in Minnesota that are traditionally underrepresented in college classrooms. Directing their messages to students as young as five, they are replacing discouraging messages with a far more positive one: black or white, rich or poor, everyone deserves an education.

Outreach efforts aren't new to CLA. For years, professors and departments have been visiting primary and secondary school classrooms and bringing kids to campus. But until now, there was no central clearinghouse to organize those efforts. And ambitious projects may have been shelved in favor of smaller scale efforts.

Smoothing the way

A major goal of outreach efforts is to demystify the process of preparing for and attending college. Despite the lack of outreach in her community, Blackmon made it to the University after earning an associate degree from a community college in Houston. The journalism major, who tutors kids in Minneapolis schools, wants the next generation to know what she wished she knew at their age.

With that goal in mind, Blackmon is working on a documentary with classmate Naima Bashir that will film students of color talking about how high school prepared them for college, why they came to the U, and what campus life is like. The film will serve as a recruiting tool for minority high school students. Clips from its final version will appear on the African American Registry Web site, an extensive portal for African American history.

Keith Mayes, assistant professor in the Department of African American and African Studies, is overseeing the project. Mayes grew up in Harlem and didn't know anything about college until his senior year in high school. "We have a tendency to forget students on the margins," Mayes says. "Only through luck do they come upon someone they can be inspired by. Our job as an ethnic studies department is to create inspiration for students about coming to college."

Among other issues, the documentary project, called *Thinking 'Bout? Being About It*, will consider the complexities of family relationships for first-generation college kids, Blackmon says. In her own case, she notes, her family started noticing with some dismay that she doesn't sound like she's from Texas anymore. "It's something a lot of us first-generation college students deal with," she says. "After a certain point, your friends and family don't understand you."

Engaging students in research

Alongside such informal, student-driven projects, other outreach programs are taking a more traditional route--designed by professors for students and administered by the K-12 outreach office. Psychology professor Angus MacDonald III was walking across the knoll after a department meeting last November when he came up with an idea for a summer program that would increase diversity among applicants, boost funding for graduate student research projects, and reach out to students in the community.

With input and encouragement from McDowell and CLA Dean Steven Rosenstone, the idea evolved into a program called "a href="http://www1.umn.edu/umnnews/Feature_Stories/Early_exposure.html">VIRTEx (Vertically-Integrated Research Experience), which debuted in pilot form this summer. Three teams of students, consisting of a graduate student, an undergraduate student, and a motivated high school student, are collaborating on an original research project over the course of the summer. The high schoolers earn $1,250 for eight weeks of part-time work, giving them a way to gain research experience without having to get summer jobs.

"This is the kind of thing I would have eaten up in high school," says MacDonald, who graduated from Minneapolis South High in 1986. CLA hopes to fund dozens of similar opportunities in summers to come.

"We have a tendency to forget students on the margins," says U professor Mayes. "Only through luck do they come upon someone they can be inspired by."

Paying it forward

Other CLA programs, meanwhile, are already paying dividends.

Last April, the "CLA Experience" gave tenth graders from Patrick Henry High School in North Minneapolis a taste of college life. Students enrolled online and spent a day attending lectures on campus. The McGuire Academic Program helps to turn such students into University graduates, offering a next step for high school students involved in community programs like LearningWorks and Admission Possible. Nonprofit organizations like Achieve!Minneapolis and AVID in St. Paul are also part of the mix of CLA-community partnerships for access and sucess.

When CLA junior Douachee Lee was in high school at Patrick Henry, Admissions Possible paired her with a U student who helped her study for the ACT and apply for admission and financial aid. Through the program, which is geared toward kids from low-income families, Lee also visited campus a few times. A visit with the Hmong Minnesota Student Association made her feel even more at home.

"During my first year, I felt really comfortable going to classes and walking around campus," Lee says. "I don't think I ever got lost." These days, Lee coaches students and visits high schools, helping the next generation of U students find their way, too.

For U professor, bridge collapse hits close to home

By Rick Moore

August 7, 2007

Ross Macmillan was almost home from his office on the West Bank when he heard--and then saw--the collapse of the I-35W bridge.

From Ross Macmillan's 11th floor window in the Social Sciences Building on the West Bank, the Mississippi River seems to meander calmly below, framed by the Washington Avenue Bridge and the Weisman Art Museum on the left and the I-94 and Franklin Avenue bridges on the right.

Six days ago, his take on the river and one of its bridges was anything but peaceful or serene.

Macmillan, an associate professor in the Department of Sociology, was one of the first on the scene when the I-35W bridge collapsed August 1. He had left work about 6 p.m., driven over the 10th Avenue Bridge (he would frequently take the I-35W bridge before the latest construction work began), looped back under the Interstate on 2nd Street S.E., and was approaching his apartment by the Stone Arch Bridge when he heard "this really loud kind of crash--it almost sounded like an explosion," Macmillan says.

He looked toward the river and could see that the bridge had buckled into a shape like an "M." Along with about a half dozen others, he immediately ran toward the site, and was joined by workers from the Metal-Matic warehouse on the way.

"You could see this white cloud of concrete dust coming up," Macmillan says. "You could feel it. I could feel the concrete dust in my lungs."

With a number of fallen cars and distraught people in sight, Macmillan and the others began aiding the injured in whatever ways they could. They talked with people down below and steered a man holding a cell phone toward two girls in need nearby. When a man in a wheelchair emerged from a blue van, another man assisted him across a span of the bridge to where Macmillan stood. "Four or five of us helped hoist the wheelchair off of the bridge and onto the service road," he says.

"The one thing I'm very glad for is that it's not as bad as [the media] initially said it was," Macmillan says. "I hope I never experience it again. And I hope all those [injured] people are okay."

Help arrived quickly from local police, including the University of Minnesota Police Department. "The response was very quick," he says, but it couldn't accommodate the sheer number of people needing assistance. So Macmillan stayed at the scene and spent about another hour helping to bring equipment to rescue workers who were on the river.

He helped carry a number of people on backboards to waiting ambulances, and the journey to and from the river was treacherous. "There were chunks of concrete," he says. "There wasn't a path or foothold or anything like that."

At one point Macmillan slipped off a slab of concrete and landed awkwardly with all his weight on one leg, suffering ligament damage to his left knee.

Despite the initial flurry of activity, he says, "there was a lot of standing around, too, just staring at stuff."

By 7 or 7:30 p.m., "hundreds and hundreds" of emergency personnel had arrived, Macmillan says. "By that point we were just getting in the way. They had a guy from the sheriff's department who was clearing everyone out [and away from the scene]."

So he retreated back to his apartment and, after a brief interview with a *Star Tribune* reporter, shut the door, with hundreds of gawkers gathered in front of his building.

He says he was surprised when the information he had given to the reporter appeared moments later in an online story about the bridge collapse. And as a result of that story, he was contacted by Fox TV--again, moments later--for the first of two phone interviews on his perspective of the tragedy.

One broadcaster went so far as to call Macmillan a hero--a tag he adamantly rejects. However, "there were some people who really did some amazing things," he says.

Macmillan notes that while many people were "sweating buckets" trying to get people out of the river, there were also "hundreds of people standing there taking pictures."

He paused for a second, apparently reflecting on the scene. "At the moment, [the river is] kind of a makeshift coffin for people, and there's a morbidness about it."

Macmillan currently wears a brace on his left knee to stabilize the ligaments he damaged last week.

During the aftermath of the bridge catastrophe, Macmillan moved--coincidentally--from his place by the Stone Arch Bridge to a new home in the Warehouse District, aided by a friend visiting from out of town.

"I haven't really thought much about it, to be honest," he says. "We just tried to move on as much as possible."

"The one thing I'm very glad for is that it's not as bad as [the media] initially said it was," he says. "I hope I never experience it again. And I hope all those [injured] people are okay."

Going the distance

University of Minnesota pharmacy grads help ease a critical pharmacist shortage

By Suzanne Miller

August 10, 2007

Preceptor Nicole Paterson (center) mentors Adam Pavek, a 2007 graduate of the College of Pharmacy.

Emily Welle arrived at the guest lecture knowing she would work as a pharmacist shortly after graduation--but not knowing where. By the end of the lecture, she knew: She would practice at a pharmacy in Greater Minnesota.

"The speaker was a pharmacist working in Aitkin," says Welle, a 2007 graduate of the University of Minnesota's College of Pharmacy. "He talked about the advantages of working in a rural pharmacy. Listening to what he liked about it made a difference." Welle, a Pierz native, will begin working at a Little Falls pharmacy this summer.

Welle and her 46 classmates belong to the first class of the two-campus College of Pharmacy, which expanded to the Duluth campus in 2003. Duluth and Twin Cities students studied the same curriculum, and all spent their fourth year in a variety of pharmacy settings: rural, urban, hospital, and community.

The concept for the Duluth expansion was born at the turn of the 21st century, when data supported the anecdotal evidence of a severe pharmacist shortage in Minnesota. Data showed the state needed about 400 more pharmacists than it had, according to Stephen Hoag, senior associate dean at the College of Pharmacy, Duluth. The state legislature responded in spring 2001, allocating money from the Tobacco Settlement to a proposal that included a plan for expanding the College of Pharmacy to Duluth.

"The Duluth program's goal was to increase the number of graduates and train more pharmacists who would work in rural areas, where the impact of the shortage was greatest," says Hoag.

In fall 2003, the first combined Twin Cities and Duluth class began their studies. To foster student interest in working outside the Twin Cities, pharmacists from the Duluth area provided guest lectures and worked with students in labs. The college increased the number of rotations (required internships) available in Greater Minnesota and assured rotation preceptors (mentors) were supportive of working in small towns.

"...when a need is perceived and the legislature works with the University, we can help solve the problems of the state," says Marilyn Speedie.

Adam Pavek's rotation at an independently owned pharmacy in Grand Rapids helped shape his goal of practicing in his own pharmacy in Greater Minnesota. Pavek, a native of Roseau, was already sold on small town life. "There's a lot of pride that goes with growing up in a small town," he says. "In Grand Rapids I got to know a lot of community members and see unique things pertaining to pharmacy ownership and management. The practice was very patient-centered, very friendly."

Pavek is in a one-year residency in Edina to learn more about the business of owning a pharmacy. The number of independent pharmacies that close when the owners retire has increased significantly in recent years. One of the reasons is a lack of pharmacists interested in purchasing the practices, says Rod Carter, associate dean for professional and external relations. One goal of the expansion, he says, is to reverse this trend.

This summer, College of Pharmacy Duluth faculty and staff will move to their permanent home in the former Life Sciences Building.

"The success of our expansion shows that when a need is perceived and the legislature works with the University, we can help solve the problems of the state," says Marilyn Speedie, dean of the College of Pharmacy. "Our partnership is helping bring improved health care to all the citizens of the state, particularly rural communities, and we're very proud to be a part of that."

Early-childhood intervention offers long-term benefits

Study is the first to show that school programs have enduring impact

August 15, 2007

Minority preschoolers from low-income families who participated in a comprehensive school-based intervention fared better educationally, socially, and economically as they moved into young adulthood, according to a report by University of Minnesota professors Arthur Reynolds and Judy Temple. The study was published recently in the Journal of the American Medical Association's (JAMA) *Archives of Pediatrics & Adolescent Medicine*.

"This study is the first to show that large-scale established programs run by schools can have enduring effects into adulthood on general health and well-being," says Reynolds, a child development professor in the College of Education and Human Development. "Early childhood programs can promote not only educational success but health status and behavior."

Reynolds' research group discovered that by age 24, children who were involved in preschool programs were more likely to finish high school, attend four-year colleges, and have health insurance coverage, and less likely to be arrested for a felony, be incarcerated, or develop depressive symptoms.

> *"Children who were enrolled in the CPC program were generally more socially engaged and educationally adept," Reynolds added. "These benefits derived from the early impacts of the program on school readiness, achievement, and parental involvement in the children's schooling."*

For example, the preschool group had higher rates of high school completion, with 71.4 percent finishing high school compared with 63.7 percent of those in the non-preschool group. Those who attended preschool also were more likely to have health insurance (70.2 percent compared with 61.5 percent of those not in preschool). Children in the program also had lower rates of felony arrests (16.5 percent compared with 21.1 percent) and lower rates of depressive symptoms (12.8 percent versus 17.4 percent).

The study--known as the Chicago Longitudinal Study--began in 1986 to investigate the effects of government-funded kindergarten programs for children in the Chicago Public Schools. Reynolds' group studied the long-term effects of the Child-Parent Center (CPC) in Chicago. A total of 1,539 low-income minority children who were born in 1979 or 1980 and attended programs at 25 sites between 1985 and 1986 were compared with 550 children who participated in alternative full-day kindergarten programs available to low-income families.

The children were tracked through age 24 using various methods, including records from schools and county, state, and federal agencies, as well as a survey completed by the participants between the ages of 22 and 24.

Children who participated in the program during preschool and early school years also were more likely to be working full-time (42.7 percent vs. 36.4 percent), have completed more years of education, have lower rates of arrests for violent offenses (13.9 percent vs. 17.9 percent), and be less likely to receive disability assistance (4.4 percent vs. 7 percent).

The fact that positive results of the program extend beyond educational achievements is not surprising given the links between education, mental and physical health, and behavior, Reynolds and Temple, a professor in the Department of Applied Economics and in the Humphrey Institute of Public Affairs, noted in the study. "Because expenditures for the medical care and justice systems comprise roughly 20 percent of the gross domestic product, the potential cost savings to governments and taxpayers of early childhood prevention programs are considerable."

Reynolds adds that "children who participated in this program had a greater recognition that more and higher-quality schooling is the way out of poverty. {They also] were generally more socially engaged and educationally adept. These benefits derived from the early impacts of the program on school readiness, achievement, and parental involvement in the children's schooling."

To learn more about the Chicago Logitudinal Study, see study.

From University of Minnesota News Service

Adolescents and alcohol ads

From *eNews,* August 16, 2007

Adolescents who attend schools in neighborhoods where alcohol advertisements are prominent experience heightened intentions to drink, a team of researchers from the University of Minnesota and the University of Florida has discovered.

One, two , three... . Teens drink less often than adults, but on average, they have about five drinks on a single occasion.

The study, published in the July issue of the *Journal of Studies on Alcohol and Drugs,* recorded 931 alcohol advertisements within a 1,500-foot radius of 63 schools in the Chicago area. Students who were exposed to these advertisements in sixth grade were more likely to hold positive attitudes about alcohol and have higher intentions to drink by the time they reach eighth grade. Although more than 75 percent of the ads featured the alcohol's brand name or price only, students exposed to them were significantly more likely to exhibit increased intentions to drink, suggesting that advertisements do not need to be directed at children for them to internalize them.

"It is not just ads that are particularly appealing to youth that influence children's intentions to use alcohol," says Keryn Pasch, a researcher in the U's School of Public Health and first author of the study. "This study provides further evidence of the influence of advertisements on children. Even those students who had not tried alcohol at the start of the study were influenced by the alcohol advertisements."

According to previous research, adolescents' attitudes about alcohol generally predict their future behaviors. Youth who drink before age 15 are four times more likely to develop alcohol dependence than those who begin drinking after age 18. Adolescents who start drinking early are more likely to become addicted to alcohol, smoke cigarettes, use drugs, and have trouble in school, previous studies show. About half of all teens have tried alcohol by the time they are 15.

Although there has been a significant decline in tobacco and illicit drug use among teens, underage drinking has remained at consistently high levels. The 2005 National Survey on Drug Use and Health estimates there are 11 million underage drinkers in the United States. Nearly 7.2 million are considered binge drinkers, typically meaning they drink more than five drinks on occasion, and more than 2 million are classified as heavy drinkers. In March, the U.S. Surgeon General issued a call to action to prevent and reduce underage drinking.

Pasch suggests that this high prevalence of youth drinking warrants more research on the causes of youth drinking and how to implement effective preventative efforts.

"Restrictions on alcohol advertising around schools are needed to reduce the influence that this type of advertising has on children," says Pasch.

After excluding 22 schools where there were no alcohol ads, researchers recorded an average of 28 ads in each school neighborhood; one school had more than 100.

Did you know?

Approximately 10 percent of 12-year-olds say they have used alcohol at least once. By age 13 that number doubles; by age 15, about 50 percent have had at least one drink.

Teens drink less often than adults. But when teens do drink, they drink more than adults. On average, young people have about five drinks on a single occasion.

Each year, approximately 5,000 people under the age of 21 die as a result of underage drinking, which includes about 1,900 deaths from motor vehicle crashes, 1,600 from homicides, and 300 from suicide.

For tips on how to prevent and reduce underage drinking, read "A Guide to Action for Families."

Source: U.S. Surgeon General's Office

Future innovation: listen to the CEO

From *eNews,* August 16, 2007

Many stockholders wish they could look into a crystal ball to forecast a firm's performance. Researchers at the University of Minnesota have found that they need something far less mystical to predict future innovations of firms.

U researchers can predict a company's future innovation by counting the number of future-oriented sentences a CEO uses.

"The answer lies in the words of the CEO," says Rajesh Chandy, a marketing professor at the U's Carlson School of Management. "By simply counting the number of future-oriented sentences in annual reports we can predict future innovation by the firm."

In the paper "Managing the Future: CEO Attention and Innovation Outcomes," forthcoming in the Journal of Marketing, Chandy and coauthors Manjit Yadav of Texas A&M University and Jaideep Prabhu of Imperial College, London University, show that CEOs who focus their attention on future events, as well as external activities, lead their firms to earlier adoption and invention of new technologies and greater and faster development of innovations. In contrast, more attention to internal operations leads to slower detection, adoption, and implementation of new technologies.

Words, not just actions, of the CEO set the tone to inspire, propel, and motivate innovation by employees in a firm. To investigate their theory, Chandy and his coauthors studied empirical data collected from the online banking industry over eight years to determine innovation outcomes such as speed of detection, speed of development, and the breadth of deployment of technology. By counting the number of future-oriented words and phrases in letters to shareholders over this time span, they were able to predict the level of innovation by the firm up to five years later.

"The daily pressures from inside the corporation tend to take up the bulk of the CEOs' time, overwhelming their attention spans," explains Chandy. "But because the CEO sets the tone and culture, not thinking forward and outside of the firm has major negative consequences for innovation."

The researchers advise CEOs to direct their attention outside their firm rather than toward internal problems, which are better left for others to solve. "The temptation to focus on fires within the firm may cause you to take your eyes off of your job," says Chandy. "A CEO who focuses on the big picture, not the nitty-gritty, will influence the process of innovation and future outcomes of the firm more than one who has an internal day-to-day focus."

Connecting the silos

U professor explores the link between human rights and small firearms

By Mary Shafer

August 15, 2007

Human rights violation occurs 500,000 times a year through the use of small arms.

As director of the Human Rights Program in CLA's Institute for Global Studies, Barbara Frey has covered a lot of ground. Her research and consulting on human rights issues like torture and penal reform have taken her from Argentina to Nepal; and her name appears on multiple international human rights law projects. Closer to home, she founded Minnesota Advocates for Human Rights, the largest human rights organization in the Midwest. But in 2002, when the United Nations Sub-Commission on Human Rights appointed her to study how countries could prevent human rights violations committed with small arms and light weapons, Frey was plowing relatively new ground: Human rights and light weaponry haven't typically been linked. In fact, "they have traditionally been in separate silos at the United Nations," says Frey. But to take a life is the ultimate "human rights violation" and that violation occurs 500,000 times a year through the use of small arms--handguns and their cousins, including assault rifles, machine guns, and other easily carried weapons. These weapons maim ten times that number of people yearly and nearly half of all these incidents, Frey says, occur in non-combat settings, many with weapons of illegal or unknown provenance or off the record books. In her August 2006 report to the U.N. sub-commission, Frey proposed two international legal principles. The first was relatively uncontroversial: the state has a responsibility to protect human rights and prevent abuses related to small arms. But the second, that small-arms possession is not a fundamental right under international law, aroused fierce opposition from those who view gun ownership as akin to other fundamental rights, like equal protection under the law.

"I took on their holy grail," Frey says. "If I had stuck just to what governments can and should do to prevent the criminal use of weapons, I would have been fine." Most of Frey's critics have come from the United States, where a strong gun lobby posits a fundamental right to self-defense. "That right is the basis on which you can buy a gun. On this issue, though, the U.S. is out of sync with rest of world," says Frey. Indeed, of the 650 million small arms in the world, 350 million of them are in the United States. And the National Rifle Association's lobbying at the U.N. meant that the U.S. delegation voted against Frey's request for funding for a questionnaire on states' gun control measures. The U.N. sub-commission's approval of Frey's report in August represented the highest-level recognition to date of the link between small arms and human rights violations. If the next step is taken-approval by the U.N. Human Rights Council-Frey's study will generate more interest, she believes, and probably more criticism. But Frey doesn't mind bracing for the impact. In fact, she's hoping for the momentum. "Law-abiding citizens, including people who lawfully own guns, need to work together to find reasonable common ground," Frey says.

The report says...

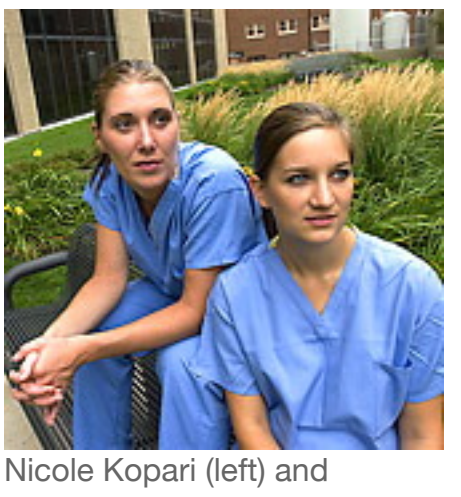
To read Frey's 2006 United Nations Sub-Commission on Human Rights report, visit the College of Liberal Arts.

University medical, dental students help victims after bridge collapse

By Sara Buss

From *eNews,* August 16, 2007

Editor's note: *If you're looking for a way to help or pay tribute to victims of the recent I-35 bridge collapse, check out "Final Ride Home," a song composed by recent University of Minnesota graduate Phil Thompson. You can download it from iTunes and CD Baby for 99 cents. Thompson's goal is to raise $1 million. All proceeds will be donated to the Twin Cities chapter of the American Red Cross.*



Nicole Kopari (left) and Melissa Wayne caught a ride from fellow medical student Heather Nelson on August 1 and helped victims at the scene of the I-35W bridge collapse.

Fourth year medical student Heather Nelson, barely two weeks into her emergency room rotation, ended her shift at Hennepin County Medical Center in downtown Minneapolis at 6 p.m., Wednesday, Aug. 1.

As she left the parking ramp, she heard news of a bridge collapse, but had few details and no idea of the magnitude of the disaster. She soon found herself stuck in traffic near the Metrodome.

Several blocks away, Heather's classmates Melissa Wayne and Nicole Kopari were sitting down to eat a pizza, when Wayne's mother called and told them to turn on the news. When they saw the coverage, thoughts of "should we go" quickly turned to "let's go," and they took off on foot.

More help at hand

"For U professor, bridge collapse hits close to home"
Associate professor Ross Macmillan was one of the first to respond when the bridge fell.

"Four officers were ready to serve"
Many police officers on the Minneapolis scene had put in long hours and needed relief; four off-duty officers from the Duluth campus were ready to serve.

"U of M professor listens, calms victims after bridge collapse"
Although he wasn't in the accident, Tai Mendenhall knows firsthand how painful it was for the victims. The U professor was deployed to the hospital as part of the University's Medical Reserve Corps.

"Morris student aids in bridge rescue"
During the I-35W bridge collapse, UMM senior Isaiah Brokenleg helped to calm the children who were on the school bus.

As they neared the Metrodome, they saw Nelson. The two jumped into her car and began weaving through traffic, stopping to explain to police and fire officials that they were Medical School students trying to get to the scene to help.

"Having that ER experience, I know what needs to be done in the field," Nelson says.

At East River Road, they had to stop and make their way on foot to the edge of the river. Most of the victims were on the opposite bank, and they caught a ride across the river on a rescue boat. The three worked to check pulses, respiration, and cervical spine stability on the people the rescue workers had pulled to safety.

In addition to these basic first aid services, the students spent time comforting and reassuring the victims.

"We had eight to ten patients, one was critically injured," Kopari says.

"We hadn't been hurt, we had services to give," says Wayne. "I just figure, if the situation was reversed, any of those people would have come to help us. That's the way this community is."

One of their peers in the University of Minnesota Dental School, Nathan Lund, responded to the scene as well. His wife--a nurse and 2006 graduate of the U--also lent a hand.

Both helped in whatever form they could. They used first aid on victims, informed doctors about their condition, and flagged down trucks to use as makeshift ambulances.

So, how did a fourth-year dental student know how to help wounded people?

Lund--like all dental school students--took the same anatomy class required of all medical school students at the University.

"Your mind flashes back to the [class]," he says. "You help the victims in whatever way possible."

As time passes, they each have begun to deal with the situation on a more emotional level.

While at the scene, Kopari says she didn't have much time to fully comprehend what had happened. "Then, when things calmed down, I said, 'I think I'm going to cry now.'"

By Thursday, Nelson had already returned to HCMC and participated in the debriefing process. "It was a really impressive response [by emergency and medical personnel]; this is what we're training for," she says. "I found out that some of the patients we helped were doing well."

They all said they wished they could have done more. They don't think they're heroes, and they're not looking for attention. They say they did what they are being trained to do.

"When you're in it, it doesn't cross your mind," Kopari said. "You run to help. You do your job."

When lightning strikes your tree

By Patrick Weicherding

From *eNews,* August 16, 2007

It's a myth that lightning never strikes twice in the same place. Trees, because of their height, are natural lightning rods.

We have all heard stories of lightning striking people (professional golfer Lee Trevino has been struck twice while on the golf course) or causing forest fires. Less often, but occasionally in the news, are incidents of lightning strikes involving trees.

Lightning injury to trees is difficult to predict, but it appears to be governed by the tree's position in the landscape, the moisture content of the part struck, and the species of tree involved (Birch, for example, is rarely struck, whereas elm, maple, oak and most conifers are commonly hit). Tall trees, those growing alone in open areas, trees with roots in moist soils, or those growing along bodies of water are most likely to be struck.

Since water or sap is a better conductor than wood, lightning damage is often related to the concentration of moisture in and around a tree. For instance, if the moisture is concentrated in the phloem between the bark and the wood, then the lightning strike will follow this channel and create an explosive separation of the bark. If there is more moisture in the center of the tree, the explosion from within may blow the tree apart. Rain soaked bark often shows little damage because the lightning may follow the outside of the bark and flow into the ground.

A lightning strike can be a traumatic experience for both the tree and its caretaker. If your tree is struck by lightning, the immediate concern should be your personal safety. Broken limbs hanging high in the tree or unsupported branches hanging over buildings or sidewalks should be taken care of quickly, preferably by a certified professional arborist. If the tree does not exhibit obvious safety concerns and seems to be generally intact, you could wait until the end of summer or even the following spring to evaluate the tree's ability to recover (by producing leaves). This is not always the answer a homeowner wants to hear, but a valid assessment of the tree's damage and ability to recover is difficult--sometimes impossible--immediately after a lightning strike.

It's a myth that lightning never strikes twice in the same place. Trees, because of their height, are natural lightning rods. Lightning seeks the path of least resistance to the ground through the best available conductor in the area. If the best conductor happens to be a tall, isolated cottonwood, it can be struck many times during separate storms events. Multiple lightning scars on the trunks of trees are testimony to this phenomenon.

Can I save my tree from lightning?

Historic, rare, and specimen trees, especially when they are the center of the landscape, are valuable and can be protected by a properly installed lightning protection system. These systems are expensive in terms of labor and materials and they need to be installed by a trained arborist. It is best to consult with an arborist or urban forester and a lightning protection system installer before considering a protection system for a tree.

To find a certified arborist in your area, visit the International Society of Arboriculture or call 217-355-9411.

Storm safety facts

* During heavy rain and lightning:

* Stay indoors and away from windows

* Avoid using electrical appliances

* Move away from open fields and get off heavy equipment

* Don't stand under solitary trees or near a lake

Source: U.S. National Weather Service

Did you know? If a tree--or any of its limbs--falls on your house, and you have homeowners insurance, then the insurance company would pick up the tree-clearing bill. If the tree falls in your yard, not touching your home or car, the cost falls on you.

Patrick Weicherding is a regional extension educator and associate professor of natural resources management and utilization with the University of Minnesota.

U grad composes tribute song

Goal for "Final Ride Home" is to raise $1 million for American Red Cross

By Rick Moore

August 16, 2007

Phil Thompson glances at the video screen while performing "Final Ride Home" at the City Center atrium on August 16.

Phil Thompson was very familiar with the Interstate 35W bridge. "I crossed [it] every day going to and from school," says Thompson, a spring graduate from the U's Carlson School of Management on the West Bank.

Two days after the bridge collapsed, Thompson made a trip toward the Mississippi River for a view of the scene, and that evening he set about to transform his raw emotions into a song. Less than two hours later, the acclaimed pianist had composed "Final Ride Home," a compelling tribute to the victims of the tragedy, their families, and volunteers--especially from the Red Cross--who offered their assistance after the disaster.

Thompson recorded the song the next day and moved quickly to make it accessible to the public. "Final Ride Home" can be downloaded for 99 cents through iTunes and CD Baby, and all proceeds will go to the Twin Cities chapter of the American Red Cross. He's hoping to raise $1 million.

"I was really moved. I was inspired to do something, and writing music is something I can do, so I threw myself into this song," Thompson said between special noon-hour performances of "Final Ride Home" August 16 at the City Center atrium in downtown Minneapolis. "It just came out. The song reflects my emotions from the second day after it happened."

As for his lofty fundraising goal, Thompson knows how difficult it is to sell a million CDs, but figures a single song might be an easier task. "Anybody can download a song for 99 cents," he says. "That's where [the idea came] for a million dollars through a million songs."

The piece is marked by deep, somber tones and is offset intentionally at the end with what Thompson describes as some notes of hope. When heard with an accompanying video (available via Thompson's Web site or on YouTube) showing images of the bridge and the people involved, the song is even more poignant.

During the City Center performances, Thompson occasionally glanced toward a screen displaying the video, and the images that sparked his composition. "We wanted [to use] the best photos that told the whole story," he said, "and I wanted the song to tell the whole story."

As for his lofty fundraising goal, Thompson knows how difficult it is to sell a million CDs, but figures a single song might be an easier task. "Anybody can download a song for 99 cents," he says. "That's where [the idea came] for a million dollars through a million songs."

And in the digital age, where the buzz on music spreads at amazing speeds, anything is possible.

"I know a million [downloads] is ambitious," Thompson says, "but I think it's totally doable."

Morris student aids in bridge rescue

By Judy Riley, UMM News Service

August 17, 2007

During the I-35W bridge collapse, Morris student Isaiah Brokenleg helped to calm the children who were on the school bus.

Sheer instinct drove University of Minnesota, Morris senior Isaiah Brokenleg to assist the victims following the collapse of the I-35W bridge in Minneapolis. From the third floor of the West Bank Office Building where he works as an intern for the American Indian Community Tobacco Project, Brokenleg heard "a very loud thunderous and deep rumbling sound that lasted for about six seconds but felt more like 15."

"I stood up, went over by the window and was shocked at what I saw," recalls Brokenleg, who had been talking with his supervisor about getting something to eat when the bridge collapsed. "I was able to see the tail end of the bridge collapse, just the bridge settling in after its fall. There was a large plume of grayish, whitish colored smoke near the area where the bridge broke. There were cars stopped just before the area where the bridge broke off. There were cars still on the bridge... . I looked toward the other side of the bridge and saw the mangled iron and broken concrete. I took this all in for a short period of time. It was all so surreal."

After he called 911, Brokenleg and his supervisor Kris Rhodes headed to the site thinking essentially that they would offer to give commuters a ride home. "There were no emergency medical people there yet," says Brokenleg. "It wasn't until we got closer that we saw the extent of the trauma.

"People were hurt, some were bloody, many had looks of fear on their faces," he adds. There was a large group of children in a grassy area next to the sidewalk. They were scared, screaming and crying; some were injured. We stopped and decided to focus our efforts there."

Brokenleg, who received the U's President's Volunteer Service Award, started asking people if they were okay and, prior to the arrival of emergency personnel, tried to assess any serious injuries.

"When the children heard their parent's voices they began to cry," explains Brokenleg. "I didn't know what to tell them so I continued to reassure them that they were going to be okay..."

"I also asked people if they wanted to use my cell phone to call home," he says. "Many of the parents were not at home yet and so many children left messages. If children did reach their parents, parents wanted to talk to me."

Brokenleg was near the site when the semi-truck cab next to the school bus caught fire, which he said scared the children who began running for safety. He helped to calm them and gather them into a building so their parents could eventually locate them, while also guiding arriving parents who were searching for their children.

"When the children heard their parent's voices they began to cry," explains Brokenleg. "I didn't know what to tell them so I continued to reassure them that they were going to be okay and that everything would be alright. I didn't know that this was true but I knew it would help calm them down. I tried my best not to show the fear or emotion as I knew it would just scare them more. It wasn't until I got home that the tears and emotions emerged."

When asked what he'll remember from his experience on August 1, Brokenleg says: "The children. I will never forget the fear, terror and emotions I saw on their faces that day. I felt like there wasn't enough I could do. I felt helpless in many ways, and I wished I knew the right words to say or the right things to do."

Although there were many heroes at the bridge site that day, Brokenleg, who will soon complete a master's of public health in community health education, does not consider himself to be one of them.

"At UMM we are taught to be proactive and to be involved in our community," he says. "I know many of my experiences there [service learning, community service, student activities, volunteering, etc.] have taught me to see myself as a member of the community and not just a student. It is seeing the difference one person or one group can make that teaches us to stay active and know that we all can make a difference in any situation."

Hercules: University artist and blood donor

A Belgian gelding helps with fundraising for the U's new Equine Center

By Pauline Oo

August 21, 2007; updated August 24, 2007

Hercules with his art teacher, Mary Simons of ReRun, Inc. In the past, Simons has helped Kentucky Derby winners Funny Cide and Smarty Jones create "Moneighs."

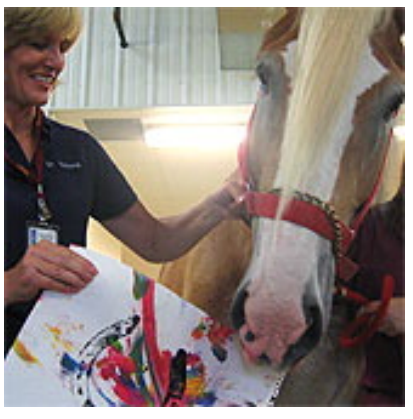
Like his namesake, the mythical Greek hero Hercules, the University of Minnesota's big, blond Belgian gelding embodies great strength and great courage. Last year alone, he saved six fellow horses from death. Hercules is the resident blood donor at U's Large Animal Hospital on the Twin Cities campus in St. Paul. And if that weren't enough, this Hercules also paints.

Last fall Hercules began his painting career by dipping his hooves in non-toxic paint and then stepping on paper. His caretakers dubbed his creations "Maneighs" and they've been a hit with College of Veterinary Medicine donors to support the U's new Louise and Doug Leatherdale Equine Center.

Yesterday, the eight-year-old Hercules created "Moneighs," using a technique developed by Mary Simons of ReRun, Inc., a racehorse adoption agency in Kentucky. Simons, whose students have included Kentucky Derby winners Funny Cide and Smarty Jones, was on hand to teach him. Using a paint brush in his mouth--or his muzzle smeared with pigment--he created several colorful pieces that will be auctioned off at the grand opening of the Equine Center at 2 p.m. Monday, October 15.

Each Moneigh will be framed and include Hercules' hoof print and a strand of hair. The Equine Center needs to raise $2 million more to reach its fundraising goal of $7.3 million. Bids on previous Moneigh paintings by other horses, which have benefited ReRun, Inc., have been as high as $6,000.

Located on the northeast corner of the St. Paul campus, the Equine Center "will dramatically change the way we'll be able to care for horses in the state of Minnesota," says Stephanie Valberg, center director. Minnesota, home to nearly 500 state and local horse clubs, has the 10th largest horse population in the United States.



Hercules with Stephanie Valberg, director of the U's new equine center. *Photo by Pauline Oo*

The $14 million, 50,000-square-foot center will have all manner of special facilities to cover every aspect of equine health--they include a high-speed treadmill and an underwater treadmill for exercise and rehabilitation; custom-designed reproductive evaluation areas; and an indoor arena in which owners can ride their horses, allowing vets to observe all four natural gaits--walk, trot, canter, and gallop--and spot any signs of lameness.

So, what does Hercules think of the expanded facilities?

If only he could talk.

Word on the street: Hercules and his girlfriend, Bella, an Appaloosa, are each getting a stall in the new Equine Center. And Hercules will continue to do his considerable part in surgeries involving blood transfusions--he has a universal donor blood type (horses have seven major blood groups and more than 200,000 different blood types). Each year the College of Veterinary Medicine treats about 3,000 horses and because of his large size, vets can tap as much as eight liters of blood from Hercules at one time.

To view or buy a Maneigh (available with a suggested donation of $50 or more to the Equine Center), visit the College of Veterinary Medicine.

Further reading

From Iraq to the classroom

U student and Iraq veteran Jeremiah Peterson talks about adjusting to campus life

By Megan Gerst Rocker

From *M*, fall 2007

U student Jeremiah Peterson with a group of children in Baghdad.

Ask Jeremiah Peterson to name one of the biggest differences between student life at the University of Minnesota and patrolling Baghdad's most dangerous sectors, and he'll tell you, "more sitting."

Although his response seems facetious, the notion does have some root in truth. For Peterson, an engaging, gregarious 25-year-old who spent 18 months in a combat zone, adjusting to the slower pace of college life has been a bit of a transition.

And he's not alone. Hundreds of veterans are currently enrolled at the University of Minnesota, and more are returning from the war and re-enrolling every semester.

"It's a unique position to be in," Peterson says, "different even from other adults returning to school after time away. The dropout rate for veterans is extremely high."

That's not very surprising, he continues. "Some of these guys haven't been in school for years--they enlisted and got deployed right after high school, and are now having to relearn how to learn. And think about it: For your average college-aged kid, 'life or death' situation means cramming for a chem final or forgetting you had a term paper due. For a vet ... well, having spent months getting shot at sort of takes the urgency out of studying in Walter Library for nine hours."

Patrolling the 'world's most dangerous road'

As grenadier for Delta Company, Peterson was stationed in one of the deadliest places in Baghdad: Airport Road, or Route Irish. The four-lane, six-mile stretch of road running from central Baghdad to the Iraqi airport functions as a critical supply line for the country. Every day, military convoys businessmen, journalists, and aid workers make the difficult commute.

Called the "world's most dangerous road," Route Irish saw daily--shootings, suicide bombings, sneak attacks, armed kidnappings, and the like. Peterson's primary job was to patrol the road and the surrounding neighborhoods. "When we arrived in Baghdad, something like an average of eight people a day were dying on Route Irish--car bombs, snipings, IEDs [improvised explosive devices]," he says. "Sure, it was a dangerous job, but in large part, war is reactive. Something happens, and you move, move, move. You can't be afraid; you have to be confident you're doing the right thing."

Peterson and company were responsible for "showing a presence" on the road and drawing fire away from unarmed civilians and aid workers in the area. And although death was a part of life on Airport Road, there were a lot of positives for Peterson.

"We got to know a lot of the kids in the neighborhood, interact with them, give them toys and candy. And I loved the guys in my unit. It's a close-knit group of people who understand you in a certain way."

What's more, Peterson continues, it was a chance to really make a difference. "Everyone hears about the danger of Route Irish," he says. "But what you don't hear as much, especially from the media, is how much safer it is now. When we left Baghdad, there was fewer than one death a day on the road. Many days there were none at all."

Still, when his tour ended in March 2005, Peterson was happy to come back home--at least for a time.

There's no place like home ... even home

"I came home, and I was restless," Peterson says. "It wasn't the place I had left. My friends from school had all graduated and moved away, or gotten jobs ... and I wasn't ready to sit still yet, adjust to civilian life." So Peterson packed his bags again, and indulged in one of his passions: traveling.

He spent a month in Asia, visiting Japan and Thailand. He also stayed in hostels across Europe, spent time in Africa and South America.

By fall 2005, Peterson was back in his home in St. Paul and ready to resume his studies.

His decision to come back as a fulltime day student meant that he was in classes with more traditionally aged college students. "Like many vets who come back, I was all alone. I was the oldest in most of my classes, and I had no one my age I could talk with or commiserate with about homework and stuff.

"But," he continues, "I knew what benefits were afforded to me as a vet and a soldier. I was adaptable and motivated to finish my education."

Peterson realizes that not all of his fellow veterans are as fortunate, which is a main reason he volunteers as president of the Veterans Transition Center (VTC; see sidebar), which is supported by a student group for veterans called Comfort for Courage.

"It's our goal to give people a place where they can find the peer support they need to reintegrate back into the student population," he says. "The VTC lets vets hang out with other people who have gone through the same thing, faced the same challenges. They can feel free to be themselves, and to ask questions like, 'hey, did you have this same experience?' or 'why is it so hard to relate to people right now?'"

A place for vets

The U also offers the first-of-its-kind Veterans Transition Center in Eddy Hall on the Twin Cities campus. The center, which opened in October 2005 to provide educational and other resources for student veterans, faculty and fellow students, is sponsored by the student group Comfort for Courage. To learn more, visit the Veterans Transition Center.

Return engagement?

In order to fund his education, Peterson re-enlisted with the Guard this past January, and spends his time training units stateside that are getting ready to deploy. He's signed on for another three years, and although it is unlikely he will be sent back to Iraq, the possibility does exist.

Not one to dwell, however, Peterson is diligently working on designing his Inter-College Program degree in chemistry, business, and pre-professional studies, and estimates that he has about a year and a half left before graduation. He would like to go on to physical therapy school (he currently volunteers at the V.A. hospital in the therapy ward) with the goal of "opening my own practice somewhere up north; running and expanding it until I can hire a partner to take it over; making some wise investments, and then retiring to travel."

So where does Peterson eventually see himself "retiring to travel"?

Right here at home. "I've seen a lot of places, and had some very out there experiences. But it was because of Minnesota that I developed my work ethic and my values. Out of all the places I've been, I love Minnesota the best."

To learn more about individualized degree programs, visit the College of Continuing Education or call 612-624-4000.

Summit addresses rural health issues

By Kathryn Webster

August 24, 2007

Concern for the future of rural health care prompted the Minnesota Rural Health Association to join forces with counterparts in Montana and North Dakota to hold the Upper Midwest Rural Health Policy Summit on Friday, August 17, 2007, at the University of Minnesota, Crookston.

Frank Cerra, above, senior vice president for health sciences of the University of Minnesota, spoke at the Upper Midwest Rural Health Policy Summit at the University of Minnesota, Crookston.

The goal of the summit was to focus on the future of rural health care policy and featured key note presentations by Frank Cerra, senior vice president for health sciences of the University of Minnesota; Kristin Juliar, director of the Montana Office of Rural Health; and Brad Gibbens, associate director of the University of North Dakota Center for Rural Health.

Health care is the focus of national attention, but rural health care is often overlooked. For Jon Linell, director of the North Region Health Alliance in Warren, Minn., and other health care administrators, the future of health care is a constant concern and a serious issue facing those who live and work in rural areas.

"As a farming community, we cannot lose rural health care access. We have to provide enough services and the kind of services rural people need," said Linell.

In his address, Cerra pointed out that fewer students at the University of Minnesota are choosing general medicine but rather are opting to specialize. This creates a greater need for primary health care physicians to fill positions in rural hospitals and clinics.

Lack of primary care professionals isn't the only problem; the medical care issues in rural areas are multifaceted. Juliar pointed out that for a small town with a declining population, there is the real possibility of residents simply burning out. For example, the only Emergency Medical Technician (EMT) might also serve as the mayor, a volunteer firefighter, a member of the church board, and the high school basketball coach.

When prominent positions in a town rest on the shoulders of only a few people, what is going to happen to health care when these people simply feel they can no longer serve? The summit will hopefully spark more discussions on this and the myriad of issues facing rural communities.

Focusing on professional development

Civil Service Committee member spotlight

By Susan E. Cable

Brief, August 29, 2007

Dan Farrar directs the Security Monitor Program in the UMPD at the Twin Cities campus.

In April, the Civil Service Search Committee sent a list of names to President Bruininks for appointment to the Civil Service Committee. Six new full members join the CSC. To introduce these new member, articles in Brief will feature the six new members and four alternates.

Dan Farrar, Civil Service Committee member at large, directs the Security Monitor Program on the Twin Cities campus. The program--a branch of the U of M Police Department--offers free walking and biking security escorts to and from campus locations and nearby adjacent neighborhoods for all students, staff, faculty, and visitors. Security monitors can also be hired on an hourly basis (four hours minimum), for short periods of time and University events.

Presently, Farrar manages about 170 student employees who provide security services on campus. He meets regularly with building and security managers on campus and is also a member of the West Bank Advisory Committee and the Library Security Committee.

Farrar graduated from the University in 2001 with a degree in sociology and a focus on law and criminal deviance. He has worked at the U for seven years, four as a student and three as a civil service staff member.

By service on the Civil Service Committee, Farrar hopes to focus efforts on professional development for employees. He will serve on the CSC Professional Development Sub-Committee.

Farrar recently graduated from the Police Academy and has a beagle puppy name Tyrone.

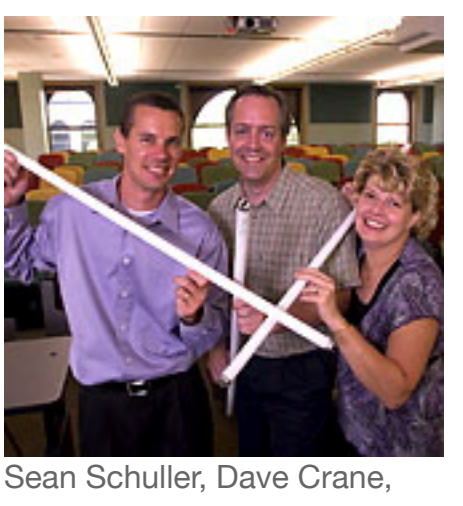
Susan Cable, 2007-08 vice-chair of the CSC, works in the Office of Human Resources, Twin Cities, and manages programs for graduate assistants, postdoctoral professionals-in-training, and the Regents Scholarship tuition benefit program for employees.

Light on the subject

Changing bulbs in batches saves the U thousands

by Gayla Marty

Brief, Aug. 29, 2007



Sean Schuller, Dave Crane, and Ruthann Manlet show off the 30-watt T8 light bulbs in 235 Nicholson Hall, one of the classrooms to benefit from group relamping. The effect can be powerful. "Sometimes people think we painted the room," Schuller says.

How many U employees does it take to change 20,000 light bulbs? A lot fewer than it used to. The Twin Cities campus will save more than $1.5 million over the next five years by changing light bulbs building by building instead of bulb by bulb, standardizing the type of bulb, and using bulbs that save more energy.

Everybody's happier. Faculty will almost never have to call Facilities Management because of a flickering or burned out bulb. Students will see presentations and take notes under high quality, even lighting.

Facilities Management crews can work more efficiently. They'll rarely have to break away from other work to rush off and change a single bulb. When they do change bulbs, they'll be sure to have the expertise and equipment on hand because they'll work in small teams.

"Group relamping is a win-win for everyone," says Ruthann Manlet, who supervises and coordinates Facilities Management (FM) crews. "Students, faculty, and staff benefit from higher quality lighting, and the University saves money."

Perhaps nobody's happier than Manlet, Dave Crane, and Sean Schuller. They're the three U employees who put their heads together and made the change happen.

Manlet knows that reacting to lighting issues disrupts FM's scheduled work and is labor intensive. Lighting issues continue to be the department's most frequently requested service in areas not yet relamped.

Crane, who works in the Office of Classroom Management, wants classrooms that support top-notch teaching and learning. He knows that bad lighting can be distracting, lower student and staff productivity, and give a bad impression. Proper lighting in classrooms enhances current and prospective students' impressions about their courses and the U.

> *"Three staff members with very different roles and responsibilities found a better way to change a light bulb and went the extra mile to see it tested and implemented," says President Bruininks. "Our staff, faculty, and students should always feel empowered and encouraged to explore new ideas and change things for the better."*

Manlet and Crane remember first talking about "group relamping" in spring 2006. They knew that best practices were out there and that the U had made continuous improvement a top priority in every corner of its operations. They also knew the scale on the Twin Cities campus could mean significant savings of labor and energy.

So the partners decided to run a pilot project to test the viability. The pilot project involved 95 centrally scheduled classrooms in eight buildings on the Twin Cities campus in Minneapolis: Amundson, Appleby, Burton, Folwell, Ford, Lind, Peik, and Vincent--all on the east bank. Those classrooms seat nearly 4,000 students and contain 1,352 fluorescent lamp fixtures that hold 3,193 bulbs.

Relamping in the pilot project was completed between April and August 2006. All the old bulbs were recycled. And the pilot results were better than expected--for both lighting quality improvement and labor efficiency.

But Manlet and Crane didn't know just how significant the pilot results were. That's when Schuller entered the picture. He works in finance and accounting for University Services. With information gathered from Manlet, Crane, and lighting vendors, Schuller began to crunch the numbers. He was amazed by the totals.

A total of $46,000 was saved as the pilot expanded into all general-purpose classrooms. By July 1, about 10,000 bulbs had been placed in 240 classrooms that contain 16,000 student seats. On the strength of those results, group relamping is now expanding across the Twin Cities campus with projected cost savings to the U of about $500,000 per year.

Better bulbs plus labor savings

Moving from 32 to 30 watt bulbs alone meant a cost savings of 50 cents per bulb per year, a $112,000 savings when implemented campuswide. Added to that was the quality improvement by changing bulbs before they lose their efficiency.

"Just because a light is on doesn't mean it's generating the same amount of light as when it was installed," says Schuller. "A four-year-old bulb will use the same amount of electricity as a new bulb but generate considerably less light." Manufacturers can accurately predict the life of a bulb, including when luminosity begins to drop off sharply.

Then Schuller added estimated labor savings from changing bulbs in groups instead of one by one. The savings went well over $1 million in five years.

At the same time, Facilities Management's management and supervision time has been reduced. Maintenance planning, budgeting, and scheduling have improved. Teams finish ahead of schedule. One senior building and grounds worker told Manlet that the systematic process allowed workers greater efficiency, gaining the time to clean lamps and lenses thoroughly. Cleaning is a key to good lighting that often had to be sacrificed in the past. And FM staff experienced fewer lighting-related injuries.

From energy savings to quality of light

This isn't the first time the U has pursued cost and energy savings for lighting. The Twin Cities campus moved from T12 to T8 linear tube fluorescent lights in the early 1990s through a local partnership called UBEEP. But the focus has broadened.

Group relamping helps to promote the most comfortable and productive learning environments while simultaneously being more energy efficient.

Lamp flicker and inconsistent lighting can be distracting for faculty and students. Good lighting in classrooms promotes better learning through improved student mood, behavior, and concentration.

The overall color of light in any given room can have unexpected effects. Most classrooms used to have bulbs with a range of ages and assortment of hues, from bluish to yellow. Systematic relamping will help maintain visual comfort with consistent color, uniformity, and balanced brightness.

The team talked to different groups of users about the best lighting color. That led to the choice of 4100K lights--a well balanced white light between the cooler blue and hotter yellow. Criteria have been identified to improve decision-making about the choice of new lighting fixtures when buildings are built or renovated.

Group relamping not only brightens the whole room but gives it a uniform finish.

"There's really a 'wow' moment," says Crane. "It makes a difference."

"Sometimes people think we painted the room," Schuller adds.

Tip of the iceberg

A new phase of the project began July 1, when group relamping moved beyond classrooms into office buildings. Facilities Management began the process of collecting data about lighting needs and benefits for the spaces where thousands of staff and faculty work every day. Relamping in Mechanical Engineering will begin around Sept. 15.

"A great opportunity here is dialogue," says Crane. "For example, now we're looking at the lifespan of the ballasts that hold the bulbs. Group relamping is the just the tip of the continuous-improvement iceberg."

The trio's efforts have not gone unnoticed. The story has made its way into the State of the University address and presentations everywhere from Board of Regents meetings to new-faculty orientation.

"This is one example of what we mean by an exceptional organization: Three staff members with very different roles and responsibilities found a better way to change a light bulb and went the extra mile to see it tested and implemented," says President Bob Bruininks. "Our staff, faculty, and students should always feel empowered and encouraged to explore new ideas and change things for the better."

Read more about U of M continuous improvement projects in "Quality Fair generates big energy."

Researchers find absolutely nothing

University astronomers discover great gaping gash in the heavens

By Deane Morrison

August 28, 2007

Astronomers Lawrence Rudnick, Shea Brown, and Liliya Williams made waves when they found a gigantic gaping hole in the Universe.

Nothing fascinates Lawrence Rudnick. In fact, the University astronomy professor even teaches a freshman seminar on the concept of nothingness, titled simply "Nothing." But he never expected to discover the biggest nothing of all. Last week Rudnick, along with graduate student Shea Brown and associate professor Liliya Williams, announced the discovery of a void in the Universe far bigger than any previously found. Empty of stars, planets, galaxies, black holes and even the mysterious, invisible "dark matter," a region so big it would take a light beam a billion years to cross. But it took the world about a billionth of a second to take notice of the find. The discovery hit front pages across the country and abroad, catapulting the three astronomers to sudden fame. It also brought a deluge of e-mails. "I got e-mails from everywhere from Sao Paulo to Iraq, plus several people who wanted to know if they're my relatives," says Rudnick. **Contemplating the void** The newly found empty space occupies a sizable chunk of the visible Universe, Rudnick says. A thousand times bigger than every other known void save one, its relative space is equivalent to what a 1-cubic-foot box would occupy in a living room 20 feet by 30 feet by 10 feet. The Universe was thought to have a much more even distribution of stars, galaxies, clusters of galaxies and the mysterious "dark matter" that forms 85 percent of the matter in the Universe but emits no light. The void was found in the constellation Eridanus--representing an ancient river--to the southwest of Orion. It can't be seen with the human eye because it's between six billion and 10 billion light-years distant, and the stars of our Milky Way galaxy fill the visible sky in front of it. But if you could see it, it would be huge. It covers an area of the sky about three degrees in diameter, approximately 40 times the area covered by the full moon, say the researchers.

"It's really strange there is such an empty region," says Marco Peloso, assistant professor of physics at the University. "How do you explain this? It was quite a surprise."

The void lies in a direction almost opposite to that of the center of our galaxy. If you were to turn your back to the galactic center--found in Sagittarius, a summer constellation--and then turn 30 degrees to the left, you would be facing the general direction of the void. **Worry about nothing** The researchers found the void using data on the distribution of matter in the Universe supplied by the National Radio Astronomy Observatory from its array of telescopes in New Mexico. But that is a public database, a fact that led to some down-to-earth concerns. "We were worried about being scooped," Rudnick admits. "Our data were available publicly. Anybody could have found what we found." "It was low-hanging fruit," adds Williams. To beat the competition, Williams spent an entire night analyzing data to make sure their interpretation was correct so that the work would be ready to submit for publication the next morning. **What nothing means** If the existence and size of the void is confirmed, it will give theoretical astrophysicists plenty to chew on. "It's really strange there is such an empty region," says Marco Peloso, assistant professor of physics at the University. "How do you explain this? It was quite a surprise." "It could just be the first [of its kind to be discovered]," muses Rudnick. Nobody else, he says, has searched for voids using the data his team used. No doubt the void will also figure into Rudnick's freshman seminar, which he will next offer in the spring. "Exploring nothing is extremely fertile ground," he says. "When students are forced to confront nothing it stretches their minds and challenges them in ways they haven't experienced before. For example, a number of students have looked at or questioned the idea of beliefs. What if your own beliefs or other peoples' are based on nothing that has external reality? How do we know what's real and true?"

The void is a showcase for the power of dark energy, the recently discovered force that is causing the Universe to speed up its expansion. To learn why, see Cosmic journey.

Cosmic journey

How dark energy influences the travels of light

By Deane Morrison

August 28, 2007

This is a companion piece to 'Researchers find absolutely nothing' Researchers Lawrence Rudnick, Shea Brown, and Liliya Williams found the void as a large spot where there were no galaxies or other large concentrations of matter. It coincides with the previously known location of a "cold spot" in a special type of light that fills the whole sky. Called the cosmic microwave background, or CMB, this light originated when the Universe was in its infancy and is considered an "echo of the Big Bang." The team figured out that it was no accident that the void and the CMB cold spot occurred in the same area of space. The explanation lies with dark energy, a powerful force that causes a different effect on light passing through such a large void than on light passing through areas rich in galaxies or other matter. Dark energy became a dominant force in the Universe very recently, when the Universe was already three-quarters of the size it is today. Dark energy works opposite gravity and is speeding up the expansion of the Universe. Thanks to dark energy, CMB light that passes through a large void just before arriving at Earth has less energy than light that passes through an area with a normal distribution of matter in the last leg of their journey. Here's why: In a simple expansion of the Universe, without dark energy, light approaching a large mass--such as a huge cluster of galaxies--picks up energy from its gravity. As the light pulls away, the gravity saps its energy, and it winds up with the same energy as when it started. But light passing through matter-rich space when dark energy becomes dominant doesn't fall back to its original energy level. Dark energy counteracts the influence of gravity, and so the large masses don't sap as much energy from the light as it pulls away. Thus, this light arrives at Earth with a slightly higher energy, or temperature, than it would in a dark energy-free Universe. It's like being on a landscape with no flat spaces, only hills and valleys. A source of gravity is like a valley; a wagon gains energy as it goes down a valley and loses energy as it pulls out of the valley. We see the wagon's energy gains and losses as changes in speed. As dark energy counteracts gravity, it stretches out the landscape, and the valleys get shallower. Light becomes like a wagon that never has to climb as far uphill as it rolled downhill. Thus, it shows a net gain of energy--but in the form of a higher temperature. For light passing through a large void, however, things are different. As it enters a void, light pulls away from whatever matter it is leaving behind. It loses energy, just like a wagon climbing a hill. But when dark energy stretches out the hill, the hill becomes smaller, and the wagon will never regain as much energy by rolling down as it lost in climbing up. Thus, the light suffers a net loss of energy, which shows up as a drop in temperature.

Monitoring drug interactions

By Todd D. Sorensen

From *eNews,* August 30, 2007

The term "drug interaction" is used to describe a situation in which the way a medication would normally act in the body is altered because of another substance. Interactions can occur with food or other drugs, and can adversely affect other medical conditions.

Too avoid drug interactions, make sure your physician is aware of all the medications, as well as herbal remedies, that you're taking.

Are they common? Severe drug interactions are not common, but there are risks.

A few years ago, Seldane, a prescription medication for allergies, was pulled from the market, in part, because its interaction with other drugs sometimes resulted in heart problems and patient deaths. Most interactions are much less dangerous and may be so subtle that patients aren't even aware that they're occurring. Food in the stomach, for example, may affect the absorption of a drug into the bloodstream. But it may not cause a person to feel any different.

Occasionally, drugs interact with food in adverse ways. Certain cholesterol medications have been shown to interact with grapefruit juice in ways that cause problems. Affected patients may experience muscle aches, or in more severe cases, there could be a breakdown of muscle tissue.

Sometimes it's not the interaction of two drugs that's problematic; rather, the condition treated by one drug is adversely affected by the other. For example, Sudafed, which is used to treat nasal congestion, can increase your blood pressure. So if you're taking blood pressure medication, Sudafed could counteract its effectiveness. You should be aware that even Sudafed and other over-the-counter medications could interact with prescription drugs.

There are several things you can do to lessen the risk of drug-to-drug interactions. 1) Make sure your physician is aware of all the medications that you're taking. This list should include any prescription and non-prescription drugs, as well as herbal medications. Not everyone considers herbals to be drugs, but studies have shown that they occasionally interact with prescription medications in adverse ways.

2) Use one pharmacy so all your medication records are kept in one place. Pharmacists always review each patient's profile, and pharmacy computer systems alert them to potential interactions. Each pharmacist then uses his or her professional judgment to determine what interactions a patient might encounter. If potential red flags pop up, your pharmacist will consult with your doctor. Solving the problem may be as simple as changing the time of day you take the medication (for example, between meals so it doesn't interact with food), or it may require an alternative prescription medication.

What should you watch for?

If anything seems abnormal, ask your pharmacist or physician about it. The symptoms of drug interactions can run the gamut from general malaise to heart palpitations. There's no particular rule about what you can expect with a drug interaction. But you can ask your pharmacist about the medications you are taking. For example: if something were to occur, what are the potential signs? When is it likely to happen?. The symptoms of drug interactions can be predicted in some cases.

The main thing to remember is that good communication with all your health professionals is key. Patients shouldn't be expected to identify these things themselves, but they should always feel comfortable asking questions.

For more tips on drug interactions, including drug and over-the-counter medications, see the U.S. Food and Drug Administration

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Todd D. Sorensen is a professor with the College of Pharmacy at the University of Minnesota.

This column is an educational service of the University of Minnesota. Advice presented should not take the place of an examination by a health-care professional.

Unusual suspects in Medical School class

University of Minnesota welcomes a diverse medical school class to help fill the state's need for physicians

By Nick Hanson

From *eNews,* August 30, 2007

Noelle Ekwochi is among the new crop of students entering the Medical School this fall. The incoming class is one of the school's largest in recent years.

OK, you've got a rabbi, a business executive, and an Olympic biathlete.

What do they have in common?

Not much. Except that they're among the 241 students attending the University of Minnesota Medical School this fall.

They're also contributing to a burgeoning class size, which is about 10 percent more than the usual 220, and makes this year's class one of the largest the University of Minnesota Medical School has seen in recent years.

"I had just figured out that something about my personality should put me in med school," says Olympic biathlete Carolyn Bramante, a Duluth native who had to choose between a career as an international shooting and cross-country skiing competitor or a life in medicine. "I wanted to do something more. As an athlete, in a way, you are studying the body."

While the 21-student hike may not seem like much, it's significant when you consider the need for practicing physicians in the state of Minnesota. The workforce is aging and more than 250,000 active physicians are over 55 years old, according to the American Medical Association. On top of that, first-year medical student enrollment across the country has been dropping since 1980, according to the U.S. Census Bureau.

During the past couple of years, the University of Minnesota has been tackling the problem of a shortage of primary care physician doctors in family medicine, pediatrics, and internal medicine. In 2007, about 42 percent of University of Minnesota Medical School graduates went into primary care.

About 80 percent of the 2007 entering class is from the Minnesota, so it's likely graduates will practice in their hometowns scattered in all corners of the state. In addition, 22 percent of the class stem from a multicultural background - meaning they may have a penchant to serve a typically underserved population.

"That's terrific - our students are meeting the need," says Paul White, assistant dean for admissions for the University of Minnesota Medical School.

More students are also applying to the University of Minnesota Medical School. Applications were up 22 percent this year, compared with 5 percent nationally.

"The quality didn't suffer any," he says. "This is one of the top medical schools in the United States. It's recognizing that this is a great program."

MCAT scores were high for applicants and 11 percent of the students already had advanced degrees, like Elena Zupfer.

A few years after college, Zupfer earned an M.B.A at the U's Carlson School of Management. She eventually landed a job trading bonds. But the 33-year-old volunteer-enthusiast says her job wasn't fulfilling, and decided to return to school. If she stays on track, she should be a doctor by the time she is 40 years old.

"Most of my friends think it's great, but my parents kind of think I was crazy," Zupfer says. "But when I want to do something, I want to do it."

Deborah Powell, dean of the medical school, believes more students are attracted to the University of Minnesota Medical School for several of its new initiatives. One of the newest attractions is a flexible MD program. The program allows students to take three-and-a-half to six years to complete school for the same flat cost of 11 semesters. This allows students to take a year off to volunteer, study abroad, or gain some valuable work experience in medicine or the medical industry.

Flexible MD is part of a larger program called Med 2010, a comprehensive initiative that emphasizes competency-driven learning experiences throughout the span of medical education. The shift from a time-based to a competency-based medical education program allows students to tailor their educations to their unique starting points, paces of progress, and interests, Powell says.

Yosef Wexler believes he is ready for a competency-based medical education. Wexler recently earned a degree in rabbinical ordination. And after a move back to his native home of St. Paul, the 27-year-old decided to enroll in medical school.

"It's a combination of two aspects of life that are near and dear to me," Wexler says. "What I hope to do--if patients would like--is talk about how to deal with situations and blend the philosophies of medicine and outlooks on life."

So, what will a rabbi, business executive, and Olympic biathlete have in common? In a few years, they'll have a University of Minnesota Medical School degree.

Big Ten Network kicks off coverage

Aug. 30, 2007; updated Sept. 4, 2007

If you live and breathe Big Ten sports...if you know all of the schools' colors and mascot names, not just Goldy Gopher...even if you just like to cheer against Wisconsin and Iowa at every available opportunity: There's a new broadcast network for you.

The Big Ten Network (BTN)--a first-of-its-kind partnership between the 11 Big Ten universities and a major television provider--launched Aug. 30, giving conference supporters unprecedented access to Big Ten sporting events. BTN will make conference sports programs available to more than 17 million viewers nationwide.

"The new Big Ten Channel will result in higher visibility for Gopher athletics and the entire University of Minnesota both in our state and nationally," said Twin Cities campus athletics director Joel Maturi.

For example, all Gopher football games will have a broadcast home this year. Since the 2001 season, a total of 19 Gopher football games were either not available on ABC, CBS, ESPN, or ESPN2, or were not available at all. The network will also offer increased access to sports that typically have not received much airtime. Coverage will be provided for sports such as baseball, soccer, gymnastics, volleyball, and wrestling. And there will be a dramatic increase in the amount of televised women's sports. More than 60 Big Ten women's basketball games will be broadcast this coming year, doubling the previous average. Within one year, women's sports will comprise half the network's sports programming.

Overall, more than 60 Gopher games and events will be aired on the BTN this season. In addition to sports coverage, the Big Ten Network will also provide each university with opportunities to showcase academic breakthroughs, honored alumni, current students, renowned faculty, and academic accomplishments. The BTN also will provide student internships at each school. The BTN was available at launch time nationwide via DIRECTV, and through local cable companies Hiawatha Broadband and Ace Communications, which serve areas in southeast Minnesota. For more information about the BTN and to find out who is carrying the network in your area, visit Big Ten Network.

The goal of the Big Ten Conference is to eventually have the network available to everyone who wants it, and the University is hopeful that agreements will be reached with other cable providers soon. In the meantime, the University of Minnesota Alumni Association will be working with its chapters to facilitate viewing parties and other activities to help fans watch or attend Gopher sports events.

U enhances emergency preparedness

By Rick Moore

Aug. 1, 2007

When all goes well, nobody really notices the work they do. But when the unexpected happens, they take center stage.

Terry Cook became director of the Department of Emergency Management in August 2004 after 23 years as a police officer in Apple Valley and six years as police chief in West St. Paul.

Such is life for the staff of the University of Minnesota's Department of Emergency Management (DEM), a four-person unit housed in a building at 2221 University Avenue, just south of the site of the new football stadium on the Twin Cities campus. In offices next to its Emergency Operations Center (EOC), nerve central in times of an emergency, the team continually fine-tunes its plans to help all the U's campuses prepare for and cope with disasters.

The U's preparedness was put to the test on April 18, when a bomb threat forced the evacuation of eight buildings on the East Bank of the Twin Cities campus in Minneapolis.

The University needed to clear all of the buildings in question and explain what was happening--as quickly as possible--to staff, students, media, and the general public while emergency personnel conducted a sweep for explosives.

"Any time you do a disaster drill, the number one issue is communication," says Terry Cook, director of the department. "It was no exception this time."

> *"[The Virginia Tech shootings and the U's bomb threat] helped everyone in the University community realize how important [preparedness] is," says O'Brien. "They really sharpened everyone's understanding of the need for vigilance and cooperation. Safety is everyone's job."*

The U immediately issued an emergency message through some of its 400 tone-alert radios. It also sent out a broadcast e-mail to about 75,000 students, faculty, and staff.

By and large, the communication methods were successful. Most of the tone alert radios worked well, but some did not, had been moved, or weren't heard by anyone.

The email system also showed some weak spots. "It took anywhere from minutes to hours to receive the e-mail," says Cook, which "obviously isn't fast enough." The U's Office of Information Technology worked on the issue the following week and did extensive testing. "Now they've got it down to 9-12 minutes to send out the same number of e-mails," Cook notes.

"We learned a lot about what did work and what we needed to work on," adds Kathleen O'Brien, the University's vice president of University services.

As a result of the bomb threat, O'Brien formed a group to look at additional communication methods like text messaging, digital message boards, and outdoor speakers to help convey information in an emergency, says Cook.

"What we've determined is that redundancy is good," he says. "Having several different technologies available gives you the best chance of getting the warning to the most people."

Adds O'Brien: "Even the systems we rely on, we're fine-tuning now."

Given the scope of the threat in April, Cook says he was pleased with the results of the evacuation. "I thought it went very well," he says. "You're always going to have some issues and some problems. I don't know if the U has ever evacuated eight large buildings at the same time.... It gave us a real-life opportunity to see how it would go."

O'Brien points out that other emergency responders were impressed with how University personnel handled the challenge. "Our colleagues from the FBI and other jurisdictions complimented us on how well our Emergency Operations Center worked," she says.

Expanded resources, programs, and equipment

Since 9/11, the U has spent roughly $12 million in additional security hardware and systems, and now has 950 cameras in place across all of the campuses, according to O'Brien, who has administrative oversight over the Department of Public Safety and the Department of Emergency Management.

The U has also doubled the number of automatic external defibrillators (AEDs) in buildings; it now has about 200 AEDs in place at a cost of about $1,800 a piece around its campuses. "There isn't another university nationwide that would approach that number of units," Cook says.

DEM has been evolving in recent years, too. It added Kristy Gisch as an emergency management coordinator who works with the U's Duluth, Crookston, Morris, and Rochester campuses. "She's helping us to expand programs that weren't previously on the coordinate campuses," says Cook.

Other newer programs include planning for a pandemic flu, in which the department works closely with the Academic Health Center, and developing and updating "operational continuity" plans, which look at the critical functions of key University service units and what staff are needed to carry on their operations. There is a coordinating committee for pandemic flu and operational continuity on each U campus.

DEM, by virtue of adopting the National Incident Management System, is certified by the state and federal government and eligible to receive emergency preparedness grants directly.

The department received a grant from the state to retrofit an emergency vehicle into a Mobile Command Post. And this past spring, the U also applied for and received two FEMA trailers--used in Hurricane Katrina--that will serve as expansion "incident command" space.

The goal, of course, is to be over prepared for incidents that rarely happen. But in light of the shootings this spring at Virginia Tech--"every university community's nightmare," O'Brien says--and the bomb threat at the U days later, the improbable had suddenly become possible.

"[Those events] helped everyone in the University community realize how important [preparedness] is," says O'Brien. "They really sharpened everyone's understanding of the need for vigilance and cooperation. Safety is everyone's job."

Fallen bridge prompts contemplative class

In the wake of the I-35W tragedy, students look to the future

By Deane Morrison

August 31, 2007; updated September 12, 2007

The fall of the I-35W bridge, seen here through the arches of the 10th Avenue bridge, has led to a University class on the river, the bridge, and the community.

As workers pick up the pieces of the I-35W bridge over the Mississippi, people are setting their sights on the future. The questions raised by the tragedy cut deep into the collective consciousness about the river, the highways, the bridges, and the communities where they intersect. The University, situated less than a mile from the site, is taking an active role in guiding the discussion, and this fall it will bring students into the arena. A new class called "The river, the bridge, the community: Beyond the headlines of the I-35W bridge collapse" (Urban studies 3800) will tackle the big issues that must be addressed in order to rebuild the bridge and the surrounding area in a way that will stand the test of time. "There's a lot going on now about new bridge design, the politics of infrastructure, and memorials to victims," says course instructor Patrick Nunnally. "We're trying to slow the conversation down. We're setting our sights 10 years or more ahead, inquiring about how people may be thinking about the river or what they'll be doing then." As long as everything was going well, rivers and highways coexisted in happy disregard of each other. But since Aug. 1, people in the Twin Cities and elsewhere have become acutely aware of their dependence on an engineering structure every time they cross a river. Many have also started to think about the close proximity of major arteries like highways I-35 and I-94 and the shipping traffic on the Mississippi. Congestion in a time of crisis is one concern. "Rivers in urban areas and bridges pose unique challenges for emergency preparedness," says Nunnally, who is the coordinator for "River Life: The Mississippi and U", a program of the University's new Institute on the Environment. "The University is a leading institution in the Twin Cities for gathering people for emergency response." The University's closeness to major highways and a national river gives the U a unique advantage is grappling with the issues of the course. The evening of August 1, says Nunnally, that closeness took form in the persons of medical students who grabbed their bags and rushed to the scene, and in the numbers of injured who were taken to the University of Minnesota Medical Center, Fairview, for treatment.

Planning for a new bridge must take into account "that giant institution" a mile away, Nunnally says. As the third most popular destination in the state, at least on weekdays, the University and its needs will influence decisions. For example, the University can tell planners how many people arrive every day by bicycle or bus, a statistic that bridge designers may want to figure into their blueprints.

> *"Rivers in urban areas and bridges pose unique challenges for emergency preparedness," says Nunnally.*

Bridge and physics
Physics explains why many people lived through the fall of the I-35W bridge. To learn more, read "Why so many survived."

Headliners event: "Bridges Fall Down"
On October 4, join University of Minnesota geography department chair John Adams, as he discusses the broader implications of this Minnesota tragedy and explores possible solutions for the future. Tickets are $10. Reserve your space at the College of Continuing Education's first event of the 2007-08 Headliners season.

The course will touch on engineering questions, such as the type of structure that will replace the fallen bridge and how interchanges will be designed. But in looking forward, it won't neglect the history of the Mississippi and its bridges in the Twin Cities area. "The Twin Cities have one of the world's most extensive arrays of concrete arch bridges," says Nunnally, naming the 10th Avenue, Cedar Avenue, and Franklin Avenue bridges as examples. With river traffic now halted in the vicinity of the collapse, barges and other boats that pass below the bridges and contribute to the economic life of the city and the state will be a hot topic. Students will also learn about the river as an ecosystem with its own plant and animal communities and physical attributes. Among the latter are the water currents near the I-35W bridge, which hampered rescue and recovery efforts following the collapse and continue to attract interest. The collapse itself may have affected water quality, another angle for scientific inquiry. Besides regular meetings, Nunnally will bring in professional speakers from inside and outside the U to shed light on how the significance of the I-35W bridge, the river, and the community has changed since the disaster. Anyone interested in the class can learn more by contacting Nunnally at pdn@umn.edu or visit The course Web site.

Children's mental health leader is back to campus

Public engagement will help to shape research agenda

By Stephanie Wilkes

Brief, Sept. 5, 2007

Joel Hetler, the new full-time director of the U Center for Excellence in Children's Mental Health, brings community experience to bridge the path between research and practice.

As Minnesota children head back to school this fall, psychologist and community leader Joel Hetler finds himself back at school, too. Hetler, '76, has returned to campus as the new director of the Center for Excellence in Children's Mental Health (CECMH). With almost two decades of community expertise, he hopes to bridge the gap between research and practice in children's mental health through public engagement.

Hetler sees CECMH as a catalyst to connect the community and the University to benefit those who really matter-the children.

"The traditional lore is that it takes 25 years to go from research to practice in children's mental health, and that is just not acceptable," he says. "There are too many children and families really struggling with these issues. If we can connect the research to practice, we can help people a lot more directly that we do now. It is a shame not to."

CECMH was founded in 2004 as part of the President's Initiative on Children, Youth, and Families, one of eight interdisciplinary initiatives. After operating under a part-time coordinator for three years, CECMH created a director position, drawing criteria from interviews and focus groups with community and University members.

Hetler met and exceeded all of their crucial criteria for the position, says CECMH coordinator Cari Michaels.

"We needed someone who could be a fund-raiser and the public face of the center, but more importantly, we needed someone who could really be the connector to places outside the University," says Michaels. "Moving a high-profile community person like Joel into this position will really provide balance in our organization and open our doors to a lot of people we would not be able to partner with otherwise."

With a Ph.D. in clinical psychology from the U, Hetler began his work as manager of children's mental health in Ramsey County in 1989, after the Children's Mental Health Act was put into place. There he developed the county's first children's mental health program. Over 18 years, he managed and expanded the program, supervising service areas from community-based case management to mobile crisis teams and child-welfare screening. In addition, Hetler has been involved in developing policy to shape the public mental health system in the state of Minnesota.

"The traditional lore is that it takes 25 years to go from research to practice in children's mental health, and that is just not acceptable."

Hetler's Ramsey County colleague Linda Hall, a supervisor of children's mental health case managers, emphasizes his dedication to the community. One aspect was developing the Children's Mental Health Collaborative, bringing together parents and providers from human services, community corrections, and the school system to address issues from all their perspectives.

"He has been a leader in the development of a 'cohesive-community approach' to children's mental health--a way to make the service-delivery system as effective as possible," says Hall.

It's this cohesive-community approach that makes Hetler's vision and goals for CECMH so significant. Bringing research into practice in the community must be accompanied by an infusion of community opinion and ideas into the research agenda.

"There is a big return in helping the University understand needs from the community's perspective," says Hetler. "[Using community perspectives] to grow the research agenda and influence training programs can help us produce interventions and clinicians that are better suited to go out and deal with the daily problems."

Michaels agrees.

"We need to emphasize that these partnerships are two-way streets," she says. "We need to have community practitioners informing researchers about what their next steps should be. If researchers are doing work that does not apply in the community, then it doesn't help anyone, and in the meantime, it is the children who are waiting."

Hetler recognizes the historical opportunity he's been given at a time when researchers are becoming clearer about what works and what doesn't. He hopes to work closely to connect the community and the University while educating both about the obstacles they can address together.

"If you think about the links between the research and the client, there are so many missing connections," says Hetler. "Making those connections is a really important part of our work."

FURTHER READING Two-way street: Statewide series on children's mental health exchanges knowledge from research and practice (March 28, 2007)

You can also learn more about Ramsey County's initiatives to serve children, youth, and their families dealing with mental health issues at Ramsey County Children's Mental Health Services.

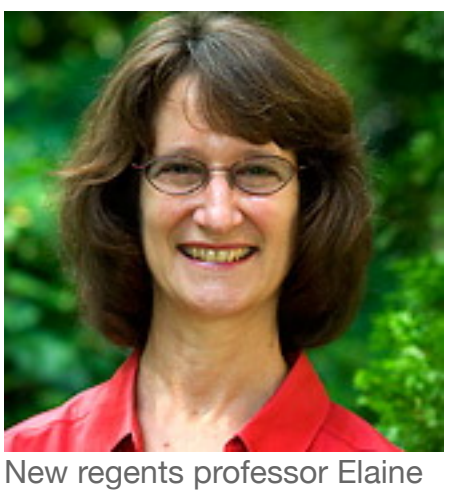
Stephanie Wilkes is a senior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

A contemporary view of history

New regents professor Elaine Tyler May explores the links between politics and family life

By Rick Moore

September 4, 2007



New regents professor Elaine Tyler May is a renowned scholar of 20th century U.S. history and American studies.

The post-World War II years mark a time that Americans are fond of reminiscing about--a time of relative peace and prosperity, of vets taking advantage of opportunities through the G.I. Bill, and of families plotting a life in the suburbs. Some have taken to calling it "the greatest generation."

Elaine Tyler May takes a somewhat different view of that historical era: "It just sort of sits there like this demographic and culturally mutant moment."

It's a moment May, a U professor in American studies and history who grew up in the '50s and '60s, has examined from many scholarly angles and with a view that has drawn praise both nationally and internationally. She has written, coauthored, or coedited six books including *Homeward Bound: American Families in the Cold War Era*, which is considered a fixture on reading lists for courses in American history and American studies.

May is "an internationally renowned scholar of 20th century United States history and American studies," according to Riv-Ellen Prell, professor and chair of the Department of American Studies. And May's scholarship is said to have transformed American history by linking the family to the public world of politics.

This summer, she was named one of five new regents professors, the University of Minnesota's highest faculty honor.

> *"I learn from teaching," May says. "I think that's the most exciting part for me. I really like the give-and-take from teaching, and the teaching I enjoy is where I'm in conversation with the students."*

Early in August she took some time to chat in her living room about the award and what has helped shaped her career.

"I'm still completely stunned by this news and it's hard to believe, but [it's] obviously thrilling and an amazing honor I never imagined in my life I would have."

Growing up in an era of ferment

Perhaps one reason she may not have imagined a distinguished career studying and teaching American history is that May grew up in Southern California with, well... an aversion for history.

"'History' wasn't really taught in my high school at the time I was there," she says. "It was about memorizing names and dates and the comings and goings of presidents and generals..." It wasn't until later in college that she figured out the field's potential. "I discovered that history is an interpretive art--it's about real people doing lots of different types of things," she adds.

In 1968, as an exchange student in Japan during the height of the Vietnam antiwar movement, May found herself immersed in a politically charged atmosphere and looked upon as being, first and foremost, an American.

For May, it was a defining experience. It "taught me how little I knew about what [being an American] meant," she says, and "started me on my quest to understand American history."

May says she was also shaped by the activities of her parents. Her father was a physician in reproductive medicine and a pioneer in infertility research and oral contraception, and her mother was active in the birth control and sex education movements.

"This was the stuff I grew up with," she says. "It's no accident I became interested in changing gender roles and that I would be intrigued by the connections between people's most private and intimate lives--including marriage, sex, and child bearing--with the larger social and political issues going on in the world around them."

Hers is a very contemporary look at U.S. history. *Homeward Bound* is an eye-opening examination of how the political realities of the Cold War era infused the daily life of Americans. And May's book *Barren in the Promised Land: Childless Americans and the Pursuit of Happiness* examines childlessness in the context of the politics and culture of reproduction.

May is the recipient of numerous awards and honors, including the Distinguished Woman Scholar Award in the Humanities and Social Sciences, the Fesler-Lampert Chair in the Humanities, the College of Liberal Arts (CLA) Dean's Medal for Excellence in Scholarship and Creativity, and the CLA Scholar of the College Award. She has received fellowships from the National Endowment for the Humanities, the American Philosophical Society, and the American Council of Learned Societies, to name a few.

Five new regents professors

Five faculty members were named regents professors on June 8, 2007. They will be formally recognized by the Board of Regents on Sept. 7.

Frank Bates, chemical engineering and materials science, Institute of Technology

Richard Leppert, cultural studies and comparative literature, College of Liberal Arts

Elaine Tyler May, American studies and history, College of Liberal Arts

Matt McGue, psychology, College of Liberal Arts

Peter Reich, forest resources, College of Food, Agricultural and Natural Resource Sciences

Their appointments bring the total number of regents professors to 25, en route to 30 by 2010. Currently, each receives a salary stipend of $20,000 per year and an additional $30,000 research stipend. See the news release on their selection for more information.

All about interaction

Colleagues also note that May is dedicated to the notion that teaching and scholarship are two sides of the same coin and she has been a leader in developing pedagogic strategies suited to the U's mission as a research university.

May, in turn, feeds off of her interactions with students. "I learn from teaching," she says. "I think that's the most exciting part for me. I really like the give-and-take from teaching, and the teaching I enjoy is where I'm in conversation with the students."

Exchanging ideas, learning from students, and introducing them to new ways of approaching their world give her the most satisfaction, and she says she is "renewed, rejuvenated, and reeducated" every time she teaches a course.

May is also more than happy to discuss her latest research--and its ramifications for Americans--with a visitor. A book in progress will examine the legacy of the post-World War II movement toward personal security and away from public life.

She says it's a movement to "farther and farther outlying areas, and larger and larger and more fortified homes, and the epitome of this trend, in my opinion, is the huge explosion of gated communities," which she says are the fastest-growing trend in the American housing market.

"The rise in gated communities, McMansions, super-fortified houses, and SUVs--all of these--reflects an increasing obsession with privatization, personal security at the expense of civic and public life, and an approach to social problems that is one of retreat and 'take care of yourself.'"

But that doesn't mean there won't be an end to the trend.

"Being the eternal optimist I am, I keep hoping America will embrace a sense of the common good that is truly at the base of the country's founding principles," May smiles. "I cling to my shred of optimism that somewhere along the way, Americans will wake up to what's at stake and reach to those ideals of the common good."

Bridge stories

From *M*, fall 2007

A number of people connected with the University--students, faculty, and staff--were among the first on the scene following the collapse of the Interstate 35W bridge. Here are some of their stories.

University medical, dental students help victims after bridge collapse
After the 35W bridge collapse, University medical and dental students rushed to offer their help--administering first aid, flagging down trucks to use as makeshift ambulances, and comforting the victims of the disaster.

For U professor, bridge collapse hits close to home
Ross Macmillan, an associate professor of sociology, was on his way home from work when he heard the bridge fall. He then raced to the river by foot to offer his assistance.

Four officers were ready to serve
Many police officers on the Minneapolis scene had put in long hours and needed relief, and four off-duty officers from the Duluth campus stepped up to offer their service.

U of M professor listens, calms victims after bridge collapse
Although he wasn't in the accident, Tai Mendenhall knows firsthand how painful it was for the victims. The U professor was deployed to the hospital as part of the University's Medical Reserve Corps.

Morris student aids in bridge rescue
During the I-35W bridge collapse, UMM senior Isaiah Brokenleg helped to calm the children who were on the school bus.

U grad composes tribute song
Two days after the I-35W bridge collapsed, U grad Phil Thompson made a trip to the Mississippi River for a view of the scene. That evening, the acclaimed pianist composed "Final Ride Home," a compelling tribute to the victims of the tragedy, their families, and volunteers.

Getting to the University

Getting to and around the Twin Cities campus may be a bit of a challenge this school year, but the U offers information for a smoother journey.

Diversity rules

New faculty position reflects University of Minnesota's commitment to diversity

By Natalie Johnson

September 5, 2007

Catherine Squires is the first professor of journalism, diversity, and equality at the University of Minnesota.

To ensure the discussion about diversity is not lost in the dizzying array of dialogues taking place at the University, five scholars will be welcomed to Twin Cities campus this fall. For one of these scholars, Murphy Hall will be home. As the inaugural John and Elizabeth Bates Cowles Professor of Journalism, Diversity, and Equality, Catherine Squires will provide a new voice to enhance the discussion about diversity. This professorship is made possible through a College of Liberal Arts (CLA) Planning Compact and the generous, longstanding endowment made to the School of Journalism and Mass Communication (SJMC) by the Cowles family. CLA received more than 20 proposals to determine where the diversity scholars would be placed. The new positions, which are scattered across the social sciences, the humanities, and the arts, are designed to enhance the University's teaching and research capacities and CLA's ability to mentor and recruit undergraduate and graduate students. Squires says it is the first job description she had seen in a long time that was "exactly" what she wanted to do. "When I learned about the resources of the endowment, about how the professorship was created through a competitive process, and that the entire SJMC was behind the position, it was very exciting for me," she says. "To see the entire University making this push for diversity was very heartening for me. I felt strongly that it was something I could throw my energy behind." Al Tims, director of the SJMC, says the professorship enhances the school's ability "to provide students the best possible academic and professional education for their entry into diverse careers in the rapidly changing communications industry." Squires comes to the SJMC from the University of Michigan, where she has held a joint appointment as an assistant professor in the Department of Communication Studies and The Center for Afroamerican and African Studies. She has published numerous articles exploring black women's studies, African-American youth culture, and issues of race/ethnicity, class and gender-inclusive research. Squires has contributed to several books and authored two of her own: *Dispatches from the Color Line: The Press and Multiracial America* and *Agents of Change: African American Experiences with Mass Media*.

Getting from point A to point B

Squires passion for her research is clear, bringing a spark to her eyes, yet the path that led to it took a bit of a meander first. Squires originally started down the road toward international politics. She attended a small college in Los Angeles with thoughts of working in the foreign service. World events intervened, however, and began to influence her direction. "My undergraduate experience was bookended by the Rodney King beatings, trial and uprisings, and by O.J. Simpson driving down the freeway," she says. "I was there to see how the media handled the whole Rodney King incident, in the press and on television, and it was very different from what we were hearing on the streets. The disjuncture was so great in my mind that it got me to thinking there was something very wrong with this picture." Those thoughts led to a year in England, immersed in media studies. An internship with the U.S. Mission to the United Nations offered her a taste of what it's like to work in the diplomatic world, and gave her a close look at how the press responded to the downing of two Blackhawk helicopters in Somalia as well as Nelson Mandela's address to the U.N. Assembly in 1993. The subsequent media coverage of these events cemented Squires' decision to pursue graduate study in mass communication. "I found myself really inspired to study how the media portray things," she says. "I decided the Foreign Service was not the place for me." She landed at Northwestern University's School of Speech, where she earned both her master's and doctoral degrees in communication studies.

"I was there to see how the media handled the whole Rodney King incident, in the press and on television, and it was very different from what we were hearing on the streets," says Squires.

In her research, Squires explores when and how racial identities are made salient in mass media; what cultural and historical resources media producers and audiences draw upon as they create and debate racial discourse; and whether other identities are viewed as intersecting, or irrelevant, to racial identity in the midst of these debates. "I have been fortunate to be able to incorporate my research interests into many of my courses," she says. "Students tell me they appreciate their new found knowledge of the ways in which African-Americans have used the press to advance various cultural and political causes." Among the many classes and seminars Squires has created, she is most proud of African Americans and Broadcasting, introduced at the University of Michigan. The course takes students through the politics of media and culture in the 1950s and 1960s. And with their new knowledge in hand, the students created Web sites for elementary school children and radio documentaries on blacks, civil rights, and broadcasting. "I hope I can convince students to go beyond their own technobubbles to appreciate the history of our media system and the things that make it unique," she says, adding that many students today grew up with more technical gadgets than any other generation in history, making them media savvy, but not necessarily well-grounded in theory or history. "Once they have that historical perspective, they see that our media system is both wonderful and troubling." Squires concludes, "I think there has been a shift in thinking about media as personal conduits of entertainment and information rather than public resources, and we need to shift back toward a more public orientation to the power of mass media."

Why so many survived

Physics is one reason the I-35W bridge collapse casualty count wasn't higher

By Deane Morrison

September 7, 2007

U physicist James Kakalios explains how the redistribution of energy helped people survive the collapse of the I-35W bridge.

When the I-35W bridge fell on August 1, several cars rode the bridge down and came to rest on pieces of pavement in the middle of the Mississippi River. The people who emerged from their cars could count themselves lucky; they had just survived a 60-foot drop. Besides sheer luck, one reason they made it was the way the laws of physics worked in their favor, says University physics professor James Kakalios. "According to the [video] tapes, the bridge took four seconds to fall," Kakalios says. Normally, a 60-foot drop would take close to two seconds. The extra time came from the crumbling of the bridge supports. Or, as Kakalios explains it, from the redistribution of energy. Consider a bridge the size of I-35W falling freely. At rest, it would have a great deal of potential energy; as it fell, it would convert the potential energy to kinetic energy--the energy of motion. The farther it fell, the faster it would go, the more energy it would have, the greater the force needed to slow it down or stop it, and the greater the impact it would have when it finally stopped. When the I-35W bridge fell, the steel girders under the middle part resisted the fall. As they crumbled, they absorbed energy from the falling concrete bridge deck, slowing it down. The energy of the falling bridge also went into pushing a large volume of air out of the way. The energy to set the air in motion came from the kinetic energy of the plummeting structure, and overcoming this air resistance may not have been a trivial matter.

"According to the [video] tapes, the bridge took four seconds to fall," Kakalios says.

"In autos, 25 to 60 percent of the energy of gasoline is used to fight air resistance," says Kakalios. "Without air resistance, fuel economy would be much higher." Thanks to all this resistance, the bridge delivered less of an impact to its load of cars and their occupants. In free fall, it would have been traveling about 40 mph when it hit the water. But based on the time it took to fall, it probably hit at about 20 mph, Kakalios says.

A note on kinetic energy

Because an object's kinetic energy rises in proportion to the square of its speed, doubling the speed gives the object four times as much kinetic energy. Conversely, cutting the speed by half cuts the kinetic energy down to a quarter of what it would have been. If the falling bridge was indeed slowed from 40 to 20 mph, it's easy to see how the reduction in energy available for doing damage may well have saved lives.

Physics to the rescue

The police, firefighters, medical professionals, divers, and others who helped survivors and searched for victims are examples of the "everyday heroes" who make use of modern technology. In his new freshman seminar on "The physics of everyday heroes" this fall, Kakalios, known for his popular seminar on the physics of superheroes, explains the science behind technologies that help real heroes. Topics include infrared heat-sensing to find survivors of fires, MRI scans, and possible future technologies such as "functional MRI" scans to sense a person's thoughts. "The physics that drives all these instruments is quantum mechanics, the modern theory of atoms and light," Kakalios says. It's all based on two technologies: lasers and transistor-based semiconductors, which also make cell phones, laptops, DVDs, and similar devices possible. In other words, says Kakalios, "all the technologies without which my teenage children would not find life worth living."

The key is inside

U looks to enter top ranks by building leadership skills

By Michael Weinbeck

Brief, Sept. 12, 2007

Kathryn Johnson, director of diversity initiatives at the Carlson School, is applying her leadership skills in service to the U's strategic goals.

The University of Minnesota is challenging the conventional wisdom that skilled leadership lies solely in the realm of top administrators. By building a strategy to expand staff leadership skills, the U recognizes that its ability to become a top-three research university will hinge on internal resources.

Kathryn Johnson, director of diversity initiatives at the Carlson School of Management, Twin Cities campus, is an example of someone who has gained from U efforts in leadership development. Johnson is a graduate of the President's Emerging Leadership Program and also participated in the Successful Manager's Leadership Program, which is designed to build the leadership acumen of seasoned managers.

"The class really emphasized the things you need to know to engage members of your team," says Johnson. As part of the Successful Manager's Leadership Program, she was given a 360-degree leadership assessment. Her peers and colleagues were asked to fill out an anonymous survey of her skills as a leader. Johnson used the feedback to understand her strengths and weaknesses.

"I learned a lot of things I wouldn't have known otherwise," Johnson says.

In her case, the assessment helped Johnson understand her approach to confrontation. From her anonymous feedback, she began to see that, while she might perceive herself butting heads with a colleague, her colleague might interpret the same situation as a normal, professional interaction.

"I hadn't understood that we were just working it out," says Johnson. "When you're in those circumstances, you don't always have that clarity of thought."

Johnson took away a deeper understanding of how to build a team that complements her own strengths. She also gained tools for engaging team members.

"What people really need is clear communication," says Johnson. "They need you to be straight with them. I think it's easier to fall into avoidance. But it's important to take on those difficult conversations."

Everyday things and strategy, too

For Shawn Welch, art director at Printing Services, the course showed how to integrate the University's strategic goals into his workplace.

"The class helped me begin thinking strategically as a leader instead of only dealing with the everyday things that come up," he says. "I learned to take the time to come up with a strategic plan. I've been working with my team to look at the U's strategic initiatives and decide how they work for us and how we support them."

That's exactly the type of leadership behaviors the U is hoping to develop, says Corey Bonnema, coordinator of supervisory training programs in the Office of Human Resources, which sponsors the class. Bonnema is part of a human resources team charged with developing leadership programs that support the U's strategic initiatives.

"We're working to become one of world's top-three research universities," says Bonnema. "The key to becoming a leading research institution lies within our own walls. We're working to make sure our staff has all the tools it needs to lead effectively going forward."

In fact, University staff members have asked for a heightened focus on leadership development.

"The annual Pulse survey has shown that staff want us to amp up our focus on their professional development. We're working hard to meet that need."

Tailored for the U

While many of the precepts of good leadership are universal, the Successful Manager's Leadership Program has been tailored to the unique operating needs of the University and its goals.

"The U has a different operating structure than the business world," says Bonnema. "We tend to emphasize collaborative decisions, and we're a complex, multilayered bureaucracy. We need to train our staff to take those differences and use them to their advantage as leaders."

The Successful Manager's Leadership Program is led by U of M faculty and facilitators from Personnel Decisions International. The next session of the course starts October 30.

For both Kathryn Johnson and Shawn Welch, the course provided the tools to thrive as leaders at a university with high aspirations.

"The class was really important for me because it underscored the commitment the U has to the success of its managers," says Johnson. "And that's critical to our goal of being one of the top three."

Michael Weinbeck is a communications project manager in the Office of Human Resources, Twin Cities campus.

Getting their feet wet

CAPA retreat mixes fun and facts to prepare for 2007-08

Brief, Sept. 12, 2007

The CAPA retreat Aug. 17 was held at the Earle Brown Heritage Center in Brooklyn Center.

The Council of Academic and Professional Administrators (CAPA) held its annual retreat August 17.

"The retreat is a chance for old and new CAPA representatives and senators to meet, to learn from one another, and to really get their feet wet when it comes to expectations for the coming year," said 2007-08 CAPA chair Pam Stenhjem.

"Representation and governance at an institution the size of the University of Minnesota can be overwhelming and confusing for the savviest of University employees," Stenhjem said. "The retreat provides an energizing venue for representatives and senators to learn about their roles and responsibilities, to ask questions, and to get a feel for how best to represent their constituents through participation on CAPA."

The planning committee for the retreat combined learning with fun. Participants got to learn more about CAPA--including CAPA history, committees, and representation and governance--through a game of CAPA *Jeopardy!*

"Who doesn't love a game show with prizes?" said Erin George, a member of the committee that planned the retreat. "People were investing a day by attending, so we wanted to build a fun and informative retreat that would set a tone for engagement in, and understanding of, our various CAPA roles.

"We reflected on how little we sometimes know about what it means to be a P&A employee and what it means to be involved in CAPA, whether as a representative, alternate, senator, or committee member," George said.

CAPA's five committees are Executive, Representation and Governance, Benefits and Compensation, Professional Development and Recognition, and Communications. These five CAPA "work horses" are ultimately responsible for developing plans each year to address critical issues that affect academic professional and administration (P&A) employees, as well as for implementing those plans and taking action when needed.

Retreat participants learned about the committees through a speed-dating activity in which the committee chairs presented their committee's role and responsibilities four times to four different groups. With a better understanding of committee functions and roles, participants could make more informed choices about committees to join for the upcoming year.

Preview of the P&A survey results

Stenhjem also presented the initial results of a University-wide P&A survey conducted by CAPA last spring. Sent to 4,600 P&A employees with a 40 percent return rate, the survey collected critical information about ongoing contributions and the value of P&A employees to the University. CAPA is currently developing a full report of survey results that can be used to enhance ongoing activities in the Transforming the U initiative and to ensure that P&A employees are included in Transforming the U data-collection efforts.

"The retreat was a great time for people to get to know each other in a fun, relaxed way as they learned about CAPA," said CAPA vice-chair Mary Laeger-Hagemeister.

Ingrid Nuttall, chair of Professional Development and Recognition, agreed: "We are energized for the upcoming year and look forward to representing University P&A staff."

The retreat planning committee was Elaine Challacombe, Pam Enrici, Erin George, Ingrid Nuttall, Pam Stenhjem, and an independent consultant with the Wellspring Group, John Vollum.

Hooray for the red, white and bleu

Taste the fruits of the University's wine- and cheesemaking at the Bell Museum Sept. 29

By Deane Morrison

September 11, 2007

The University is helping Minnesota make its mark as a producer of premium wines and cheeses.

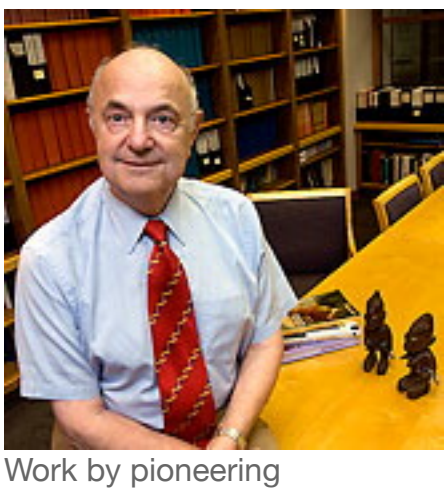
The flavors of Minnesota wine and cheese will ravish the palate during "The Natural History of Minnesota Wine," an introduction to the fruits of state viticulteurs and cheesemakers, at 7 p.m. Saturday, Sept. 29, in the Bell Museum of Natural History, 10 Church St. S.E., Minneapolis. Designed for both novice and connoisseur, the event kicks off with a talk by James Luby, professor of horticultural science, whose team of researchers has developed many of the cold-hardy hybrid grapes that make Minnesota viticulture and wine making a fast-growing and increasingly competitive industry. "The Frontenac grape is the most widely planted variety in Minnesota," says Luby. "It is proving to be a flexible variety in winery with our local winemakers turning it into fine red table wines full of cherry and plum flavors, sprightly and fruity rose wines, and outstanding, sweet, port-style dessert wines with hints of cherry and chocolate. "La Crescent and Frontenac gris are both very new white wine grapes from which the first vintages have occurred in the past couple years. The La Crescent wines usually exhibit tropical aromas of pineapple and grapefruit, while the Frontenac gris makes a white or salmon-colored wine with aromas of peach and apricot and has also made some very good dessert wines." The La Crescent also makes a tasty--though seedy--table grape. After Luby's talk, a wine and cheese reception will give attendees a chance to handle Minnesota-grown wine grapes and try out some of the best Minnesota varietals. Several Minnesota-based vineyards will supply wines made from the University's Frontenac, Frontenac Gris and La Crescent grapes. University cheesemakers will also offer a selection of cheeses made on campus. Exactly which ones is yet to be determined, but some variety of bleu is a good bet, says Jodi Nelson, one of three master cheesemakers in the department of food science and nutrition. "It will possibly be New World, which is made only at the University," she says. "It's a white bleu cheese whose mold was produced by a collaboration between the universities of Minnesota and Wisconsin." University professor Howard Morris began the project in the 1960s; the idea of a white bleu cheese came about "because people don't like the looks of mold," Nelson explains. The University also makes a spreadable form of New World. Other cheeses likely on the program are a University Gouda variety that took fourth place at this year's state fair; a Havarti and an aged cheddar. Nelson's personal favorites include another University invention, Yo-cheddar, a white cheddar made with yogurt cultures. Tickets are $30 in advance, $35 at the door; call (612) 624-9050 for tickets and ask for a discount if you're a member of the Bell Museum or the Minnesota Alumni Association.

He put twins on the map

Irving Gottesman showed how to get at the roots of schizophrenia and other complex mental illnesses

By Deane Morrison

September 11, 2007



Work by pioneering psychologist Irving Gottesman opened the door to understanding and treating schizophrenia and other mental illnesses.

For the better part of 40 years, University psychologist Irving Gottesman has done battle with a wily opponent that claims victims without warning, spares others just as capriciously, and springs from a shifting variety of causes. The opponent is schizophrenia, and in Gottesman it finally met its match. The much-decorated psychologist has torn the cloak of mystery from schizophrenia and other devastating mental illnesses, as well as criminal behavior and personality, to expose the roles of genetics, environmental factors, and sheer chance in shaping the mind. Thanks in large part to him, scientists have the tools to pick apart the complex causes of mental illness and harmful behaviors, a necessary step in devising treatments and preventive measures. "He's a groundbreaker in psychology, especially psychopathology research," says psychology professor William Iacono. "He laid the basis for schizophrenia resulting from the actions of many genes."

In August Gottesman, a senior fellow in the Department of Psychology and Bernstein Professor in Adult Psychiatry, received the Gold Medal for Life Achievement in the Science of Psychology from the American Psychological Association. While revealing the hand of genetics in all kinds of traits, he has striven to shoot down the idea that genetics is destiny. "We're probabilists," he explains. "Genetics is one factor. The importance of genetics varies across traits and diseases." Born in Cleveland, Gottesman came to the University in 1956 as a graduate student on the Korean War G.I. Bill. Entranced by lectures on the biology of individual differences, he soon began a study of personality traits using identical and fraternal twins who took the Minnesota Multiphasic Personality Inventory, or MMPI. The results were eye-opening. "I found that variances in certain personality traits, as measured by the MMPI in adolescents, were under strong genetic control," Gottesman says. "The main ones were social introversion and aggressive tendencies." Gottesman's work laid the groundwork for using twins to identify the underpinnings of traits, such as the Minnesota Study of Twins Reared Apart, headed by psychology professor Thomas Bouchard. Gottesman left the University after receiving his doctorate in 1960 but returned in 1966 to found the Program in Behavioral Genetics, which combines psychology and genetics to investigate the roots of behavior. In his work with twins, Gottesman discovered a genetic link to being diagnosed alcoholic in both males and females. And, working in Denmark, he found a genetic predisposition toward the commission of felonies in both sexes. But neither result means there's a gene for those specific behaviors; instead, what some people have is really poor self-control.

"I found that variances in certain personality traits, as measured by the MMPI in adolescents, were under strong genetic control," Gottesman says. "The main ones were social introversion and aggressive tendencies."

"There are predispositions that are actually to impulsivity and lack of ability to delay gratification," Gottesman explains. "These predispositions are found on a continuum. Another such trait is authoritarianism, which is a strong drive to impose one's will on others." But it was his work with schizophrenia for which Gottesman made his most indelible mark. In the late 1960s, he and British social worker James Shields undertook an exhaustive study of twins. "It was one of the most influential twin studies in the history of psychopathology research," says Iacono. "At that time, we didn't have good interviewing techniques to identify people with schizophrenia." The resulting book, *Schizophrenia and Genetics: A Twin Study Vantage Point,* laid out the evidence that schizophrenia results from the actions of many genes and paved the way for others to do rigorous behavioral genetics work. The collaboration with Shields also led to some of the most startling insights of Gottesman's career. At the beginning of their studies, "the origins of schizophrenia, and indeed virtually all forms of mental illness, were attributed to dynamic processes, typically a dysfunctional relationship with parents," says Matthew McGue, University Regents Professor of Psychology. "Unfortunately, this model did not lead to effective interventions for these devastating illnesses." But Gottesman and Shields found that, compared to fraternal twins, identical twins were more likely to share the same status with respect to schizophrenia--that is, either having the disease or not. This pointed to a major role for genetics in the development of schizophrenia and ushered in a new approach to the disease. The two researchers also challenged the notion that diseases like schizophrenia and diabetes, which manifest themselves clearly, must have a clear, simple origin such as a single gene mutation. In 1967 they proposed a model in which it is the actions of many genes together that causes schizophrenia. This model "provides the conceptual basis for essentially all current genetic epidemiological research on schizophrenia," McGue says. But Gottesman wasn't through. With Danish colleague Aksel Bertelsen, he examined identical twins in which one had schizophrenia and one didn't. In such a case, conventional wisdom held that environmental factors must be causing the disease in one twin, since identical twins are genetically the same. The researchers found, however, that the children of both affected and unaffected identical twins had the same relatively high risk for developing schizophrenia. Clearly, unaffected twins could pass a genetic risk to offspring without themselves having the disease. So what actually causes schizophrenia? Although the disease is the same in every person who has it, it is caused by different combinations of traits too subtle to detect just by looking at a person, Gottesman says. Called endophenotypes, such traits are like the borderline inability to metabolize glucose, which can be detected by a test. "[The test] can detect whether somebody who's an unaffected relative of a patient with diabetes is at risk of developing the disease too," says Gottesman. "Then you're in the business of prevention. Similarly, we'd like to know the endophenotypes for obesity, criminal behavior, and alcoholism. All these problems can be attacked by my approach, which is to look for endophenotypes that precede symptoms and the accumulation of symptoms that lead to a specific diagnosis or behavior." A focus on each person's individual patterns of endophenotypes opens the door to tailoring medical treatments to each patient and educational styles to each student, he says. What was perhaps Gottesman's finest moment came in 1972, when a debate was raging about the causes of a 15-point gap between IQ scores of black and white Americans. Minnesota senator Walter Mondale called him to testify before the U.S. Senate about the contribution of genetics to intelligence. Gottesman testified that while genes are a factor, so are economic, educational, and nutritional disparities, among others, likening an IQ test to a thermometer reading. "If, unknown to the examiner, a child had been sucking on ice cubes or drinking hot tea before testing, you would be obtaining accurate but misleading information," he said. "I would suggest to you with respect to the IQ testing of many disadvantaged children, that the readings reflect an intellectual diet of ice cubes between the time of conception and entrance to elementary school."

Get the full story

Irving Gottesman left the University in 1980, but returned in 2001 and held a retirement party on campus. On that occasion, scientific work that stemmed from his research was presented; it is all available in a book, *Behavior Genetics Principles*. Other books that summarize much of his work are *Schizophrenia Genesis: The Origins of Madness* and *Psychiatric Genetics and Genomics*.

Creating a community

U solicits ideas for a future city at UMore Park

September 11, 2007

It's not often that the public has a say in designing a new community, but that's exactly what's going to be happening this month.

The land at UMore Park is the largest contiguous property in the United States owned by a land-grant university.

The University is hosting six listening sessions in September to gather ideas and input for a new community being planned at the University of Minnesota Outreach, Research, and Education (UMore) Park in Dakota County, which includes 5,000 acres of land owned by the University.

After preliminary studies of how best to use the land, the Board of Regents in November 2006 directed the University to begin a concept master planning process to guide the development of the new community, which will evolve over a 25- to 30-year period.

"The vision is that, over time, we will help create a University-founded, culturally rich, diverse community of 20,000 to 30,000 people," said Charles Muscoplat, the University of Minnesota vice president responsible for the development. "We are hosting the listening sessions to involve people very early in our planning process. We'd like to hear what people would like to have in a community if they could help build it from the ground up."

The sessions are tailored around six topics and correspond with the work of six academic task forces formed to identify University strengths that can contribute to the quality of life in the community. The sessions and their topics (in bold) are:

- Monday, September 17--**Education**, including early childhood development, daycare, K-12, post-secondary and adult education, and lifelong learning;
- Wednesday, September 19--**Environment**, including "green" buildings and infrastructure, the landscape and natural resources, storm water management, air and water quality;
- Thursday, September 20--**Energy**, including renewable energy (biomass, geothermal, solar, wind), energy production and efficiency, reduction of greenhouse gases, and conservation practices;
- Tuesday, September 25--**Health**, for individuals and families, including nutrition, prevention, recreation, safety, health care, and health services;
- Wednesday, September 26--**Interdisciplinary Opportunities**, including housing, diversity, arts and culture, technology, and international linkages;
- Thursday, September 27--**Transportation**, including increased access and mobility through multiple transit options, innovative transit services, transportation infrastructure, and safety.

Each session will include a brief presentation about the vision for the new community, an overview about the specific subject being discussed, and roundtable discussions to hear from those attending.

Now that some of the U's faculty have provided input through the task forces, the University is excited to be capturing ideas from the citizens of the region.

"We need to hear from the public," said Carla Carlson, chief of staff for statewide strategic resource development. "If there's anything you could envision having in a community that would really enhance your quality of life, what would those things be?"

The September 17 and September 19 listening sessions will be held in the Dakota Room at the Dakota County Technical College, 1300 145th Street E., Rosemount, Minnesota. All other sessions will be held in the Banquet Room at the Rosemount Community Center, 13885 South Robert Trail (Highway 3), Rosemount. The sessions, which will run from 5 to 7:15 p.m., are free and open to anyone who would like to attend. Because a light meal will be served, RSVPs are appreciated. Registrations can be made online at www.umorepark.umn.edu or by calling 612-626-3976.

People who are unable to attend the sessions may provide input by submitting their comments at www.umorepark.umn.edu, or by calling 612-624-6252.

In the wake of the bridge collapse

By Rick Moore

From *M*, fall 2007

More than a month after the collapse, clean-up continues on the remains of the I-35W bridge in the Mississippi River.

A month after the August 1 collapse of the Interstate 35W bridge over the Mississippi River in Minneapolis, the images linger of twisted steel beams, slanted spans of freeway, and cars standing askew at both ends of the remains. There are also the sobering statistics: 13 people dead, dozens injured, and countless lives affected by the trauma. Given the bridge's location--literally a block away from the western edge of the Twin Cities campus--and its function as a major artery for commuters, the collapse hits even closer to home at the University of Minnesota. Thousands of students, faculty, and staff used the span each day to get to campus from points all around the greater metro area. As you travel toward campus now via University Avenue and look to the south as you cross the freeway, there is a stark reminder of the tragedy: the road rises... and then simply disappears. Gone, too, is another piece of our collective sense of security. As University President Bob Bruininks told the *Minnesota Daily*, "... You didn't travel across that stretch of highway and ask yourself, 'What are the odds of getting to the other side?'... You assume you could die in a plane crash or on a highway, but you don't assume that the basic structure holding you up when you travel is going to fail. There's something unbelievably unsettling to that. It makes everything else around you seem so much more unpredictable." Looking toward the future, there is a strong sense of hope. Although it seems hard to believe, Minnesota leaders hope to have a new bridge in place by the end of 2008. Just as a number of students, faculty, and staff rushed to the scene at the time of the collapse--helping rescue the injured, doing basic triage, and ferrying victims to ambulances--so, too, will the University of Minnesota be helping the community understand the catastrophe and its implications for the future. U researchers have applied for grants to examine possible causes for the bridge's collapse and to study how travelers choose to commute in its aftermath. And this fall the Urban Studies Program is offering a special course, "The River, the Bridge, the Community: Beyond the Headlines of the I-35W Bridge Collapse," taught by Pat Nunnally, coordinator of the U's River Life Program. The class, which will include a series of lectures by University and off-campus experts, will consider how our transportation system and the Mississippi River ecosystem will be shaped by decisions made in the next year.

For stories about the involvement of University students, staff, and faculty in bridge-related rescue efforts and information on how to navigate around campus, visit Bridge stories.

Igniting the 'Gopher Nation'

Brewster and Smith stir up spirit in football and basketball fans

By Rick Moore

From *M*, fall 2007

Tubby Smith and Tim Brewster

In a two-month span last winter, U athletics director Joel Maturi changed the tenor of Gopher athletics. In mid-January, he lured Tim Brewster from the ranks of the NFL to be the new head football coach, and two months later he shocked the basketball world by hiring Tubby Smith from perennial powerhouse Kentucky. And in the days hence, U students, sportswriters, bloggers, and casual observers have taken to analyzing the moves--with almost uniformly favorable reviews. It was if the coaching hires--especially Smith--flipped on the switch that awakened a sleeping "Gopher Nation," a moniker Brewster has given Gopher fans. There was certainly reason for the slumber. While the football team enjoyed moderate success under 10-year coach Glen Mason, with seven bowl appearances and a record of 64-57, it was never able to crack the ranks of the top three in the Big Ten and had a 33-48 record in conference play. Moreover, Minnesota hasn't made it to the Rose Bowl since 1962. The back-breaking straw came when the Gophers squandered a 31-point lead in a loss to Texas Tech in last year's Insight Bowl. Two days later Mason was fired. Times have been even tougher on the hardcourt. In Dan Monson's seven years as head basketball coach, the Gophers only made the NCAA tournament once, and last season (under Monson and interim replacement Jim Molinari) they lost more than 20 games for the first time in team history.

Enter Tim and Tubby

Within two days of Smith's hire, about 600 new season tickets for men's basketball had been sold, and as of mid-August, sales had increased by about 1,100 seats compared to last year. Early indications are that the once-raucous Barn will once again be brimming with fans for the 2007-08 season. Interestingly, a short article on the University's home Web page, www.umn.edu, announcing Smith's hire attracted more notes from readers than virtually any story this year, and many of those came from Kentucky residents congratulating the University on its new coach. Said one: "I'm one UK fan who hates to see Tubby go... Best of luck to Tubby and to Golden Gophers for knowing that Tubby is a great coach." And another: "I want to congratulate UM for hiring Tubby Smith... I for one think he is an outstanding coach and was proud that he was at UK. I wish nothing but good things for him and his family." Brewster has been generating his own buzz, in part due to an internal motor that never seems to stop. Among other accomplishments in a busy summer, he made due on his promise that he or a member of his coaching staff would visit each and every high school football coach in the state by the end of the summer. And fans are feeding off of his enthusiasm; season ticket sales for football are up by 3,400 from 2006. Now the task is to convert that excitement into wins and championships. On paper, neither the football nor basketball teams would appear to be a frontrunner for a Big Ten title this year. But there's certainly hope beyond the hype. Says one U fan and blogger: "For the first time in years, Gopher football and Gopher basketball are simultaneously creating off-season excitment. Both programs have a lot of work to do to reach the expectations that each new coach brings to their respective program, but both programs can sell hope. Hope is a powerful tool and hope is back in Dinkytown."

Taking aim at concussions

This season, the University will be one of 10 schools in the country to use a new football helmet that tetects potential concussion-causing hits. The helmet, made by Riddell, is outfitted with sensors that detect the G-forces of hits sustained to the head. If a hit is hard enough to cause a concussion, a transmitter sends an alert to a sideline computer where trainers or coaches can monitor players' conditions. The system will also keep track of the number of powerful hits players receive throughout the season.

The helmet won't prevent concussions, but it will provide increased awareness of potential dangers. Data suggests that 85 percent of concussions suffered by football players to undetected; the U hopes the Riddell helmet will reduce this rate.

Click for more articles on sports and recreation.

Curbing gambling addiction with food supplements

From *eNews,* September 13, 2007

University of Minnesota researchers have discovered that a common amino acid, sold as a natural immune-system booster at health food stores, may help curb pathological gamblers' addiction.

U researchers have found that a common amino acid may help curb a pathological gambler's addiction.

In a recent eight-week trial, 27 people were given increasing doses of the amino acid N-acetyl cysteine, which has an impact on the chemical glutamate--often associated with reward in the brain. At the end of the trial, 60 percent of the participants reported fewer urges to gamble. The research will be published in the September 15 issue of Biological Psychiatry.

"It looks very promising," says Jon Grant, a University of Minnesota associate professor of psychiatry and principal investigator of the study. "We were able to reduce people's urges to gamble."

Those who responded well in the first round of the study were asked to participate in a double-blind study--a testing method where neither the researcher nor subjects know who is in the control group until the study is finished. Of the 16 who responded to the amino acid the first time around, 13 agreed to take part in the double-blind study for an additional six weeks (the remaining three didn't want to risk quitting the drug). About 83 percent who received the supplement continued to report fewer urges to gamble. Nearly 72 percent of those who took the placebo went back to gambling.

Similar studies using N-acetyl cysteine have shown its ability to curb drug addictions in animals, and a current University of Minnesota study conducted by Grant is investigating whether the drug could help methamphetamine users quit.

"This research could be encouraging for a lot of addictions," he says.

Because subjects knew they were taking a supplement during the first phase of the study and since there was a relatively small number of subjects in the double-blind portion, a larger study is warranted to confirm the validity of these findings. University of Minnesota researchers are now seeking a federal grant to fund it.

How much house can you afford?

By Rosemary Heins

From *eNews,* September 13, 2007

Buying a house is a big investment. If it's done right, it's better than paying rent because equity is built up in the house. But you need to be in a good financial position prior to the purchase. And you need to figure out how much money you can afford to spend on the house, too.

This is where a mortgage lender comes in. Mortgage lenders compare your ability to pay for your house to your monthly income. They don't like to see housing costs for principal and interest exceed 28 to 32 percent of your gross income. They also take into account other debts that you need to pay, such as car payments, credit cards, and student loans, and this debt should not exceed 8 to 11 percent of your income.

Lenders also look at the appraised value of the home you want to buy. A general rule is that you need to have 20 percent of the cost in cash for a down payment, but some lenders may allow much less.

If you are a first-time homebuyer, there are government programs to assist you with down payments. In Minnesota, these programs require that you take "Home Stretch" classes. You can find a class near you at the Home Ownership Center Web site or you can call 866-462-6466. (Classes are available throughout Minnesota.)

Know your rights In 2006, Hennepin County saw more than 3,000 home foreclosures, up more than 80 percent from 2005 and nearly 350 percent from 10 years ago. But things will soon start looking brighter for Minnesotans. Thanks to a University of Minnesota alum and Law School professor, Minnesota has the best protection in the nation against residential mortgage fraud. To learn more, read "Victory for the consumer."

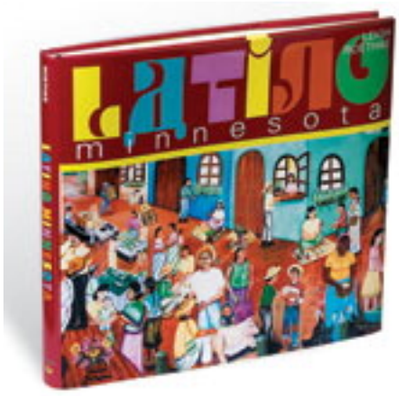
Rosemary Heins is a family resource management educator with University of Minnesota Extension.

Book reviews fall 2007

New titles by University faculty and a doctoral student

By Gayla Marty

From *M*, fall 2007



Latino Minnesota

By Lee Roethke

Latino migrants, immigrants, and their U.S.-born children have been contributing to the economic, cultural, and social fabric of Minnesota for more than a century. Through lively prose and photographs old and new, Roethke traces the story from the first recorded Mexican settlers in 1860 to workers who have formed the backbone of Minnesota's agricultural, food processing, manufacturing, and service industries since the early 1900s. Roethke is a doctoral student in art history at the Twin Cities campus. *Afton Historical Society Press, 2007; ISBN 978-1-890434-73-1; $24.00 hc*

The Feast of Love

By Charles Baxter

Bradley, twice divorced, is a guy who can't sleep. Walking his dog under the stars, he begins to discover a whole world of connections and varieties of love, and we get to discover them, too. The novel--a National Book Award finalist--inspired the new movie starring Morgan Freeman and Greg Kinnear, due out from MGM this fall. Baxter teaches creative writing at the Twin Cities campus and is the author of eight novels as well as many poems and short stories. *Vintage, 2000; ISBN 978-0-307387-27-1; $14.95 pb*

You Failed Your Math Test, Comrade Einstein

Edited by Mikhail Shifman

Are you interested in captivating and challenging math problems created by Soviet mathematicians that can be solved using elementary math (i.e., without calculus)? Curious as to whether you'd be eligible for freshman admission to the math department at Moscow University? Want to learn about the use of math as a weapon of ideological control in the USSR during the 1970s and '80s? If you answered yes to any of these questions, this book is for you. U physics professor Mikhail Shifman, who lived through it all, has been awarded the Blaise Pascal Research Chair in Paris for the coming year. *World Scientific, 2005; ISBN 978-9-812562-79-1; $32.00 pb*

MORE INFO:

Contact the University of Minnesota Bookstores, located in Coffman Memorial Union and the St. Paul Student Center, at 612-626-0559 or generalbooks@umn.edu. Look for faculty authors at www.bookstores.umn.edu/genref.

Keeping the best

How the U is changing the climate for new faculty members

by Martha Coventry

From *M*, fall 2007

Tay Netoff joined the Department of Biomedical Engineering last year to teach and to research the origins and mechanics of epilepsy.

Tay Netoff is one of those young brilliant minds who can make a university great. And with his work in trying to understand how epilepsy moves through the brain, Netoff had a plethora of opportunities for settling his family and beginning his academic life. He chose the Department of Biomedical Engineering at the University of Minnesota. "One of the things that made the difference in coming here was that the people in the administration were much more responsive than at other places," says Netoff. "They treat you as a colleague and they recognize that new faculty are really keeping this place alive." In the past two years, the University has begun a push to attract the most talented faculty members and keep them here, with a new welcoming strategy, a revised tenure policy, better salaries, and greater attention to issues like diversity and collaboration. Increased competition nationwide for the same faculty pool is a factor in the effort, but an even bigger motivator is the U's goal to become a top-three public research university. Arlene Carney, a professor in the Department of Speech, Language, and Hearing Sciences, is now a vice provost in charge of making sure the U does everything it can to help young faculty members make the best start possible. She's part colleague, part mentor, part facilitator. She gets fired up when she talks about what the University has done to attract these faculty, and the word "nurturing" enters her vocabulary a lot.

Today, nationwide more than 50 percent of new Ph.D.s are women, and the U has altered its policy to reflect this changing demographic and to give more opportunities to both men and women when it comes to taking care of their families or themselves.

Through a series of efforts, including a new faculty orientation program, Carney and her team are helping new teachers and researchers achieve their potential and are building loyalty to the U. "A task force looking at faculty culture found that faculty tend to feel a strong connection to their departments and to their disciplines, but not always to the University of Minnesota," says Carney. "We're trying to give them that connection right away."

Starting off right New Faculty Orientation for Twin Cities faculty is a three-day affair. Each day, incoming faculty from all disciplines meet together on a different part of campus. "One of the best things the faculty told us about the orientation was that they made friends with people from other colleges whom they never would have met, and they continued those friendship throughout the year," says Carney. Trica Keaton agrees. Keaton came to the U last fall as an assistant professor after a stint at Indiana University. She has a joint appointment in American studies and global studies and focuses on questions of race and exclusion in the United States and France. "I've never attended an orientation that actually brought together people from the natural and social sciences and humanities all in one room," she says. "So that was fantastic. I was able to establish some relationships [last year] with people in the Medical School and on the St. Paul campus who are working in the sciences." President Bob Bruininks, Provost Tom Sullivan, and other senior administrators are included in the orientation meetings and receptions for new faculty members. Keaton asked them difficult questions--like how the humanities and social sciences will fare in the push for a stronger research agenda--and no one shied away from them. "It was refreshing to find people in high powered positions willing to have frank discussions," she says. "I've since reached out to them and to chairs of other departments.... I probably wouldn't have done that if I didn't feel that door was open. That tone was established early on." Netoff found a similar openness and respect during his hiring process. "When you're interviewing and wondering if people are going to treat you well, this type of communication makes a huge difference," he says.

Valuable resources Orientation does another important thing for young faculty. "It provides us with resources that make a huge difference not only in what we accomplish, but what we *believe* we can accomplish," Keaton says. For her, one of those resources came in the person of Jeanne Kilde in the Institute for Advanced Studies, who has helped Keaton write a grant for a project in Paris as well as design a lecture series. Netoff needed support, too, but of the material kind--he had to have the right equipment to do his job. In his lab in Nils Hasselmo Hall, Netoff stains slices of brain and uses a microscope to record the electrical signal in a cell during a seizure. The fluorescent signal from the dye allows him to photograph how this seizure moves across the brain in milliseconds from cell to cell. When it comes to the brain producing this reaction on its own, "we don't really understand how and why this happens," he says. Netoff is one of only a handful of people in the world who use this sophisticated set-up to study the patterns of neurons, and the U honored his skill and potential. "When I wrote down the list of everything I wanted in order to do my research, [the administration] said, 'If that's what you need, that's what you get.' Now it's up to me to perform," he says.

Catching the brass ring Performance is a key issue for young faculty because it brings up the most sought-after achievement and most stressful topic at any university--tenure. Tenure is the holy grail of a professor's life, assuring him or her--barring any grievous actions--of a permanent academic home. Traditionally, to get tenure faculty members have to publish a number of high-quality articles or books and establish a record of good teaching in a set amount of time, usually six years. The U's faculty tenure policy was originally crafted in 1941, a time when U faculty members were almost exclusively male and many had wives at home to look after children. Today, nationwide more than 50 percent of new Ph.D.s are women, and the U has altered its policy to reflect this changing demographic and to give more opportunities to both men and women when it comes to taking care of their families or themselves. The biggest change to the policy was to make it tougher to get tenure--a change that the faculty asked for and the faculty senate voted unanimously to accept. The standards are more explicit and more rigorous. For example, previously the tenure policy examined a faculty member's potential to develop into an excellent scholar and teacher. The new standards require that a faculty member have already demonstrated excellence in those areas before he or she is awarded tenure. The changes in the tenure policy appeal to Netoff. "The new tenure code seems reasonable and has built-in transparency," says Netoff. "That has put me more at ease. I can pay attention to my research and teaching. Once I get to the time when I'm ready for tenure, I think I'll have a good feeling about whether I deserve it or not."

Not just for new faculty The support that the U gives its young faculty members extends to those who've been around for years. Carney has been approached to do an "old faculty" orientation and although that might be a way off, there are already workshops for all faculty on teaching and on writing grant proposals. The University is raising faculty pay, as well as upping from 20 to 30 the total number of faculty awarded the Regents Professorship--one of the University's highest honors--and increasing the award's stipend. Prominent faculty are also honored on the Scholars Walk and the Wall of Discovery, both on the Twin Cities campus. The goal of the University is to raise the level of excellence in the three areas that have been its mission since the beginning--teaching, research, and outreach (now called "public engagement"). Taking care of its faculty--old and new--will help the University become a world leader as well as a Minnesota institution that keeps its eyes focused close to home.

Click for more articles about governance.

Letters to the Editor, fall 2007

From *M*, fall 2007

I would like to take a few quick moments to say thank you for your coverage of University of Minnesota students making a difference in the world ("Making a difference," *M*, summer 2007). So often the media covers only the negative stories about youth. As a founding member of STLF (Students Today, Leaders Forever), [I have read] many articles...about the organization. The piece in M was able to accurately describe the growth of STLF and its impact. It was able to honor the 9,000 hours of service that college students across the nation performed over spring break [through the STLF-sponsored Pay it Forward tours]. As a recent graduate, I'm excited to become a member of the alumni and continue to support our wonderful University. Greg Tehven, '06 West Fargo, North Dakota

Dinkytown lights up again

by Martha Coventry

From *M*, fall 2007

Dinkytown as destination is the latest incarnation for this ever-changing neighborhood.

Some of us are slightly embarrassed to admit that, in the 1960s and '70s, we chose to come to the University of Minnesota because of Dinkytown. It was Greenwich Village a mere few hours from our hometowns, and we hoped its cachet would rub off on us. Dinkytown has morphed over the years from groovy street scene to purveyor of practical goods to nightlife hot spot. Dinkytown's latest incarnation makes it a destination not just for students, who still fill its bars at night, but also for their parents--some who walked its sidewalks dazzled by dreams three or four decades ago and are now returning to eat its imaginative food and linger over a glass of wine. "Dinkytown has changed as it has needed to change," says Skott Johnson, president of the Dinkytown Business Association for 16 years, on and off. Dinkytown used to be a residential/commercial district with plenty of stores to serve the surrounding neighborhood. Then the face of retail changed, and Dinkytown had to follow. When the nearby Quarry shopping center--with its "big box" stores--opened in the late 1990s, it was the "nail in the coffin" for Dinkytown as a basic needs supplier, says Johnson. Students now make "Target runs" and drive, not walk, to get what they need. But as these customers were driving away from Dinkytown, others started driving toward it. Dinkytown's basic entrepreneurial spirit kicked in and helped the crossroads reinvent itself once again. "Entertainment has blossomed in places like [Minneapolis's] warehouse district, and Dinkytown went right along with this trend," says Johnson. "More people are traveling greater distances to come here." Jason MacLean helped foster the latest Dinkytown renaissance in 2000 when he moved his Loring Park restaurant to the old Gray's Drug building, which he renovated into the theater set called the Loring Pasta Bar. In 2003 he opened the bohemian Kitty Cat Klub. And in 2005, he reopened the Varsity Theater as an entertainment venue where local bands play, the Bell Museum hosts its Caf? Scientifique lectures, and lines form down the block. The now popular Kaf? 421 occupies the space of a former hardware store, which Georgia Sanders transformed into an inviting, attractive restaurant six years ago. "I wanted to come here because of the social climate," Sanders says. Students come during the day, and their parents show up in the evening to eat her first-rate food or sit at her new wine bar. The University has embraced Sanders, too, and her food turns up at catered events all over campus. Dinkytown's streets are now busy every night, with different age groups claiming their own time slots. Places like Mesa, which sells slices of pizza, do more business from 1 to 3 a.m., after the bars close, than during lunch or dinnertime. In 1978 business owners had a marketing campaign featuring T-shirts saying, "Dinkytown USA, 'Where it's at!'" Those T-shirts would work today. There's an energy in Dinkytown that's been absent since student protests filled the neighborhood. And although Dinkytown is cleaner now, odd and indecipherable characters still set it apart from anywhere else in the city. Like the young man with a peacock feather stuck in his giant Afro who sits nearly every day, shirt open to the navel, outside the Kitty Cat Klub, carefully smoking a cigarette and reading a book, a perpetual ironic smile on his face. Plus ?a change, plus c'est la m?me chose.

Click for more articles on urban life.

SPANing the globe

Minnesota's oldest study abroad program celebrates six decades of promoting amity among nations

From *M*, fall 2007

Margot Wagner traveled to Senegal with SPAN to explore that country's dialects and languages and how they will survive in post-colonial Africa.

After WWII, a group of local students, faculty, and community leaders decided the need for international understanding and amity was greater than ever. Their solution--the Student Project for Amity Among Nations (SPAN)--celebrates its 60th anniversary this year.

"The project was started to help students experience the wider world," explains U history professor Theofanis G. Stavrou, who's also the executive director of Minnesota's oldest study abroad program. Bridging two academic years, SPAN is recognized for its unique combination of international education, cultural immersion, and independent research.

A student-run organization, SPAN offers undergrads and graduate students from all Minnesota colleges and universities an opportunity to earn University of Minnesota credits for an in-depth research project on a self-chosen topic.

In 2007, students focused on Egypt, Greece, or New Zealand. During their preparation semester in the spring, students select a research topic and make connections with experts in their host country. They also study history, culture, language, and current events. Summer is spent doing research abroad. Upon their return, students write an extensive thesis.

Many SPAN alumni continue to credit the program. John Lindstrom, B.S. '56, M.S. '61, went to Turkey in 1954. "I traveled with the UN food and agricultural team for several weeks," he says. "The experience stimulated my appetite for learning about different cultures." Lindstrom later went into the Navy, learned to fly, and was a Delta Airlines pilot for 34 years.

Ten years ago Lindstrom decided to establish a scholarship for SPANers. "International education is more important than ever because of globalization, the Internet, and the world situation," he says. "We have to be educated about what's going on. SPAN is ideal for this."

Click for more articles about law and politics.

Holmes's home

Thanks to a generous donor and avid Sherlockian, 221B Baker Street is now a University address

From *M*, fall 2007

Experience 221B Baker Street at Wilson Library on the Twin Cities campus.

"Allen started reading Sherlock Holmes when we were kids," says Mel Mackler of his late brother. "And when he got into something, he really got into it." Allen Mackler became an avid collector of Sherlockiana and an active member of national and local Sherlock Holmes societies.

When he died in 2005, Allen Mackler made the largest bequest ever received by the Sherlock Holmes Collections at the University of Minnesota Libraries, including 5,000 to 6,000 books, original pieces of Sherlockian art, a gift to fund a curator for the collections, and a full-scale replica of Holmes's sitting room at 221B Baker Street, which resides at Wilson Library.

The room is complete with furniture, wall hangings, and light fixtures that recreate the period--even teacups that are true to the text. "Going into this room in Allen's house was like stepping into a time warp," Mel recalls. "Collectors do a close reading of the texts where the sitting room is described and put the pieces together as authentically as possible," says Tim Johnson, curator of Special Collections and Rare Books at the U. "Allen's room was a sacred place for him and is attracting Sherlockians from all over the world. We're honored to have it." Click for more articles on arts and culture.

Forever in full bloom

From *M*, fall 2007

"We don't have palaces...in our country. [But] we do have great educational institutions...for me, these...are our country's palaces, and that is why we are here tonight celebrating in a palace of higher education--here at the University of Minnesota." -Luella Goldberg

Luella Goldberg christens the Lulu G tulip during the naming ceremony at the McNamara Alumni Center.

Luella Goldberg chose the McNamara Alumni Center for the site of the naming ceremony for the "Lulu G" tulip, a new cultivar developed in her honor as the recipient of the 2007 Blooming Forever Achievement Award. The award is given each year by Blooming Forever, a charitable organization based in the Netherlands, to acknowledge a person who has made a difference in his or her community, city, or country, or even across the world. Last year's recipient, Ukrainian president Victor Yushchenko, chose a palace in Kiev for the ceremony. This past spring, Goldberg was given an Honorary Doctor of Laws, the University's highest award, which recognizes distinctive achievements that have added materially to knowledge and to the betterment of society. She is past chairperson and current trustee of the University of Minnesota Foundation. The Lulu G will be planted at the Blooming Forever Hall of Fame in Lisee, the Netherlands.

For more articles about the home and gardening, click.

Be a mentor

From *M*, fall 2007

The UMAA is seeking volunteers to serve as mentors for students in numerous disciplines. A mentor is someone who helps foster the development of a student's career interests, making himself or herself available to answer questions, assist with r?sum? writing or interviewing tips, introduce the student to people who are working in the field, or help with other career-related activities. Mentors are asked to give between two and four hours per month to their mentee, either by phone or e-mail or in person. The program runs from October through April. The University also offers structured get-togethers and provides coaching for those new to mentoring. For more information, contact Trish Will at 612-626-0425 or e-mail.

A race to give back

More than 51,000 alumni make 2007 among best years for grads giving to the U

From *M*, fall 2007

This past spring, hundreds of young alumni zipped around campus dressed as Goldy on a motor scooter, bumping into the likes of President Bruininks on a toy horse and Ada Comstock on a bike.

Okay, so the wild ride was virtual, but this interactive game earned some real dollars for the University from some 600 Generation Y alumni--those who graduated in the last decade. Donations from this group totaled more than $200,000 and the Triple Match Derby promotion helped increase the number of Gen Y alums giving back by more than 35 percent.

The Triple Match Derby online game pitted thousands of young alumni in a race across campus with U legends and leaders, earning 200 points for hitting Bruininks, Comstock, and Coffman, but losing points for getting hit by Northrop and Mariucci, whose zamboni was tough to dodge. Once they crossed the finish line, many alumni made donation to their alma matter.

Jessica Nischik, who earned bachelors degrees in Spanish and marketing in 1999, was one such alum who made her first gift this year--a year that saw a record number of alumni supporting the U. "The U gave me my degrees, which have enabled me to get the jobs I've had," says Nischik, who lives in Portland, Oregon, and works as an administrative manager in the healthcare industry. "The U is definitely a worthwhile cause for me."

Nischik directed her support to the GOLD (Graduates of the Last Decade) Scholarship, in part because she was helped by scholarships as a student and understands the difference they can make, both while in school and after graduation.

"Scholarships helped cover the cost of books and other supplies. Without them, I would have had to take out more loans, which would have made it more difficult to get established after graduation," she says.

ALUMNI GIVING BY THE NUMBERS

Alumni Donors: 51,051

Gen Y: 1,930

Gen X: 7,176

Boomer: 25,483

Mature: 16,462

Data from fiscal year 2007, July 1, 2006-June 30, 2007

While ensuring educational opportunities for others seems like a selfless act, there's also something in it for the donor, as Nischik points out: "Those of us already in careers will be working beside today's students when they graduate. I want to know that they got a solid education and are well prepared to make positive contributions. Scholarships help make that possible."

Vincent Mar, B.A., '85, also looked beyond the classroom when he decided to support students with his first gift to the U. Mar directed his gift to a scholarship in the China Center. "International education is very important to make our U better and better," explains Mar. "We all have a need to understand the outside world and I believe the China Center Scholarship will help more students understand China and its culture."

Gifts from Nischik, Mar, and thousands of other alumni were sparked by the U's commitment to reconnect with its graduates. Whether chatting with a student caller, or reading a letter or e-mail from the president, alumni continue to be engaged with their alma mater--at times even donning Goldy Gopher garb to chase esteemed University figures around campus.

Race around campus as Goldy on a motor scooter! Click to play the Triple Match Derby game.

U on the road

From *M*, fall 2007

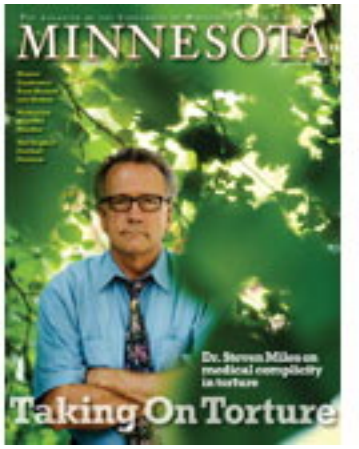
The University of Minnesota Alumni Association, along with selected University deans and faculty members, is visiting more than 35 communities throughout the state to share the ways in which teaching, research, and public engagement benefit these specific areas and the entire state. Speakers will discuss their research and the U's involvement with society's most pressing issues. It's a chance for Minnesotans to learn more about the U firsthand from people who are involved every day in its mission. For more information about the statewide speakers' tour, visit the Web site and click on "News & Events."

School of Nursing Dean Connie Delaney (right) is part of the statewide speakers' tour. She is pictured here with student Khou Yang (left) and research assistant Leslie Holm.

The inside story

From *M*, fall 2007

In an interview for the July-August 2007 issue of Minnesota magazine, Steven Miles (M.D. '76) discusses medical complicity in the torture of prisoners in Iraq and Afghanistan and at Guantanamo Bay. A medical professor in the Center for Bioethics at the University of Minnesota, Miles read an estimated 60,000 pages of declassified government documents, which became the basis of his 2006 book *Oath Betrayed: Torture, Medical Complicity, and the War on Terror* and were posted this spring in an archive on the University's Human Rights Library Web site. Below is an excerpt from the interview with Miles:



You've spoken to some medical professionals in the prisons. Did they talk about the pressure they were under to participate in abusive interrogations?

"There was pressure. And some of the pressure can be seen in the documents as well. But what I don't see in the documents or in their personal stories is the type of pressure that is brought to bear against health professionals who protest torture in countries like Chile or Uruguay or the Soviet Union or Turkey, and risk being disappeared or tortured or killed or having their family members killed for that resistance. The pressure that was brought to bear was peer pressure, in some cases the threat of a transfer. But when I look at my colleagues in other torturing countries, I see them taking absolutely heroic and in some cases suicidal risks to protest torture. So I don't accept--I simply do not accept--the notion that the pressure was of a degree that should have caused [our doctors] to be silent or complicit. And because of the fact that pathologists universally failed to disclose the torture deaths, they turned off a critical early warning system that something had gone seriously wrong in our prisons."

Click to read the entire article.

Members of the University of Minnesota Alumni Association receive Minnesota six times a year. To receive a sample copy or to join the UMAA, call 612-624-2323 or 800-862-5867 or visit the Web site.

A new believer

Puckett scholarship helped U grad journey from business to balance--and find himself along the way

by Tony Baisley

From *M*, fall 2007

Victor Nhul's journey of self-discovery at the U took him in unexpected directions.

As a high school senior, Victor Nhul learned that he'd been selected for the U's Puckett Scholars program. He remembers being in awe of the late Minnesota Twins superstar. "What Kirby achieved in his lifetime was amazing," Nhul recalls. "To me, receiving his scholarship was an acknowledgment that I could take some academic risks to find myself and my strengths."

A 2007 Carlson School of Management graduate, Nhul began his academic risk-taking with courses through the Center for Spirituality & Healing. First up was a course on Reiki, a hands-on healing technique that promotes relaxation and reduces stress.

"Before taking that course, I would have deemed myself insane not only to participate in complementary and alternative medicine (CAM) but willfully practice it on others," he explains. "But I was surprised by what I learned and noticed a shift in my thinking from the science-based approaches of Western thought, in which problems are isolated and treated separately, toward a balanced approach that ultimately encourages prevention."

Thanks to scholarship support and the U's flat tuition rate for full-time students, Nhul was able to take six more CAM courses while still completing majors in marketing, risk management and insurance, and entrepreneurship. Nhul got in touch with his true interests as a result of his CAM classes--from Advanced Reiki Healing to the privately supported Ways of Thinking About Health. Debbie Ringdahl, who taught Nhul's Reiki courses, saw firsthand how transformational the experience was for him. "I was blown away by his willingness to grow, and I was really touched by his honesty," says Ringdahl. "I believe Reiki just opened Victor up to be more of who he already was. He is an authentic guy who connects easily with others."

Now Nhul, too, has a better sense of his own path. "Originally I was planning on living the American Dream through purely monetary means. I was ready to accept 60- to 70-hour work weeks doing the same thing every day because I believed that was the way to success," he recalls. "The CAM courses made me realize that I was cheating myself by denying my other abilities. I now believe that success is mastering many different skills and having a variety of experiences."

A recent graduate, he's turned away from the security of a job in the business world and is looking for work in the nonprofit sector: "The Center for Spirituality & Healing, along with my Puckett Scholarship, have helped me realize that taking risks can be worth the rewards. It's healthy to explore and change one's point of view."

SUPPORTING MULTIPLE PERSPECTIVES

One course that contributed to Victor Nhul's transformation through the Center for Spirituality & Healing was Ways of Thinking About Health. "Through class field trips, students get to explore a wide range of health care systems, including indigenous North American medicine, Vedic medicine, traditional Chinese medicine, African American healing, as well as biomedicine," says Craig Hassel, who teaches the course.

But the travel costs incurred to experience healing methods in places such as the White Earth Indian Reservation in northwestern Minnesota or Maharishi University in Fairfield, Iowa, threatened to keep some students from taking the class.

"The experiential learning these trips afforded is invaluable," says Hassel. "Without private support, we would have to have imposed a student fee, creating a financial barrier for many students. Thankfully, the Marbrook Foundation understood the value of this course and stepped up to support us."

Click to read more articles about health and medicine.

Teaching the Holocaust

By Kelly O'Brien

From *M,* fall 2007

Auschwitz, with its grim "work makes you free" welcome, was one of six Nazi death camps in Poland.

Poland was the center of the Nazis' efforts to exterminate the Jews during WWII. Six death camps lay within its borders, including Treblinka and Auschwitz. Many non-Jewish Poles also died in these camps. This period altered the face of Poland forever. The city of Lublin, for example, had 119,000 Jews in 1939; today it has only 18--10 women and 8 men. The Poles have struggled to make sense of this chapter of their history for decades. As a result, Holocaust education in Poland has been fraught with doubt and misinformation. But this summer the University began to help middle- and high-school teachers learn how to explore this difficult issue for a new generation of Polish children through a program called Project Poland. Tess Wise, a survivor of the Radom, Poland, ghetto and labor camp and president of the Holocaust Memorial Resource and Education Center of Florida, began Project Poland a year ago. She asked Stephen Feinstein, director of the U's Center for Holocaust and Genocide Studies, to help. "My philosophy was to find an [educational] organization whose mission was the same as our mission: to teach the lessons of the Holocaust and to shape a more moral and ethical community," says Wise. In July, Feinstein and American and Polish scholars, including Jewish adults who were hidden as children, gathered at Jagellonian University in Krakow with 65 teachers to discuss the Holocaust from a decidedly Polish point of view. "Every year more information is found. As a result, Holocaust education is constantly evolving," says Feinstein. The future of Project Poland depends on funding, but Feinstein hopes the University can continue helping people understand what the wrong technology, and political ideology and rhetoric can produce.

Click for more articles about teaching and students.

O great teacher, where art thou?

First-rate teaching is alive and well at the University

By Pauline Oo

From *M,* fall 2007

Approachable. Engaging. Full of enthusiasm. A good teacher is an academic alchemist who can transform any course into pure gold. If we've been lucky, we've all had a great teacher at some point in our life, and we instinctively know it. He or she is not necessarily the person with infinite knowledge of a particular subject; how to calculate angular momentum may roll off her tongue, or he may know Shakespeare's sonnets as well as his own face, but if these teachers can't make you care about their subjects, all those learned words are just talk. And if you feel they don't care about you? Forget it. Paula O'Loughlin is an associate professor of political science at Morris. In her decade-plus career there, she has chalked up numerous distinctions, most recently the Morse-Alumni Award for Outstanding Contributions to Undergraduate Teaching. O'Loughlin is known for her astonishing commitment to students and for pushing them to do more than they think they are capable of doing. "If you open the door for them and say, 'Hey, you could be good enough to get a Ph.D.,' they will rise to that level," she says. O'Loughlin's efforts have helped send many students to Washington, D.C., for internships and led others to apply for graduate fellowships. Her commitment to teaching naturally spills into her role as an adviser. She has about 45 advisees, twice as many as some of her colleagues. "I don't want to turn people away and then have some students say I'm playing favorites," says O'Loughlin. "It's more work, but you know what? Students can help each other; [teaching is] a collective process. At times, I will have my advisees and students get to know each other so they can talk about student government or what it's like to apply for the Truman Scholarship, for example. There's a little bit of outsourcing [that takes place whenever I teach or advise]."

Grounded in teaching

With the U's goal of becoming one of the world's top-three public research universities, there has naturally been a focus on its research. Yet the U's emphasis remains on great teaching. "The people in Minnesota want professors who will show some attention to their sons and daughters and help them through school, give them a lot of guidance on their career, and be there for them," says electrical engineering professor Bruce Wollenberg, a 2007 recipient of the University's award for outstanding contributions to postbaccalaureate, graduate, and professional education. "And the research is, maybe you could say equal, but really in my opinion, it's secondary [to teaching]." Provost Tom Sullivan, the University's chief academic officer, believes everything the U does is grounded in teaching, and that "some of the very best teaching owes its roots to the experience gained through active research, which in itself is a type of learning and teaching." First-rate teaching captivates the imagination, makes us open our minds to possibilities, and inspires us to think and look beyond ourselves. "My charge in every course is to provide an intellectually rigorous experience," says O'Loughlin. "I pay attention to students' backgrounds. If students in a class are highly familiar with a course content, I increase the difficulty of the material. Anything less would be disrespectful of my students' possibilities." Wollenberg, who also has a reputation for presenting tough material with great clarity and ease, thinks nothing of overhauling his syllabi when the times call for it. For example, in the 1990s Congress passed legislation that deregulated the entire electric power industry in the United States; Wollenberg responded by almost immediately rebuilding his course content so students could understand the new world in which they could pick their power company, just as they could choose their long-distance phone service. Good teachers, he says, have one ear tuned to the world and another to their students. "I have a colleague down the hall, who's not a fulltime professor, but this guy has a good rapport with his students. He [literally] has a welcome mat in his doorway," says Wollenberg. "I look at him and I think I've got to be a little more like him."

For more articles on teaching and students, click.

Land of 10,000 steps

By Pauline Oo

September 17, 2007

There's a chill in the air, but the sun is still out and the leaves are still green. No excuse not to huff it. Walking is a cheap and easy way to exercise.

A stroll from Northrop Auditorium to Coffman Union--via Northrop Mall--would take you roughly 500 steps. Complete 10,000 steps and you've met the Surgeon General's recommendation of accumulating 30 minutes a day of activity.

In fact, if you get 10,000 steps in a day, you've met the Surgeon General's recommendation of accumulating 30 minutes a day of activity--the magic bullet to help you live longer and healthier. According to the Mayo Clinic, regular aerobic exercise--such as walking, biking, or swimming--can reduce the risk of many health and chronic conditions, keep excess pounds at bay, ward off viral illnesses, strengthen your heart, and boost your mood.

So how easy--or hard--is it to reach 10,000 steps? Strap on a pedometer for a week, and see for yourself. Or read on.

If you spend all day in a chair and you walk only from your desk to the kitchen or bathroom, it's pretty hard to rack up the steps. (It takes me about 100 steps to get to my office kitchen, and back.) But if you incorporate walking as a mode of transportation, then, halleluiah, you're well on your way to that magic 10,000 number.

According to Murray Harber, manager of the University of Minnesota's UPlan Wellness program, there are approximately 2,000 steps per mile--the exact number of steps depends on a person's stride. Another way to mark those steps is to look at your watch; 1,000 steps roughly equal 10 minutes.

So, based on those calculations, if you're on the University's Twin Cities campus in Minneapolis, it should take you about 12 minutes and 1,200 steps to cover the half mile from the main entrance of Walter Library on the East Bank to the front door of Wilson Library across the river on the West Bank. (The span of the Washington Avenue pedestrian bridge itself takes me 525 steps.) And if you have to get from Johnston Hall to the Social Sciences Building for a meeting, plan on walking nearly a mile or 20 minutes--that's roughly a 1,600-step track.

Does bicycling count?

Yes, because you're still expending energy. Attaching a pedometer to your shoe doesn't work very well, but a minute of leisurely pedaling equals about 116 steps. How about each minute you spend scrubbing the floor? They're worth 110 steps each. Dancing? 131 steps a minute. And the soon-to-be-upon-us leaf-raking season will give you 125 steps for each minute you work. For more step equivalents (and tips on how to use a pedometer), see the HealthPartners conversion chart.

Before starting any type of exercise, including a vigorous walking program, make sure you get a doctor's approval if you're overweight or have a history of heart disease or medical problems. Once you have the green light, develop a walking plan--what are your goals or when would you walk, for instance--and keep a journal to track your progress.

Check out the Health Partners 10,000 Steps program, which is available to all University faculty and staff at no cost through the U's Employee Wellness Program. You'll get a free pedometer. Another perk, besides feeling better, is that UPlan members can earn a $65 wellness reward for completing the eight-week program.

Try the mall walker's special Walk from Coffman Union to Northrop Auditorium, and back, 10 times (alternating between the two bridges over Washington Avenue). Each way--from the base of the steps in front of Coffman Union to the base of the steps of leading into Northrop Auditorium from the plaza--is 500 steps.

Further reading UPlan Wellness reintroduces Health Connections with expanded benefits for 2007 U walks the talk

What makes them tick

Student Ryan Driscoll explores the reality behind "iconic animals"

By Megan Gerst Rocker

September 17, 2007

U junior Ryan Driscoll is majoring in ethology--the study of animal psychology and behavior--by combining courses from psychology and life sciences through the Inter-College Program.

University junior Ryan Driscoll's true love has always been animals and animal behavior. When other kids went for bike rides or spent time playing in the park, Driscoll went to the zoo. "When my parents said 'let's go for a walk,' I took that to mean, 'let's go to the zoo.' The zoo WAS my walk," he says.

Then, as part of a civil service project in high school, Driscoll began volunteering at Paws & Claws, a Rochester, Minnesota, animal humane organization. He later became a paid staff member.

"I had an opportunity to work one-on-one with dogs and people," says Driscoll. "I worked with animals that had behavioral issues, dogs that were joys to be around, and dogs that just needed a little TLC to turn them into wonderful pets. Plus, I got to help potential owners find the right dog for them. It helped lay the foundation for a future career."

Entering the U, Driscoll needed to design a cross-collegiate major that let him combine his interests and outline a career path. So, through the College of Continuing Education's Inter-College Program (ICP), he is studying ethology--the study of animal psychology and behavior--by combining courses from psychology and life sciences.

"Every 20 years or so, certain dog breeds become vilified in society," he says. "Right now it's pit bulls--but back in the first part of the 20th century, they certainly didn't have that reputation...remember Petey, from 'Our Gang'? He was a pit bull. And an icon."

"The ICP worked out well for me," he says. "When I first started working with Amy [Brewster, Driscoll's adviser], she pushed me to think about today--and tomorrow. She had me look at graduate school requirements... [and] she had me ask myself 'why am I interested in this, what can it tell me, and what can I do to take my interest to the next level?' "Had I done an ecology, evolution, and biology major I would have missed out on a lot of the psych classes I needed--and ended up taking a lot of biology classes that I didn't need. It's that kind of direction that was so helpful in figuring out my academic path."

It was his honors adviser, Josh Borowicz, who helped Driscoll focus his interests and understand what connected them together. "I was intrigued by domestic dogs--their behavior, training, history, et cetera," he says. "But I also never shook [a childhood] fascination for the animals of Australia, particularly the ones that really stand out...dolphins, marsupials, dingoes."

Working with Borowicz, Driscoll realized he had an interest in what he calls "iconic animals"--animals that are held in a certain regard by a society and are frequently represented in folklore or other customs. It's an interest, he explains, that "fits well with numerous career options and research themes."

For instance, he has worked on a paper for his honors research about the "bad breed" concept. "Every 20 years or so, certain dog breeds become vilified in society," he says. "Right now it's pit bulls--but back in the first part of the 20th century, they certainly didn't have that reputation...remember Petey, from 'Our Gang'? He was a pit bull. And an icon. Watching how breeds' reputations change over time (despite statistics), and how certain breeds fall in and out of favor is a real eye opener."

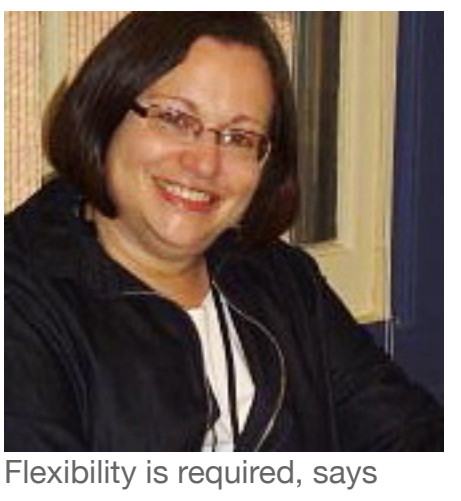
According to Driscoll, the ICP has given him the freedom to pursue any number of plans following graduation, including perhaps working with "problem" dogs. His ideal internship, however, would be working with dolphins and other iconic animals at the Minnesota Zoo. "That would really be living the dream," he says. "It would certainly take me full circle in life."

The research give-and-take

Rising to the challenge of community-based research

By Stephanie Wilkes

Brief, Sept. 19, 2007



Flexibility is required, says Cynthia McGill, community-based research liaison to the U's Institutional Review Board. McGill is a staff member for the Research Subjects' Protection Programs.

Community-based research has become a growing priority over the past decade. The Kellogg Foundation has described it as beginning with a research topic of importance to a community and aiming to combine knowledge with action to achieve social change. It's a collaborative approach that equitably involves all partners in the research process and recognizes the unique strengths each partner brings.*

But the reciprocal nature of community-based research is its crucial challenge, says J. Michael Oakes, associate professor of epidemiology and a member of the University's Institutional Review Board.

"Community-based research challenges the conventional notion that there are researchers and research subjects, and that the two groups cannot be the same," says Oakes. "In community-based research, the two *are* often the same--researchers may become community participants, and community participants often become researchers. The line between researchers and subjects is thus blurred, and this is the primary and unique challenge of CBR."

Last February, a meeting to identify ways that University systems can facilitate community-based research was hosted by the U's Children, Youth and Family Consortium, Office for Public Engagement, and the College of Education and Human Development dean's office. The meeting led to discussion with the U's Institutional Review Board (IRB) and Sponsored Projects Administration (SPA), identifying IRB and SPA perceptions about institutional barriers to this type of public engagement and steps needed to alleviate them.

> *"In community-based research, researchers may become community participants and community participants often become researchers. The line between researchers and subjects is blurred."*

Cynthia McGill has been working in the U Research Subjects' Protection Programs for eight years. She supervises social science research and communicates with principal investigators and community members in the analysis and review of incoming applications. She has also become the community-based research liaison to the U's Institutional Review Board. McGill recognizes the importance of community-based research to the University and hopes to help foster its growth.

"I think it is vital that all IRBs encourage this dynamic interaction between universities and communities," says McGill. "As the CBR liaison, I have tried to become more educated about community-based research by listening to researchers and community members, attending seminars on the topic, and ensuring that the IRB committees are familiar with this kind of research."

Education of University and community members alike is an important part of solving problems faced when engaging in community-based research.

Pamela Webb, new associate vice president for research administration, sees an important role for Sponsored Projects Administration (SPA) in community-based research.

For example, many funding agencies' regulations and requirements "may seem a bit arcane or unnecessary to the community-based organizations," says Pamela Webb, new associate vice president for research administration. She sees SPA in a critical role to provide an education component for the community on those issues.

Webb also sees SPA in a role that facilitates collaboration by writing agreements that effectively articulate the needs and wishes of both the community and University partners.

"Effective and sustainable partnerships are aided by clarity in expectations, especially by understanding how the parties intend to work together so that both may achieve their desired objectives," Webb says. "This can be of particular importance in community-based projects when the partners may be less accustomed to working with one another, or when the nature of their initiatives vary tremendously."

Innovation and flexibility required

To meet the challenges of community-based research, innovation is required. The IRB recently began tailoring its applications to ask questions more pertinent to community-based research, inquiring about a project's community partners and their ideas. Meanwhile, SPA is investigating the effectiveness of simplified contract arrangements as a way of facilitating more straightforward communication with the community and local industry.

McGill stresses the importance of flexibility and an open mind as key to encouraging community-based research at the University of Minnesota.

"There are often many, many changes--which is a reflection of the huge collaboration going on with the community," says McGill. "With CBR, you have to be a little more flexible. The regulations still must be upheld, but there is always room within those regulations for community interpretation, for an institution to make some decisions to adapt to neighborhoods and communities."

> *"The University has a commitment to the population of Minnesota...not to impose things on the community but rather to work with them to study those issues that are most important to them, and in a way that is respectful."*

Michael Miner, associate professor of family medicine and chair of the IRB's social science panel, emphasizes the importance of viewing community-based research as a give-and-take relationship, and the IRB's commitment to facilitating those relationships.

"The University has a commitment to the population of Minnesota," says Miner. "Part of this commitment is not to impose things on the community but rather to work with them to study those issues that are most important to them, and in a way that is respectful. As an IRB, we try to be supportive of such collaborations."

McGill hopes recent efforts will alleviate many of the barriers to community-based research.

"We want to make this kind of research as straightforward and easy as possible, not act as a stumbling block," says McGill. "We want to make sure that we communicate to the principal investigators and the University community that we are willing to work with them and help them along through the process."

Stephanie Wilkes is a senior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

** W.K. Kellogg Foundation Community Health Scholars Program, quoted by Community-Campus Partnerships for Health.*

Clearing the way to collaborate

New Hennepin County-U agreement strengthens partnership

By Sara Bielawski

Brief, Sept. 19, 2007

Robert Jones, U senior vice president for systemwide academic administration, signed the agreement with Hennepin County.

The University of Minnesota has been working closely with Minnesota's largest county for years. Half of the Twin Cities campus sits in Hennepin County, which encompasses the city of Minneapolis and several suburbs, home to 1.1 million people--22 percent of the state's population. In 2004, the Hennepin-University Partnership (HUP) was established to collaborate more strategically.

In a ceremony at Coffman Memorial Union Aug. 24, the partners strengthened their relationship by signing a historic master cooperative agreement that will streamline joint research projects.

"This [will] catalyze new connections and help break down the bureaucratic barriers and red tape that have traditionally held up collaborative projects," said University senior vice president for systemwide academic administration Robert Jones. The agreement extends to the entire University system.

The master cooperative agreement will save University and Hennepin County staff weeks and even months by eliminating the need to renegotiate contract terms for each and every collaborative project. Now work can be outlined and approved with a simple work order. A template will be online with clear instructions for paperwork.

"This agreement completes the circuit that enables us to effectively partner and collaborate with the university," said Hennepin County commissioner Linda Koblick, the county's lead in establishing the partnership. "We citizens and taxpayers all benefit, and it paves the way for others to emulate this partnership."

HUP projects to date have included research on transportation, literacy, public health, and work to end homelessness, to name a few. *(See box, right.)* In addition to sharing expertise among academics and practitioners and supporting research on issues of mutual interest, HUP provides students field experience and helps to prepare a stronger work force. It also allows the partners to share knowledge and best practices related to running large institutions. All of those components will become easier under the new master cooperative agreement.

Signing with Jones for the University Aug. 24 were Timothy Mulcahy, vice president for research, and Richard Pfutzenreuter, chief financial officer. Signing for Hennepin County were commissioner Gail Dorfman, vice chair of the Hennepin County Board, and county administrator Richard Johnson.

Hennepin County Board chair Randy Johnson said the unusual partnership is making important connections between Hennepin County managers and University faculty members.

"This cooperative approach is connecting the scholarship and research of the University with the local, hands-on laboratory that is Hennepin County," said Johnson.

For more information about the master cooperative agreement, contact Sponsored Projects Administration at 612-624-5599. For more information about the partnership and recent Hennepin-University collaborations, contact Hennepin-University liaison Kathie Doty at 612-625-4383 or kdoty@umn.edu.

Recent projects

The new master cooperative agreement will streamline processes to carry out projects such as the these already completed or under way through HUP.

* Multi-year transportation research is learning more about how the introduction of major transit ways, such as the Hiawatha Light Rail Line, impacts the surrounding community.

* The dean of the College of Design has been working with a county commissioner to provide expertise and student involvement on the Homeless Connect project and coordinate the U's role in helping to end homelessness.

* Evaluative research was conducted in mid-2006 by the College of Education and Human Development in conjunction with Hennepin County Libraries to determine the effectiveness of an innovative reading program for boys and recommend ways to increase their interest in reading.

* The county's public health division will work with U researchers to analyze high quality data gathered in the SHAPE survey to measure community health.

Sara Bielawski is a master of education student in youth development and leadership and a research assistant for the Hennepin-University Partnership.

The real cost of food

Farm work is hard and dangerous, but the U's John Shutske is helping reduce the hazards

By Deane Morrison

September 18, 2007

John Shutske works tirelessly to prevent deaths and injuries to farmers and their families.

It's autumn, and soon a bright harvest moon will light fields for farmers working to put food on our tables. But behind this romantic image lies the cold hard fact that farmers risk life and limb to do it. Farming ranks among the most dangerous occupations in the nation, with 600 or 700 adults and 100 children killed each year, plus many more maimed, says University farm safety expert John Shutske. "Agriculture has the highest fatality rate among major industry categories, with a rate seven to eight times greater than the average U.S. rate for all industries combined," says Shutske, a professor of bioproducts and biosystems engineering. Shutske works both to design safer farm machinery and to raise awareness of dangers so farm workers can better protect themselves and their children. He recently received a national award for a research paper describing his design of a sensor to detect when people get too close to a power take-off--a rotating shaft that uses the power of a tractor to run a mower, auger, or other farm machine--and shut off the tractor.

The issue of farm safety hit home in the early 1990s, when two wrenching stories shook the public. "John Thompson, a North Dakota teenager, lost both arms to a rotating grain auger," Shutske recalls. "Several weeks after that, a little boy from Wisconsin lost an arm in a piece of irrigation equipment." Safety has improved recently, as shown by statistics over the 23 years Shutske has working in the area. When he started out, there were more than 60 deaths per 100,000 people in farming; in 2006, the number was "in the high 20s." In Minnesota, children under 16 used to account for 20 percent of deaths, but in 2006 the number was two out of 26, or 7.7 percent. One obstacle to further improvements is the equipment one finds on most farms. New equipment often has safety features like sensors, but many farm machines are old and unsafe, Shutske says.

A week to reflect

This year, Sept. 16-22 is National Farm Safety and Health Week, an annual program of the National Safety Council. This year's theme is "It's better to bury a tradition than a child." The theme comes from the National Children's Ag Safety Network, which has launched a national media campaign to get across the simple message that children under 12 should not be on or near tractors.

"Everybody knows a neighbor or somebody who's been killed," says Shutske. "People have to ask if that's acceptable." "With new grain combines, if you get out of the seat, some parts will shut off," he says. "But how do we get people to remember that when they're on an old machine, there's no safety device? That phenomenon can be really hard to work around, and it's something machinery companies and others are very aware of." In general, the human tendency to take risks and push the limits of safety devices is a problem. It's the same on our roads, says Shutske; some people will drive faster because they have ABS or airbags. Other human factors stem from youth. "Children can't understand what it's like to be seriously injured," says Shutske. "And adolescents may think they can step over a piece of rotating machinery or drive too fast around a curve with a heavily loaded tractor or truck." But while child fatalities drop, more farmers over 65 are being injured or killed. Again, the analogy to driving cars applies: Sight, hearing, and reaction times are often impaired in the elderly. Also, says Shutske, the "average" principal farm operator is about 10 years older than the average person working in an urban area. To counter these factors, Shutske works hard to educate farmers and engineers on safety. In his department, students must take a three-credit course on safety in order to graduate. "It gives students an advantage in the workplace," says Shutske. They integrate safety in design and development. That's the direction the industry would like to go. Safety shouldn't be an afterthought. In Minnesota, we're becoming known for safety engineering." Shutske and departmental colleague Jonathan Chaplin work together to teach safety courses. Shutske heads a course in agricultural engineering safety, taught in the department of bioproducts and biosystems engineering, and Chaplin heads an industrial engineering safety course, taught in the mechanical engineering department. Through the University of Minnesota Extension Service, Shutske keeps a brisk schedule speaking to the Minnesota Farm Bureau and other groups to keep safety consciousness high in people's minds and to encourage the use of technology to reduce risk. Shutske also enlists powerful advocates with ties to farm families: doctors and nurses. Because they enjoy a high level of trust, they are effective at raising awareness of the potential for injury or death. "I tell physicians and nurses they need not be afraid to challenge the status quo," says Shutske. "We need to work together to change that situation. Everybody knows a neighbor or somebody who's been killed. People have to ask if that's acceptable."

Alleviating diabetes complications

Birgitta Rice, in the University of Minnesota School of Public Health, has developed a therapy proven to relieve leg pain and improve healing of chronic foot ulcers in patients with diabetes or peripheral arterial disease.

Utilizing assisted thermal biofeedback, WarmFeet Intervention allows peripheral blood vessels to widen, improving circulation to tissues and nerves. In a randomized clinical trial, the treatment helped chronic foot ulcers heal completely within three months. Subjects also noticed improvements in pain relief, nerve function, ambulation, and coping skills.

Click to learn more about WarmFeet Intervention.

Alcohol ads and adolescents

A recent study suggests that adolescents experience heightened intentions to drink when their schools are in a neighborhood where alcohol advertisements are prominent. A team from the University of Minnesota and the University of Florida recorded 931 alcohol advertisements within a 1,500-foot radius of 63 schools in the Chicago area. Students exposed to these advertisements in sixth grade were more likely to hold positive attitudes about alcohol and have stronger intentions to drink by eighth grade. Over 75 percent of the ads featured only the alcohol's brand name or price, suggesting that ads need not be directed at children for children to internalize them. Youth who drink before age 15 are four times more likely to develop alcohol dependence than those who begin drinking after age 18.

Click for more articles on health and medicine.

Eat well, live well

Dining services to host sustainability and health and wellness event

September 21, 2007

Head Bistro West chef Kirke Northcutt serves up great local fare with panache as part of a larger U effort to support regional food producers.

The state of Minnesota is serious about its food, and its flagship university is following suit. It's not enough for University Dining Services (UDS) to offer excellently prepared meals, it has taken the big step of paying attention to where products come from and how they're produced. Last year, the Twin Cities campus alone spent $1.7 million on sustainably raised and harvested food. On Monday, September 24, from 11 a.m. to 3 p.m. in Coffman Union's Great Hall, UDS will showcase how it works with regional partners to bring students, faculty, and staff the best food possible, including food produced by locally owned Twin Cities restaurants. The "Eat Well, Live Well" event will have samples from 38 UDS partners, including:

- Pepin Heights Farm
- Thousand Hills Cattle Company
- Davanni's Pizza & Hot Hoagies
- Sawatdee Thai Restaurant

Representatives from University Dining Services' newest partner, Urban Ventures Leadership Foundation, will be on hand to speak to students, faculty, and staff about its work. This September, UDS began serving Urban Ventures' coffee, CityKid Java, in all of the residential restaurants on campus. CityKid Java coffees are "true trade," meaning they are purchased at or above fair trade industry costs and effort is made to help producers and workers become financially secure. Urban Ventures, a nonprofit community development organization serving South Minneapolis communities, contributes 100 percent of its CityKid Java profits back into youth programming at its community center. "Eat Well, Live Well" is open to the public. UDS invites you to see and taste all the local and healthy foods available on campus. The first 250 students at the event will receive a free coffee travel mug with free fair trade coffee.

Study debunks link between prostate cancer and race

Different treatment is more likely cause of racially disparate outcomes

By Deane Morrison

September 21, 2007

Akhouri Sinha led a study that found no basis for the notion that prostate cancer is more aggressive in black men than in white men.

One thing Akhouri Sinha would like to change about the medical profession is the notion that prostate cancer is more aggressive in black men than in Caucasians or men of other races. What appears to be greater aggressiveness is most likely the result of inferior treatment, says the University professor of genetics, cell biology, and development. Sinha, who is also a research scientist at the Minneapolis VA Medical Center, recently led a study of prostate cancer tumors from Caucasian and African American men. It showed no evidence that the cancer is more aggressive in black men. Sinha says the belief that black men's tumors are more aggressive is based on studies that failed to match patients properly and used only indirect means to measure tumor aggressiveness. The work is published in the Sept. 21 issue of *Anticancer Research.* In previous studies of prostate tumors, those in black patients tended to be larger and at a more advanced stage, and black men had higher blood levels of prostate specific antigen (PSA), a substance produced by the prostate that, at high levels, points to the possibility of prostate cancer. But all these criteria are interrelated and could be the result of delayed diagnosis or medical care, Sinha says. "Cancer does not discriminate on the basis of race, religion, national origin, or caste system," he says. "Invasiveness of prostate cancer is not race-dependent. "Previous studies showing differences in prostate cancers among races require re-evaluation because inconsistent criteria were used in selection of patients," he says. "Our data shows that for patients receiving similar treatment, African-American patients are not following up with their doctors as opposed to Caucasians, and this difference is highly significant. Also, Caucasian patients are four times as likely to receive additional treatment after prostatectomy."

> *"Cancer does not discriminate on the basis of race, religion, national origin, or caste system," [Sinha] says.*

What is needed is a comparison of the innate aggressiveness of tumors that have been matched by criteria relevant to a diagnosis of cancer as well as treatment after prostatectomy. Drawing on the resources of the Minneapolis Veterans Affairs Medical Center, Sinha selected preserved slices of tumors from 130 surgery patients; from these he was able to match 25 black and 25 white patients according to age, Gleason grade (a pathologist's measure of how advanced a prostate tumor is), clinical stage of the tumors, and PSA levels before prostatectomy. To determine how aggressive the tumors were, Sinha measured the levels of an enzyme that is essential for destroying membranes that keep cells in place. Called cathepsin B, the enzyme, if unchecked, carves out an "escape route" by which cancer cells can spread. He also measured the levels of a substance, known as stefin A, that inhibits cathepsin B. The ratio of the two substances in slices of prostate tumors gives a measure of how invasive, or aggressive, the tumors are. The most aggressive ones are characterized by a high ratio of cathepsin B to stefin A. Results showed that the ratios were not significantly different in tumors of black and white men, all of whom had Gleason score 6 or 7 tumors, indicating moderate risk. The average ratios were 1.78 in black men and 1.59 in white men for Gleason score 6 tumors, and 1.49 in black men and 1.35 in white men of Gleason score 7 tumors. All these ratios were higher than the average ratio in control tissue taken from men with benign prostatic hyperplasia, a common, noncancerous enlargement of the gland. Sinha says that previous studies had found differences between black men compared to white men and men of other races in terms of prostate cancer incidence, death rate, tumor volume, age, Gleason score, and PSA levels. But other factors, such as level of medical care, economic status, access to medical care, and nutrition undoubtedly contributed to those differences. "Our selection of patients, who received equal medical care at the Minneapolis Veterans Affairs Medical Center, minimized differences in prostate cancer of African-American and Caucasian patients," he says. "Furthermore, previous studies did not include [enzymes like cathepsin B] as a factor to distinguish between African-American and Caucasian men, and, therefore, did not provide clues as to the biological basis of invasiveness and progression of prostate cancer. Sinha stressed that his results must be confirmed by more expansive studies.

A new look at urban sprawl

Recent arrivals to a city tend to take up twice as much land as established residents

By Charles Plain and Deane Morrison

September 21, 2007

Julian Marshall found patterns in city growth that had lain hidden for decades.

University researcher Julian Marshall has found underlying patterns in urban sprawl and how sprawl relates to population growth, including the observation that newcomers to cities take up twice as much land as the average for established residents. His findings offer a new numerical tool for measuring urban expansion. The work of Marshall, an assistant professor of civil engineering, is featured in the September 2007 issue of *Urban Studies.*
Determining how cities change and grow in response to population increases is a timely question. "This year, for the first time in history, a majority of people will live in urban areas. In future decades, urban population growth will greatly exceed rural population growth," Marshall says. The desire new residents have for bigger homes and yards leads to even greater implications for social, health, and environmental concerns associated with urban sprawl, he explains. Marshall analyzed U.S. census data on urban land-use and population from 1950 to 2000. The patterns he noted emerged from data on the growth of all cities over time; not all individual cities followed them. "I initially found the patterns by accident, just by playing with the data," Marshall says. He realized that in comparing each decade to the preceding decade, newcomers steadily stretched city borders by occupying double the average amount of land occupied by existing residents. More new residents settling in the outer areas, where lots are bigger, made the difference. Marshall made the discovery while developing a new way to predict how urban areas grow over time in response to population increases. Making this prediction for a single city can be difficult, and it depends on land availability and other specifics of the city. Another pattern is that the average number of people in a meter-wide strip of land across cities remains much the same over time. This number is called the linear population density, or LPD.

"The strength of the mathematical associations and the length of time the patterns have held--50 years--is surprising," Marshall says. "I could hardly believe what I found."

"For example, from 1950 to 2000, the average population, land area, and population density changed by more than a factor of two, but the average LPD changed less than 10 percent," Marshall says. "Few, if any, other attributes of urban form have remained so constant during this half-century time-period." This second pattern is possible, he says, because low-density urban growth at the edge of cities is canceled out by new high-density housing in the urban core. A third pattern builds on relationships known as "rank-size rules." The idea is that when cities are ranked from largest to smallest, the size of each city follows a predictable proportion. For example, the population of the second-largest city is equal to one-half that of the largest city, and the population of the third-largest city is one-third that of the largest city, and so on. Marshall discovered that similar rank-size rules hold true for other attributes of cities, such as population density and land area. Marshall's findings provide mathematical descriptions of these observations and offer predictions about city sizes in future decades. But while these results predict how the system as a whole behaves--that is, distributions of values for all cities--they cannot predict what will happen in any one city. "The strength of the mathematical associations and the length of time the patterns have held--50 years--is surprising," Marshall says. "I could hardly believe what I found."

Connect and commit

A Q&A with the first chancellor of the Rochester campus

By Gayla Marty

From *Brief,* Sept. 26, 2007

Chancellor Stephen Lehmkuhle will represent Rochester within the University and community, state, region, legislature, and public and private sectors.

Stephen Lehmkuhle took the helm as the first chancellor of the University's new campus in Rochester on Sept. 10. Formerly the senior vice president of academic affairs for the four-campus University of Missouri system, Lehmkuhle brings strong experience in leadership, collaboration, and building partnerships.

Lehmkuhle (LEM-cool) earned a bachelor's degree in his hometown of Dayton, Ohio, and a doctorate in experimental psychology at Vanderbilt University in Nashville. His research and teaching focused on visual neuroscience, and the work of his research teams resulted in better understanding of conditions such as dyslexia, visual losses in the elderly, and visual attention processes. It's a background well-matched to the Rochester area's high-growth medical and technology corridor.

He spoke last week about Rochester, the emerging University campus, and what lies ahead.

UMNnews: What drew you to the University of Minnesota-Rochester? Lehmkuhle: This is a new venture--that's what attracted me to the position. How many opportunities do you get in this nation to be part of starting a new university?

My mantra is to have a focused commitment to educating students and generating and applying knowledge. Throughout my career--as a faculty member and now as an administrator--that's how I've wanted to have an impact.

What makes Rochester the place for a new University of Minnesota campus?

When you say "Rochester, Minnesota" outside of Minnesota, people immediately think of the Mayo Clinic and all that involves. When you look from a statewide and even from a national perspective at the assets in the Rochester area--with Mayo, IBM, and all of the other associated high-growth industries--and you know that we're trying to build more knowledge- or innovation-based economies, a critical ingredient that needs to be part of that cluster is a research university. It's a good, strategic investment that the state is making to raise the quality of life for all of Minnesota

I'd read a lot about the commitment to higher education in Rochester, but to experience it is something different. The people of Rochester truly value education as a public good, and they understand the importance of growing and developing the presence of the University of Minnesota in that region to their long-term economic vitality. Their commitment is--I've been using the word "contagious."

What's happening right now at UMR?

We've just moved the University of Minnesota-Rochester downtown from the edge of town. This is strategic because we want to be close to Mayo and all the activity. Rochester has a very significant downtown area--for a population of roughly 100,000, its downtown is more like a city of half-million or a million people, which has to do with the many people--I believe around half a million each year--who visit the Mayo Clinic. As a result, there is a hotel industry, restaurants, shops, and other businesses...the downtown is vibrant. And UMR is going to attract more young people downtown, making it even more vibrant. Right now we serve about 400 students but have no degree programs of our own. One of our roles is to be Rochester's front door to the entire University of Minnesota system. We offer several programs from the Twin Cities and Duluth. There's no need to recreate existing degree programs, but to create access to them. We provide the local support to make those programs successful, and we provide support to Rochester students. That's going to continue and probably expand.

ACADEMICS AT UMR

UMR currently offers courses in the following fields, delivered locally by faculty from the Duluth and Twin Cities campuses. Rochester students can earn a variety of degrees, from certificates to doctorates.

* Business
* Education
* Fine arts
* Health sciences
* Interpreting
* Nursing (BSN)
* Public health
* Social work (MSW)
* Technology

See more information about UMR's academic programs.

What's next?

We're working toward admitting students and delivering lower-division courses, particularly in the science and math fields, because those are the courses that will feed the health-related and technology-related degrees that are going to be the signature of Rochester.

That said, the Rochester area does have unique needs in the health sciences and the biotechnology fields, and we will want to develop and launch some new programs and over time, we hope, create wider access to them for the rest of the state through our partner campuses. Right now, we're facilitating the development of a biomedical informatics and computational biology program that works with a number of departments and colleges on the Twin Cities campus--mathematics, computer science--and bring to the table faculty and expertise at Mayo and IBM. In related research...we're serving as a support structure to bring together private-public partnerships that will assemble a competitive team of scientists, able to solicit and garner federal funds and grow this very important research field.

And we need to be involved in economic development issues for Rochester, southeast Minnesota, and even the state. I particularly would like to explore ways to develop entrepreneurship programs so we can populate the region with entrepreneurs who will have the skill sets to help retain some of this new knowledge locally rather than letting it migrate to the coasts. We really want the full economic impact of our new knowledge to reside here in Minnesota.

I think because of the nature of the activities of the Mayo Clinic and IBM, Rochester has a very diverse and international community. I could see, down the road, international partnerships that would build on those already established relationships.

How do you see UMR's role in the University as a whole?

Because it's new and emerging, UMR will be innovative and entrepreneurial. I see it serving in some ways as a test bed for the rest of the University to explore new avenues--particularly in the learning paradigms--and see if they *are* more effective and more efficient. Students are changing, and they're going to continue to change, and we need to consider different learning models. Then, can we scale those learning models to support a large number of students? It's an empirical question at this point, untested. We'll be small, and as we grow, we'll see if we can scale it up. The excitement about Rochester is that, being new, we really are free to explore different ways, different pedagogies, different approaches, and we're going to take advantage of that.

What challenges do you see ahead?

We have many of the same challenges as anywhere in higher education. Workforce needs are changing...the workforce will demand a postsecondary degree--people are not going to get jobs without it. Funding models are changing, and we have to diversify revenue sources. The solutions clearly are going to come through partnerships--the future of the University of Minnesota-Rochester will depend on them. That's something that I worked on extensively at the University of Missouri. We're going to have a variety of partnerships--with Mayo, IBM, Winona State, Rochester Community and Technical College, and with the economic development groups...there's a broad range of partnerships to be developed.

Part of the future of any university is going to be a student body that reflects the diversification and the globalization of our society. Every university in this nation needs to work very closely with our K-12 partners and make sure we create avenues for all students to attend college, now and in the future. You'll hear me often say that college begins in kindergarten. That means that we need to be supportive of our students' entire educational journey.

You drink from a fire hose when you first start a position like this, and it will take awhile for me to put all the pieces together. But I believe that jobs like these are a marathon and not a sprint--you've got to pace yourself. Things that are worth doing have got to sustain themselves over the long term, so you've got to be willing to fully commit.

Your field was experimental psychology. Does it relate to the work you do now?

My research field is in visual processing--how the brain processes visual information. I studied how individual cells in the brain encode information. Individual cells can't do very much individually--frankly, they're dumb. The power of the brain is in its interconnectivity. Every cell in the brain interconnects with other cells--probably 10,000 other cells on the average.

It's the same thing in this work: networks enable or empower the institution. I see my role as a leader to be a critical node in that network and to build the interconnectivity of the institution--students, faculty, staff, private partners, the general public, and community supporters. I need to interconnect them around the vision of common purpose for the institution. Once you build and nurture that network, in a way that builds on your history, you'll be in a much better position to adjust to change.

Outside of your work, what do you do for enjoyment?

I have two ways to relax--I run and I golf. When I run, I think about problems--my best ideas I get when I'm running. I enjoy golf for the exact opposite reason--you cannot think of anything but hitting a golf ball, so it's a break from everything else.

Living downtown, I've discovered some running paths. I can go one block over and run along the river--it's really nice. And there's a public golf course about three blocks away but I haven't got my golf clubs out yet...at this point, that will probably have to wait until next year. **FURTHER READING**

UMR welcomes the first chancellor

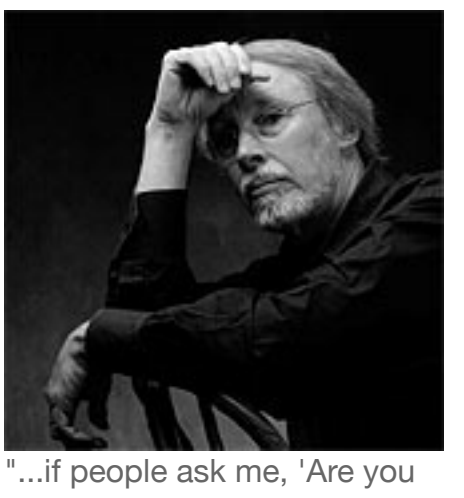
"Center expands training in critical health professions," August 2006

A *Feast of Love* on the big screen

U professor's book adapted to film; hits cinemas September 28.

By Pauline Oo

September 25, 2007; updated October 3, 2007



"...if people ask me, 'Are you nervous or upset about what they've done to your book?' I always say, 'Well, the book is the same. It's right over there on the shelf. It's the same book as it always was,'" says University of Minnesota visiting professor Charles Baxter.

William Shakespeare and University of Minnesota visiting professor Charles Baxter have something in common. Both have written about the mischief that love-struck characters can stir up--in *A Midsummer Night's Dream* and *The Feast of Love,* respectively. On September 28, an adaptation of Baxter's novel opened in movie theatres across the United States.

"It's a reasonably good movie," says Baxter, who attended a special *Feast of Love* premiere in New York City last Monday. "Many of the performances are quite remarkable, and the photography is quite beautiful. The director Robert Benton [who also directed *Places in the Heart* and *Kramer vs. Kramer*] gave everything a particular tone, which I liked. This film has a kind of sweetness to it, even in its darkest moments."

Baxter, the U's Edelstein-Keller Visiting Professor in Creative Writing, wrote *The Feast of Love* about seven years ago, but he did not write the screenplay nor did he have script approval or involvement in the filming of the movie in Portland, Oregon. Which begs the question: is the movie true to the novel?

"Every author who sells his or her book to the movies has to expect that it won't be the same once it's up on the screen," says Baxter. "There are significant changes in the adaptation. In the book there's a character that's missing, and in the movie that character is dead, for example. And certain major parts of the story are telescoped or just eliminated, but the bones of the narrative are there. You can get some sense of what the book is like from seeing the movie."

The film, produced by Lakeshore Entertainment Group, stars a host of big names including Morgan Freeman (*Lucky Number Slevin, The Shawshank Redemption*) and Greg Kinnear (*Little Miss Sunshine, The Matador*). Literary author and screenwriter Allison Burnett (*Resurrecting the Champ, Autumn in New York*) wrote the screenplay.

The novel, a 2000 National Book Award nominee, "is essentially a kind of *A Midsummer Night's Dream* narrative about several people in a small midwestern city," explains Baxter. "There's no one central plot, instead there are seven major stories, which all come together as the book goes on."

Baxter has received much acclaim for his novel, from *The New York Times Book Review* ("rich, juicy...completely engrossing"), *The Wall Street Journal* ("sumptuous"), and *The Boston Globe* ("a marvel of narrative voices"). Ads for the film, which appear on TV and in local papers, tout it as "a story for anyone with an appetite for love." Kinnear plays a coffee shop owner who finds love in all the wrong places, while Freeman takes on the role of a college professor who witnesses love and attraction whipping up shenanigans among the town's residents.

According to Baxter, book rights were first sold to Miramax but the film giant gave it up ("it's a very hard novel to adapt because there are so many plots"), and Lakeshore, the independent film producer responsible for such hits as *Million Dollar Baby* and *Runaway Bride,* ended up acquiring the rights. The company hired Burnett as the screenwriter and Benton to direct after another director had bowed out.

Did you know?

There will never be a movie made of J.D. Salinger's *The Catcher in the Rye* because Salinger won't sell the rights. Most authors have literary agents, and most literary agents have associates in Los Angeles for film rights. If a filmmaker is interested in a book, the studio or filmmaker will go to the agent and ask if the rights are available. The author doesn't come in again until the agent has negotiated something.

"Now, you can, as an author, always say, 'No, I won't sell the rights to the movies' or 'Yes, I'll sell it but I have to have script approval,'" says U professor Charles Baxter, whose novel *The Feast of Love* was adapted to a movie. "I didn't keep script approval because I didn't think I could sell it under those circumstances."

To learn more about the movie, see the Feast of Love official Website.

Location: Northwest vs. Midwest

In *The Feast of Love* novel, the story unfolds in Ann Arbor, Michigan. In the Hollywood version, the setting has been relocated to Oregon.
According to the *Portland Business Journal,* Oregon's production incentives (Oregon Production Investment Fund and Greenlight Oregon Labor Rebate) played a major role in Lakeshore Entertainment's decision to film *Feast of Love* in the state. Lakeshore was in the Portland area for more than four months, from initial scouting until the end of production, contributing an estimated $19 million to the economy.

"Yes, [having a novel become a film] is a very big thing because of the cultural power of movies," says Baxter, who's been in academe for 30 years and at the University of Minnesota since 2003. "A successful movie will get a much larger audience than most books will. At the same time, if people ask me, 'Are you nervous or upset about what they've done to your book?' I always say, 'Well, the book is the same. It's right over there on the shelf. It's the same book as it always was.' If the movie causes people to buy the book and read it, that's good."

Baxter is the author of three other novels and a host of short stories, poems, and essays on fiction. He has just completed a book on writing called *The Art of Subtext: Beyond Plot,* currently being published, and *The Soul Thief,* a new novel that will hit bookstores in February.

"I write because I like to tell stories," says Baxter. "And I've always been drawn to stories and to narratives the way a musician is drawn to music or the way a painter just draws. I do it because it's an art and because it's difficult, and I like the challenge and the difficulty of it."

FURTHER READING For more about Charles Baxter, including his favorite books and interests, read his interviews with Barnes & Noble.

Going beyond their comfort zone

By Pauline Oo

September 25, 2007

"Hommage a Marcel Proust" by University sculpture professor Wayne Potratz.

Last February, University sculpture professor Tom Lane snapped a few pictures of the I-35W bridge--just to try out his digital camera. Little did he know that he would be pulling out those photos a year-and-a-half later for "Out of the Comfort Zone," an exhibit that required him to submit artwork outside his normal *modus operandi,* and in memory of the collapsed bridge's 13 victims. The photos show the bridge before, and also after, it fell.

"All our tenure-track art faculty are participating in this exhibit [that runs through Thursday, October 4, at the Katherine E. Nash Gallery on the West Bank Arts Quarter in Minneapolis]," says Nick Shank, gallery director. "The concept--in which faculty present work outside their usual media--has never been done before. Wayne Potratz came up with the idea."

Potratz, who teaches cast metal sculpture at the U, decided that it was time to spice up the faculty show because the annual exhibits were becoming mirror images of each other year after year. He brought up the idea at a faculty-staff meeting, and the rest, as they say, is history. "Out of the Comfort Zone" is the first faculty show in the Nash Gallery since it was relocated to the new art building (Regis Center for the Art), which opened in 2003.

Like his colleague Lane, Potratz took the exhibit as an opportunity to show off his skills in photography. His *piece de resistance* is a robe printed with repeated images of himself as a fisherman with his catch and what looks like random names: Levi Strauss, Dewey, Foucault, Benjamin, etc. The artwork, a homage to Marcel Proust, also comes with a larger-than-life sized barcode tag that reads, "A work of art that parades its connection to some theory, is like a garment with its price tag still attached."

Diane Katsiaficas, David Feinberg, and Gary Hallman are also among the 25 faculty involved with this most unusual University exhibit. Katsiaficas, an artist known for drawings, dug her fingers into dirt to make nine earthenware bowls. Feinberg, an associate professor of drawing and painting, experimented with heat transfer on cotton T-shirts. Hallman, a photography expert, turned his attention to black ink drawing on paper.

"Out of the Comfort Zone" is pure delight to the senses. If the many pieces in it don't make you laugh or smile, they will certainly make you ponder or frown.

The only thing missing at the exhibit is a notation on each placard of the professor's expertise or the medium he or she typically works with. That bit of information--of knowing that someone who builds with his hands is equally adept at creating with a paintbrush, for example--would only serve to double your appreciation of the works.

The Katherine E. Nash Gallery is open Tuesday through Saturday from 11 a.m. to 7 p.m. Admission is free.

Eat, drink, and be wary

U's National Center for Food Protection and Defense helps keep the nation's food supply safe

By Steven Johnson

September 25, 2007

University researchers Frank Busta (left) and Shaun Kennedy head up the U's food protection center.

Everyone eats. So we're all at risk when tainted foods reach our plates--by accident or by design, at home or on the town.

The next time you hit the fast-food drive-through, consider this: A double cheeseburger "with the works" contains more than 80 ingredients, sourced and processed worldwide. When you're imagining potential food contamination, that's one unappetizing number.

The U.S. food and agriculture industry alone is a $1.2 trillion business that employs one in six Americans. How do you defend such an immense target--from deadly contaminants and even deadlier contaminators? Put the University of Minnesota on the job.

"The food industry is very open, and it's impossible to turn it into an armed fort," says Frank Busta, director of the University's National Center for Food Protection and Defense (NCFPD). "But we're using research and education to defend the safety of the food system."

Launched in 2004 as a Department of Homeland Security Center of Excellence, the NCFPD is a consortium of academics, industry leaders, and public officials who collaborate to close the gaps--in security, scientific knowledge, industry best practices and government procedures--that make food vulnerable to potential intentional contamination with biological or chemical agents. In recognition of the Center's contributions, the NCFPD leadership recently received the Commissioner's Special Citation from the Food and Drug Administration. This past June, the Department of Homeland Security renewed the NCFPD's grant with $9 million anticipated for a two-year term.

Shaun Kennedy, NCFPD deputy director, says the University is a natural home for the NCFPD's cross-disciplinary work because of its six-school Academic Health Center and history of innovation in food safety. The following programs all involve University researchers from different fields:

Early detection. The NCFPD is working with the private sector to develop cost-effective sensors that detect contaminants in the food supply chain. Microbiologist Vivek Kapur is among the lead researchers.

Consistent response. Because the public health system is largely run at the state and local level, disparities exist across jurisdictions-in how quickly officials investigate incidents and coordinate treatment, for example. To eliminate them, Craig Hedberg from the School of Public Health and others are consulting with officials nationwide to identify best practices and develop response protocols.

Coordinated communications. Will Hueston of the College of Veterinary Medicine and collaborators from many other universities are providing risk-communication training to the Food and Drug Administration and other federal agencies, and developing the capability to bring subject-matter experts together with risk communication specialists to support event response.

One of the exciting high-tech "weapons" used by the NCFPD is the Consequence Management System (CMS), led by BT Safety of Minnesota with input from many NCFPD investigators. This computer-based planning and advance-warning program can simulate the hour-by-hour impact of a food contamination spreading through the supply chain to consumers.

What would happen, for example, if botulism were introduced at a dairy plant? The CMS uses information from past food scares, plus distribution data from the private sector, to estimate how much product would get contaminated; where it would end up; what the economic cost would be; how many people would become sick; and, how many people would die, based on how fast the contamination could be controlled.

Kennedy says that the CMS is now influencing decisions at the top levels of government. The National Biodefense Analysis and Countermeasures Center is using the CMS to prepare the food system portions of its biennial bioterrorism risk assessments for the President. And Kennedy expects other government agencies and food companies to soon use CMS to test their crisis-readiness.

NCFPD studies led by Jean Kinsey of the department of applied economics show that food-defense issues are the number one priority for Americans in the fight against terrorism today-above even air-travel safety. The center continues to develop new tools and strategies for food defense to help the U.S. food supply remain one of the safest around. Says Kennedy, "It's the one critical infrastructure you can't opt out of."

Symposium on healthy eating and healthy business practices

On Monday, October 1, the University of Minnesota will bring together experts from some of the world's largest food companies for "The Future and Practice of Healthy Eating" symposium. The event, which runs from 7:30 a.m. to 5 p.m. at the Holiday Inn Metrodome in Minneapolis, will include discussions on sustainable food production and distribution and the relationship between climate and sustainable food. To register or for the full agenda, visit the U's the Food Industry Center.

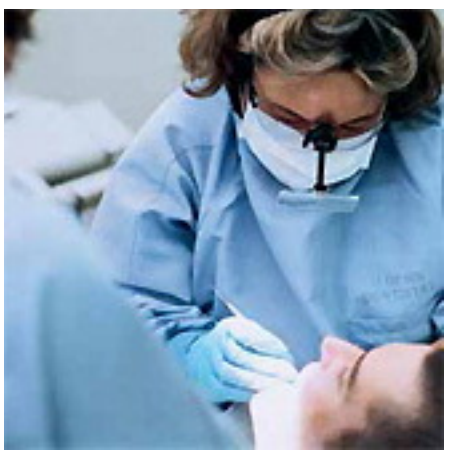
Further reading Tom Ridge opens new Center for Food Protection and Defense Keeping our food safe"

Science with a smile

U's esthetic dentistry program draws worldwide attention

By Patricia Kelly

From *eNews,* September 27, 2007



University dental student Ena Lee (left) observes Arda Guiragossian from Syria as she practices contemporary dentistry techniques at the U's Dental School.

"I'm just a big sponge for learning," says Benjamin Boublil with a grin. Boublil has left his busy dental practice in Paris to attend the Level I course of the University of Minnesota Dental School's Postgraduate Program in Esthetic Dentistry. "This course has covered things that I thought I knew, things that I forgot, things that I didn't know," he says. "This is solid education--and you can't find it anywhere in the world except here."

Boublil's office for the evening is a tiny cubicle on the eighth floor of Moos Tower on the Twin Cities campus in Minneapolis that's stocked with the latest dental materials, a computer, and a most agreeable mannequin, of whose teeth he will soon make an impression.

A voice booms out suddenly, telling the students to watch their computer screens and follow along. Boublil grabs his drill. It's time to go to work.

The voice belongs to Paul Olin, who has directed the esthetic dentistry program for most of its 11 years. The program began in 1996 with Level I, comprising 100 hours of lecture, lab, and clinic work, given over four weekends in six months to minimize the participants' time away from their dental practices. Level II, comprising another 100 hours and actual work on patients, began in 1997. A year later, Level III was added, through which dentists complete 10 modules for another 300 hours of training, a research paper, and other requirements to earn a postgraduate certificate in contemporary restorative and esthetic dentistry from the University of Minnesota Continuing Dental Education.

Today, dentists from all over the world travel to the University of Minnesota to learn from a large faculty of distinguished speakers. Some participants have been out of school for 30 years; others, for only a few. Even recent dental school graduates come to study complex smile "design," gaining valuable, hands-on experience in techniques too new to have been covered thoroughly in dental school. Using the latest materials, they learn to create state-of-the-art implants, porcelain veneers, bonded restorations, and fiber-reinforced composite bridges.

The University's program receives donations of materials from as many as 20 different companies. Lynda Young, director of the Continuing Dental Education program for the School of Dentistry, says that the program's unbiased presentation of materials and technologies makes it unique. "You receive information based in true science, rather than someone trying to sell you their particular product," she says.

To date, participating dentists have come from 14 countries and U.S. 28 states. "They're at different skill levels and have different goals," Young says. "But they're all highly motivated and willing to spend the time and money to make sure they are out in front--and there's a lot of courage involved in that."

Olin says the "tremendous demand" for training in contemporary dentistry is largely patient-driven. "It has to do with the increased discretionary income of patients--and Hollywood makeovers on TV," he says. "Esthetic dentistry has been marketed to the public via cable television. When I was in dental school, I never would have dreamed that people would pay hundreds of dollars to whiten their teeth!"

Hollywood tales aside, the case studies that Olin shares during the lecture have little to do with vanity and everything to do with restoring healthy smiles to patients who suffer from cancer, accidental trauma, and disease. He tells of a man who was jacking up a car when the jack snapped and knocked out most of his teeth. He tells of a young teenager who was babysitting when the child found a handgun and shot off half of the teenager's lower jaw. And he tells of "Angie," whom he began treating in 1994. Angie suffered from ectodermal dysplasia, a congenital disease that prevents the formation of most or all permanent teeth and causes the baby teeth to become mobile, painful, and to eventually require extraction. By 1997, Angie had a beautiful new smile, just in time for her senior high school photos.

"Everyone does a tooth here and there," Young says. "But these courses enable the dentists to treat cases that involve the entire smile. They'll go back to their practices and deliver a higher level of care to all their patients."

U alum creates foundation to assist the poor

By Philip D. Drown II

From *eNews,* Sptember 27, 2007

Morris alum Paul Brifo is helping to distribute clothes to needy people in his homeland Africa.

Everyone loves a good success story--especially when that story has connections to the community in which one lives.

The community of Morris has been a nurturing environment and launching pad for many innovative people over the years: entrepreneurs, artists, educators, people with political aspiration. Many within these borders, whether as students passing through or long-term citizens, have gone on to accomplish noteworthy feats. Paul Brifo, an alumni of the University of Minnesota, Morris (UMM), is just such a person.

In the late 1990's, Brifo decided to leave his home in Ghana, pursue an education in the United States, build a successful future for himself and his family, and then give back to the people of his home in Africa.

"I had six cousins and one brother who all went to school in Morris," says Brifo. "My brother recommended UMM and said it was a good school with hard-working students."

Brifo was 37 years old and married with one son when he arrived in 1999. Leaving his family and coming to Morris was not easy, and Brifo faced numerous challenges along the way. But, he credits the difficulties he experienced and the support he received in Morris with helping to develop his character.

In 2001, Brifo lost his uncle, who had promised him financial assistance. But, as one source dried up, local sources flourished.

"With the help of Tom McRoberts, who I was living with at the time, I applied for financial aid," says Brifo. "I also had help from my friends in Morris and my church. People would put money in an envelope and give it to me. These are the things I remember."

After graduating from UMM in 2003, Brifo got a job with Citigroup in the finance and accounting division and relocated to Arlington, Texas. Very quickly, he began giving back. In 2004, Brifo started to collect clothing from people and organizations around the state of Texas and shipped them to orphanages in rural Ghana. He has spent the better part of three years organizing and financing the work entirely from his own funds and spare time. In early 2007, he established The Paul Brifo Foundation.

"I started this foundation as a result of my desire to alleviate poverty, disease, and suffering in Africa," says Brifo. "Donated clothes to Ghana are a big financial relief to the beneficiaries because of the high cost of living. Basic necessities of life like food, shelter, and clothing are expensive."

"Donated clothes to Ghana are a big financial relief to the beneficiaries because... basic necessities of life like food, shelter, and clothing are expensive," says Brifo.

The Brifo Foundation collects unwanted clothing from people living in the United States, launders and reconditions the items, and presents them to infants, young adults, and adults in rural Africa.

"People in Africa are so appreciative to receive the clothing that we take for granted here in America," says Brifo. "Something as simple as clothing is so readily available here. I often receive donations that still have tags on them."

In 2004, Brifo shipped 200 articles of clothing to Africa. In 2006, the number quadrupled. In April of 2007 alone, Brifo shipped more than 800 items of clothing to rural Ghana. Approximately 1,200 people have benefited from Brifo's program. Currently, the foundation supplies clothing primarily to orphanages and churches. Eventually, it will reach out to schools for the blind and disabled.

For Brifo, this is just the beginning of the vision and work he has planned for the future. He intends to expand his network of contacts in the coming years and reach out to other nations.

Brifo says getting a trusted team to work with is necessary.

"Used clothes in Africa can fetch lots of money," says Brifo. "The clothes that I donate are free. Because of the high demand for used clothes in Africa, one may be tempted to sell them for cash. So I am very cautious of who I use as my contact person."

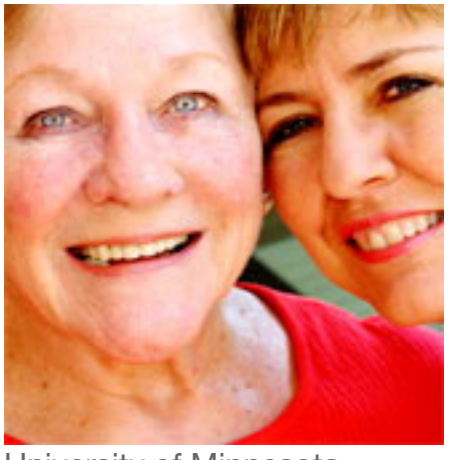
Brifo is now actively looking for grants and other forms of financial support to help continue his work. He plans to solicit more funds from corporate and non-corporate entities and write more letters to clothing manufacturers to donate factory rejects. He also hopes "to educate the residents of the United States about the economic plight of the African countries and the need for them to respond through their generous giving in kind and cash."

For more information or to learn how to contribute, visit the Paul Brifo Foundation.

Long-term care issues can affect everyone

By Rosemary Heins

From *eNews,* September 27, 2007



University of Minnesota Extension advises discussing your long-term health care issues with your loved ones--because such talks could save you tons in long-term care bills in the future.

The majority of people who need long-term care are elderly, but that need can come at any age--because of disabling diseases, car accidents, AIDS, brain injuries, strokes, and other events. Of the 12 million people in the United States who say they need assistance with daily living activities, 57 percent are age 65 and older. The remaining are working adults or children. People 80 and older have the highest rate of disability at 72 percent. The disability rate is 8 percent for those under 15 years of age. Options for financing long-term care will change and evolve in the future, but this doesn't mean you can't plan ahead. Those who plan will be better able to understand changes, weigh the options, and make decisions to help achieve what is most important.

According to a national survey, only half of adult children had ever discussed long-term care with their parents. And only 28 percent of parents had discussed long-term care with their adult children. This lack of family discussion is a significant challenge in long-term care planning. It's important that couples or family members sit down to plan their long-term care needs together before a crisis. Talk about expectations and beliefs (to help avoid misunderstandings, wrong assumptions, and conflicts later on, as well as the cost of long-term care and how to fund it. Keep in mind that different states have different policies and practices regarding long-term care financing options and long-term care services. Medicaid policies, for example, (known as "medical assistance policies" in Minnesota) differ significantly from state to state as do long-term care programs. Long-term care insurance is regulated by each state with differences in consumer protection options and state-specific information. If you have insurance -related questions, are in need of information you can trust, contact your state's Health Insurance Counseling and Assistance Program.

For more information about planning and financing long-term care, including common myths and facts, see the University of Minnesota Extension. The Minnesota Board on Aging also has helpful resources, or call the Senior Linkage Line at (800) 333-2433.

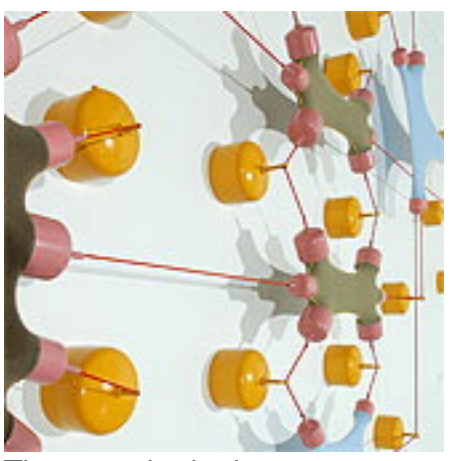
Rosemary Heins is a family resource management educator with University of Minnesota Extension.

Building makes him happy

University graduate student turns things we take for granted into art; wins international sculpture award

By Pauline Oo

From *M,* winter 2008



The award-winning "Connected" is made out of fleece, rope, and things you can pick up at a hardware store.

When R. Justin Stewart looks at a map, he sees more than a way to get from Point A to Point B. For example, a transit map that shows a bus route can also reveal where people without cars might live. Or a bridge, built to connect one place to another, has an underbelly that can serve as shelter.

Stewart's eye for detail and ability to notice what the rest of us may miss or take for granted is apparent in most, if not all, of his complex and often whimsical mixed-media installations and wall sculptures. On Saturday, October 6, Stewart received an award for Outstanding Student Achievement in Contemporary Sculpture from the International Sculpture Center, a nonprofit organization founded in 1960 to advance the understanding of sculpture and its contribution to society. He is one of the 21 recipients selected from a pool of 339 college students from five countries. And the first University of Minnesota winner.

"I've never been nominated for anything like this before," says Stewart, an M.F.A. candidate in the U's sculpture program whose name was among two submitted by University assistant professor of art Andrea Stanislav. "I wasn't holding my breath because it's such a big international award--you don't assume you are going to get it. So, it's a gigantic honor."

His winning piece--a 15 feet-by-8 feet creation called "Connected" that's made mostly out of things you can pick up at a hardware store--is part of the Grounds For Sculpture Fall/Winter Exhibition (October 6, 2007, through April 27, 2008) in Hamilton, New Jersey, and also featured, along with Stewart's profile, in the October 2007 issue of *Sculpture* magazine--a publication that Stewart happens to read religiously. ("It covers some of the best sculpture work that's being made, and if you're interested in making art you can't not look at it or reference it," he says.)

R. Justin Stewart's latest masterpiece is inspired by the Minneapolis-St. Paul bus map.--*Photo by Patrick O'Leary*

"Connected," says Stewart, is a culmination of three years of work. "It represents an approach to thinking about networks, systems, and structures," he explains. "Of how these entities affect each other and the world--or, in this case, the wall--they are connected to and how the new environment they end up in can alter their forms."

The piece also explores the idea of "taking common materials and transforming them into something that I see as more beautiful than any one of them by themselves," says Stewart.

"I am interested in people asking, 'What is that? It looks familiar, but I'm not sure what it is,'" he adds. "And when they leave [after seeing my work], they notice, say, the pipe outside the building that looks like something I used inside.... A good piece of art prods you to think. Doesn't matter what it prods you to think about; any thought is important."

Stewart was no child prodigy growing up in Waukesha, Wisconsin. Instead, the lively artist candidly admits not valuing art until his sophomore year in high school.

"My football coach was the ceramics teacher, and he was an amazing artist and also an amazing football coach," says Stewart. "I took ceramics as a slacker class because I thought, 'It's ceramics; how hard could that be? And it's my football coach, so he has to give me an A.' But I really fell in love with making things, and then from there, I went on to art school. I didn't really know what I was getting into--I was a total jock, and I was the captain of the football team. Art school, though, completely transformed my way of thought. It blew open my world."

Today, Stewart works six days a week as an artist, in addition to being a fulltime art student, teaching assistant, and faculty research assistant at the University.

"I had a teacher once tell me, if there's any job you could do other than be an artist and be happy, you should do that," says Stewart. "Because being an artist is a really horrible job; the hours are awful. The problem is I'm happiest when I'm doing what I'm doing." Stewart is currently working on three projects related to the Minneapolis-St Paul bus system. He graduates from the University of Minnesota next May, and then it's off to New York with his fianc?e.

"We like the city, and we have a lot of friends there," he says. "Sure, it's hard to break in there, but it's hard to break in everywhere. My goal isn't at all to make it big. That'll be great if it happens, but my goal is to continue pushing myself to do things that I'm interested in."

R. Justin Stewart's favorite places to view "great art."

In Minneapolis
Franklin Art Works, Soo Visual Art Center, and The Soap Factory

On the U's Twin Cities campus
Katherine E. Nash Gallery and Weisman Art Museum

On appreciating art...

There's no wrong way to approach art.
"But I do think that some people when they approach art [want it to mean something]," says R. Justin Stewart. "It's almost like when we look at a tool and immediately think about how to use it or what it's for. We're so used to things always being [a certain way or having a specific purpose.] You can't look at art that way. Its not a functional object."

Look for art that grabs you and spend time with it.
"There's too much out there," says Stewart. "If you spent an hour with every piece of art you saw, you would never go anywhere else." So, be selective. The other thing you could do, offers Stewart, if you can't physically look at a piece is to think about it. "Great pieces of art will stay with you, in your mind, for a while."

Value of a new football stadium transcends Xs and Os

By Rick Moore

From *M*, fall 2007

During the fall months over the years, I've been both heartened and taken aback by this recurring Saturday sight: waves of U students in gold, season-ticket-holder T-shirts all walking toward the Gopher football game. Heading to the Metrodome, and heading away from campus. College life is largely shaped by students' activities and memories on campus, and a Big Ten football game--a centerpiece of campus life--should not be given away to a nearby professional venue. At stake are the associations with and memories of this university in perhaps its time of greatest change and improvement. Games on campus once included the sky overhead, the sharp scents of autumn, and the Marching Band playing The Rouser as it paraded down University Avenue toward the stadium. You can't get those things--as much a part of the game as yards rushed and touchdowns scored--in the stale air of the Metrodome, amidst its sea of blue plastic seats under a dull gray roof. Fortunately, in 2009 the Twin Cities campus will be home to a new landmark: an open-air football stadium in the burgeoning Gateway District at the east edge of campus. But a number people--including readers of our publication--have brought up an important question: Is this new stadium absolutely crucial in helping the U become one of the top three public research universities in the world? Probably not in any quantifiable sense. But it will play an important part in helping us get there. Because achieving this kind of standing depends not just on great discoveries, grant money totals, or the number of faculty in the National Academy of Sciences. When the U reaches its goal, it will be because it is the recipient of a huge accumulation of goodwill and enthusiasm from the people who believe in this place.

Fundraising on pace

So far, approximately $60 million of the $86.5 million needed for the stadium has been raised from individuals and corporations, and a team of volunteer fundraisers was recently organized to inspire more gifts. "Gopher fans have shown tremendous dedication through their gifts of time and money," says Athletics Director Joel Maturi. "They're playing a lead role in creating one of the finest collegiate football facilities in the nation."

Sports are often strongly connected to the image people have of the University of Minnesota. Though we may not always like it, fans and even casual observers tend to talk more about Tim Brewster than they do about the latest work of our Regents Professors. Having memorable experiences at a state-of-the-art stadium may translate into more support for the U in general, and may increase contributions to scholarships and other academic endeavors. And the stadium will be more than just a site for football games. It will serve as the new home for the U's Marching Band, the "Pride of Minnesota." It will be a place where alumni gather, relive memories, and notice the changes taking place on campus, like the developing biomedical sciences corridor just west of the stadium. It will also be a place where visitors will discover the splendors of the U for the first time; roughly half of the Minnesotans who have contact with the U each year make that connection through arts or athletic events. "I think it's going to be a great state gathering place," President Bob Bruininks said at the stadium groundbreaking. It's not just about six or seven football games a year. Yes, TCF Bank Stadium will be a place where students rally and alumni reminisce while a new generation of Gopher football players makes history. But it will also show the U's dedication to delivering a comprehensive student experience and to providing a place that the people of Minnesota can call their own.

Click for more articles about sports and recreation.

Why sports?

Athletics enhance college life, Dungy says

From *M*, fall 2007

On May 8, more than 3,000 alumni and friends of the University gathered at Mariucci Arena for the University of Minnesota Alumni Association Annual Celebration, featuring musician Stan Freese (B.A.'67), talent casting and booking director for Walt Disney Productions, and winning Super Bowl coach Tony Dungy (B.A.'78). Dungy offered a heartfelt reflection, based on his own experience as a student at the University of Minnesota, on why he believes that athletics increase the quality of life for the entire student body. Here are excerpts from his remarks.

Linden (left) and Tony Dungy at the 2007 Annual Celebration

"There was a young man I know who grew up in Michigan, on the campus of Michigan State University, and he never really thought of attending the University of Minnesota until his senior year of high school. He visited the campus on January 27, 1973, primarily because Michigan State was playing Minnesota in a basketball game. When that young man got here, he was very impressed, but it wasn't by the Michigan State basketball team. It was what he saw here on campus that caught his attention.

"Now, if you guessed that that young man was me, you'd be right. But when I said that athletics attracts tremendous people to a university, I wasn't referring to myself. My brother got to spend some [time] up here with me. He wasn't a star athlete, but he was a star student. Because of his experience coming here, mainly to football and basketball games, he decided he wanted to attend dental school at the University of Minnesota. Then he decided to make his practice here in the Twin Cities. So if you follow the connection, [athletics was] indirectly responsible for getting an outstanding student, an outstanding dentist, and an outstanding person here to the Twin Cities, one who never played on a sports team while he was here.

"I believe that's more the rule than the exception. I'm someone who doesn't apologize for wanting our teams to do really well, for wanting to have sell-out crowds and national championships. I don't apologize for wanting to attract the very best coaches we can get here, for wanting to turn out top-notch student-athletes--men and women who will go on to be great citizens in our community. I don't apologize for wanting a football stadium to be built on campus, even though it's going to be expensive.

"Not only do I think we should not apologize, I believe we should be excited about it. I happen to think that it pays off in a lot of ways, and I, for one, am very grateful to the University of Minnesota, because it paid off for me. If it wasn't for [the people I met and] for the instruction that I got from my coaches and from great faculty members, I know I would not be the coach of the Super Bowl champions in 2007. Let's build on the great tradition that we have...let's continue to make this university the very best in the country, and continue to make the state of Minnesota proud of its Gophers."

For more on the annual celebration, including an audio recording of Stan Freese's outstanding tuba performance, visit the UMAA Web site.

A drink a day may bring the doctor your way

U researchers comment on a recent study linking alcohol to breast cancer

By Deane Morrison

October 1, 2007

University cancer epidemiologist Kristin Anderson says the increased risk of breast cancer among moderate drinkers is real, but not great.

The headlines Friday (Sept. 28, 2007) bore bad news for women who drink: A large study by Kaiser Permanente doctors showed that a single daily alcoholic drink of any kind raised the risk of breast cancer by 10 percent, and three or more drinks jacked it up to 30 percent. Yet alcohol, according to other studies, may help lower the risk of heart attack. So what's a woman to do? With this question in mind, we asked University cancer epidemiologist Kristin Anderson and cardiologist Daniel Duprez to sort out the science behind the scoop. A major finding of the study was that whether a woman drinks beer, wine, or spirits, alcohol raises her breast cancer risk the same. This came as no surprise to Anderson, a Distinguished University Teaching Professor in the School of Public Health. "There have been more than 100 studies on alcohol and breast cancer," she says. "This is consistent with past data. I was in a collaborative study by Oxford University that came out in 2002 in the *British Journal of Cancer*. That was a much larger study, analyzing results from 53 previous studies of 58,515 women with cancer and 95,067 without. We got similar results." The Kaiser Permanente study was based on 70,000 patients.

"About 4 percent of breast cancer in developed countries is attributable to alcohol," Anderson says. "It's important to note that that is a small proportion of the disease."

Stories in the Minneapolis *Star Tribune*, the *St. Paul Pioneer Press*, and the *New York Times* (online) all reported the 10 percent and 30 percent increases in risk, but none reported the baseline risk. According to the American Cancer Society, U.S. women overall run one chance in eight, or 12.5 percent, of developing breast cancer and one in 34, or 2.9 percent, of dying from it. Suppose for simplicity's sake that a nondrinking woman has few risk factors and a 10 percent chance of developing breast cancer. On average, such a woman who began quaffing a drink a day would raise her risk by 10 percent over the baseline, to 11 percent. If she added three drinks a day, her risk would rise from 10 to 13 percent. The *Star Tribune* article quoted Yan Li, co-author of the Kaiser study, as saying that one possible mechanism by which alcohol could raise the risk of breast cancer is by changing the metabolism of estrogen, which promotes the growth of some breast cancers. Though not disputing that, Anderson says other factors may also play a role. "Alcohol consumption has a negative impact on the absorption, utilization, and excretion of folate, a vitamin necessary for maintaining the integrity of DNA," she states. Also, alcohol may increase the activity of enzymes that activate carcinogens. And, she adds, some breakdown products of alcohol, notably a chemical called acetaldehyde, have been labelled carcinogenic. According to the 2002 study Anderson took part in, "about four percent of breast cancer in developed countries is attributable to alcohol," she says. "It's important to note that that is a small proportion of the disease. If you live in a society that has no drinking, no cases will be attributable to alcohol." The American Cancer Society estimates that in 2007 there will be approximately 178,480 new cases of breast cancer in the United States, she adds. As for alcohol's role in lowering heart disease risk, Duprez says there is evidence to support it, but many questions remain. For instance, he says it is well known that alcohol increases levels of HDL--the "good cholesterol"--but nobody knows whether that is the mechanism behind the correlation between alcohol and lowered risk. Red wine has been seen as especially "protective," but it could be high levels of antioxidants in red wine or some substance in grapes that does the trick. "The key is this: A maximum of one glass of alcoholic beverage a day for women and two for men is associated with cardioprotection, but this has never been shown in a randomized trial," says Duprez, an assistant professor of cardiology. "Alcohol should not be universaly prescribed for health enhancement. There is a complete lack of randomized data" with respect to exactly how it might protect the heart. For Anderson, the Kaiser Permanente story is an opportunity for women to think about how they live their lives. "People should use this data to reflect on their lifestyle and decide if it would be prudent to change their habits," she says. "There are other risks associated with drinking more than three drinks per day. You have to look at the weight of evidence and at other studies, if possible. "Most risk is at higher intakes [of alcohol]. An increase of 10 percent isn't much, but it's a real risk because it's been seen in many other studies."

Prized visit

Nobel Prize winner in chemistry shares wisdom with U students

By Rhonda Zurn

October 3, 2007

2003 Nobel Prize winner Roderick MacKinnon met with Institute of Technology students this week to give them perspective and inspiration.

When 2003 Nobel Prize winner Roderick MacKinnon recently visited an undergraduate chemistry class, U students wanted to find out who he was as a person. "How did it feel to win the Nobel Prize?" "What was your least favorite science class in college?" "How often are you wrong?"

On winning the Nobel Prize: "It was great! I wasn't home [to get the message] so I actually have a recording [of it] on my answering machine." His least favorite science class was biology: "There's too much to remember!" He also joked that he's wrong "about 95 percent of the time."

MacKinnon, who won his Nobel Prize in chemistry for his discoveries concerning the molecular mechanisms in cell membranes, advised students to study the things they like rather than the things that will give them a secure job.

"The secure job today may not be a secure job tomorrow, but if you're studying the things you like, you'll be very good at it," MacKinnon said.

Building a broad base of knowledge in many areas, rather than specializing in one area, is also critical to future success. MacKinnon shared his own experience of going to medical school to be a family practice doctor before realizing that his real interest was science.

"It was in the middle of the night on New Year's Eve. All my friends and family were out of town, and I couldn't sleep so I decided to run some data on my experiments, which I know is a pretty nerdy thing to do," he laughed. "But there I was, running the experiment, and I couldn't believe my eyes. I was literally jumping up and down in the lab."

"You never know what you're going to do," MacKinnon said. "I am example of somebody who didn't know what I was going to do until I was almost 30, but I had a broad base of knowledge that opened up a lot of opportunities for me."

That broad base of knowledge can mean success even for students doing their first research project. "Learn everything you can that is often considered peripheral because that will give you new ways to solve the problem," he said.

MacKinnon said that when researching the electricity of living organisms, he started reading books in electrical engineering, and it completely changed his view of his research. He said it's incredible how often the exact same things show up in different fields of research, and researchers don't even know about them.

"If you read about topics in fields outside your own it's amazing how it will open up your thinking," MacKinnon said. "Also, if you then share this information with people in your own field, they think that you created it," he said with a laugh.

MacKinnon's classroom talk was part of a two-day visit to the University of Minnesota this week sponsored by Honeywell and hosted by the University's Institute of Technology (IT). In addition to the classroom visit, MacKinnon's activities at the University included one-on-one talks with IT graduate students exhibiting their research, a public lecture that drew more than 400 people, and meetings with faculty and student leaders.

The University of Minnesota is one of only five universities nationwide chosen for the Honeywell-Nobel Initiative. This initiative provided a once-in-a-lifetime opportunity for students to interact with one of today's greatest minds in science to gain insight into what it means to be an innovator.

MacKinnon's groundbreaking discoveries deal with the function of ion channels, which control the pace of the heart, regulate hormone secretion, and generate the electrical impulses underlying information transfer in the nervous system. He hopes that his work will someday lead to new medications or cures for epilepsy, irregular heartbeats, or multiple sclerosis.

MacKinnon told students it's just a part of science to be wrong. "There are scientists who are so afraid of being wrong that they never are able to make a discovery," he said. "In research you need to make a leap and make a prediction and then keep testing and testing. Many times you find out your prediction was wrong."

But for MacKinnon, he clearly remembers one instance when things went right. "It was in the middle of the night on New Year's Eve. All my friends and family were out of town, and I couldn't sleep so I decided to run some data on my experiments, which I know is a pretty nerdy thing to do," he laughed. "But there I was, running the experiment, and I couldn't believe my eyes. I was literally jumping up and down in the lab."

Since winning the Nobel Prize, MacKinnon said he gets many requests to speak and declines most of them. He agreed to this visit because of its goal to inspire students to pursue science.

"We have many problems today that really can only be solved with science," MacKinnon said. "I feel that inspiring the next generation of scientists is one of the most important things I can do."

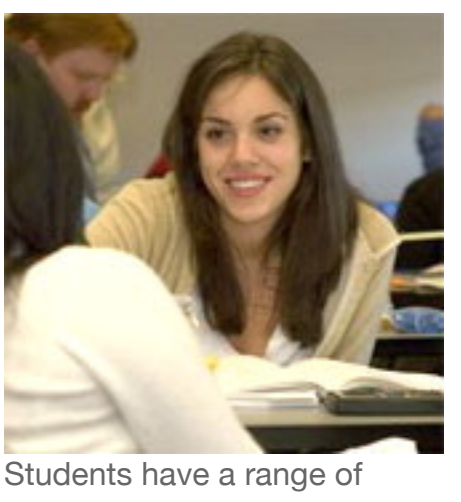
The students in the class were impressed with MacKinnon.

"I liked hearing about how he felt when he won the Nobel Prize and when he had a big discovery in the lab. Those aren't things you hear people like him talk about very often," said Christina Cowman, a junior majoring in chemistry and physics. "It was also good to hear that he's wrong sometimes, just like us. That inspired me to keep trying."

Courses at U mirror important topics of the day

By Pauline Oo

October 5, 2007



Students have a range of classes to choose from at the University of Minnesota. Many of those courses deal with issues pertinent to the times we live in.

Just how large is the University of Minnesota? You could count the number of students it has or measure the acreage it covers, or you could just take a peek at the undergraduate and graduate catalogs. A scan of both would immediately reveal a remarkable breadth--the University of Minnesota offers programs in virtually all fields.

So it's no wonder that courses run the gamut too. This fall, the University has introduced a slew of new courses--some special topics offered only at certain times of the year; others offered each semester. And like the courses that came before them, they are relevant to the times we live in.

Here are a few new courses, along with some freshman seminars and a new minor--that intrigued us.

AAS 3920: Hmong History Across the Globe This course, offered through the Asian American Studies program, examines Hmong interaction with Laos and Vietnam (pre-1893), under French Colonial rule (1893-1955), and Hmong entanglements with the United States as guerrilla soldiers in a Secret War in Laos (1960 to 75) and the subsequent exile of more than 200,000 Hmong to the West (1975 to 2006). Minnesota has more than 45,000 Hmong (second to California's 65,000), and more than half live in Saint Paul--the nation's largest urban concentration of Hmong. In this class, professor Mai Na Lee also looks at Hmong efforts to maintain their dream of political autonomy in the midst of integrating into American society. The course is the first on Hmong history in a Southeast Asian context in the United States.

BBE 3480: Renewable Energy and Environment Renewable energy is one of the engines powering the University's drive to transform itself into one of the world's top three public research universities. So it's only natural that the U is a leader in energy conservation and green initiatives (such as burning oat hulls at its steam plant). This new course, offered by the Department of Bioproducts and Biosystems Engineering through the Institute of Technology, teaches students about energy use (where we stand); energy sources (their promises and problems); conversion technologies (fuel cells, hybrids, wind, water, etc.); and the economic growth opportunities of the renewable energy industry.

COMM 3231 Reality TV: History, Culture, and Economics First there was only "Survivor;" now reality shows are commonplace on television, with such programs as "The Bachelor," "Dancing With the Stars," and "The Biggest Loser." This course, offered through the School of Journalism and Mass Communication, gives students a historical, cultural, and economic context for understanding the proliferation of commercial reality TV, its meanings, and its impact. Topics include theories of representation, technologies of truth, and the business of reality TV in the United States and globally. To learn more, read "Finding hidden lessons in reality TV." **GLOS 3304: Sustainable People, Sustainable Planet** Sustainability is the idea that we can meet today's needs without compromising the needs of future generations to meet their own needs. In this course, students discuss real-world case studies involving trade-offs in achieving sustainability and learn how to integrate concepts of sustainability into their lifestyle. One of the assignments requires students to keep a record over three days of their personal waste production and then to write a short report about their waste habits. The course is one of the core classes for students pursuing the U's Sustainability Studies Minor, offered through the Ecosystem Science and Sustainability Initiative, hosted by the Institute for Social, Economic, and Ecological Sustainability.

URBS 3800: "The River, the Bridge, the Community: Beyond the Headlines of the I-35W Bridge Collapse" On August 1, the U community on the Twin Cities campus had the scare of its life-the I-35 W bridge in its backyard collapsed during rush hour traffic, injuring dozens of people and killing 13. This course, which includes a series of classroom lectures by University and off-campus experts, considers how our transportation system and the Mississippi River ecosystem will be shaped by decisions made in the next year. It's offered by The River Life Program of the Institute on the Environment, in conjunction with the U's Urban Studies Program, Water Resources Center, and Institute for Advanced Study. A public lecture series is held in conjunction with the class on Tuesdays at 5 p.m. in 100 Rapson Hall. For a list of upcoming sessions, see "Telling River Stories."

Fall 2007 Freshman seminars

The University started freshman seminars in 1998 as a pilot program and then launched it full speed the following year. With class sizes of 15 to 18 students, the seminars are taught in the fall and spring by tenured or tenure-track professors in topics of their own choosing. This fall, freshmen had a choice of more than 95 courses. Among them:

A Psycho-Social Examination of Hip-Hop Culture Students examine hip-hop music and dress throughout the decades, and the music's impact on individual and societal values in the United States. Assistant professor of social sciences Na'im Madyun pays special attention to the impact of language and image on behavior.

From Golem to Robot to Cyborg: Artificial People in History For centuries, we've tried to create artificial people. In this class, associate professor of mechanical engineering Jennifer Alexander provides a look at the history of artificial people, from medieval attempts to create them through magic to modern attempts through robotics, cybernetics, and bioengineering.

Hospitalities: Hosts, Hotels, and Hospitals Hakim Abderrezak, assistant professor of French and Italian, takes students through the evolution of hospitality--the notion of it and the various forms it can take (for example, a personal act versus a commercial service and hospitality regulated by government or cultural practices). The course also addresses immigration and nations as host.

The Physics of Everyday Heroes University physics professor James Kakalios, known for his popular seminar on the physics of superheroes, explains the science behind technologies that help real heroes. Topics include infrared heat-sensing to find survivors of fires, MRI scans, and possible future technologies such as "functional MRI" scans to sense a person's thoughts. To learn more about this course, read "Why so many survived." **What sex should I be?** The XY genetic system in humans and most other mammals is not the only way that sex is determined in animals. For example, some animals develop into females if the temperature is high; others if the temperature is low. Jane Phillips, associate director of the U's biology program, explores different sex-determination systems, how they work, and how external forces can disrupt these systems.

Graduate minor in exotic species
With a five-year, $2.99 million grant from the National Science Foundation, the University of Minnesota created the Risk Analysis for Introduced Species and Genotypes program and minor for graduate students that focuses on newly introduced species and genotypes and how they affect ecosystems. Students not only get to examine exotic species and genetically modified organisms up close, they get to learn how to analyze the risks of adding new organisms to an ecosystem. "Not all exotic species are problems; some can be desirable," says fisheries and wildlife professor Ray Newman. "The question is how to prevent the damaging introductions." To learn more, see the Department of Fisheries, Wildlife, and Conservation Biology or call 612-624-3600.

For more topics, see Fall 2007 Freshman seminars.

All shook up

Community Fund Drive inspires U employee to give like Elvis

By Lisa Bentzin

Brief, Oct. 10, 2007

PTS employee Art Kistler not only looks and sounds like Elvis but aspires to Presley's legacy of generosity.

Art Kistler's eyes sparkle and his voice brims with passion when he talks about his ongoing involvement with the University of Minnesota-Twin Cities' annual Community Fund Drive. The swivel in his hips, however, can be attributed to something else. Kistler's hip action is central to his after-hours calling as an Elvis tribute artist.

By day, Kistler is the maintenance manager with Parking and Transportation Services (PTS). By nights and weekends, he's become a part-time national performer. In spite of his dual career, he manages to squeeze fund-raising into his schedule.

"The needs out there are very real, and it's a chance to make a difference," says Kistler. "Giving is what it is really all about."

Kistler's involvement with the Community Fund Drive began in the 1990s. In 2002, he accepted the assignment to serve as the drive's volunteer contact in his department, and the participation rate in PTS as well as Auxiliary Services reached an all-time high. He attributes it to three things: his one-to-one contact with everyone in his organization, his ability to convey that the money given really does reach and help the target audience, and his use of two important words--"please" and "thank-you."

"Everybody is essential, everyone should participate, everybody wins," says Kistler. And there's another fringe benefit, he jokes: When solicitors call you up, you can legitimately say, "I gave at the office."

Kistler's commitment to give 100 percent comes through not only in his day job at the U but in his night job, too. His vocals are dead-on. After performing at a 50-year high school class reunion recently, a woman apologized for not paying better attention during his show because she assumed he was lip-syncing to Elvis Presley recordings.

> *"It's an opportunity. We're extremely fortunate to give the little bit that we're not going to miss....That's living."*

His aspiration to be like Elvis includes imitating a legacy of giving. Whether giving away Cadillacs or holding a benefit concert toward building the *U.S.S. Arizona* Memorial at Pearl Harbor, Elvis's generosity became legendary. Today, 30 years after his death, it lives on through the work of a charitable foundation that supports everything from University of Memphis scholarships to free housing for those in need.

That generosity has prompted Kistler to perform for reduced rates or free at several charity and fund-raising events each year. He's also involved in his local church, which he says initially developed his passion for giving.

The live-to-give attitude, along with Kistler's desire to leave a legacy, are what makes him such a zealous promoter of the Twin Cities campus Community Fund Drive. The annual fund-raising effort, which runs Oct. 1-31, enables members of campus community to pull together to raise awareness and money for hundreds of worthy local charities.

The drive has always been a vehicle to help make charitable giving easier through the convenience of one-time or ongoing paycheck deductions. Paycheck deductions also save the charities a lot in time and administrative costs.

Opening hearts and wallets

Major tragedies are often the impetus for people to open their hearts and wallets. Hurricane Katrina, the 2004 tsunami, and September 11, brought human need to the forefront in real and visual ways that many people had not experienced before. Kistler knows the recent collapse of the I-35W bridge will give a special meaning to fund-raising efforts among employees in his unit this year. "This is real, [it happened] half a mile away, and we have a very real opportunity to help these people," he says. In the aftermath of any tragedy, Kistler says he seeks out information on organizations that provide support to the victims. It's also important to know that contributions to the Community Fund Drive, made now, assure that funds are available when tragedies like the I-35W bridge collapse occur. Worthy non-profits are able to respond quickly and help with everything from victim assistance to environmental cleanup, thanks to ongoing donations.

WRITE-IN AND OTHER DONATIONS

If the charities you would like to give to are not listed in the CFD directory, you can designate your gift as "Other." You can give to any charity with a U.S. tax-exempt status of 501(c)3. Community Shares of Minnesota will disperse the funds to the charities you designate.

How does Kistler respond to those who say they are struggling themselves and can't afford to participate?

"People have legitimate reasons why they may be reluctant to participate," says Kistler. Most of the time, those reasons are financial, he says, and it's hard to convince someone who's struggling that "a dollar, or five dollars or ten--anything--is better than nothing."

"There are people worse off," Kistler says. "It's an opportunity. We're extremely fortunate to give the little bit that we're not going to miss next paycheck anyway. That's for real. That's living."

For more information about giving, see the Community Fund Drive.

Lisa Bentzin is a communications project manager in the Office of Human Resources.

Stretching the bounds of business

International experience and a new nonprofit major expand horizons for Carlson School students

By Deane Morrison

It may not affect Minnesota's balance of trade, but the U's Carlson School of Management is about to double exports of its most valuable commodity: undergraduates. Currently, about 46 percent of Carlson School undergrads study abroad, but a new requirement for an international experience will send nearly all of them to the far corners of the world in pursuit of a four-year degree. On top of that, they'll have one more choice of major: public/nonprofit management, offered in conjunction with the U's Humphrey Institute of Public Affairs. Brought about through the diligence of students, the nonprofit major fills a need for expertise in a sector that now, according to news reports, employs 10 percent of Minnesotans. The two innovations are bound to raise the profile of the Carlson School, already one of the top 20 public business schools as ranked by *U.S. News & World Report*.

For Christine Liu, one of the joys of studying abroad was getting up close and personal with a tuna in a Tokyo fish market.

Students without borders

It's not hard to find globetrotting students who rave about their experiences. Take Mark McCullough, an international business major who waltzed over to the Vienna School of Economics and Business Administration for a spring semester. "I love being pulled out of the bubble in which I live and forced to view my own culture from the outside," he says. "During my semester in Vienna, I learned a lot about the ways in which the new laws and regulations of the European Union affect the daily lives of EU nationals. "[This] helped further my interest in the law and inspired me to attend law school after finishing my undergraduate work. I feel that I now have a good command of the German language, and my skills have helped me obtain an internship for this coming summer." By interning abroad, students immerse themselves in the business and culture of another country and get a taste of what it takes to compete in the global economy. That sits well with Michael Houston, the Carlson School's associate dean of international programs. "I think recruiters are looking for individuals with the mindset that motivates them to want to be part of different cultures and who understand how to make that happen," he says. "Some students may say, 'I don't need international experience. I want to take over mom and pop's furniture store.' My response is: 'What if IKEA moves in next door?' If you have an understanding of how the global economy works, then you are better able to deal with foreign competition even if you never again set foot outside the state."

> *"Some students may say, 'I don't need international experience. I want to take over mom and pop's furniture store.' My response is: 'What if IKEA moves in next door?'"*

For senior Christine Liu, born in China and raised in the United States, a semester at the Hong Kong University of Science and Technology opened up a world of self-discovery. "Minnesota is for the most part a rather homogeneous place," she notes. "By going to Hong Kong, I realized the importance of diversity. Over there, I interacted with people from my own background and from Europe. "Also, it taught me how to deal with ambiguity. I was just thrown into things over there--I didn't know about public transportation, how to get to classes, or anything. We all had to deal with everything ourselves for four months. But I want to do consulting after graduation, and a big part of it is dealing with ambiguity. In consulting, we often don't know the business [we're helping]." The Carlson School is gearing up to expand its already numerous and varied offerings for both undergrads and graduate students who want to study or work abroad. The school is working on the nuts and bolts of the new requirement, including the question of whether it will apply to foreign students, according to Anne D'Angelo King, assistant dean of international programs. "Our goal is a menu of options to meet the needs of a variety of students," she says. "We have students from small towns, ones who've traveled abroad, and others who have worked with immigrant communities. The Carlson School already has and is meeting a global mission. This [requirement] solidifies it." "What you want in a great university is one that is bold, visionary, and creative," says Carlson School dean Alison Davis-Blake, who spent eighth grade at a French-speaking school in Belgium "I hope that in 10 years, high schools will see Carlson as a place where we prepare global citizens."

Doing well by doing good

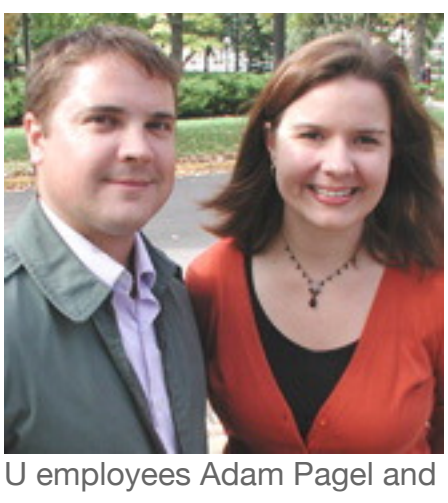
He didn't know it at the time, but Brian Peterson was creating a nonprofit organization while still a Carlson School undergrad. He and three other students founded Students Today Leaders Forever (STLF) as a student group; today, it's a nonprofit youth service organization with 13 chapters in the Midwest. Every spring break, STLF sponsors the Pay It Forward tour, which takes students to perform service projects around the country. But as a nonprofit, it operates by different rules than the businesses that most Carlson School students study. "Here we were developing a nonprofit and didn't know about how to do it," Peterson recalls. "Nonprofits have different accounting, fund-raising--a different way of doing business. "We saw the value of nonprofit leaders having a business education as well as nonprofit-specific skills. For the University to take a corrective step to make that happen is encouraging." Peterson and fellow student Eric Larsen got the ball rolling by sitting down with Bob Ruekert, associate dean for undergraduate programs, and asking what an official nonprofit major would look like. They soon saw that the best course was a joint program with the Humphrey Institute, which teaches nonprofit-related topics such as how the philanthropy system works. After meeting with more than two dozen faculty from both schools and receiving "a ton of support and feedback," the students put together a formal proposal, and the University's Board of Regents approved the major in July. Now working as co-director of STLF, Peterson is gratified to see some of his friends who are still students signing up for the nonprofit major and getting enthused about it. But he'll never forget the thrill of watching the academic birth process. "It was really exciting that faculty and administrators would listen to students' ideas and develop them into a living, breathing program," he says. Nonprofit majors will have a capstone project in which they help local nonprofit organizations, says Ruekert. "In this case, doing good is a byproduct of learning," he says. "Companies know that doing good is more than writing checks. The payoffs are greater through direct involvement. We're training leaders who know how to become directly engaged in meeting community needs."

Retool or refresh

Faculty and staff can take advantage of professional and personal development options on campus

By Dee Anne Bonebright

Brief, Oct. 10, 2007



U employees Adam Pagel and Sarah Kussow have taken advantage of the Regents Scholarship for their master's degree programs on the Twin Cities campus.

For many people at the University, fall is a time to think about professional development. Students are returning to classes, the marching band is practicing on the mall, and parents are sending their children back to school. Some faculty and staff members are sending themselves back to school as well.

"There are tremendous educational opportunities provided for people at the U," says vice president for human resources Carol Carrier. Many campus units offer training on a wide variety of topics.

Whether you're interested in completing a degree or in taking advantage of the many workshops offered around campus, fall semester is a good time to think about professional development goals. No matter what you're interested in, University resources can help you get there.

Regents Scholarship

Last year, more than 2,000 faculty and staff members across the University attended classes through the University Regents Scholarship program. According to program coordinator Susan Cable, that represents more than $7.5 million in tuition benefits.

"The Regents Scholarship is a phenomenal benefit for our University community," says Cable. "It provides an opportunity to develop professionally, explore higher ed options, or complete a degree."

Sarah Kussow is a coordinator in the Office of Classroom Management. Four years ago, she started taking classes toward an M.Ed. in work and human resource education. After completing an internship this fall, she expects to graduate in December.

"This is a huge benefit," says Kussow. "We have the opportunity to take classes for free. How can I pass it up?"

Kussow says that education has always been important to her, and the graduate degree is already opening new doors.

"In this environment, people value higher education," she says. "It's already given me confidence to try new things and go new places."

Adam Pagel completed an M.A. in strategic communication through a cohort program in the School of Journalism. While doing full-time graduate work, he was also working full time as a University employee. He says that using the Regents Scholarship helped him both personally and professionally.

"The program was a good option for me because it was designed for people who were already working professionals," he says. "I was able to take courses in the evening and apply what I learned during the day." Rather than being a distraction, taking classes made him more focused at work. "I had to be attentive to managing my time and getting my work done."

New Regents Scholarship information

In February 2007, the Regents Scholarship and Academic Staff tuition programs were merged into one streamlined program. One new form should be used by faculty and staff requesting tuition benefits through the program--old forms will not be accepted beginning in spring semester 2008.

It's not necessary to be admitted to a college participate, but those who use the program must follow the University's normal registration process. Registration information and the new form can be found on the One Stop student services site. Review the new Regents Scholarship policy and find answers to frequently asked questions.

Both Kussow and Pagel found supervisors very supportive of their coursework. In their experience, the University recognizes the value of professional development and supports employee's educational activities.

"I don't think you find that same level of support in the corporate sector," says Kussow. Pagel adds that it can be tough to work full time and also take classes, but departmental support helps, and the rewards are worth it.

Training and development workshops

In the Office of Human Resources (OHR), the Organizational Effectiveness division offers workshops for faculty and staff. Employees can learn about the new financial management system, take a class on situational leadership, or explore ways to renew their work life.

New this year is the Personal and Professional Development unit. Its goal is "to promote the University's culture of excellence by helping people at all levels of the organization develop their skills and capabilities." This means that individual contributors now have a resource for skill development on a wide range of topics, from professional skills such as leading effective meetings to personal and group skills such as enhancing creativity and problem-solving techniques.

"We think that professional development activities benefit both the participant and the University," says Rosie Barry, assistant director of organizational effectiveness.

The University of Minnesota-Duluth provides an extensive program of training for staff and faculty. UMD Human Resources sponsors workshops in both professional development and personal enrichment areas. In addition to topics such as effective supervision and providing excellent service, employees can attend sessions on wellness, health, and safety. Director of UMD human resources Judith Karon says employees appreciate the work/life focus.

"They feel supported in their personal issues, not just in making more widgets at their desk," says Karon.

Professional development for faculty and instructional staff

The Twin Cities campus Center for Teaching and Learning is designed to enrich the professional growth of faculty, instructional staff, and teaching assistants. The center offers programs that aim to promote significant learning experiences for students. The center wants to be a partner in shaping and sustaining a university environment where teaching matters, says director David Langley.

In addition to existing programs for early and mid-career faculty, the center is expanding its services for early-career faculty to include a semester-long series beginning in spring 2008 and a classroom observation program that allows new teachers to learn from a small group of model teachers. See early-career faculty services.

At UMD, Instructional Development Services (IDS) provides educational resources for faculty and teaching staff. Services include individual consultations, classroom observations, and workshops. An early-career series is offered each semester for new faculty.

Shelley Smith, associate professor and teaching consultant in IDS, is particularly pleased about providing opportunities for collaboration across units.

"People get 'siloed,'" she says. "We can provide an opportunity to interact and build community across disciplines."

Upcoming IDS projects include a writing support group for faculty and a partnership with the international education office to create a program on bringing an international focus to the curriculum.

Dee Anne Bonebright is a consultant in the Organizational Effectiveness division of the Office of Human Resources on the Twin Cities campus.

China in transition

Traveling Chinese exhibit spurs free public lectures about change in China

By Pauline Oo

October 9, 2007

China, which is 13 hours ahead of Washington, D.C., during Standard Time, has 23 provinces, five autonomous regions, and four municipalities.

When University of Minnesota lecturer Seth Werner asked if the new I-35W Bridge could be made by China, a hush fell over the crowd that had gathered at the Weisman Art Museum on the Twin Cities campus for his talk. Skeptical looks were everywhere, as was disbelief at the boldness of the question. But 50 minutes later, many people were nodding their heads and saying "yes" when Werner posed the question again.

Werner's "Made by China" talk was part of the Weisman's lunchtime discussion series (see sidebar below) held in conjunction with its current exhibit "Documenting China: Contemporary Photography and Social Change."

"Made *in* China is the idea that everything we buy, see, or touch is made in China," says Werner, who teaches marketing at the Carlson School of Management. "It means, for example, that a company based in the U.S. is using China as factory to manufacture something that is brought back here for sale and consumption." The common assumption is that China equals cheaper goods and shoddy quality, he adds.

But, he points out, "Made *by* China," is a totally different thing. In this case, China herself, not Western companies, are inventing, bankrolling, and manufacturing products, some of which are the finest in the world.

For example, the King Memorial Foundation chose Lei Yixin, an award-winning 53-year-old sculptor from central China's Hunan Province, to sculpt a stone statue of Martin Luther King Jr. for the MLK memorial park in Washington, D.C. (Members of the foundation first cast their sights on sculptors in Italy, but few have experience working in granite.) Yixin, considered one of the nine living treasures in China in his profession, will use 1,000 tons of granite stone from China for the sculpture. Last year, the National Basketball Association inked a multi-year business partnership with Haier, one of China's largest appliance manufacturers. (Since entering the United States in 1999, Haier has become the top-selling brand of compact refrigerators, a market leader in home wine coolers, and is No. 3 in freezers.) And the community of D'Iberville, Mississippi, will be rebuilding its city devastated by Hurricane Katrina with the help of two construction firms and workers from China.

"Made by China is the next thing that we should pay attention to," says Werner. "When we think of China, we think about manufacturing jobs. The development of China is faster that this... We need to shift our way of thinking of China as a far-off distant land with cheap products to a sophisticated country that has quality goods."

Previously, China was an agrarian society. Today, between 100 million and 150 million people have moved from the countryside to China's cities for jobs, according to the U.S. Central Intelligence Agency. China's transition from isolationist nation to international powerhouse, however, has not been easy. While many Western nations have endured similar changes over the last 200 years, modernization in China has occurred in a relative instant, moving workers from fields to factories and from the country to the cities in just a few decades.

A walk through "Documenting China," which runs through November 25 at the Weisman, offers an insight into this monumental shift. *The New York Times* has hailed the 57-image exhibit, developed by Bates College Museum of Art and organized for travel by the Smithsonian Institution Traveling Exhibition Service, as "profound" and "heroic," a must-see for anyone interested in understanding contemporary Asian society.

"This exhibit is important to remind us what's going on in China," says Werner. Each winter and summer, Werner leads a group of University of Minnesota students on an academic excursion to China.

Upcoming...

On Thursday, October 11, at 7 p.m. at the Weisman Art Museum, Gu Zheng, professor at Fudan University in Shanghai and curator of "Documenting China," will share his thoughts about his homeland and the exhibit in "Between the Document and Memory: Visual Representation and Social Change."

China Now at Noon
The hourlong talks (noon to 1 p.m.) are free and held at the Weisman Art Museum on the Twin Cities campus in Minneapolis. Refreshments are provided.

Thursday, October 18
"Women in Modern China: From Golden Lotus to Iron Maiden to Supermodel" by Wang Ping, associate professor of English at Macalester College and photographer

Thursday, November 1
"Contemporary Chinese Art in the Global Spotlight" by Doryun Chong, Walker Art Center curator

Thursday, Nov. 8
"Documenting Shanghai as an Insider and Outsider: A Personal Scrapbook" by Minneapolis-based photographer and new media Jamason Chen

The Frederick R. Weisman Art Museum is located at 333 E. River Road in Minneapolis. Museum hours are Tuesday, Wednesday, and Friday: 10 a.m.-5 p.m.; Thursday: 10 a.m.-8 p.m.; and Saturday and Sunday: 11 a.m.-5 p.m. Admission is free.

Did you know?

* China has $1.3 trillion in foreign currency reserves, and it has invested two-thirds of that in U.S. Treasury bonds. The U.S. dollar's devaluation on world currency markets, though, has prompted the Chinese to diversify and create the China Investment Corp. This new government investment company aims to invest in about 50 large-sized enterprises around the world.

* Lei Yixin, who will sculpt the stone statue of Martin Luther King Jr., was among the 14 master stone sculptors (which also included three University of Minnesota alums) invited to participate in last year's Minnesota Rocks!," an international stone-carving symposium in St. Paul. Members of the King Memorial Foundation who visited the event were drawn to Yixin's "Contemplation" sculpture, and the rest, as they say, is history.

* China will, for the first time, host the Olympic Games August 8 to 24, 2008. Fuwa Jingjing the panda bear is one of the five mascots for the games in Beijing. The others are Beibei the Fish, Huanhuan the Olympic Flame, Yingying the Tibetan Antelope, and Nini the Swallow. To learn more about preparations for the upcoming games, see Beijing 2008.

Food for thought--and conversation

Newfound friends make a monthly date with University experts

From *eNews*, October 11, 2007

A teacher, a lawyer, and a therapist walk into a College of Continuing Education event...

Barbara Kellett (left), one of the Roseville Headliners Salon organizers, with fellow Headliner attendee Linda Wilcox.

No, this isn't the set-up for a new joke. These people are part of a group that has dubbed itself the "Roseville Headliners Salon." The group meets the first Thursday of every month to attend "Headliners," the popular College of Continuing Education (CCE) event that gives people a chance to meet University of Minnesota and community experts for firsthand knowledge of the day's most intriguing stories (see sidebar).

"The original salons were gatherings of individuals who got together to discuss politics, arts, history, what-have-you," says Barbara Kellett, one of the group's founders. "When we decided to see if we could get this thing going, Mike [Kellett, Barbara's husband and the group's co-organizer] and I thought 'salon' seemed like an appropriate name."

The Kelletts, who had previously been involved with the CCE's Osher Lifelong Learning Institute, received the initial e-mail invitation for Headliners and thought it would be a fine opportunity to put together a group of friends. They decided to pair attendance at Headliners and the discussion group with a meal beforehand, because "food is such a wonderful way to build a sense of community," says Kellett. "It encourages interaction, conversation. It brings people together."

The couple came up with a list of friends--some people they had met fairly recently and others they had known for years.

"It's quite an eclectic mix," says Mike Kellett. "There is a librarian, therapist, social worker, teacher, doctor, lawyer, minister, and businesspeople. No two of them are alike--and they all have a different take on things."

Each month, the Kelletts send out an e-mail asking folks to RSVP for that month's event. Then, to those interested in attending, Barb gives them a heads-up on the dinner's main course, and they, in turn, sign up to bring side dishes.

When the group gathers at the Kellett's home, they chat over appetizers and then sit down to a family-style potluck--that interspersed with lively and sometimes heated, but always friendly, discussions about everything from sports (did you know there's a grass tennis court in rural Iowa that anyone can go play on, and then have strawberries and cream, courtesy of the court's builder?) to the environment.

"Both the dinner conversations and the event itself give me a great chance to learn new things," says attendee Tom Behr. "It's a unique opportunity to stay in touch with things you otherwise wouldn't normally know about."

Jerry Kneisl (instigator of the grass tennis court discussion) adds that the monthly gathering is "a chance to have a good discussion...and good dessert."

Although they first brought the group together, the Kelletts are quick to point out that the salon is about the group, the conversation, and the sense of community--not any one person or couple.

"Lifelong learning is important to us," says Mike. "To have an opportunity to attend an event like this, and to get these fascinating people together...it's a great experience."

Be a headliner attendee

The 2007-08 Headliners season, which runs from October to April at the Continuing Education and Conference Center on the Twin Cities campus in St. Paul, opened with University of Minnesota professor John Adams discussing the implications of the I-35W bridge tragedy and possible solutions for the future. Events are held the first Thursday of the month at 7 p.m. and tickets are $10. Since speakers discuss current news, topics are chosen just weeks prior to each event.

To sign up for e-mail notifications, visit CCE or call 612-624-4000. To listen to a recording of Adams's talk, see Headliners October 4.

Get plant information online

A University-managed database is the largest of its kind in the world

From *eNews*, October 11, 2007

The *Helianthus*, or more commonly known as sunflower, is one of more than 100,000 plants you can learn more about on the U's new Plant Information Online.

Plant Information Online is one of the world's largest resources for botanical and horticultural information. It was first published in print form in 1976 and moved to a Web-based format in 1997, with access available only to subscribers. Today, the University of Minnesota Libraries manages the service, and it's available for free to the public.

When you log on to plantinfo.umn.edu, you'll find two search engines that will help you get:

- Current plant and seed sources, with more than 100,000 plants--the largest listing of cultivated plants in North America--from 918 North American firms that will ship the plants to you)
- Contact information and location links for more than 2,000 North American retail and wholesale seed and nursery firms
- Bibliographic details for more than 300,000 images of wild and cultivated plants from around the world in botanical and horticultural books and magazines from 1982 to the present
- Links to expert-selected Web sites on growing plants in all regions of the United States and Canada

"We want to make this important resource available to the widest audience possible," says plant sciences librarian Kathy Allen. "Previous subscribers have found Plant Information Online to be an invaluable tool to find information on many of the world's plants."

Plant Information Online is updated daily, and it also allows you to search a plant by either its common name or scientific name.

Andersen Horticultural Library If you're looking for more literature on plants and plant science, you could also visit the Andersen Horticultural Library, which is part of the University of Minnesota Libraries system. The non-circulating reading and reference library is located at the Minnesota Landscape Arboretum in Chaska, and it's the only horticultural research library in the Upper Midwest.

U.S. high school dropout rate higher than thought

From *eNews*, October 11, 2007

The high school dropout rate will differ depending on which data source observers base their estimates on.

The U.S. Census Bureau's Current Population Survey (CPS), widely used by governmental and non-governmental sources--from the Annie E. Casey Foundation to the White House, paints a rosy picture of high school dropout rates--that they are at about 10 percent in recent years and declining some 40 percent over the past generation.

On the other hand, measures of high school completion based on the National Center for Education Statistics' Common Core of Data survey (CCD) paint a darker picture, with high school completion rates holding steady at about 75 percent in recent decades.

University of Minnesota sociology professor John Robert Warren and graduate student Andrew Halpern-Manners have found that whether the dropout rate is as high as 25 percent--and improving or not--depends entirely on which data source observers base their estimates. From the more commonly used CPS, people typically conclude that about 10 percent of young people drop out of school. From the CCD, people usually describe a dropout "crisis" with at least one in four students failing to graduate.

The data sources also differ with respect to how they count private high school graduates and GED recipients. However, after accounting for the differences, the researchers found that about half of the discrepancy still remained and is attributable to misreporting of high school enrollment and completion status by individuals who respond to the CPS surveys.

The researchers conclude that reports using the CCD, which is based on administrative records and not individuals' responses to surveys, tells the more accurate, complete story.

An article based on their findings, titled "Is the Glass Emptying or Filling Up: Reconciling Divergent Trends in High School Completion and Dropout," appears in the most recent issue of *Educational Researcher.*

A bleak discovery... Listen to University of Minnesota sociology professor John Robert Warren discuss the national high school dropout rate on the University of Minnesota Moment.

They know the drill

Computerized mannequins give dental students instant feedback

By Deane Morrison

Bending over the wide-open mouth below her, a second-year dental student begins to drill a tooth. Everything is going smoothly when a beep sounds. Then another. And another. Oops. She was slumping. The student corrects her position and goes on, confident she'll get no complaints from the patient. But she'll get plenty of feedback. The patient is a mannequin in the School of Dentistry's advanced simulation lab, equipped with 3-D motion detectors and an overhead screen that displays an image of the tooth and how closely the student's drilling matches the target area. It's one of 20 simulators on which all University of Minnesota dental students will soon practice drilling, getting instant feedback not only on how accurately they're cutting--as dentists call it--but also on their all-important body position. The University's is the first dental school in the Big Ten, and one of only a handful nationwide, to acquire such technology. Instant feedback means more practice for students who will no longer have to wait for an instructor to come evaluate them. That kind of repetition is welcome in a field where sculpting a tooth must be precise to within a tenth of a millimeter.

Dental student Jennifer Day checks her drilling technique on a new advanced simulation unit.

"It's mostly to develop psychomotor skills," says Judith Buchanan, associate dean for academic affairs. "We want them to see patients as early as possible, so that they get as much real patient experience as they can while they're here." It helps, too, that a simulator's comments appear on the unit's overhead screen. With units arranged in groups of four, all at right angles to each other, students get feedback, and even grades, on their work in relative privacy.

Tour the lab

Take a virtual tour of the University of Minnesota School of Dentistry Simulation Clinic.

Not so easy

The technology rests on two sets of light-emitting diodes (LEDs). Seven LEDs beam from an immobile hook in the mannequin's mouth, and 16 others are arranged around the handpiece (drill). A computer keeps track of where the LEDs are in relation to each other and figures out the position of the handpiece and, thus, the drill head at the end of it. A trial run in one of the simulators generates an appreciation for the skills of a good dentist, as this intrepid reporter found out. It starts with donning latex gloves and holding the handpiece over a molar, then looking up at the screen to see a diagram of the tooth with an outline indicating the area to be drilled. So far so good. I step on the pedal and hear the hum of the drill but feel no vibrations to rock the steadiness of its touch. Gently applying the drill to the molar surface, I ... hold on, what's this water doing on the tooth? Oh. Cooling the drill, of course. But how can anybody see what they're doing through a puddle of water? So I do my best and then look up at the screen.

> *"A play-by-play on the screen that corrects your mistakes as you go is really great because then you don't get into bad habits."--Katie Daniels, dental student.*

Not bad. The computer has superimposed an outline of the area I drilled on the ideal and rated the job at 77, a passing grade. I drill a little more, trying to move the drill to trace the outline on the screen. My score rises to 80, a solid B-minus. "There are still some caries left. That's what those colored spots [on the tooth diagram] mean," Buchanan says. "You have to drill a little deeper." I go for it, stabbing here and there, trying to hit the exact places on the diagram. Suddenly, the resistance to the drill drops to nothing--and so does my grade. I've drilled too deep. Dentistry is even harder than it looks.

Students rave

The first practice on the simulators can't come too soon for students. "I really like it, especially when it tells you whether you're sitting correctly," says Katie Daniels, one of several then-second-year students who got an early chance to try their hand on the simulator. "Ergonomics is important in dentistry. A play-by-play on the screen that corrects your mistakes as you go is really great because then you don't get into bad habits." The screen can display the practice tooth as a whole and in cross section from all angles, revealing in detail how well the students are doing. "It gives you a new perspective," says Jennifer Day. "It shows you what the tooth being worked on looks like and what it's supposed to be as the cutting proceeds." University dental students are already working on restorative procedures in a lab with 100 workstations, each equipped with a mannequin, dental tools, and a flat screen for viewing live demonstrations up close. But only the advanced simulation lab has the feedback feature. "There are times in the other lab when you think you're doing it right, but you may not be because there's no instructor there at the moment," says student Grant Collins. The class of 2012 is the first class to reap a full four years' benefit from the advanced simulation. But these young students won't be the only ones using the mannequins for practice. The simulation laboratory serves graduates of dental schools outside the United States and Canada through the School of Dentistry's Program for Advanced Standing Students (PASS). In general, in order to stand for a U.S. licensing exam, foreign-trained dentists must have two years of training in a U.S. dental school, which PASS provides. In 2008, 11 PASS students came from Egypt, Nigeria, Bhutan, and other countries to start on the road to practicing in this country. And graduation won't mean the end of visits to the lab for dental students. "Alumni will want to come back just to try their hand on this new equipment," says Patrick Lloyd, dean of the School of Dentistry. "It's like nothing they've ever seen before."

Improving student persistence

Transformational Leadership Program returns to UMD

By Stephanie Vine

Brief, Oct. 17, 2007

More than 1,000 UMD students attended undergraduate commencement at the Duluth Entertainment and Convention Center last May. The TLP cohort this year is focusing on ways to improve retention and graduation rates at UMD.

What factors cause students to persist? What influences them to stay in college and graduate? And what can University faculty and staff do to help?

UMD's second cohort of the Transformational Leadership Program (TLP) has set out to answer those questions. Comprised of 15 talented University employees from 14 different Duluth campus units, the new group kicked off its first week of training Oct. 2.

This year, 11 of the cohort's 15 projects are specifically aligned with and in direct support of the UMD Strategy Map for Improving Retention and Graduation Rates. The retention framework, developed by the UMD Student Success Work Team in 2006, identified numerous strategic priorities that influence student persistence.

By focusing on processes that are aligned with campus strategies and priorities, UMD will be better able to accommodate students' learning and support needs and positively impact student persistence and success.

Chancellor Kathryn Martin attended the kickoff day of the first week of training and inspired the Cohort 2 participants.

"Any innovative ideas for improvement that positively impact the student experience at UMD and thus result in improved graduation rates will be considered and supported by UMD administration," she said.

Vice chancellor for academic support and student life Randy Hyman echoed those sentiments.

"The TLP program develops a new way of thinking in higher education," said Hyman. "By examining issues critically and holistically, UMD will be in a much better position to successfully meet the needs of its students and, as a result, see persistence and graduation rates gradually improve over the next few years."

The TLP curriculum is based on the world-renowned leadership development and process improvement methodology embraced by 3M, a corporate sponsor of University research and process improvement initiatives. Matt Larson from the U's Office of Service and Continuous Improvement (OSCI) worked directly with 3M to customize the curriculum and training workshops for the U.

"Meeting faculty, student, and staff requirements more effectively and more frequently will continue to be a challenge into the future," said Larson. "Building University talent to advance our strategic directions will elevate our competitive position and add value to the University of Minnesota for years to come."

The TLP methodology tackles problems and processes from "cradle to grave"--opportunities for improvement are accurately defined, current performance levels are effectively measured, gaps in performance are analyzed against customer requirements, solutions are selected and implemented based on gains received, and long-term performance processes and measures are standardized over the long term.

UMD TLP Cohort 2

* Susan Hudec, Tweed Museum of Art
* Susana Pelayo-Woodward, Multicultural Learning & Resource Center
* Alex Jokela, Knowledge Management Center
* Sonja Olsen, Career Services
* Rebecca Thelen, Advisement Coordination Center
* Liz Benson Johnson, Library
* Mary Cameron, Human Resources
* Megan Perry Spears, First Year Experience
* Kuoa Vang, Multicultural Learning & Resource Center
* Joel Youngbloom, Systems Operation & Control Unit
* Jody O'Connor, Financial Aid
* Claudia Plaunt Martin, Tutoring Center
* Mary Jean Menzel, Continuing Education
* Nancy Diener, Disability Services & Resources
* Joie Acheson, Kirby Student Center

After completing the first week, human resources associate director Mary Cameron described her experience as "amazing." Though a lot of information is given in a short period, she said, "it leaves me excited and anxious to move forward with my project and begin seeing results."

The cohort will meet for two more weeks of training over the winter and will complete the program in March. A graduation ceremony is tentatively planned for early April.

Office of Service and Continuous Improvement director Scott Martens has led many transformation efforts across the country in many corporations. He says he is most excited about the transformational change opportunities today in higher education.

"What we are trying to accomplish with regard to performance excellence through TLP is cutting-edge for most colleges and universities," Martens says.

Chancellor Martin and Vice Chancellor Hyman summarized the benefits of TLP: "Don't be afraid to think outside of the box. If the box prohibits free thinking, innovation, and creativity, then get rid of it."

The first TLP cohort of 19 UMD employees, who completed the program in 2006-07, examined and improved a variety of campus issues using the TLP tools and techniques for process improvement and performance excellence.

RELATED READING

"UMD graduates its first Transformational Leadership Program class," April 11, 2007

Stephanie Vine is UMD's TLP coordinator.

Even a little helps a lot

Civil service employees can get financial support for career enrichment

By Dan Farrar

Brief, Oct. 17, 2007

U staff member Antonella Corsi-Bunker met with her master's program cohort at the ICI in Portland in July 2007.

Many professional development opportunities for University staff members on campus are free. But others, from on-campus workshops to professional conferences to longer-term education and training, cost money. To support the professional development of civil service employees, the Civil Service Committee (CSC) allocates funds to give them a boost.

Employees can apply to use the funds for many options. For example, they can sign up for computer classes to advance workplace skills from departments like Academic and Distributed Computing Services. They can take advantage of programs on leadership and organizational issues from the Office of Human Resources' Organizational Effectiveness division or the Center for Teaching and Learning. Outside the U, they can use the funds toward countless programs, training, and seminars to enrich professional skills in their University positions.

Antonella Corsi-Bunker is an adviser for international students in the Office of International Programs. In July, she started a master of arts in intercultural relations program through the Intercultural Communication Institute (ICI) based in Portland, Oregon, and the University of the Pacific in Stockton, California. The ICI is a nonprofit foundation dedicated to increasing awareness of cultural differences and to decreasing conflict among ethnic and cultural groups, both domestically and internationally, through education and training.

The program requires several intensive weeks in Portland throughout the year. Corsi-Bunker applied for the CSC funds--a modest amount--to help with her program costs--which are large. But even a small amount helps.

The skills she seeks will be beneficial in a community as diverse as the University of Minnesota--and beyond. Participants focus on their own culture and its impact on an international level. The training would benefit anybody, she says.

"In today's world, the rapid changes of the global economy, technology, and immigration policies call for our increased understanding of people from different ethnic and cultural backgrounds," Corsi-Bunker says. "We are confronted with various cultures anywhere we go, and we need to learn how to manage differences in a way that will harness their power and create an environment conducive to effectiveness and well-being."

The program helps participants learn how to solve complex issues in multicultural settings and construct appropriate interventions for fostering social change. Being culturally sensitive goes far beyond simply working with people from various cultures or traveling abroad for a semester, Corsi-Bunker says.

"Also it means having and using the flexibility and mindfulness to be able to negotiate any aspect of life successfully with our culturally different neighbors," she says.

Corsi-Bunker demonstrates just one example of how the CSC professional development funds can be used effectively to help build a résumé and career at the University of Minnesota. It's also an example of how the University is striving to maintain a workplace that gives faculty and staff members many opportunities to advance.

Guidelines and an application can be found on the CSC Web site.

Dan Farrar directs the Security Monitor Program at the Twin Cities campus and is a Civil Service Committee member at large.

U receives $12.5 million for stadium, scholarships

Gift from Shakopee Mdewakanton Sioux Community is largest private gift ever for Gopher athletics

October 19, 2007

President Bob Bruininks and Stanley R. Crooks, chair of the Shakopee Mdewakanton Sioux Community, hold a ceremonial check for $12.5 million.

The University of Minnesota has announced a $12.5 million gift from the Shakopee Mdewakanton Sioux Community (SMSC). Ten million dollars of the gift will go toward the construction of TCF Bank Stadium, and $2.5 million will go to a matching fund that will create a $5 million endowment to provide scholarships, with a preference given to American Indian students. The $10 million stadium gift is the largest single private gift ever to Golden Gopher Athletics.

President Bob Bruininks made the announcement October 19 at an 11 a.m. press conference, accompanied by leaders of the SMSC, including Chairman Stanley R. Crooks; Athletics Director Joel Maturi; and Tom LaSalle, president of the University of Minnesota Alumni Association.

"On behalf of the entire U community, I want to express our very sincere gratitude and thanks to the Shakopee Mdewakanton Sioux Community," Bruininks said. "The Dakota people, the Shakopee Mdewakanton Sioux Community, and all of the tribes in Minnesota have traditions that extend back thousands of years--traditions that deserve our recognition and our very deep respect. It is our shared hope that this gift will tangibly link those proud traditions with new, shared traditions that we will celebrate and enjoy together, further enriching the heritage and the legacy of the University of Minnesota."

In recognition of the significance of the gift, both the west hospitality plaza--the largest and most central plaza for the stadium--and the scholarship will be named in honor of the SMSC. The name of the plaza, along with more details about the design, will be announced at a later time. Crooks said the plaza will be a way to let the many people who will pass through it "be aware that this is historic Dakota territory," and learn about not only his tribe, but all of the tribes in Minnesota. "The U of M is a fine institution of higher learning and what better place to promote the role of Indians in this state," he said. "The endowment will provide opportunity for more Indian students to seek out a college education at the University so that they can better serve their tribal communities. We need Indian doctors, lawyers, teachers, accountants, and leaders to help Indian people be self-sufficient."

Bruininks said the U will work with the Shakopee Mdewakanton Sioux Community to design and build a plaza that will exhibit and celebrate the history, presence, and cultural contributions of American Indian tribes in Minnesota.

TCF Bank Stadium, which is scheduled to open in fall 2009, is being funded in part by $86 million in private gifts and sponsorships. Maturi announced that with the SMSC gift, the total amount raised has reached $73 million, ahead of the fund-raising schedule, with $13 million remaining to be raised.

More about TCF Bank Stadium can be found at the stadium Web site.

From the grapes to the glass

A century of public engagement is producing quality wine from cold-hardy vines

By Stephanie Wilkes

Brief, Oct. 24, 2007

Horticultural science faculty member James Luby has been a member of the team working to develop grape breeding, wine making, and agritourism in Minnesota over the past 25 years. He credits the rapid growth to strong public engagement.

Minnesota wineries are taking a breather now, watching as the newly harvested grapes begin the fermentation process. That's more than 20 wineries across the state, where only four wineries existed only a dozen years ago.

Winemaking in Minnesota may seem like a new phenomenon, but developments in wine grape varietals have been going on for almost 40 years and are now making Minnesota wines a reality. James Luby, head of fruit breeding in the U's Department of Horticultural Science at the Twin Cities campus, has led a group in developing four cold-hardy wine grape varietals that can stand the tests of time and winter.

Luby credits a great deal of local wineries' growth to their collaboration with the University.

"This is a really good example of Minnesota citizens taking a research product that was developed by the U and being able to put it to commercial use," says Luby. "It's a kind of a partnership between the U and the local wine community, a partnership to work out some of the difficulties of growing grapes and making wine in our climate. It's taking a bit of the U and bringing it off campus, working together to turn it into something that is good for the state."

The benefits of this partnership are apparent to U alum John Maloney, '85 , who co-owns Cannon River Winery in Cannon Falls, Minnesota, with his wife, Maureen.

"I became very intrigued with the whole idea that the U of M was breeding cold-hardy wine grapes that were actually capable of producing some very good quality wines," says Maloney. "The more we looked into the idea of opening a winery, the more we liked it, and it has worked out very well for us."

The history of grapes at the U goes back an entire century, but it wasn't until the 1970s that the idea of producing wine grapes was explored. Local farmer Elmer Swenson and U researchers Patrick Pierquet and Cecil Stushnoff began crossing local grapes with traditional wine grapes in hopes of creating a good wine grape that could survive the Minnesota climate. The seedlings from these crosses began to produce fruit around the time of Luby's arrival in 1982.

> *"It's taking a bit of the U and bringing it off campus, working together to turn it into something that is good for the state."*

Key to the success of the budding grape-breeding program was the arrival of scientist Peter Hemstad in 1984. Since then, four varietals have been introduced.

Then, in 1997, the Minnesota Legislature appropriated funds for an enology program. That allowed Luby and other viticulturalists greater exploration into the study of wine and winemaking.

The U's first varietal was Frontenac, a red-wine grape variety introduced in 1996. In 2002 came La Crescent, a white-wine variety, followed by Frontenac gris, a white-wine variety and surprise mutation of the Frontenac. Marquette, a red-wine variety, debuted in 2006.

Marquette's potential has brought a lot of excitement to the Minnesota River Valley, reports Audrey Arner, co-owner of Moonstone Farm near Montevideo.

"There was a lot of Marquette planted in our region this spring," she says. "It's the one that people are the most excited about for its potential to create a nice, dry red table wine with lower acid than most of the cold-climate grapes that we have experience culturing."

Arner collaborates with the University's West Central Regional Sustainable Development Partnership. She's working to foster a learning circle among the Wine Growers of the Upper Minnesota River Valley, helping to create the web of communication among winegrowers, and between winegrowers and the University.

"We are linking with other wine growers in our region to monitor how well certain varieties are doing here in our soil and our climate," says Arner. "Together, we serve as a feedback loop to the University, to provide information on what is working and also to identify future needs that the University can help us meet."

The U connects with the local wine community in ways besides grape development. Anna Katharine Mansfield, a senior research fellow in horticultural science since 2001, hosts a few workshops throughout the year to provide an in-lab experience for winemakers that builds their knowledge about the chemistry of wine. Luby, Mansfield, and horticultural science faculty member Gary Gardner also teach an introductory course, Hort 1031, Vines to Wines: Introduction to Viticulture and Enology.

> *"Together, we serve as a feedback loop to the University, to provide information on what is working and also to identify future needs that the University can help us meet."*

The growing number of successful Minnesota wineries is having a larger effect on their rural communities, too. Since the Cannon River Winery opened in 2004, for example, Maloney has seen agritourism as one of the many benefits of the collaboration between the University and the wine community.

"Rural communities like Cannon Falls benefit tremendously from the wineries," says Maloney. "Having a winery among other retail or restaurant establishments is great because it's a way to draw people in--not only from Cannon Falls, but also from the Twin Cities and Rochester. From an economic standpoint, it's a tremendous up side for the rural communities."

Luby believes the growth of the Minnesota wine industry will only continue, and he sees collaboration with the local wine community as a means of fostering the growth.

"We have always had a significant part of our efforts in applied research and outreach," says Luby. "Our products, varieties, and information are primarily developed for the public rather than other academics, and we have always been engaged with the grower community through participation in educational programs that are jointly developed."

FURTHER READING "Hooray for the red, white, and bleu"

"Seeking a cup of the cold-hardy"

Stephanie Wilkes is a senior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Downtown digs: new Rochester campus

By Pauline Oo

October 23, 2007; updated November 5

Information Commons, a.k.a. the library. The Rochester campus doesn't have a traditional library. Instead, it has an electronic resource librarian and 24 computers with access to the University of Minnesota Libraries' collections, which includes 6.2 million print volumes and nearly 37,000 publications.

After four decades of planning, the University of Minnesota finally left the place it shared with three other colleges for its very own digs in the heart of downtown Rochester. The grand opening, complete with tours, door prizes, and refreshments, was held October 25. The University of Minnesota, Rochester (UMR) was designated as an official campus of the University last fall--bringing to five the number of U campuses (along with Crookston, Duluth, Morris, and the Twin Cities). UMR occupies the third and fourth floors of University Square, formerly the Galleria Mall.

If you asked a student or University of Minnesota employee to comment about the new campus location, chances are you'll get a lot of "I know who goes to the U now." Not surprising, since U students previously had to share classrooms and common spaces with students from Rochester Community and Technical College (RCTC), Winona State University, and St. Mary's University.

"I like the new campus," says Miranda Edel, UMR assistant professor graphic design. "It is nice to walk through the building and know that every person is involved with our campus rather than not knowing whether people were part of RCTC or Winona State. We are building an identity."

Although a myriad of stores mark the first two floors of University Square, there's no mistaking that the building is also home of a University of Minnesota campus. The trademark "M" and maroon and gold banners on the outside of the building are dead giveaways. And once you step inside, the giant "M" on the ceiling of the atrium is another obvious sign. (Later this year, University Bookstores will open shop on the ground level.) The U has a five-year lease on the top two levels--previously a food court and long-idle movie theaters. The move marks UMR's most significant accomplishment since the Minnesota Legislature appropriated $5 million for each of the next three years to help it develop programs in the fields of biogenomics, health sciences, and business.

"I think that [by physically separating ourselves from the other schools], we are able to show the community that we do exist and may be able to develop more relationships with programs and individuals in the downtown area," adds Edel. "[For example], I hope that a graphic design program in the downtown location will expand the design possibilities in Rochester--more students to do internships, to do freelance work, to create good design in the Rochester area.... the possibilities are endless."

The Rochester campus at University Square, a converted shopping mall.

Watch a short video about the new Rochester campus.

Listen to University President Bob Bruninks remarks about the City of Rochester's financial support for UMR at the April 5 State of the University address.

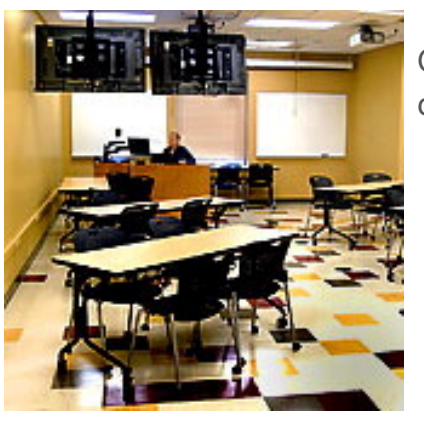
The University of Minnesota has had a presence in the third-largest city in Minnesota and the southeastern region since 1966. It now offers 35 baccalaureate, master's, doctoral, and licensure and certificate programs focused on health science, technology, and business--a direct response to the needs of the business community in that part of the state, a community hungry for advanced university programs to feed such well-known employers as the Mayo Clinic and IBM.

Classes are taught or cotaught by faculty based on the Rochester campus or faculty from the Twin Cities and Duluth campuses. Students learn in wireless, semi-traditional settings. All classrooms, save for the nursing lab, have whiteboards, furniture on wheels, and a variety of multimedia equipment; for instance, large-screen monitors, cameras, and overhead microphones.

"Our classrooms were designed for the future," says Jay Hesley, UMR communications director. "They are ITV-equipped so we can send and receive live audio and video television signals from one location to another. But the rooms can also become traditional classrooms because they have whiteboards. Everything is also on wheels because we don't know how faculty--as our faculty grows and our programs grow--will use the space."

UMR has 400 students, and it plans to admit more students and deliver lower-division courses as well in the next five to six years, says UMR chancellor Stephen Lehmkuhle. "At this point, we're a growing fledgling campus... The decisions we need to make are where we're going to grow and how we're going to grow."

In the works are 10 new academic programs, including two doctoral programs and three master's programs, one of which is a master of health care administration program for working professionals.



One of the ITV-equipped classrooms at UMR.

Lehmkuhle says the University's move to downtown Rochester was necessary, not only because it was outgrowing the previous venue, but because the University wanted to attract a different student base--namely, working professionals--and to be closer to its partners. Mayo Clinic, for instance, is now a stone's throw away. In fact, Lehmkuhle's floor-to-ceiling windows look out toward the clinic's award-winning Gonda Building.

"The landscape of higher education is changing and institutions can't do it all alone," he says. "How successful we are depends on our ability to partner, and location is critical."

FURTHER READING The first chancellor of the University of Minnesota, Rochester, arrived on campus September 10 with a background in visual neuroscience and university leadership. Stephen Lehmkuhle talks about the rare opportunity to help build a new campus in an exceptional location. Read "Connect and commit."

University of Minnesota announces enhancements in Rochester (November 2006)

FIPSE awards $750,000 to U for Northside partnership

By Rick Moore

October 25, 2007

A $750,000 grant from the Fund for the Improvement of Post-Secondary Education (FIPSE) has been awarded to Senior Vice President Robert Jones and Associate Vice President Geoff Maruyama to develop collaborations as part of the University Northside Partnership (UNP).

The Northside of Minneapolis (shaded area) is home to about 63,000 residents.

UNP is an effort aimed at helping address some of the social and economic challenges facing the Northside community in Minneapolis, which is home to some 63,000 residents. The U's many partners include NorthPoint Health and Wellness Center, the Northside Residents Redevelopment Council, Northway Community Trust, City of Minneapolis, Hennepin County, and the Coalition of Black Churches.

The three-year grant, which begins in November, will be used to create a first-of-its-kind Urban Research and Outreach/Engagement Center (UROC). This new UROC model would be the urban equivalent of one of the University's highly successful research and outreach centers (ROC), which are hubs for public engagement with rural communities.

"We need a coherent 21st century urban agenda," Jones told the U's Board of Regents in a presentation about UNP in February. "Why? Because we live in an urban age." The ROC model, Jones adds, is "a good way of thinking about this, and better coordinating our resources to bring about systemic change."

"The [Northside] has tremendous untapped assets and resources," says Taylor. "This is a great opportunity for the U to assist that community in actualizing its potential. And that's exciting."

The U will bring a host of resources--along with a prized recruit--to bear on the partnership. One issue greatly affecting the Northside is the number of children in foster care. To help address this concern, the University hired Dante Cicchetti as the new McKnight Presidential Chair and professor in the Institute of Child Development and Department of Psychiatry. Cicchetti developed a program at the University of Rochester in New York that significantly reduced the number of children placed in foster care, and he will bring his expertise to the new Child and Family Center on the Northside, which will partner with NorthPoint Health and Wellness Center.

The College of Education and Human Development will also be extensively involved with the partnership.

While in the past, University faculty from numerous colleges and departments have been involved with specific projects on the Northside, "It hasn't been what I would consider to be an organized, collective effort, where the University has intentionally marshaled a large amount of its resources to go in and accomplish certain objectives," says Craig Taylor, director of the U's Office for Business and Community Economic Development and a long-time north Minneapolis resident.

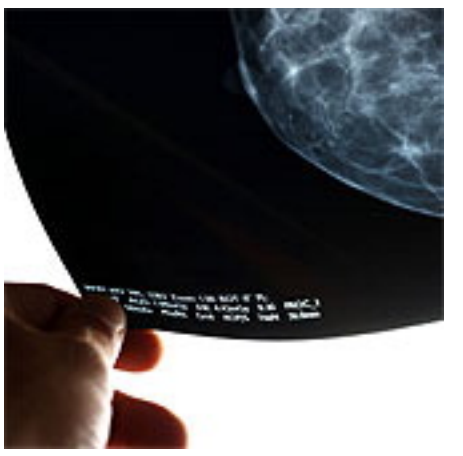
Taylor feels that over time, the U's collaborative efforts on the Northside could pay big dividends in terms of community health and educational attainment. And he feels UNP's potential to yield economic dividends should not be overlooked, since a stable economic platform underlies the ability for children to succeed.

"The [Northside] has tremendous untapped assets and resources," says Taylor. "This is a great opportunity for the U to assist that community in actualizing its potential. And that's exciting."

Study examines increase in double mastectomies

From *eNews,* October 25, 2007

University of Minnesota Cancer Center researchers have found that the use of contralateral prophylactic mastectomy (CPM)--a surgery to remove both breasts when cancer has been diagnosed in one breast--more than doubled in the United States between 1998 and 2003. The researchers say more understanding is needed about why some women choose CPM surgery, especially since most of them may not need it. The risk of cancer spreading to other parts of the body is greater than the risk of it spreading to the other breast.



A mammogram, also called a mammography exam, is a low-dose x-ray of the breast. Mammograms are the most effective tool for detecting breast cancer early.

Breast cancer is the most common cancer among women in the United States, according to the American Cancer Society, and it's the second leading cause of cancer death in women, after lung cancer. This year alone, about 178,480 women in the United States will have invasive breast cancer, and about 40,460 will die from it. The University study is the first to determine the use of CPM surgery, often also called double mastectomy, on a national level.

Todd Tuttle, chief of surgical oncology and a researcher with the University of Minnesota Medical School and Cancer Center, led the research team on this study. The teams findings are described in an article titled "Increasing Use of Contralateral Prophylactic Mastectomy for Breast Cancer Patients: A Trend Toward More Aggressive Surgical Treatment," published online October 22 in the *Journal of Clinical Oncology.*

The researchers used the National Cancer Institute's Surveillance, Epidemiology, and End Research public-use database to review the rates and trends of CPM surgery of patients diagnosed with cancer in one breast from 1998 through 2003. They found that during the six-year period, 152,755 women were diagnosed with stage I, II, or III breast cancer. Of those women, 59,460 had a single mastectomy and 4,969 women who could have had a single mastectomy chose instead to have CPM surgery. The researchers noted that the use of CPM surgery increased from 4.2 percent in 1998 to 11 percent in 2003. They found that women choosing CPM surgery were younger, non-Hispanic whites, and had lobular breast cancers, or a previous cancer diagnosis.

Tuttle says that while CPM surgery reduces the risk of cancer in the other breast, the surgery is also more aggressive and irreversible, and "most patients will not experience any survival benefit."

According to Tuttle, women who have the BRCA1 and BRCA2 genetic mutation and have been diagnosed with cancer in one breast have a higher risk of developing cancer in the other breast. Other women at higher risk for cancer in the other breast include those who are diagnosed at a younger age, have a family history of breast cancer, have particular types of breast cancer, and have had radiation treatment to the chest.

But he points out that for most women with cancer in one breast, "the spread of the cancer to other parts of the body is greater than developing cancer in the other breast. The annual risk of cancer developing in the other breast is about 0.5 percent to 0.75 percent."

Tuttle thinks that fear coupled with increased public awareness of the genetics of breast cancer and increased testing of women for the BRCA1 and BRCA2 genes have led to increased use of CPM surgery.

"Admittedly, awareness of breast cancer and its genetics is very important," Tuttle says. "However, CPM surgery may not always be necessary. We need to understand why an increasing number of women who are diagnosed with cancer in one breast opt for CPM surgery so that we can better counsel them about their risks for cancer in the other breast and the other treatment options available to them."

October is National Breast Cancer Awareness Month

The basic treatment choices for breast cancer are surgery, radiation, chemotherapy, and hormonal therapy, which may or may not be included in the treatment regimen, depending on hormonal involvement in the growth of the tumor. Breast surgery and radiation therapy are focused on removing or destroying cancer cells confined to the breast. Treatments such as chemotherapy are used to destroy the cancer cells that may have spread throughout the body.

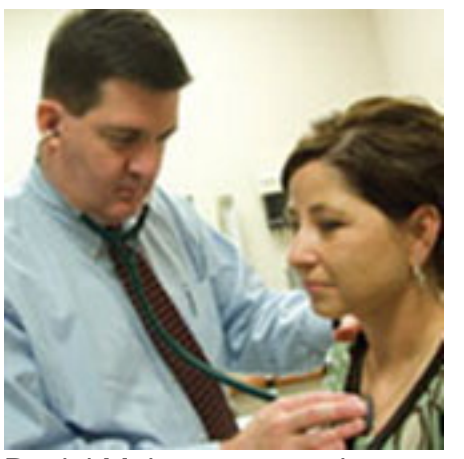
To learn more about breast cancer and how to treat it, visit the American Cancer Society.

Beyond the basics

Innovative program helps junior faculty break into the world of clinical research

By Mary Hoff

From *eNews,* October 25, 2007



Daniel Mulrooney examines two-time cancer survivor Nichole Wilson. Mulrooney is studying the late-effects of chemotherapy and radiation therapy on people who have been treated for cancer as children.

For Daniel Mulrooney, an assistant professor of pediatric oncology at the University of Minnesota, it's the classic Catch-22. To do biomedical research, you need time, funding, and know-how. To get time, funding, and know-how... you need research experience.

Mulrooney spends much of his time at the University of Minnesota Children's Hospital, Fairview, caring for young patients who have cancer. He's also very interested in studying the "late effects"--those that show up after years or even decades--of chemotherapy and radiation therapy on children, and learning what he and others can do to minimize them. But when he applied for federal funding to conduct research on the topic, Mulrooney discovered he lacked the track record needed to land a major grant.

Then he heard about the University of Minnesota's Career Advancement Program for Clinical Research Scholars (CAPS). Part of a nationwide National Institutes of Health (NIH) initiative, CAPS was established in 2005 to help early-career faculty in the health sciences break into clinical research. Mulrooney applied to the University's program and was accepted as one of seven inaugural scholars. Under the guidance of a multidisciplinary team of mentors, he has since begun recruiting survivors of Hodgkin's lymphoma for a preliminary study of biomarkers of inflammation and vascular injury.

"I think CAPS is a terrific program," he says. "This is just what a junior faculty member needs to navigate the waters and learn what you otherwise wouldn't know how to achieve."

Boosting clinical research

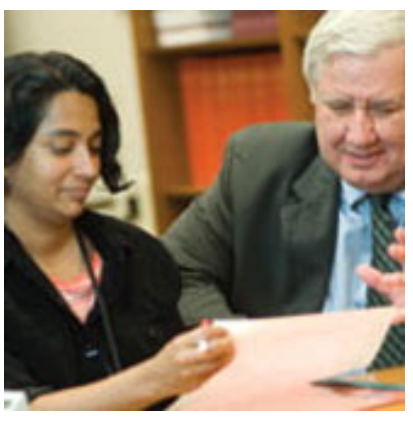
Clinical research has faced tough times in recent years. Traditionally, new treatments and cures emerge from a pipeline that extends from basic science (studying how living systems work) to translational research (studying how to apply new knowledge to human health) to clinical trials and, ultimately, patient care.

Basic scientists have been making great strides in understanding how molecules, cells, tissues, and organs function. But the translation of this new knowledge to new approaches to prevention, care, and cure has lagged. Although there are many reasons for this, two critically important ones are more competition for less federal money and the pressure on physician-researchers to produce revenue through patient care.

"Clinicians interested in doing research find themselves taking academic positions, and suddenly all of their time is taken up by clinical duties, system demands, and the need to generate income," says CAPS program director Russell Luepker. Without some type of support that allows them to reduce their clinical hours, Luepker says, even the most dedicated find it difficult to get the research experience they need to successfully compete for major grants.

CAPS offers three key types of support to clinical faculty launching their research careers in medicine, nursing, pharmacy, dentistry, and public health.

The first is funding. Scholars receive up to $25,000 in research support annually as well as travel money, graduate tuition, and textbook reimbursement. Even more valuable, CAPS supplies the dollars needed to cover 75 percent of its scholars' salaries for the three to five years it takes them to develop a research program solid enough to successfully compete for NIH grants and other support. That buys them "protected time"--a portion of their work week in which they are committed to doing research.



Kamakshi Lakshminarayan getting advice from Russell Luepker, one of her mentors in the CAPS program. She hopes her research will lead to better outcomes for stroke patients.

"Each [scholar] is doing a different project with a different team in a different department, yet they're all doing amazing things," says CAPS mentoring and evaluation director Carole Bland, assistant dean for faculty development and professor of family medicine and community health in the Medical School.

The second involves project management. In the past it was possible to learn the ropes by spending time in others' labs. But today's clinical science demands intensive training in everything from using sophisticated analytical technology to dealing with sensitive legal issues. The University's Office of Clinical Research, which works closely with CAPS, offers biweekly seminars on a variety of topics and periodically brings in distinguished visiting scholars who provide valuable insights and advice.

"How to write a grant, how to do a scientific presentation, how to work with industry... It's been so diverse, things I never would have thought of," Mulrooney says.

Multidisciplinary mentorship is the third component of the CAPS approach. Each CAPS scholar gathers a mentoring team of at least three people--two in fields directly related to his or her subject of study and the third, a biostatistician--which then works together to help guide the scholar.

"One of the roles of more senior faculty is the mentoring and development of more junior faculty--we're going to do that no matter what," says Joseph Neglia, interim head of pediatrics and Mulrooney's primary mentor. "But the CAPS program has allowed some additional resources for that."

To learn more about the CAPS program, visit the Academic Health Center.

An orderly test for brain disorders

Apostolos Georgopoulos can spot the signs of several mental conditions in the magnetic activity of the brain

By Deane Morrison

October 26, 2007

Apostolos Georgopoulos, Regents Professor of neuroscience and neurology, has found patterns in the brain's magnetic signals associated with several brain disorders.

People with brain disorders like schizophrenia, Alzheimer's disease, or multiple sclerosis may not be able to tell a doctor what's bothering them. But now their brain cells can, thanks to some ingenious detective work by University researcher Apostolos Georgopoulos. Using a technique called magnetoencephalography (MEG), Georgopoulos and his research team were able to find patterns of magnetic activity in the brain's cerebral cortex that reliably signalled the presence of those three disorders, plus chronic alcoholism, Sj?gren's syndrome, facial pain, and normal brain function. The work was published in August in the *Journal of Neural Engineering*. The technique is the first to measure how the brain functions in real time. It may lead to a noninvasive test of brain function that could spot trouble in the early stages or monitor progress as patients undergo treatment. Already, Georgopoulos has found that the brain patterns of people with chronic alcoholism tend to revert toward normal as they abstain from alcohol. "I did not expect to find this," says Georgopoulos, a Regents Professor of neuroscience and neurology. "It's like a silent movie of the brain." Georgopoulos is also director of the Brain Sciences Center at the Minneapolis Veterans Affairs Medical Center, where he holds the American Legion Brain Sciences Chair.

The advantage of MEG is its ability to detect brain activity on a scale of milliseconds. In contrast, MRI scans are like snapshots with about a three-second exposure--much too long to detect the rapid "crosstalk" of brain cells in a meaningful manner. And EEG signals are delayed and distorted by passing through soft tissues and the skull, resulting in imprecise or unreliable readings, Georgopoulos says. In their MEG studies, the researchers placed an apparatus resembling a helmet on the heads of the subjects, who were asked to follow a point of light with their eyes for 45 to 60 seconds. Inside the helmet were 248 spikelike sensors, each of which detected the magnetic fields generated in a population consisting of tens of thousands of cortical cells. Together, the sensors scanned the magnetic activity over the whole cortex. The researchers then used sophisticated statistics to zero in on a few interactions between cell populations that varied according to different brain conditions. From the different patterns of interactions, they were able to identify with 100 percent accuracy which of the 142 subjects had been diagnosed with each of the six brain disorders or had normal brain function.

A salty tale

MEG works by picking up magnetic fields generated by ions--mostly sodium, a constituent of table salt--as they cross membranes of neurons. The membranes are in the fingerlike projections of neurons called dendrites, which function as receivers for messages from other cells. It takes the coherent motion of at least 10,000 or so ions to produce a signal strong enough to detect.

"The dynamic function of the brain has been my obsession for years. For me, the biggest challenge is to find how the brain works on the millisecond level with all the 'buzzing' going on."--Apostolos Georgopoulos

"[This work] came out of my strong belief that the real function of the brain is in the interaction of its elements--that is, in the crosstalk," says Georgopoulos. "Exchange of information is the essence of brain function, which is defined as all interactions among all populations of cells. "The dynamic function of the brain has been my obsession for years. For me, the biggest challenge is to find how the brain works on the millisecond level with all the 'buzzing' going on." The emphasis on populations of cells is no accident. For many years, neuroscientists have recorded the activities of single neurons. But our brains are more like a vast array of neural choruses, each consisting of many neurons that sing together and respond to other choruses. Or, on a more prosaic note, one might say that the real work of the brain is done by committees. Georgopoulos and his colleagues are now beginning long-term studies to see if they can predict the onset of Alzheimer's disease. They are also expanding their studies to include depression, fetal alcohol syndrome, gambling, and mild cognitive impairment of various kinds. And they've started taking data on a wide swath of healthy volunteers between the ages of 8 and 100. "He is a huge asset to the University, not only because of how smart he is but because of how collaborative he is," says S. Charles Schulz, head of the psychiatry department. Schulz and Georgopoulos are studying brain disorders by means of MRI and neuropsychological data, which is taken from pencil and paper or computer tests of traits like attention, memory, and decision-making. "In a preliminary study, we could differentiate young people with schizophrenia or bipolar disorder from controls," says Schulz. "That is important in the early stages because clinical [signs] are not really clear." The two are now working to test statistical techniques to see if they can determine, when a schizophrenia patient first visits, what the early response to medication will be so treatment can be better tailored to the patient.

Reward yourself

UPlan fitness rewards in 2008 will offset health club costs

By Betty Gilchrist and Susan Wiese

Brief, Oct. 31, 2007

Sysouk Khambounmy, graphic designer and fitness fanatic, looks forward to rewards of $40 a month for his family's membership at the Y with the new UPlan program in 2008.

Wouldn't it be great to be rewarded for getting to a fitness facility regularly?

Sysouk Khambounmy, a graphic designer in Printing Services on the Twin Cities campus, is pleased to learn that rewards are coming in the UPlan Wellness Program in 2008. Khambounmy and his wife, Phay, are self-described exercise fanatics with a family membership at the Andover YMCA that includes their two children.

"On average, we visit the Y five or six times a week," says Sysouk. "We already have a fitness program for being and staying active and living a healthy lifestyle. It is wonderful to see the U making a commitment to keeping employees healthy. I think everyone should take advantage of this new benefit."

The new benefit is the UPlan Fitness Rewards program, which links to two existing fitness incentive programs available through the HealthPartners and Medica medical plans. Starting in January, the program will pay back up to $20 a month in health club membership dues when you visit the facility a minimum of eight times each month.

In Medica's Fit Choices, you can earn a reward of up to $20 each for two individual fitness facility memberships when you visit a participating fitness facility eight times a month. With a dual or family membership, you can earn only one $20 reward.

HealthPartners' Frequent Fitness program also reimburses up to $20 a month when you visit a participating fitness facility eight times a month. With a family membership, a second family member age 18 or older who works out eight times a month also earns a fitness reward of up to $20.

Khambounmy's family membership at the YMCA, for example, now costs about $98 per month. The new benefit will amount to a $40 credit against that monthly cost. The family's medical coverage is U Classic Plus by HealthPartners.

"That can really help our family's budget," Khambounmy says.

Chris T. Zuege, a project manager and customer relations specialist in the Office of Measurement and Services, is an avid soccer player and loves being outdoors. He thinks the University's financial support of an active lifestyle through the UPlan Fitness Rewards program is an amazing benefit.

"I'm not a big fan of winter," he says. With the onset of colder weather, he says his habits change and he tends to become more sedentary. The new benefit will make joining a fitness club affordable for him.

GO TO THE FAIR
Plan to attend the 2007 Employee Health and Benefits Fair. It's a great time to learn important information about your employee benefits and other U of M health and wellness programs. Stop by for free flu shots, healthy and tasty treats, free massages, prizes, and giveaways.

UMD
Thursday, Nov. 1
Ballroom, Kirby Student Center
10 a.m.-3 p.m.

UMTC-Minneapolis
Tuesday, Nov. 6
Great Hall, Coffman Union
10 a.m.-3 p.m.

UMTC-St. Paul
Wednesday, Nov. 7
North Star Ballroom, St. Paul Student Center
10 a.m.-3 p.m.

Chris T. Zuege plans to use the new benefit to sustain exercise through the winter months.

"Now I'll be able to move my routine indoors rather than shelving regular workouts until spring," says Zuege. "Once I choose a fitness facility to join, my goal will be to work out three times per week. The required eight visits per month are very do-able."

UPlan Fitness Rewards is available to employees, spouses and same-sex domestic partners, and dependents age 18 or older, who are enrolled in the UPlan Medical Program through Medica or HealthPartners.

Each person in the program will need to use a participating fitness facility. University recreational and fitness centers on the Twin Cities, Duluth, and Morris campuses are options. And both plans have large networks of participating clubs that feature hundreds of major and independently owned fitness facilities.

To participate in UPlan Fitness Rewards, you will sign up at your fitness facility--for Frequent Fitness in HealthPartners, or Fit Choices in Medica. When you exercise eight or more times in a month at that facility, you'll receive the fitness reward about two months later--for example, a January reward will be paid in March. The payment approach is determined by the fitness center: It may be a reduction in your fitness center monthly dues, or it may be a payment into your checking or savings account.

To find out whether the fitness facility of your choice participates in Frequent Fitness or Fit Choices, go to Fitness Rewards and follow the link to the complete list of participating fitness facilities in HealthPartners and Medica.

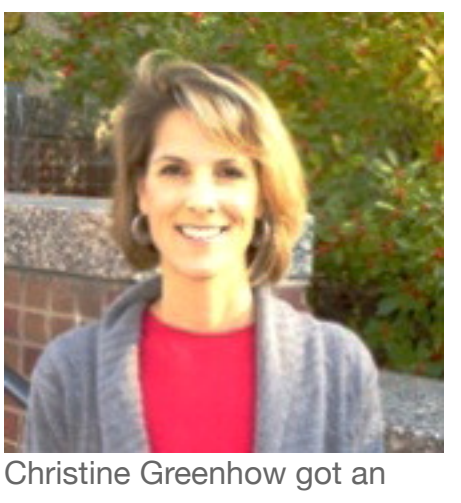
Betty Gilchrist is the Employee Benefits communications project manager and Susan Wiese is the Employee Wellness communications project manager in the Office of Human Resources, Twin Cities campus.

Seeds of change

Office of Public Engagement seed grants are changing the U

By Stephanie Wilkes

Brief, Nov. 7, 2007



Christine Greenhow got an OPE seed grant in 2006-07 to help develop an online social network that aims to ease the transition to college for low-income students.

With the first snow flurries across Minnesota, many people have put all things seed- and harvest-related out of mind. But there's one more seed that members of the U of M community need to be aware of: Public Engagement Seed Grants, awarded by the Office for Public Engagement (OPE).

The request for proposals for the 2007-2008 cycle began Friday, and applications are due Dec. 7. The seed grants, established in 2000, fund projects--established by members of the University community--that will engage and serve the greater community.

This cycle of seed grants marks a crucial point for OPE in honing its mission and programs, says interim associate vice president for public engagement Geoff Maruyama.

"The office has been around long enough that it's time to look back and reflect on what we have done [and] to see what can move us effectively towards where we want to go next," says Maruyama. "We have been looking at our accomplishments and figuring out how they can be channeled into our vision for the future--the steps we need to take to get from where we are to where we want to be."

Maruyama and OPE encourage this year's seed-grant applicants to think about broad U priorities and strategic positioning initiatives. OPE hopes to serve as a catalyst, collaborator, and coordinator in building multi-disciplinary, sustainable partnerships among groups inside and outside the University.

"We are a university that can leverage and apply our strengths to resolve community problems and issues," says Maruyama. "These seed-grant projects are tangible examples of just how that work is done."

Two examples of 2006-07 seed-grant recipients show what's possible.

APPLY NOW FOR SEED GRANTS

OPE seed grants, established in 2000, fund about 20 projects a year. Proposals for the next round are due by **Dec. 7**. Applicants are encouraged to propose projects related to broad U priorities and strategic initiatives. Get the guidelines and application.

Seed grants in action

Many low-income students face a tough transition in their first year of college. Can a social network connecting them to each other, designed for them on the Internet, help?

A new project called **SSO** is finding out: **Supporting Students Online** to Be Learners, Leaders, and Guides: Building Networked Communities in Minnesota. SSO got a start with an OPE seed grant to Christine Greenhow, a postdoctoral associate in the College of Education and Human Development's learning technologies area of the Department of Curriculum and Instruction. Through SSO, Greenhow and a community partner, Admission Possible--a local nonprofit working to help hundreds of low-income urban high school students gain admission to college--are finding ways to harness social networking technologies like Facebook and Myspace to connect and support these students.

> *"It's important that researchers and public leaders work together on educational problems. When research makes its way into the hands of practitioners who inform and shape it, when we can create new knowledge and advance solutions that work."*

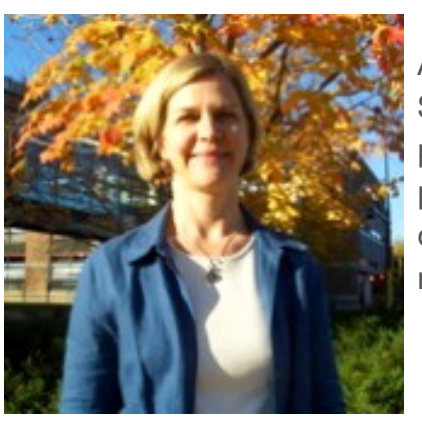
By fostering a network, SSO hopes to reduce social isolation, increase learning, and encourage higher graduation rates among at-risk students in Minnesota and across the nation.

"A lot of people looking at these sites think there is no real learning going on," says Greenhow. "But there are many aspects of these sites that actually allow young people to practice the skills educators have identified as useful in our global society--practical and creative technology skills, critical thinking, digital writing, collaborative problem-solving, and interaction with a diverse population. There is a lot going on that is not being researched, where we can become leaders."

Greenhow says that, without the seed grant from OPE, SSO would not have been possible. The funds allowed SSO to move ahead, hiring a research assistant and conducting comprehensive surveys of targeted students. It allowed SSO to apply for additional funds from the MacArthur Foundation and the U's Children, Youth and Family Consortium and Institute for Advanced Study (IAS). With an IAS Research Collaborative grant, Greenhow was able to form a multidisciplinary working group with other researchers--in new media, writing studies, virtual architecture, computer science, education, and the Digital Media Center--as a means of furthering SSO's vision.

SSO's prototype, called the SHOUT-OUT Digital Learning Initiative, is scheduled to launch this winter. Greenhow is eager to get feedback from participants and use it to drive the project forward.

Another project awarded a seed grant in 2006-2007 is **Non-Profit Leadership Development**, a project for people in or interested in the nonprofit sector who want professional development. It was initiated by associate professors Jodi Sandfort and Melissa Stone, associate professors in the Humphrey Institute for Public Affairs, as part of a larger college initiative around leadership development.



Associate professor Jodi Sandfort helped to develop a project that will provide professional development opportunities for those in the nonprofit sector.

"Unlike the business sector, the nonprofit sector does not have a lot of resources to underwrite costs for professional development," says Sandfort. "But it is human resources that are ostensibly most important to that sector. People need to be able to innovate, they need to be able to cross boundaries and get resources to develop innovative programs to our most pressing social problems."

With the seed grant investment, Sandfort and Stone got involved in activities to enact their mission. They helped construct two award-winning teaching cases about nonprofit innovation. They developed a yearlong, one-credit course, Board Service Practicum (PA 5190-02), to develop governance leadership skills for students who serve on boards of nonprofit organizations. They expanded a partnership with the Minnesota Council of Non-Profits, which allowed them to co-host a second annual leadership conference in the summer, attended by 350, including students who got access through scholarships.

"It's important that researchers and public leaders work together on educational problems," says Sandfort. "When research makes its way into the hands of practitioners who inform and shape it, then we can create new knowledge and advance solutions that work."

Sandfort believes that the seed grant gave them a chance to solidify goals and partnerships and "springboard into an arena that will yield lots of benefits for the Humphrey Institute and the community in the years to come."

Giving a sign

Sandfort also sees the seed grants as a sign of legitimacy and validation for fledgling projects on the road to fruition.

"It reinforces the kind of behavior that we desire for a public university," she says. "There are so many incentives to systems within the academy to *not* engage in this kind of work. This resource can go a long way in recognizing the important work that people are doing and inspiring people to take it to the next level."

For more information, see OPE Awards and Grants or contact Michelle Kuhl at witt0160@umn.edu.

Stephanie Wilkes is a senior in English and linguistics and a communications intern in the Office for Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Improving on time

A new GPS clock system is saving the U time and money

By Gayla Marty

Brief, Oct. 31, 2007

Carpenter Paul Solnitzky helped finish installing the new GPS-guided clocks this week. Others on the project included Saben Desmet and Jim Jeanetta, who worked nights to avoid disrupting classes.

In the wee hours of next Sunday morning, Nov. 4, daylight saving time will end and clocks across the country will "fall back" an hour.

If you could peek in the window of a shadowy classroom on the Twin Cities campus that night, you might see the hands of the wall clock spin backwards, from 2 o'clock to 1 o'clock, set by the ghostly hand of a new remote system that will save the U an estimated $18,000 per year.

The Primex Wireless Clock System, installed on campus during the past few months, receives time signals from global positioning satellites (GPS) 24 hours a day, 365 days a year. A GPS receiver is always collecting and sending information to the transmitter, which in turn sends the correct time to the system clocks.

"A campuswide, synchronized clock system is especially helpful for students traveling between east and west banks or between Minneapolis and St. Paul during the 15 minutes between classes," says Jeremy Todd from the Office of Classroom Management. "It means faculty and students have consistent time."

Todd's office started doing the homework on clock systems last winter. Not only did daylight saving time raise problems twice a year, but clocks also fell out of sync due to batteries wearing out, power outages, and other maintenance problems. All of that caused classroom disruptions, complaints to Facilities Management, many single trips to make hurried fixes, and lost time for everyone.

New technology now allows cell phones and personal computers to keep the right time based on satellite signals. Similar GPS technology is being adopted by companies, hospitals, governments, manufacturers, and schools for all kinds of buildings around the world--including at least two other Big Ten universities. With hundreds of classrooms and offices, the U's Twin Cities campus was a great candidate.

"Once we did the analysis, it was an easy decision to fund the infrastructure," says Sean Schuller from Facilities Management. Based on that analysis, the decision to adopt the new technology was made in July. The Office of Classroom Management and Facilities Management entered into a jointly funded partnership to implement it.

The infrastructure for the first phase of the project includes two towers on the tops of the tallest buildings on campus--one in St. Paul and another in Minneapolis--and new clocks in 300 general-purpose classrooms, from Kaufert Laboratory to the Carlson School of Management. The towers are now in place and the last clocks are being installed. Those clocks already installed are live on the GPS system.

The new system means not only fewer problems for students, faculty, and classroom management. It also means that Facilities Management can reallocate staff time for better things than manually adjusting hundreds of clocks--most of which require a ladder--twice a year, plus a dramatic drop in emergency errands for things like repairing a clock in a classroom with an exam about to begin. Schuller says that Facilities Management expects to recoup its investment in a little more than two years through labor savings and reduced maintenance expenses.

If all goes well with the 300 classrooms in phase one, the remaining 850 clocks in other classrooms and locations maintained by Facilities Management will be assessed for possible replacement, too, to take advantage of the new system.

It's about time!

FURTHER READING

"Light on the subject"

High tunnel craze

University of Minnesota Extension is working to improve Minnesota's fruit and vegetable production

October 30, 2007

U horticulture educator Terry Nennich explaining the benefits of high tunnels or hoop houses at the University's North Central Research and Outreach Center in Grand Rapids, Minnesota. (The group is gathered in front of a high tunnel example.)

Terry Nennich knew he was onto something as he trekked through the lush flatlands of Normandy, France, in the summer of 1999. The University of Minnesota Extension educator from Crookston had come to study fruit and vegetable practices and stumbled upon horticulture's version of a French revolution. The region's miniature, greenhouselike huts--known as high tunnels--blanketed the countryside. Inside, the plants were thriving; the cool spring weather wasn't an issue. A light bulb went on for Nennich, comparing everything he saw to his home climate. One might say his French discovery kickstarted the high tunnel phenomenon in Minnesota.

High tunnels, also called high hoops or hoop houses, are temporary structures that extend the growing season. The plastic-covered garden structures allow growers to roll sidewalls up and down for ventilation and frost protection. Because the system is enclosed, no rainfall enters the tunnel. Growers place plants directly into the soil and water them with small irrigation tubes under the plastic.

Nennich saw how enthusiastic the French were about this growing system. Fruit and vegetable growers now had a longer growing season; yields were two to three times the size of conventional gardens; and consumer demand for these homegrown goods, a month earlier than usual, added extra clout to what growers could charge. In addition, the protective walls greatly reduced the need for pesticides, or eliminated the need altogether, and new and different crops could be added to the mix.

"If it weren't for Terry, we would not have been able to do this," says Eldon Voigt, who, along with his wife, Melissa, grows blueberries, onions, cucumbers, tomatoes and peppers on the couple's farm, Elm Tree Fruit Farm, LLC, in International Falls.

In 2004, Voigt, a pioneer from the "Icebox of the Nation," first worked with Nennich to learn how to grow tomatoes in high tunnels. Today, Voigt sells at a roadside stand and to a local deli. However, he is most enthusiastic about a new project he and his neighbors have organized.

"We've started a community farmers' market with 10 vendors," says Voigt. In late June, their community market officially opened, selling locally produced goods Saturday mornings in the lots outside Backus Community Center in International Falls.

High tunnels didn't spring up in Minnesota overnight. Three years of collaborative research by Nennich, Extension soil scientist Carl Rosen, engineer Jerry Wright, and retired research horticulturist Dave Wildung, as well as on-farm research, helped lay a solid foundation. Then in 2004, Nennich and coauthors finished the University's manual on growing in high tunnels. There are an estimated 150 high tunnels in use throughout the state, according to the group.

Extension engineer Jerry Wright (L), horticulture educator Terry Nennich, and soil scientist Carl Rosen (front)

As the tunnel craze spread in the Gopher State, the number of farmers' markets also began to climb. Today, there are well over 100 active farmers' markets in Minnesota.

"Working with Terry and the U has really changed everything for us," says Voigt. "I didn't even see myself getting into farming, much less starting a community market."

For more information on commercial vegetable and fruit production in Minnesota, see University of Minnesota Extension.

On-farm research provides key to growers' success

Dallas and Mary Flynn of Frazee monitor a high tunnel and participate in the U's on-farm research. In exchange, the University monitors the tomatoes and cucumbers grown in their tunnel, analyzing plant tissue, as well as soil composition, moisture and temperature.

Due to the high yields in tunnels, soil is depleted of nutrients much more rapidly and in higher quantity than in field-grown crops. Extension soil scientist Carl Rosen and his group analyze data, such as how much nitrogen and potassium is taken up in the fruit. They also study the benefits of adding soil amendments such as compost before planting begins.

"We're trying to develop a nutrient budget," he says. "Things are really progressing. The growers just have so much more confidence in knowing how to manage the crop."

For the Flynns, the biggest challenge has been explaining their growing system to customers. "I bring pictures with me every year because I get the same questions, 'Who do you buy your cucumbers from?'" says Dallas Flynn, who sits on the board of directors for the Minnesota Farmers' Market Association. "The beauty of it is when they find out it's locally produced by me. They love that."

U offers unique chance

U physicians try to save a young boy's life

By Molly Portz

From *M*, winter 2008

Theresa Liao, Nate's mother, relentlessly raised funds and sought a cure for her son's disease. She and her husband have another child with EB.

"*This magic moment...*," Theresa Liao sang to her 18-month-old son Nate, holding him as potentially life-saving bone marrow stem cells were infused into his small body. Nate suffers from the most severe type of epidermolysis bullosa (EB), a genetic disease that causes skin to slough off with the slightest friction or movement. To protect their fragile skin, children with EB must be bandaged from head to toe and often suffer painful wounds that are slow to heal. EB even effects skin on the interior of the body and children need to eat soft foods to protect their intestines. The disease has no treatment and no cure and people with EB die young from skin cancer. Doctors at the University of Minnesota Children's Hospital, Fairview are hopeful that will soon change. On October 19, a team led by John Wagner, head of pediatric blood and marrow transplantation, transplanted bone marrow and cord blood cells into Nate from his brother Julian, who does not have EB. Julian is a 100 percent match for Nate. Wagner anticipates that Julian's bone marrow and umbilical cord blood will result in a new healthy blood system that produces type VII collagen, the protein missing in children with EB. The physicians don't know for sure if the treatment will work since it has never been tried before.

> *"It has been a long road to get here," says Theresa Liao. "If there is a chance my kids can be better, we have to try."*

The Liao family raised funds to support the lab research. The U was the perfect place to do this work because of the close ties between researchers and clinicians, and the atmosphere of collaboration where competition bows to the common good.

University researchers were able to correct the disease in mice through bone marrow transplant (BMT) with a 25 percent success rate. They tested various types of stem cells to determine which would give rise to the development of type VII collagen and produce the anchoring fibrils that bind the skin to the body. The Liao family raised funds to support the lab research. They have four boys--two suffer from EB. If all goes well with Nate, his five-year-old brother Jake will receive a transplant in several months.

"It has been a long road to get here," says Theresa Liao. "We uprooted our lives and we aren't leaving Minnesota until both boys are transplanted. If there is a chance my kids can be better, we have to try. We have the chance to give hope to all the other kids and families who live with EB." This is the first time doctors have approached EB from a systemic perspective, using transplant as a means to rid the body of its defective blood system and replace it with a healthy blood system. "Our goal is to determine the usefulness of stem cells whether from the umbilical cord blood or adult tissues like bone marrow in the treatment of human disease," says Wagner. "There are hundreds of thousands of children and adults waiting for new breakthroughs in stem cell research. In two years, the team was able to move this project forward remarkably fast--from testing in animal models to treating patients. Time will tell whether this risky treatment will work as effectively in humans." Doctors anticipate that at 100 days post-transplant they will be able to judge whether Nate has benefited from the experimental treatment. The pediatric BMT program at University of Minnesota Children's Hospital, Fairview is internationally recognized for its pioneering work in umbilical cord blood and bone marrow transplantation, including the world's first successful BMT in 1968. In 2000, Wagner and his team performed the first umbilical cord blood transplant from a sibling whose embryo was selected for implantation because of its match as a donor. The program leads the nation in the use of umbilical cord blood in the treatment of adults and children and in development of innovative treatments of various rare genetic diseases such as adrenoleukodystrophy (ALD) and Fanconi's anemia.

More on the story

To read more about Nate Liao's experimental treatment and to watch a video, see the November 1 issue of USA Today.

University goes small-game hunting in far north

The Department of Energy gives the University $45.6 million for new neutrino project in northern Minnesota

By Deane Morrison

Nov. 2, 2007; updated Nov. 6, 2007

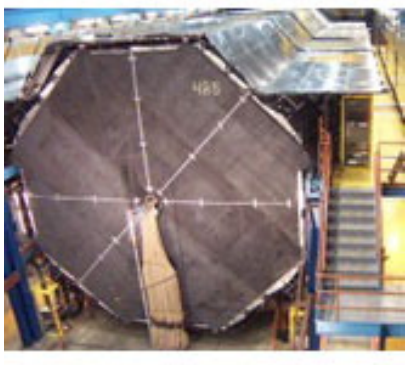
Twin Cities campus physics professor Marvin Marshak is part of a new international project to study neutrinos in northern Minnesota.

To learn more about the impact of this project, watch the University News Service video.

A lot of oil will soon be found underground in northern Minnesota. But nobody will be drilling for it. Instead, the University, armed with a new $45.6 million grant from the U.S. Department of Energy, will put it there as part of an international physics experiment to probe the origins of our Universe. The oil will serve as a target to catch neutrinos--vanishingly small, electrically neutral subatomic particles that were produced in huge numbers by the Big Bang and are still emitted by stars and the cosmic rays that rain down on Earth. Neutrinos are part of the mysterious invisible material called dark matter, which is believed to account for at least 80 percent of all the matter in the Universe. "If you want to completely understand the Big Bang, you need to know how neutrinos contributed to it," says physics professor Marvin Marshak, a lead investigator in the project. "We live in a sea of them. They constitute a second universe of sorts, weakly connected to ours." The project, called NOvA,* will involve about 200 scientists and engineers from 33 institutions in seven countries.

Mining MINOS

Neutrinos are so tiny that for many years, physicists doubted whether they had any mass at all. There are three types of neutrinos, and theory holds that if the different types can change into one another, or "oscillate," then they must possess mass.



The new NOvA neutrino detector will be even bigger than the steel MINOS detector in the Soudan Underground Laboratory.

One experiment set up to answer the question about neutrino mass is MINOS, in which DOE's Fermi National Accelerator Laboratory (Fermilab) in Batavia, Ill., shoots beams of neutrinos 445 miles through the ground to a detector in the University-operated Soudan Underground Laboratory in Soudan, Minn. The data so far confirm that neutrinos do oscillate during their journey and so must have mass. But while the Soudan detector catches neutrinos from the central axis of the beam, physicists are also interested in what goes on in off-axis parts of the beam, where neutrino oscillations are most likely to occur. The NOvA detector will be situated near the Canadian border in Ash River, about 40 miles southeast of International Falls and seven miles from the central beam axis.

> *"If you want to completely understand the Big Bang, you need to know how neutrinos contributed to it," says physics professor Marvin Marshak.*

The detector, weighing in at a hefty 33 million pounds, will be housed in a building sunk 45 feet below ground. It will contain numerous plastic cells filled with mineral oil and a chemical that will emit light when a neutrino hits an atom in the detector. Given that neutrinos have no trouble zipping through the entire Earth without hitting a single atom, that will be a relatively rare event. "We think about a trillion neutrinos will pass through the detector in a year," says Marshak. "We may get 10 neutrino hits per day."

A Universe--luckily--out of balance

According to the current theory of the Universe, the Big Bang led to the production of 12 fundamental building blocks of matter, including the three types of neutrinos. But it also produced "twins" for all those particles out of a substance called antimatter, which reacts violently with matter. When a particle of matter collides with its antimatter twin, they annihilate each other, leaving only energy in their wake. That's what happened right after the Big Bang: The matter and antimatter particles collided, leaving nothing but energy--and a small amount of matter. Why the Big Bang produced a slight excess of matter over antimatter has puzzled physicists for decades. "One holy grail in physics is to answer the question 'What happened to antimatter?'" says Marshak. Fermilab will shoot beams of both neutrinos and their antimatter counterparts, called antineutrinos, through Soudan and on to Ash River. Differences in how the two particles oscillate may help solve the mystery of the missing antimatter. Whatever the answer, we can thank our lucky stars the excess of matter existed, because without it there would have been nothing from which to make stars, planets, or people. The off-axis neutrino oscillations are also expected to shed light on what happens during certain kinds of radioactive decay that involve loss of a neutrino from an atomic nucleus. One famous example is the radioactivity from carbon-14 used to date biological materials. Construction on the building will begin in fall 2008 and end in spring 2010, according to Marshak. After that, the detector will take two years to install. Besides Marshak, NOvA will use the talents of other physics professors, including Dan Cronin-Hennessy, Alec Habig at UMD, Kenneth Heller, Earl Peterson, Ronald Poling, Keith Ruddick, and Roger Rusack. Also key to the project is William Miller, supervisor for the University's labs at Soudan and Ash River. UMD's Richard Gran is involved in a neutrino project at Fermilab in Chicago. "This is a great example of how universities are an integral part of the Department of Energy's scientific research program," says Robin Staffin, senior adviser to the director of the DOE's Office of Science. "NOvA will be at the forefront of neutrino science in the next decade, but we would not be able to do it without outstanding research groups like the University of Minnesota."

**NuMI Off-Axis Electron Neutrino Appearance*

FURTHER READING Trails of tiny particles leave physicists beaming WIMP patrol

A student parent finds success

By Susan Warfield

November 6, 2007

Wendy Smith is a nontraditional student in almost every sense of the term. She's 38 years old, married, the mother of a 3-year-old son, and a transfer student from Minneapolis Community and Technical College (MCTC). Smith has certainly taken the road less traveled in both her personal and academic life. Although she began college at the University right out of high school, she lacked focus and struggled academically during her first two years. It wasn't until she reentered college at MCTC at age 36 that she found a heightened sense of commitment to her academic success. Smith earned excellent grades and eventually transferred back to the U. In the interim, she worked for many years, got married, and became a mother. Smith says that having her son increased her motivation to succeed academically and become more serious about her future career options. "Being out in the workforce without a degree for so many years, you see how limited your options are, and how that not only impacts you but your child's future as well," she says.

Despite pursuing her degree at the University of Minnesota, Wendy Smith still finds ways to spend quality time with her son, Max.

> *"I see younger students worrying about dating, their looks, what parties they are being invited to," Smith says. "I have already done all that, I have my husband, my child, my main life relationships are established, and I can focus on other things, like school and my career."*

November is Non-traditional Student Month at colleges across the nation. On the Twin Cities campus, several events are planned for this week, beginning with today's Student Parent Visibility Day and continuing with information booths in Coffman Union focusing on first generation college students (Wed.); older than average students (Thurs.); and veterans (Fri.).

"It is estimated that the University of Minnesota has several thousand student parents in undergraduate and graduate programs," says student parent Lisa Coleman. "The Student Parent Visibility Day is a campus-wide event that highlights the important contributions that students who are also parents make to our campus and to campuses across the nation."

The life of a nontraditional student

Smith is not overly self-conscious about her age or about being a mother. "I have actually encountered situations where I am older than my instructors," Smith jokes, and admits that it can be odd at times being the oldest one in the class. But in most aspects, her life experience, age, and parenting status are positives, and she feels she is under much less "social pressure" than typically aged students. "I see younger students worrying about dating, their looks, what parties they are being invited to," she says. "I have already done all that, I have my husband, my child, my main life relationships are established, and I can focus on other things, like school and my career." Still, it is not always easy having added responsibilities, and Smith acknowledges that she has far less free time than most of her fellow students. "My time is not my own," she says. "I can't just eat quickly and go study. I have to make sure everyone in the family is fed, groceries are bought, that my son gets tucked in at night. My 'downtime' is often the only quality time I have with my son, so I am up late studying after he is in bed, or trying to get as much done on campus as possible. "Overall, though, I see it all as basically positive. Even the other student parents I meet at the SPHC (Student Parent HELP Center), who are younger than me and typically aged, seem more mature and academically focused then some of the non-parenting students I meet in my classes." Smith feels that the fact she was the first in her family to attend a four-year university is a benefit as well. "I don't take college for granted; it was not a guaranteed thing for me ever and so I appreciate it so much more," she says. "It is not something someone is making me do." As for her future, Smith laughs when she says she can see herself being a "professional student." She loves to learn, is engaged with all aspects of her collegiate life, has an on-campus job, is active with the SPHC, and is seriously considering going on to get her doctorate degree. Her major is linguistics with a minor in teaching ESL and she's thinking of teaching English abroad. Smith has also considered law school, and will soon be taking both the GRE and the LSAT in order to keep her options open.

Crossing the lines

The University of Minnesota Press and Institute for Advanced Study write the book on interdisciplinary research

By Deane Morrison

Nov. 6, 2007

A grant from the Mellon Foundation will help the University of Minnesota Press and Institute for Advanced Study bring about the blossoming of interdisciplinary research.

Every electrician knows that sparks fly when you cross lines, and that's exactly what people at the University of Minnesota Press and Institute for Advanced Study (IAS) have in mind. With help from a new $672,000 grant from the Andrew W. Mellon Foundation, the two University organizations are launching an initiative to integrate the University of Minnesota Press into the intellectual life of the University by involving it intimately with the work of scholars eager to cross departmental lines. The initiative will create working groups that mix faculty in the humanities and social sciences with those in the hard sciences and professional schools. Located in downtown Minneapolis, U Press is well known to large numbers of faculty at the University and elsewhere. It has a reputation for pioneering scholarship in humanities and social sciences, says its director, Douglas Armato, and about 80 percent of its authors are situated outside the University. The press is already known for interdisciplinary publishing, and the Mellon-funded initiative will give that endeavor a big boost. If it sounds as though a stream of overly technical books is about to be unleashed, fear not. When scholars from different areas talk to each other, the first casualty is impenetrable language, says IAS director Ann Waltner, a history professor. "Rule number one of interdisciplinary work is you have to learn to talk so people outside your discipline can understand it," she says. "Then smart people in a general audience can understand it, too." Nevertheless, the initiative has its work cut out for it. "Interdisciplinarity has made great strides, but there's still a big gap between social sciences and humanities and other sciences," says Armato. "All university presses have a faculty committee to assess the validity of proposed books. I've been in university presses for 30 years, and there's a lot of innovative work we publish here that would never get by the conservative faculty elsewhere. "Our goal is to reorient ourselves and create a model for other university presses." Called the Quadrant Program, the new initiative will support publishing projects by faculty collaboratives in four areas, each sponsored by a University unit:

- design and architecture (College of Design)
- environmental sustainability (Institute on the Environment)
- global cultures (Institute for Global Studies)
- health and society (Center for Bioethics)

By simultaneously launching all four collaboratives, Quadrant will help U Press achieve its goal of integration by immediately forging a multipronged connection between the press and faculty scholars. And, starting next fall, the Mellon support will allow IAS to bring in three or four scholars from outside the University each year to work with the collaboratives. Currently, IAS can give fellowships only to University faculty.

> *"I've been in university presses for 30 years, and there's a lot of innovative work we publish here that would never get by the conservative faculty elsewhere."--Doug Armato*

A sampling of books U Press has already published gives a taste of what the four collaboratives could do. In the realm of health and society, U Press recently published *Pink Ribbons, Inc.: Breast Cancer and the Politics of Philanthropy*, by Samantha King of Queen's University, Ontario. Drawing from fields like politics, medicine, and sociology, the book claims, among other things, that high-profile events like 5K races and merchandising to promote a cure for breast cancer actually exploit women with the disease and deflect attention from the search for its causes and ways to prevent it. In another U Press book, *Designs on the Public: The Private Lives of New York's Public Spaces*, University faculty member Kristine F. Miller shines a light on who actually controls New York City's "public" spaces. Miller, an associate landscape architecture professor, critiques how design helps the city exclude undesirables, restrict activities, and favor commercial interests. "Now, New York's City Hall prohibits protests," says Armato, citing an example of how politicians stifle the public in the one place where it ought to be heard. The book, due out in December, also shows how design can turn things around. Topics of interest to the global cultures collaborative might include human rights and violence against women on the U.S.-Mexico border, as well as immigration and the Hmong and Somali diasporas. In the environmental sustainability collaborative, among possible themes are the environmental impact of U.S. military interventions and how U.S. consumer culture affects ecosystems and the sustainability movement. "From my own work, it seems that the environment is an issue we won't get a handle on without being interdisciplinary," says Waltner. "There's a sense that science may not be the hard part--instead, it's human behavior." A potential phase of the Quadrant Program could also bring in University Libraries to set up a means for all the scholars to share or archive their work. Up-and-coming scholars will likely be first among the beneficiaries. "It's all about bringing more energy to the University, especially with younger scholars," says Armato.

Bees at the Bell

Schoolchildren get up close to bees and bugs with Bell Museum's curator of education

By Pauline Oo

November 7, 2007

Beekeeper Kevin Williams holds up a frame of honeybees to a group of awestruck schoolchildren. The museum keeps a hive of bees on its roof for educational purposes.

Spend five minutes with Kevin Williams and you'll know why kids love him. Williams, the curator of education at the University of Minnesota's Bell Museum of Natural History, is bubbly and playful, and keeper of honeybees, scorpions, tarantulas, cockroaches, and other varieties of creepy crawlies--or "really pretty bugs," depending on whom you ask.

Williams started a bee education program at the Bell about 10 years ago. But his amateur bee-keeping skills proved disastrous ("I just couldn't keep them alive") and the bee program fell by the wayside. In 2003, Williams resurrected the program, having developed his beekeeper skills, and today he gets two or three requests a week to bring honeybees out into elementary classrooms.

"I saw right away that bees had a lot of potential for being of interest to the public and [a bee education program would be] such a good blend of agriculture and environmental issues," says Williams. "The program has grown over the years--mostly through word-of-mouth--and I'm getting more calls for visits because the teachers are all aware of what's going on [with parasitic varroa mites and the colony collapse disorder], and they know how important honeybees are. About one-third of all of our food is the result of pollination [including fruit, fiber, nut, and vegetable crops]; even the food cattle eat, like alfalfa and clover, are pollinated by honeybees."

While most museums offer one-hour or daylong educational programs, Williams says the Bell's niche is cultivating long-term relationships. The Bell Museum was established as Minnesota's state natural history museum in 1872. It has the region's largest scientific collections of invertebrates (any animal without a spinal column), mammals, birds, plants, fungi, and insects.

"When I go out to schools, I usually talk to the teacher beforehand to set up a suite of activities that will support the curricula she or he is working on," explains Williams, who's been working at museums for about 35 years--the Bell for the past 26. "I don't like and I don't do canned programs. I like to set stuff up and then go out again the following week or in a couple of weeks to interact with the teacher and students."

For example, he might bring honey-extracting equipment into the classroom for children to extract their own honey, bottle it, and take it home. "I've done that a couple times in the past but have had several requests for such an experience this year," says Williams. "Nothing's funnier than a class of third graders with 10 gallons of liquid honey. After a couple hours they look like flies stuck on fly-paper."

In his presentations, Williams also talks about bee research at the U. University entomologist Marla Spivak, for example, has developed a new strain of honeybees called "Minnesota Hygienic" that can keep hives clean and free of the destructive varroa mite.

Williams oversees a colony of 60,000 bees on the Bell's roof, but he also keeps bees on the back porch of his home in St. Paul, and uses bees from both hives "so I don't overtax any of the bees."

Kevin Williams invites schoolchildren to his office at the Bell, in addition to visiting them--with his bugs--at their elementary schools.

Bees, says Williams, are fairly self-sufficient. He checks on them once a week or once every couple of weeks to make sure that the queen is healthy and that the hive looks strong. Then, either in the spring or fall, he medicates them for varroa mites. When winter approaches, he has to wrap the crate-like hive in a cardboard box.

"The bees stay active all winter long," he says. "They don't leave the hive but they maintain a very warm temperature inside their hive to keep from freezing."

In addition to school visits, Williams tempts the elementary students to the Bell by promising himself in full beekeeper regalia. "I line them up against my window and have them close the window after I crawl out in my suit," he explains. "I then open up the screen windows and show the kids the hive and talk to them about it. I'll pull out the frames so they can look at the queen."

The bug king

While the Bell's bee education program has been around on-and-off for a decade, the museum's bug outreach program is relatively new.

"We started bringing invertebrates into classrooms a number of years ago because they are so incredibly important, just like the honeybees," says Williams.

Williams cares for several species of cockroaches (about 500 cockroaches live in each of the three or four fish aquariums in his office), giant millipedes, a tarantula, and "a really cool emperor scorpion."

Sure, wild animals are always more interesting and fascinating to children, admits Williams, but he quit keeping them when his own children were little. "Because when you find stuff and bring them back, you are taking them out of the gene pool and most of the time they don't do well in captivity--they never reproduce and oftentimes they get sick," he says. "I had this one experience when I brought home a mud puppy--a big gorgeous salamander--but it got some sort of a fungal infection and it died. At that point I said, 'I'm never doing that again.'" Insects and invertebrates, on the other hand, are "very hardy," says Williams. "If you went away for two weeks and left a rabbit in a classroom, you'd probably have a dead rabbit. But you can leave cockroaches without food for a couple of weeks and they're okay."

Williams adds that cockroaches are also valuable in the learning environment because of their reproductive cycle--averaging four times per year.

"You can bring out a half a dozen cockroaches to second graders and within a week or two of feeding them, those cockroaches have had babies," he says. "The kids see the reproduction. They feel really good about having taken care of them. They have all the babies named, and it's really a very positive experience for them."

Second grade teacher Cinda Current is also a Williams' fan. She met the bug king at a Bell Museum workshop in summer 2004, and the following fall she invited him and his bugs to her class and four others at Akin Road Elementary in Farmington, Minnesota.

"Kevin's excitement about insects is contagious and the kids respond well to him," says Current. "Kevin helps the children to understand how important insects are to the environment and lets them hold the cockroaches and critters to help rid any fears. Each year, many students from the previous years come back to see the cockroaches while they are at the school--it is a program they will always remember. My [colleagues] were a little leery about bringing the cockroaches into their classrooms at first, but have now seen the wonderful learning opportunities they bring and look forward to having Kevin come out each year."

The Bell Museum is scheduled to relocate to the Twin Cities campus in St. Paul in 2010, and Williams says the invertebrates and honeybees "will definitely be a component of it."

But right now, the public, especially school children, can get up close to bees and bugs at the Bell's Touch and See Room.

For more information about the Bell Museum of Natural History's bee and insect outreach or education programs, call 612-624-7083.

Straight from Kevin the beekeeper's mouth...

Honeybees are nectarivores. They'll collect nectar and pollen from any flowering plant, including weeds like dandelions.

Yellow jackets and wasps are carnivorous, and in August they can get very aggressive because they're looking for food to feed their young. They'll buzz around your soda pop or bologna sandwich if you're eating outside. They'll also go after honeybees at this time of the year.

You don't have to run away from either wasps or honeybees; just don't put them in your mouth.

For the most part, bees aren't going to mess with you unless you're threatening them or intentionally messing with their hive.

If something does sting you because you've been trying to shoo it away, it's a yellow jacket, not a honeybee--because honeybees are sweethearts.

If you look at a honeybee, it looks almost like a teddy bear because it's furry all over. Yellow jackets and wasps are smooth. Bumblebees are also furry, but they're yellow and black. Honeybees tend to be orange and black or orange and brown.

To learn more about honeybees, visit the U's Bee Lab.

The revolution will be digitized

From slides to pixels, the U's Visual Resources Center moves art history into the 21st century

By Linda Shapiro

January 2, 2008

Visual Resources Center staff members, left to right, Ginny Larson, Rebecca Moss, Ashley Wilkes, and Denne Wesolowski.

The staff members of the U's Visual Resources Center (VRC) often make things up as they go along. Over the past decade, VRC director Rebecca Moss, assistant curators Ginny Larson and Denne Wesolowski, and photography expert Ashley Wilkes have transformed more than 50,000 of the Department of Art History's approximately 300,000 slides into high-resolution digital images.

As visual resource professionals in a hot and relatively new field, they have devised a cataloguing system for art history images that is flexible, accurate, and accessible to even the most technologically inexperienced students and faculty members. Their work is contributing to a rapidly expanding Digital Content Library, which is one of the largest university collections in the country.

Wilkes was instrumental in the conversion from film-based photography to digital imaging. From his windowless office in the basement of Jones Hall, he researched emerging digital technologies, specifically the hardware and software necessary to capture, process, archive, and present images and video (in addition to slides, the VRC contains more than 200 films in a variety of formats).

With conversion processes in place, a new challenge arose: cataloguing the images for a broad range of users.

"This is very new and more complicated than classifying books," says Moss, who came to the VRC from Indiana University eight years ago. "There is no national classification system as there is in library science. There are many more images than books. And whereas books come with titles, images come without any text. So we are cataloguing at a much greater depth. Given that there are many ways to catalog the same object, it's a very subjective business."

Part of the challenge, Larson says, is identifying just the right terms for classifying images. For instance, a popular painting like Edouard Manet's *Le D?jeuner sur l'herbe* may be sought out by diverse groups of users. So it needs a broad range of "entry points" and keywords such as "Realism," "nudes," "modern life," "gender," and "canvas paintings."

"It's very different from working with slides," says Moss. "We labeled them and they were done. There is only so much information you can put on a slide label. With digital technology, much more information can be included."

After scanning an image, Larson and Moss create a work record, which contains information about the specific work (title, date, location, etc.); an agent record, which gives general information about the artist including birth and death dates; multiple views of the work from different angles; comments by experts in the field; and links to other relevant information. For instance, clicking on the "more info" button for the Jan Gossaert portrait *A Little Girl* will allow users of the database to learn that the girl is holding an armillary sphere, an instrument used to depict planetary movement. And that's something that might be of interest to a historian of science. Moss and her VCR colleagues are also training graduate students to digitize and catalog images from 18 other College of Liberal Arts disciplines.

Mary Meihack, a former slide librarian, sorting slides in Jones Hall. (1970)

The conversion to digital images and PowerPoint presentations has changed the way many art history faculty members teach. Steven Ostrow, department chair, finds it an extraordinary tool.

"You can show an image more than once without needing multiple slides, and do wonderful things with images, like zooming in for details, or changing the color of the background," he says. Ostrow came here from a university that worked only with slides; he was excited that the U was technologically way ahead of most institutions. "We have a remarkable database of images," says Ostrow, who made the leap to PowerPoint with help from Moss.

One of the most revolutionary aspects of the new database is increased access, especially for students. Previously, undergraduates could see slides only as they were presented in class; now they can review images any time on the course Web page. For research purposes, students can access any image in the Digital Content Library with their username and password.

A challenge associated with digitization is the potential isolation of both students and faculty members.

"In the old days, we would sit around the slide library while preparing our lectures and chew the fat with colleagues. Now it's a more solitary process, but also more economical," says Ostrow.

Faculty member Jane Blocker has found that students often become silent during sophisticated PowerPoint presentations and sometimes think that if the materials are on the Web site, they don't need to come to class. "Students easily slip into roles as passive consumers," she says. So Blocker frequently has PowerPoint-free days, filled with activities that require her students to interact with her and one another.

Moss, too, realizes that technology is not a panacea--and is no substitute for the vitality of the classroom. Ultimately, she says, "students will always need guidance to interpret effectively the images they encounter." It's in sharing perspectives with others--both professors and other students--that students' personal insights morph into the richer understanding that art history is all about.

Food safety: Thanksgiving leftovers

By Suzanne Driessen

From *eNews,* November 8, 2007

Thanksgiving usually means a time to gather with family and friends, turn on some football, pig out--like you haven't since last Thanksgiving--and for you refrigerator to be will filled with leftover food.

Don't store leftover turkey in the fridge for more than three or four days.

Before reheating leftovers Determine that they are safe to eat. Were the leftovers refrigerated within 2 hours of cooking? If not, throw them out. Were the leftovers cooled properly, i.e. turkey and ham sliced into smaller portions and other leftovers cooled quickly in shallow pans less than two inches deep? How long have they been in the refrigerator?

Here's a list of how common leftovers and recommended refrigerator storage times:

- soups and stews: three to four days
- gravy and meat broth: one to two days
- cooked turkey, meat and meat dishes: three to four days
- cooked poultry dishes: three to four days
- casseroles: one to two days
- luncheon meats: three to five days
- pasta and potato salads: two to three days

Before using leftover food Check the temperature of the food to make sure that it was refrigerated at or below 40 degrees F. One out of four home refrigerators are too warm. Keep your refrigerator at 36-38 degrees F so the food is held at 40 degrees F or below. Don't pack the refrigerator--cool air must circulate to keep food safe.

When using the microwave It's tempting to throw the plastic container with the leftover food in the microwave to reheat. Unless the container is labeled microwave safe, take the time to put the food on a plate.

"Cool Whip," cottage cheese containers, margarine tubs and most plastic storage containers are not heat stable. Chemicals from the plastic may absorb into the food during heating. Microwave plastic wraps, wax paper, cooking bags, parchment paper, and white microwave-safe paper towels are safe to use. Do not let plastic wrap touch foods when you microwave. Never use thin plastic storage bags, brown paper or plastic grocery bags, newspapers, or aluminum foil in the microwave oven.

Microwaves tend to heat unevenly. So arrange food items evenly in a covered dish and add some liquid if needed. Cover the dish with a lid or plastic wrap; loosen or vent the lid or wrap to let steam escape. The moist heat helps destroy harmful bacteria and ensures uniform cooking. Stir or rotate food midway through the heating time to eliminate cold spots where harmful bacteria can survive. After reheating food in the microwave, cover and allow food to stand for 2 minutes before eating. Then, use a clean food thermometer to check that food has reached 165 degrees Farenheit.

I've often found food stuck in the back of my refrigerator and asked myself, "How long has that been there?" If you don't remember how long it's been there, remember the old adage, "when in doubt, throw it out."

Turkey tips

Read Talking turkey from *eNews,* November 11, 2004.

Listen to Kathy Brandt, a food science educator with the U of M Extension Services, talk about the safety measures you should take when preparing turkey.

Suzanne Driessen is a University of Minnesota Extension educator specializing in food safety.

At the front lines of interdisciplinary inquiry

By Gayla Marty

Brief, Nov. 14, 2007

Professor Ray Newman spoke during the Q&A at the first assembly of the U's Network of Interdisciplinary Initiatives, held in April.

When Ray Newman studies a new aquatic species entering a Minnesota river or lake, he's in deep water in more ways than one. Though he's a professor in the Department of Fisheries, Wildlife, and Conservation Biology, Newman works with colleagues in many other departments--civil engineering, ecology, entomology, plant biology, and the Natural Resources Research Institute in Duluth, to name a few.

Newman is the principal investigator for a five-year, $2.99 million grant from the National Science Foundation to two U colleges to fund a training program and a new freestanding graduate minor in risk analysis for introduced species and genotypes, approved by the Board of Regents in October. Up to 40 faculty members from 16 departments across the U will collaborate on research and courses in the program.

"Increasing globalization has made the need for studying introductions of new species and genotypes more urgent," says Newman. "Expertise from molecular biology to aerospace science will be used to better predict and manage the risks associated with these species."

That urgency translates to the need to collaborate with colleagues in different fields--not only biology and aerospace science but evolution, ecology, economics, forestry, policy, social science, and statistics--which isn't always easy. Newman has worked around and overcome significant challenges to accomplish his interdisciplinary work.

"Some challenges you could describe as bureaucratic," he says. "But there are also differences of vocabulary, worldview, and approaches to problems."

Through his work with the cross-campus interdisciplinary graduate program in water resources science and the new training program, Newman also has learned a lot that could help others across the University--and at other universities, as well--to overcome similar challenges.

That's why Newman is one of nearly 200 University faculty, staff, and postdoctoral fellows across the U who have joined the Network of Interdisciplinary Initiatives (NII), established last spring by the Graduate School with support from the Provost's Interdisciplinary Team.

"It's useful to get a variety of perspectives," says Newman. "Challenges in applied sciences, for example, are different from those in other areas--it's eye-opening."

The second NII assembly will be held **Monday, Nov. 19, from 3 to 5 p.m.**, in the Mississippi Room, Coffman Memorial Union, on the Twin Cities campus, and in 173 Kirby Plaza on the Duluth campus, connected by ITV.

"The network is all about collaboration," says Vicki Field, director of the Graduate School's Office of Interdisciplinary Initiatives, which staffs the NII. "If you're a faculty member involved in an interdisciplinary area for whom something is working really well or who is being held back, the network is an opportunity to be involved in affecting policy and sharing best practices."

In April, when the NII assembled for the first time in Coffman Union on the Twin Cities campus, connected by ITV to 173 Kirby Plaza on the Duluth campus, nearly a hundred individuals engaged with interdisciplinary work attended.

More than a dozen people rose to speak about issues they want the network to address and to voice concerns--from logistics (How will the network communicate?) to finances (How can we draw talent with hiring and budget cycles out of sync?) to philosophy (What about interdisciplinary work with people outside of this university--and outside the academy?).

"We don't have any big plan," vice provost and Graduate School dean Gail Dubrow told the assembly in April. "You tell us."

Dubrow played a leading role in organizing the NII based on her experience creating a similar network at the University of Washington.

"Members of the NII work at the front lines of interdisciplinary teaching, learning, and research," says Dubrow. "They are poised to identify the specific policies and practices that impede the pursuit of knowledge across disciplines."

Dubrow believes the NII will move the University of Minnesota forward by translating persistent complaints about institutional barriers into an "agenda for transformation" as a networking and advocacy organization.

A key to success

"Interdisciplinary" emerged as a key word from strategic planning task forces of 2004 through 2006. The University's ability to respond quickly to high priority problems and issues from disease to climate change will depend on excelling in interdisciplinary scholarship...and so will the University's ability to become one of the top three public research universities in the world.

In early 2006, senior vice president and provost Tom Sullivan formed the Provost's Interdisciplinary Team to facilitate work across the institution; it has included Dubrow, vice president for research Tim Mulcahy, vice provost and dean for undergraduate education Craig Swan, and assistant vice provost Jeanie Taylor. The University has also responded by updating regents policy related to interdisciplinary activity.

Within the Office of the Vice President for Research, Collaborative Research Services provides support to faculty to facilitate interdisciplinary activities. Services include support for large grant proposals, start-up assistance for large grant awards, and opportunities for faculty to connect and network.

In the Graduate School, the Office of Interdisciplinary Initiatives (OII) was created to lead in developing institutional policies and programs that foster graduate faculty and students' interdisciplinary inquiry. The fledgling office is staffed by a director--Field--and assistant director--Char Voight--to support interdisciplinary work across the U. Its broad goals are to promote best practices for working effectively across disciplines; to significantly improve the University's ability to conduct interdisciplinary research, scholarship, and creative work; and to provide leading interdisciplinary graduate education and training.

Cooperating the way to the top

The University of Minnesota is hardly alone in recognizing and responding to the needs of interdisciplinary research, teaching, and engagement--in fact, it's ahead of peer institutions in key areas.

In May, senior vice president and provost Tom Sullivan announced the University of Minnesota's leadership of the new Consortium on Fostering Interdisciplinary Inquiry. The national consortium, led by Dubrow with the Provost's Interdisciplinary Team, brings together top public and private research universities *(see box)* to identify issues and questions related to interdisciplinary inquiry that will form the basis for institutional self-studies conducted by all 10 members of the consortium. The University of Minnesota is taking the lead in developing the self-study instrument and analyzing and reporting the findings.

In fall 2008, the University will host a conference of consortium members to share findings from the self-studies and to identify innovative practices in eight areas that include development, educational programs, faculty affairs, design of academic buildings, and other themes.

In Dubrow's vision of the University of Minnesota's rise to the top, there are "no losers, only winners" who benefit from a shared knowledge of the best practices in higher education.

"It's what I've been calling cooperating our way to the top," says Dubrow. "The length of our drive to join the ranks of the top research universities may be shortened considerably by entering into cooperative rather than competitive relationships with institutions we most admire. We all stand to benefit from the innovative approaches to fostering interdisciplinary activity that this study generates."

Consortium on Fostering Interdisciplinary Inquiry member institutions

Brown University
Duke University
U of California/Berkeley
U of Illinois/Urbana-Champaign
U of Michigan
U of Minnesota
U of North Carolina/Chapel Hill
U of Pennsylvania
U of Washington
U of Wisconsin

Putting pathogens in their place

A new quarantine facility will get a jump on plant diseases before they strike Minnesota

By Deane Morrison

November 9, 2007

Zhishan Wu, quarantine officer for the new facility, looks forward to taking on some of the world's most devastating plant diseases.

To learn more about the new facility, watch the News Service video.

The best way to keep highly infectious crop diseases out of Minnesota is to bring them into Minnesota. Bring them, that is, into the new Plant Pathology Containment Facility on the Twin Cities campus, which soon will quarantine crop-crippling pathogens that haven't yet arrived in Minnesota on their own. Inside the facility, which opened this week, researchers will study the pathogens and search for ways to manage the diseases they cause. It's all about giving researchers and farmers the tools to minimize the impact of pathogens before they arrive or become established in Minnesota or other locations. If licensed next year by the USDA Animal and Plant Health Inspection Service, the facility will open for business under joint operation by the University of Minnesota and the Minnesota Department of Agriculture (MDA). "We've looked forward to this new facility for a long time," says Zhishan Wu, an MDA scientist and University adjunct assistant professor of emtomology who will be the quarantine officer for the building. "We have a couple of research programs waiting.They will deal with the pathogens Asian soybean rust, sudden oak death, and stem rust." The $6 million facility is the only public one of its kind in the Midwest. Three others currently operate in the United States--in Maryland, Florida and Hawaii. Built with funding from the Minnesota Legislature, the University, MDA, and the USDA Forest Service, the plant pathology facility was also championed by state farmers, notably member of the Minnesota Soybean Growers Association. "This is a perfect example of our land-grant mission to work with different sectors of the economy to enhance our quality of life," says R. Timothy Mulcahy, the University's vice president for research. "This is an important first for us with respect to working with diseases that have devastating economic effects on agriculture in the state and the world."

Playground for pathogens

With more and more land being taken for agriculture worldwide, plus frequent intercontinental travel, our planet is becoming a playground for pathogens. For example, Asian soybean rust, a fungal infection, spread from Asia and Africa across the Atlantic Ocean to South America. Its spores arrived in the southern United States in 2004, blown in from Brazil by hurricanes. Another reason why centers for studying exotic pathogens are crucial is that evolution is turning some pathogens into greater threats than they used to be. "Wheat grown in the United States is vulnerable to a new race of stem rust pathogen," says Carol Ishimaru, head of the University's Department of Plant Pathology. "The genetic resistance [of wheat plants to rust] has just run out. It had lasted since Norman Borlaug's work in the 1960s." Borlaug, a legendary plant breeder and Nobel Peace Prize-winning alumnus of the University, is keenly interested in the work of the facility, she adds. Worldwide, plant diseases destroy between 9 and 20 percent of crops, Ishimaru says. Much work to defeat the diseases, especially stem rust infections of small grains, involves researchers from around the world because developing countries are hardest hit.

"Wheat grown in the United States is vulnerable to a new race of stem rust pathogen," says Carol Ishimaru, head of the University's Department of Plant Pathology. "The genetic resistance [of wheat plants to rust] has just run out."

"New sources of resistance genes, in wheat and barley especially, could help farmers from the United States to Kenya," says Ishimaru.

Where negative is nice

The new building is the final piece of the $24 million Plant Growth Facilities complex on the St. Paul campus. The complex also includes greenhouses and an Insect Quarantine Facility for the study of insect pests and means to control them. The insect facility, which opened in 2003 and holds a slightly lower biosecurity classification than the new building, is connected to the plant pathology facility by a common entrance. The plant containment facility has several design elements to control the movements of fungi, bacteria, viruses, and other plant pathogens. By entering through the insect facility, researchers will pass through its security and air filtration systems before they get to the higher-security plant pathology building. Once there, they will trade their clothes for disposable duds before entering work spaces. The work spaces include two greenhouses, an inoculation room for placing pathogenic spores on experimental plants, a very humid "misting room" for germinating the spores, and two growth chambers where lighting and other conditions can be controlled. All these spaces will be subject to negative air pressure to keep pathogens from blowing outside. The air will be circulated through top-quality filters. When leaving the facility, researchers will shed their disposable clothes and shower before donning their street clothes. Water waste leaving the building will first be heated to 250 degrees to kill any organisms, and trash will go through a high-heat, high-pressure process shared with the insect facility. The basement--a plumber's paradise of pipes, water tanks, and air ducts--will be accessible through an outside door so that maintenance and service workers can enter without going near the containment areas. The plant pathology facility, along with its sister research sites, is expected to draw scientists from the University, MDA, the Minnesota Department of Natural Resources, USDA and the USDA Forest Service, as well as from institutions around the world.

Also on the front lines

The Twin Cities campus will soon have several other highly biosecure facilities to study diseases. The Veterinary Diagnostic Laboratory is about to open a necropsy facility to investigate outbreaks of highly pathogenic avian influenza ("bird flu") and other diseases transmissible from nonhuman animals to people. The Institute for Therapeutics Discovery and Development will soon open a facility to screen about 250,000 compounds for activity against various disease agents. In December 2009, the Medical Biosciences building will open three labs suitable for procedures that require a high level of biosecurity, such as culturing organisms or cells and infecting animal models of diseases.

Astrid at 100

U conference will honor the creator of Pippi Longstocking

By Kelly O'Brien and Christopher James

November 9, 2007

Astrid Lindgren was the best known and most successful Swedish writer of the 20th century. The U will honor the creator of Pippi Longstocking at a conference on Wednesday, November 14.

Troublemaker. Free spirit. Outlier. She's the most popular girl to come out of Sweden since Greta Garbo. We're talking, of course, about Pippi Longstocking. The girl with the red braids and lost-at-sea father was the creation of Astrid Lindgren, the best known and most successful Swedish writer of the 20th century. On the centennial of Lindgren's birth, the University Libraries and Department of German, Scandinavian and Dutch are sponsoring "A Woman for All Seasons: Astrid Lindgren at 100," a conference on November 14 that will look at her work from scholarly and artistic perspectives. The conference is free and open to the public.

The University of Minnesota is the perfect place for a conference on Astrid Lindgren. It's not just the Minnesota-Scandinavian connection, although that doesn't hurt, it's also that the University Libraries' Children's Literature Research Collections (CLRC) house original material from thousands of children's authors, including Lindgren.

Through her work, she raised the general status of children's literature throughout the world. In fact, the Astrid Lindgren Memorial Award, at about $700,000, is the world's largest prize for children's and youth literature.

One example from the Lindgren collection is a handwritten manuscript that the author herself donated to the CLRC. The manuscript--early notes on what would become Lindgren's book Ronia, the Robber's Daughter--is in Swedish and in shorthand. "Astrid Lindgren's early job was as a secretary, so she put her secretarial skills to work with her own creative writing, " says CLRC curator Karen Hoyle. "This manuscript is a glimpse of how she worked. It's her first thinking about the book."

Lindgren's contribution to children's literature in general cannot be overstated. Through her work, she raised the general status of children's literature throughout the world. In fact, the Astrid Lindgren Memorial Award, at about $700,000, is the world's largest prize for children's and youth literature.

Like her creator, Pippi Longstocking has enjoyed enduring popularity, with movies, dolls, and tickets to theatrical adaptations continuing to sell. But the source of Pippi's popularity is, surprisingly, the subject of academic discussion. Reflecting on a conference in Sweden earlier this year, Swedish children's literature scholar Maria Nikolajeva argues that Pippi Longstocking's popularity has more to do with film adaptations than with people actually reading her books. "Even most Swedes today only know Pippi from movies," she says.

Poul Houe, a professor of Scandinavian studies in the Department of German, Scandinavian and Dutch, says that despite the scholarly discussions, Pippi's legacy endures for historical and timeless reasons. "She was a mischievous rebel and an equally endearing and irritating anarchist at a time when subdued children were the societal ideal and norm," he explains. "She was empowering to watch for children (and adults) who were sitting timidly on the sidelines but were at least not prevented from enjoying this powerful girl acting out their wildest dreams."

Wednesday's conference will include sessions for Pippi and Astrid Lindgren's adult fans of all kinds, with sessions on the art in Lindgren's work and adapting Lindgren's work to the stage at the Children's Theatre Company. Tiina Nunnally, translator of the latest edition of Pippi Longstocking, will also speak and sign copies of her book. For more information or to register, go to the conference Web site.

U celebrates student veterans

First-ever appreciation event highlights veterans' service to our nation

By Rick Moore

November 13, 2007; updated November 14

View a video taken at Student Veterans Appreciation Day in Flash or Quicktime.

On Wednesday, November 14, the U held its first-ever Student Veterans Appreciation Day to honor its student veterans' service and sacrifice to the United States.

The celebration--which was capped off by an F-16 flyover--took place from 11:30 a.m. to 1:15 p.m. on Northrop plaza on the Twin Cities campus in Minneapolis. A few hundred people braved the blustery winds and occasional snow flurries to attend the event, including veterans and their family members, faculty, staff, students, and the general public.

Mary Koskan, director of One Stop Student Services at the U, said the day was designed to honor student veterans at the U "for their patriotism and willingness to serve in the military for their country."

The ROTC Joint-Service Color Guard and the Minnesota Marching Band kicked off the event, and speakers included Board of Regents chair Patricia Simmons, President Robert Bruininks, Minnesota Department of Veteran Affairs commissioner Clark Dyrud, Regent Dean Johnson, and U student veteran Aaron Ledebuhr.

Simmons pointed out that freedom is at the core of activities at universities, and thanked the veterans for their role in keeping that intact. "We have academic freedom [and] we have freedom of expression because of the commitment from citizens like you."

The event also included the unveiling of plans and sketches for a veterans memorial that will be part of the new on-campus football stadium.

The tribute will be located at the open end of the stadium near the main entrance. It will include a 15-by-25-foot flag atop a 100-foot flagpole, and a 72-foot-long curved wall made of brick and carved stone. On the inside of the wall will be a staging area for ceremonies and other veterans activities.

The stadium veteran's tribute plan was developed by an advisory group of veterans and U officials who were charged by Bruininks in 2006 with developing a way to continue the tradition of the old Memorial Stadium by honoring veterans in the new stadium.

"This is going to be something that we will all be very, very proud of," said Denny Schulstad, retired Air Force brigadier general and co-chair of the advisory committee.

(Images of the Minnesota Veterans Tribute can be viewed at tribute photos.)

In addition, Athletics Director Joel Maturi announced that the opponent for the inaugural football game in the new stadium (September 12, 2009) will be the U.S. Air Force Academy.

Student Veterans Appreciation Day was sponsored by Comfort for Courage, Coca-Cola Beverage Partnership, the Office for Student Affairs, One Stop Student Services, TCF Bank, and University Dining Services.

'Going beyond the yellow ribbon'

At a Board of Regents meeting in September, Koskan talked about the increase in veterans coming to the University to continue their education, and the need to continue to increase the U's support services for those veterans.

During the spring 2007 semester, the Twin Cities campus had 531 students certified as veterans, up 24 percent from two years earlier. The Duluth campus had 117 veterans, Crookston 24, and Morris 20.

Koskan pointed out that all veterans, whether they have seen combat or not, face a major transition when switching from a military life to a collegiate life, which can include issues such as alienation, changes in relationships, mental and physical health concerns, and the need to process a different perspective on the world.

The University's One Stop Student Services, partially in response to suggestions made by student veterans, has implemented a number of new initiatives:

- established the One Stop Veterans Office in Fraser Hall on the Twin Cities campus
- developed a special Veterans Orientation Program to provide introductory information to student veterans
- assembled a Veterans Advisory Committee with representatives from around campus
- created a veteran reintegration training program for University faculty and staff

Veterans Transition Center

Another service at the University is the Veterans Transition Center (VTC), which provides a place for student veterans to meet, share stories, and relax. The VTC is operated by Comfort for Courage, a student-led nonprofit veterans support group. The center, currently housed in Room 15 of Eddy Hall, offers free pizza and soda every Friday from 11 a.m. to 1 p.m. and breakfast on Mondays at 8 a.m.

This past Friday, about a dozen students were lingering over leftover pizza at about 12:30 p.m. and welcomed a curious visitor. Ledebuhr, one of the scheduled speakers for Wednesday's program, pointed out that the climate for veterans has changed significantly since he started at the U four years ago. "[Comfort for Courage] didn't exist at the time, so there weren't other vets I could easily find," he says. About two years later the VTC was formed.

"Since then, we've been trying to get the word out to student veterans on campus that we're here to serve them and build a support network," says Ledebuhr, who notes that the VTC hopes to soon move into a larger space on campus. "I foresee the group growing even more when we have [more] space for them to stop by."

Justin Riechers, another student veteran who is in his third year at the U, says he had already become friends with some veterans before the VTC was formed, and that having a strong support network can be critical for transitioning students.

Says Riechers: "For some people, it's hard for them to stay in college if they don't have a good couple of buddies to hang out with."

Read more about the VTC and student Jeremiah Peterson's adjustment to campus life in From Iraq to the classroom.

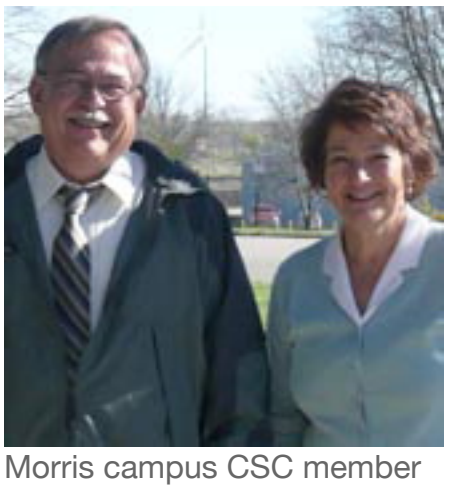
Contains information from the University News Service

Morris hosts the CSC

By Susan Cable

Brief, Nov. 14, 2007

The Civil Service Committee met at the LaFave House in Morris Oct. 25. The committee holds one meeting on a campus other than the Twin Cities each year. About 45 civil service staff members work at the Morris campus.



Morris campus CSC member **Karen Ellis**, right, and associate vice chancellor for plant services **Lowell Rasmussen** hosted the CSC visit.

Chancellor Jacqueline Johnson, the fifth chancellor and first woman to hold the position at Morris, welcomed the committee and shared information about the mission of the campus, which is committed to research, extracurricular programs, and services, with a strong sense of community.

Johnson also provided some history of the 118-year-old campus, which initially was an American Indian boarding school, first administered by the Catholic Church and later the U.S. Government. It was an agricultural high school until it became a liberal arts college in 1960. UMM is now one of the top liberal arts colleges in the nation, with an enrollment of about 1,900 students and more than 145 teaching faculty.

Meeting highlights

The meeting included reports from chair Cathy Marquardt and the other officers as well as subcommittee chairs. The committee voted to appoint Don Cavalier, director of the Career and Counseling Department at Crookston, as the civil service representative to the All-University Honors Committee.

Vice-chair Susan Cable reported on work with the U Senate office and Senate Library Committee to include a civil service representative on the committee. Susan Rose provided updates on the civil service classification and compensation task force. Rose and Nancy Fulton, who serve on the Compensation-Benefits subcommittee, reported on on-going discussions with the Office of Human Resources about a possible lump-sum payment. Legislative Network chair Patrick Davern gave a summary report and will provide more information as the legislative session approaches. Timelines for Civil Service Rules changes were provided by Lori Nicol.

Lunch and a campus tour

After the meeting business was completed, a lovely luncheon was served in the La Fave House, which has a history of its own. Donated to the University by the La Fave family--longtime activists in the West Central Educational Development Assoication--in 1999, it has been remodeled with guest quarters as well as meeting rooms. A staff person lives in the apartment above and manages services for meetings or visitors.

The CSC toured the campus, including the new Regional Fitness Center, shared by staff, students, and the community. The center has recreation and competition pools, a cardiovascular room, and an indoor track. Equipment rentals are available and swimming lessons, fitness programs, and camps provided. Cooperative efforts between the community and the campus became instrumental in the development of the new football stadium, an example of the strong partnership between campus and community.

Lowell Rasmussen, associate vice chancellor for plant services, provided a brief presentation about UMM's green initiatives, including how biomass will convert to gas to provide heat for campus buildings. A wind turbine supplies more than 50 percent of campus electricity needs. Once the biomass plant is completed, it will provide up to 80 percent of campus heating and cooling needs.

Morris CSC member Karen Ellis, a program associate in continuing education and summer session at UMM, coordinated the visit and meeting accommodations. Ellis also chairs the CSC Senate Delegations Subcomittee.

Susan Cable is vice-chair of the Civil Service Committee and an administrative professional in the Office of Human Resources.

Hi-tech helmets help U monitor concussions

By Rick Moore

November 13, 2007

For football players, a concussion is an insidious and sometimes unnoticed injury that happens frequently enough to be of major concern. Some blows to the head in games--and even in practices--arrive with the force of a car crash, and they have the potential to leave lingering effects.

Studies indicate that college players who have suffered one concussion may be more likely to suffer subsequent concussions, and sustaining repeated concussions could make players more prone to neurological shortcomings later in life.

In the National Football League, concussions have even halted careers. Former Dallas Cowboys quarterback Troy Aikman's 10th concussion sent him to the sideline for the last time in 2000, and Miami Dolphins quarterback Trent Green is contemplating retirement after recently suffering a second major concussion in 13 months.

This year the Gopher football team has been equipped with a tool to help in the fight against concussions. The University is one of 10 colleges in the nation (including just three other Big Ten teams) who are using helmets embedded with sensors that detect hits capable of causing a concussion. Sideline equipment records the data and sends a message to the trainers, who are then able to check on the health of the affected player.

A HIT with athletics staff

The helmets are made by the Riddell sports company and use the Head Impact Telemetry (HIT) System. Six sensors called accelerometers, along with a battery, are embedded into a horseshoe-shaped pad that fits into the top of each helmet. A continuous feed of data to a laptop computer on the sideline shows each contact to the helmet, exactly when and where the contact occurred, and the force of the hit. The apparatus is used in both practices and games.

About three dozen Gopher football players are using the special Riddell helmets this year, and that number will grow to about 70 next year, according to equipment manager Darin Kerns, who worked in the NFL for 18 years (including stints as equipment manager with the Kansas City Chiefs and Tampa Bay Buccaneers) and helped persuade the athletics department to purchase the system.

According to head trainer Ed Lochrie, the sensors measure impacts by their G-forces. "If we get a hit over a certain amount of Gs, we go over and check out the person and see if they're okay," he says, adding that the sensors have been detecting one or two potential concussion-causing hits per day on days where there is heavy contact.

"I think that for those of us in athletic medicine, any tool that will give us additional information to identify someone who has a concussion is a good thing," Lochrie says. "We still have to do the evaluation, but it helps us identify people we might [otherwise] miss."

He says that the training staff has "a lot of tools" to determine whether a player has received a concussion, and an evaluation can include memory and balance tests, other physical tests, and a computer-based exam later on.

As of this writing, there had only been four concussions sustained by Gopher football players this season, which "is a lot less than normal for us," Lochrie says.

In this case, no news is good news, and both Lochrie and Kerns seem pleased to have another means at their disposal to ensure the safety of the Gophers football team.

"It's not a prevention tool," Kerns notes. "It's more of a monitoring tool, which is just as important."

"I think that for those of us in athletic medicine, any tool that will give us additional information to identify someone who has a concussion is a good thing," Lochrie adds. "We still have to do the evaluation, but it helps us identify people we might [otherwise] miss."

Text messaging debuts for emergency communications

Text messaging debuts for emergency communications

By Martha Coventry

November 15, 2007

About 90 percent of U.S. college students have cell phones, and most use them to send and receive text messages.

The Virginia Tech shootings jump-started emergency communications plans at universities all over the country. Schools scrambled to work with existing technologies, and students were changing the way they used those technologies just as fast.

For example, sending out an emergency message via e-mail might have been effective a short time ago, but now students--though they may be glued to Facebook--often don't check their university e-mail accounts for days or weeks.

The University of Minnesota has the common arsenal of emergency communications methods--outdoor sirens, fire alarms, broadcast voice mails and e-mails, pagers, and a radio that emits a tone and message in each department. All are useful in certain situations and provide overall redundancy.

Now the University has made text messaging a major part of its emergency notification system, adding one more way to potentially reach every member of the U as quickly as possible. The new TXT-U system is for students, faculty, and staff and will be used only in the case of an imminent threat or a forced school closing. TXT-U is set to debut on the Twin Cities campus November 16, and the U will implement it on the Crookston, Morris, and Rochester campuses in the near future. The Duluth campus has its own system.

Along with its near ubiquity, text messaging uses less bandwidth than other technologies, so it becomes a smart choice during an emergency that might knock out other modes of communication.

"The safety and security of the University community is our top priority," says Vice President for University Services Kathleen O'Brien. "Text messaging is a quick way to reach people, particularly when time is of the essence. It's also one of the most common ways our students communicate with each other, making it another important way for us to notify the campus community about emergencies."

Why use text messaging?

Most of the cell phones you see glued to the ears of more than 90 percent of U.S. college students are also used to send text-based messages across the globe (and across the classroom) and at all hours. Text messaging has become so common and widespread that it has its very own aliment: "text-messaging thumb." All this popularity makes it an ideal vehicle for emergency messaging.

And along with its near ubiquity, text messaging uses less bandwidth than other technologies, so it becomes a smart choice during an emergency that might knock out other modes of communication. As Tulane University found out during Hurricane Katrina, traditional forms of communication, including telephones, cell phones, and computers, can go down in a disaster. In the end, the only thing that worked for Tulane was text messaging.

Sign up now

In order for text messaging to be effective in an emergency at the University, people have to register their cell phone numbers. It's a simple process, and the U is offering to enter any staff, faculty member, or student who registers by December 15 into a drawing for a free iPod touch.

There is no charge to register for TXT-U; however, your cell phone carrier might charge you to receive text messages, so check your cell phone plan.

To learn more about the University's use of emergency text messaging and to register your cell phone--if you're staff, faculty, or a student--see the TXT-U Web site.

New information on Wikipedia

Much of the content for online encyclopedia is generated by a small percentage of people; 'vandalism' is relatively rare

By Rick Moore

November 16, 2007

While there are certainly more extensive and creatively written sources of information about the University of Minnesota (see www.umn.edu) you can even find out a thing or two about the world-class research university on Wikipedia.

For six years, it's been an online information source for a new generation--an encyclopedia by the people and for the people. In fact, Wikipedia has grown at a rate few might have imagined. As of September, there were nearly 8.3 million articles in 253 languages available to users worldwide via the Web (according to Wikipedia, of course). If a newcomer to Minneapolis were looking for the lowdown on anything from Bob Dylan to Hiawatha to St. Anthony Falls, information is just a few keystrokes away.

The site's articles are written collaboratively by volunteers from around the world, and for the most part, entries can be edited by anyone with access to the Internet.

Some ongoing University of Minnesota research has revealed some interesting facts about Wikipedia that may fly in the face of some commonly held perceptions and perhaps misconceptions. According to computer science and engineering professor Loren Terveen, although anyone can make additions and changes to a Wikipedia article, a relatively small number of people are making the bulk of the contributions. Only one-tenth of 1 percent of all the people who edit Wikipedia are responsible for nearly half the site's content.

"The good aspect [of that] is you need to have people who are really committed--people who learn the rules [of writing encyclopedia entries]," says Terveen. "On the other hand, the more people you have in a system, you could say the more robust the system is, because if people leave, you don't lose-you still have people who can step up and fill their shoes."

By the numbers

According to its site, the name Wikipedia's is a portmanteau (see Wikipedia entry for "portmanteau") of the words wiki (a type of collaborative website) and encyclopedia. It is operated by the not-for-profit Wikipedia Foundation.

You think your Web site gets decent traffic? Check out these numbers: Depending on time of day, Wikipedia receives between 10,000 and 35,000 page requests per second, and has more than 100 servers set up to handle the traffic. It currently ranks among the top 10 most-visited Web sites worldwide. As of November 3, 2007, the English edition of Wikipedia had more than 2,075,000 articles consisting of about 902 million words.

The other major finding of the research should allay some fears that people have about the site--that entries are often the victim of "vandalism, where people come in and they modify pages maliciously," he says.

The study estimated a probability of less than one-half of 1 percent (0.0037) that a viewer would find an article to be in a damaged or inaccurate state. The chances of encountering vandalism on a typical page view increased over time, although the researchers identified a break in the trend around June 2006, late in the study period. They attributed this to the increased use of anti-vandalism bots.

Terveen says that Wikipedia, in general, is very resistant to vandalism. "What we were able to do is show that over 40 percent of all incidents of vandalism were fixed within one page view," he says. "That means that before more than one person could have been affected by that, somebody fixed it."

The results of the study by computer science and engineering professors Terveen and John Riedl and doctoral students Reid Priedhorsky (project lead), Jilin Chen, Tony Lamm, and Katie Panciera are reported in the paper, "Creating, Destroying and Restoring Value in Wikipedia." The paper was published in the Association for Computing Machinery (ACM) Group 2007 Conference proceedings.

And, of course, the gist of the results has been incorporated into the current Wikipedia article on Wikipedia.

Putting America on the map

Exhibit at U's James Ford Bell Library features 500-year-old world map

By Pauline Oo

November 20, 2007

The printed area of the world in the framed gores map is shown on 12 series of shapes (a.k.a gores) that allow it to be formed into a 4.5 inch globe. Cartographer Martin Waldseem?ller assigned the word "America" to a sliver of land barely known to exist at the time. (See the second gore on the right in the "larger image.")

In 1507, German cartographer Martin Waldseem?ller made history. He created two maps that outline the continents of the world as we know them today: a small map with 12 series of shapes, called gores, designed to be cut out and pasted onto a sphere, and a 12-panel wall map. Through December 31, you can view the 9.5-by-15-inch gores map--estimated to be worth more than $1 million--at the University of Minnesota's James Ford Bell Library on the Twin Cities campus.

The map, part of the U's permanent collections, is the centerpiece of "The Map That Named America, 1507-2007: An Anniversary Exhibition," which presents an array of documents related to Atlantic explorations of the 15th and 16th centuries. The documents include a first edition of *Cosmographiae Introductio* (the book printed to explain Waldseem?ller's map), a letter in Christopher Columbus's own handwriting to a Spanish queen, and astronomical tables for calculating planetary positions.

"[Waldseem?ller's] map is extraordinary because it is the first to include the word 'America,'" assigned to land that we now call South America, and the first to depict these newly discovered lands as separate from Asia," says Marguerite Ragnow, library curator. It's also the first map to project Earth using a full 360 degrees of latitude--as opposed to the hemispheric depiction that had become the norm--and to represent the Pacific Ocean as a separate body of water from the Atlantic.

Experts believe 1,000 copies of the gores map were originally produced, but only four are known to have survived. (The Library of Congress has the only surviving copy of the wall map.) Minnesota industrialist and U graduate James Ford Bell, also the founder of General Mills, bought a copy in 1954 for an undisclosed amount of money--and this is the map featured in the exhibit. (Bell donated his rare book and document collection, which included this map, to the U in the 1950s.) The three other copies of the map reside in European collections. One of those copies--the only one not on a complete sheet of paper, but rather, cut along its jagged edges--was auctioned at Christie's in London in 2005 for approximately $1 million. The Bell Library's map is printed from a single woodblock on watermarked paper and measures 15.35 by 9.44 inches. If cut and pasted on a sphere, it would form a globe about 4.5 inches in diameter.

"The 500th anniversary of the Waldseem?ller gores globe raises important questions," adds Ragnow. "For example, how has the meaning and connotation of the word 'America' changed in the 500 years since the creation of the map? What does 'America' mean today? The exhibit's emphasis on the map that named America brings the relevance of these issues into the 21st century."

The map was printed the year after Columbus's death, and it invokes the written accounts between 1497 and 1504 by Italian merchant Amerigo Vespucci, who deduced that the land to the west of Europe might be distinct and not the eastern coast of Asia, as Columbus thought. Waldseem?ller decided to label the new continent America, a name that stuck. Maps up to that point either had shown America as an eastern extension of Asia or had conveniently run the western edges off the maps, thus evading the question.

The Waldseem?ller map is one of the University of Minnesota's 30,000 rare documents kept in the vault of the Bell Library collection that focuses on pre-modern-era trade. Each night, during the exhibit, the map is returned to the vault, which has its own temperature and humidity controls--set at 65 degrees Fahrenheit, 50 percent relative humidity.

Go back in time: 2-for-1

The Waldseem?ller gores map is on display in the Bell Room, a reading room right out of the 16th century. The room has a combination of original architectural elements, reproductions, and period antiques, including four large stained-glass windows depicting English country life, a 200-pound two-tiered brass chandelier, and a stone fireplace complete with the legendary St. George and the dragon he slayed.

"The Map that Named America: 1507-2007" exhibit is free and open to the public. Souvenir mousepads ($5) and mugs ($9) are available. The gallery hours are Monday through Wednesday and Friday from 8:30 a.m. to 4:30 p.m. and Thursday from 8:30 a.m. to 8 p.m. The James Ford Bell Library is on the fourth floor of Wilson Library at 309 19th Ave. S., Minneapolis.

Survey measures health of college students

Study is first-ever comprehensive look at college students from all around the state

November 20, 2007

The health and well-being of young adults encompasses much more than just their use of tobacco, alcohol, and drugs. A report released last week by the University of Minnesota's Boynton Health Service reveals results from the state's first-ever comprehensive study of the health of college and university students.

The survey examined everything from mental health and obesity to financial health and sexual health. Among the findings: More than 27 percent of students surveyed have been diagnosed with a mental health illness at some point in their life; 15.7 percent have had the diagnosis in the last 12 months. And a significant amount of students (28.7 percent) reported excessive computer/Internet use, with 41.8 percent of those students indicating that computer use has affected their academic performance.

About 24,000 students from 14 Minnesota colleges and universities were randomly selected to participate in the 2007 College Student Health Survey Report, and nearly 10,000 returned the survey.

Ed Ehlinger, the director and chief health officer of the Boynton Health Service, said higher education leaders, state leaders, and the general public should pay attention to the findings and make the health of college students a priority.

"We really need to address college student health issues on a statewide basis and not just on an individual school basis," said Ehlinger, who added that the survey was designed to look at students in a more holistic way.

"The health of college students is important not only to the institutions they attend but also to the health of the state of Minnesota," Ehlinger said. "Good health helps students remain in school, and a college degree or certificate is an excellent predictor of better health and economic status throughout one's lifetime."

"We really need to address college student health issues on a statewide basis and not just on an individual school basis," said Ehlinger, who added that the survey was designed to look at students in a more holistic way.

Ehlinger outlined the report's overall findings during a press conference and health summit on Thursday, November 15. The following is a breakdown of some of the report's key findings:

Mental health

Results show that 27.1 percent of students surveyed have been diagnosed with a mental health illness within their lifetime, and 15.7 percent were diagnosed with a mental health illness in the last 12 months. On the Twin Cities campus, 25.1 percent reported being diagnosed with at least one mental health condition in their lifetime. At all of the schools, depression and anxiety were the two most frequently reported mental health diagnoses for students, both in their lifetime and for the last 12 months. Of all the students, 18.5 percent reported being diagnosed during their lifetime with depression; 13.3 percent were diagnosed with anxiety.

Physical activity/nutrition/obesity

Nearly two-fifths, or 38.5 percent, of all students surveyed fall within the overweight or obese/extremely obese categories. At the University of Minnesota, Twin Cities, 29.1 percent of those surveyed fall within the overweight or obese/extremely obese categories.

Excessive computer use is seen as new issue affecting student physical health. On the Twin Cities campus, 32.2 percent of students surveyed reported excessive computer/Internet use (compared to 28.7 percent for all students) and among this group, 41.9 percent indicated this activity impacted their academic performance.

Health insurance

Another key finding of the report is that 9.4 percent of all undergraduate students surveyed don't have health insurance. For students in the University of Minnesota system, that rate is 5.6 percent, compared with a 13.7 percent uninsured rate at non-U of M schools. On the Twin Cities campus, the uninsured rate for undergraduate students is 6.5 percent. Students in the 18- to 24-year-old range tend to have insurance, while students who are 25 to 29 years old are less likely to have it.

"We have a fairly low uninsured rate here in the University of Minnesota system, where students are required to carry insurance," Ehlinger said. "The higher uninsured rate throughout the rest of the schools makes the argument that a requirement for insurance coverage is a good thing for schools and for students."

The students who have insurance are more likely to go in for preventive health services and have fewer sick days.

"College students use health services on campus and in communities and when it comes to mental health services, students seek out assistance on campus," he added. "That tells us that colleges really do need to invest in on campus support services"

Financial health

Of students surveyed, 33.4 percent reported carrying some level of credit card debt over the past month, and 57.8 percent reported the debt as $1,000 or more. On the Twin Cities campus, 29 percent of students reported carrying some level of credit card debt and 59.9 percent said the debt is $1,000 per month or more.

"Students with greater than $1,000 of credit card debt tend to have higher rates of depression and have lower grade point averages," Ehlinger said.

Sexual violence

More than one in five (22.4 percent) female students reported experiencing a sexual assault in their lifetime, with 6.8 percent having been assaulted in the last 12 months. For male students, only 4.9 percent reported being sexually assaulted in their lifetime, and 1.9 percent within the past 12 months. Such assaults have lingering effects on students and their academic performance, Ehlinger said. Students who have been victims of sexual assault report higher rates of depression.

Sexual health

Of students surveyed, 77.6 percent reported having been sexually active in their lifetime, with 72.1 percent having been sexually active within the past 12 months. On the Twin Cities campus the rates are similar, with 77.1 percent having been sexually active in their lifetime and 71.7 percent within the past year. However, nearly four out of five (78.5 percent) students reported having no or one sexual partner within the last 12 months (77.8 percent for the Twin Cities campus).

"Students are pretty monogamous, according to the results, which contradicts the commonly held stereotype of students being promiscuous," Ehlinger said.

Alcohol

Alcohol use continues to be a concern for universities and colleges. Among students surveyed, 70.5 percent reported using alcohol in the last 30 days and 37.1 percent reported engaging in high-risk drinking within the past two weeks. At the Twin Cities campus, those rates are 74.3 percent and 36.5 percent, respectively. Illicit drug use among those surveyed is low, with 6.8 percent reporting the use of drugs. On the Twin Cities campus, that number was 7.1 percent.

Tobacco use

For students at all 14 schools, the current rate for tobacco use over the last 30 days was 25 percent. (Tobacco use includes smokeless tobacco.) On the Twin Cities campus, the tobacco use rate was 20.9 percent for students ages 18 to 24, with a daily use rate of 3.7 percent. Both rates are the lowest for Twin Cities students since data on tobacco was first collected in 1992.

All five University of Minnesota campuses were included in the survey group, along with the following schools: Alexandria Technical College, Anoka-Ramsey Community College, Lake Superior College, Minnesota State Community and Technical College, North Hennepin Community College, Northwest Technical College, Bemidji State University, Concordia College, and Minnesota State University Moorhead. For the Twin Cities campus, 2,920 students completed the survey out of 6,000 who were selected to participate.

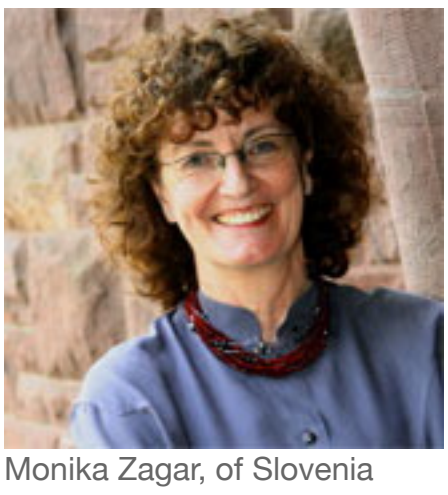
Along with Boynton, the study was funded Blue Cross/Blue Shield of Minnesota.

Beyond blue eyes

U professor challenges typical notions about Scandinavia

By Andi McDaniel

November 21, 2007



Monika Zagar, of Slovenia (former Yugoslavia), is drawn to Scandinavia because it shares a lot of good qualities--such as "equal access to social, medical, and cultural institutions"--with Yugoslavia.

Ask the average American what Scandinavians look like, and you're bound to get an answer like this: "Tall, blond, blue eyes." But ask associate professor Monika Zagar that question, and she'll tell you a more complicated story.

Zagar's latest research focuses on an aspect of Scandinavian culture that doesn't fit our stereotypes: the growing population of Scandinavian adoptees from non-European countries. With few children available for domestic adoption in Scandinavia, couples looking to adopt are turning to Asia or Central and South America. Over time, this trend has created a new generation of Nordic citizens who don't look anything like their peers.

It's a phenomenon that would hardly be news in the United States, given our long history of, and struggles with, multiculturalism. But despite Scandinavian countries' (Norway, Sweden, Denmark, Finland, and Iceland) long-standing reputation as model societies--with their brag-worthy comprehensive welfare system, universal health care, and women's rights--when it comes to multiculturalism, they're less adept. As a value, Scandinavian countries embrace equality, but in reality, they've had very little exposure to diversity.

It's for that reason that life as a foreign-born adoptee in a Scandinavian family can be tricky. For instance, explains Zagar, "because of their looks, many adoptees experience an extreme discrepancy between their feeling of being Danish or Norwegian and how their environment sees them, as being Guatemalan, Korean, Indian, or otherwise foreign." So, Zagar wonders, what does that mean for the adoptees' sense of Scandinavian identity? And what does it mean for Scandinavia's cultural identity?

While some scholars might look to historical documents or sociological surveys to answer those questions, Zagar is drawn to a different vessel for cultural interpretation: literature. In a class she taught in fall 2006 called Adoption Imagined and Experienced, as well as in her research, Zagar says she focuses "first on how adoption has been represented in literature historically, and second, what is being published right now by adoptive parents and adoptees." In fall 2007, she is teaching an honors course on the topic. The texts she chooses, as she explains in the class syllabus, "offer a portrait of a complex and ambiguous experience."

While Zagar's academic career has not always focused on adoption issues, it has always been driven by this question of ambiguity within the Scandinavian experience. So it's no wonder that her other research passion is a Scandinavian author whose work and personality have blurred the boldest of boundaries.

Going beyond the surface

Norwegian author Knut Hamsun, the subject of Zagar's book *Knut Hamsun: Imagining Race and Gender in Modernity*, which is slated to be published in 2008, owes his fame to two primary aspects of his life and career. The first is his literary prowess, based on the remarkable success of novels such as *Hunger,* published in 1890, and *The Growth of the Soil* (1917); the latter won him the Nobel Prize. He was, not surprisingly, one of the most admired living novelists of his time--until he became a well-documented supporter of the Nazi occupation of Norway during World War II. Expressions of this support included writing a series of pro-Fascist articles, praising Hitler, and giving his Nobel Prize medal to notorious Nazi propagandist Joseph Goebbels.

This contradiction--between the Hamsun worthy of admiration and the Hamsun who would eventually be tried for treason--fascinates Zagar. Her work examines the variety of ways that modern readers choose to either excuse Hamsun's behavior or condemn his work because of it. Some of Hamsun's apologists claim that he was old and unaware of what he was doing; others say he was a literary genius whose politics were immaterial. Still others refuse to teach his literary works at all. As a researcher and a teacher, though, Zagar isn't out to canonize Hamsun's accomplishments or decry his political fouls. She wants, instead, to use his work to understand the complex array of ideas and forces circulating in early and mid 20th century Scandinavia.

"I don't believe that art can be isolated from our social, political, economic, and cultural values," she says. "The relationship between literature and social experiences is complex and intricate, and one can easily slide into simplifications. So when I teach I try to emphasize precisely the process of how an author translates an everyday experience into a unique artistic expression."

The thread linking foreign-born adoptees and Nazi novelists may seem tenuous to the untrained eye but for Zagar, they both present opportunities for appreciating the complexity and ambiguity in Scandinavian culture. "Let's not forget that one of the goals of the Third Reich was racial purity, to get rid of diversity," she says. As a scholar, Zagar is driven to go beyond the surface of a given topic to discover the nuances that make it both complicated and uniquely human.

In the case of Hamsun, that means she's not willing to generate a tidy answer about whether we should or should not let him off the hook. As for the literature of adoptees in Scandinavia, it means she strives to discover what the Scandinavian experience means for citizens whose sense of cultural belonging isn't a taken-for-granted part of the package.

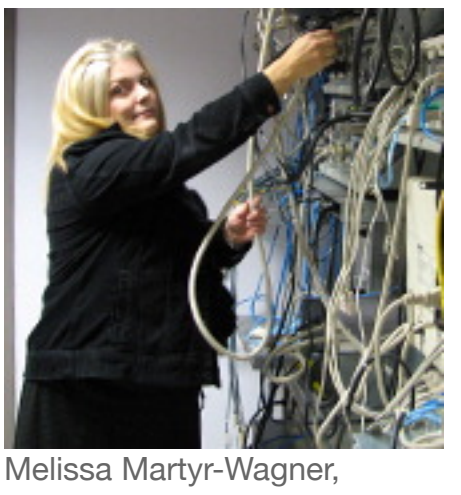
Reflecting upon how the debate about Hamsun's work has played out over the years, Zagar comments, "It's a fact of life that history gets rewritten." It's up to scholars like her to turn a statement like that into questions.

Everybody out of the pool

Twin Cities campus prepares for the modem pool's end

By Ben Neeser

Brief, Nov. 28, 2007



Melissa Martyr-Wagner, manager of Customer Service and Support at NTS, prepares to pull the plug on the Twin Cities campus modem pool.

When Twin Cities campus employee Karen Prince found out that she would no longer be able to access the Internet at home by dialing into the University's modem pool after Dec. 31, she knew it was time to start shopping around for an Internet service provider (ISP). She used the UMart Web site and purchased service from ipHouse.

"I went to UMart because I know that it provides discounts for University employees, so I thought it was a good place to start," says Prince, who works at Academic and Distributed Computing Services (ADCS). "I purchased from ipHouse because they're a local company and because I've heard that they provide excellent customer support."

Michael Dunham, also of ADCS, has been a modem pool user "since time immemorial." Dunham purchased service from Velocity, another vendor listed on the UMart site. He chose it mainly because of cost, but he also reports that "ordering went smoothly, and [Velocity] support service was swift."

Like Prince and Dunham, about 3,000 other employees on the Twin Cities campus will have to find a new ISP in the next month. That's because they're now using the Internet at home through the U modem pool, which provides up to 50 free hours of dial-up Internet access per month--but that's about to change. The Office of Information Technology (OIT) announced in July that it will decommission the modem pool Dec. 31.

In its heyday, more than 50,000 people used the modem pool every month. Now the number is around 3,000 and continues to drop.

In its heyday, more than 50,000 people used the modem pool every month. At peak times of the day, all 2,000 available telephone lines were full, and callers were often met with busy signals. That was in the mid to late '90s, when nearly everyone was "dialing up" to get on the Internet. Since then, DSL* and cable modems have largely supplanted dial-up as the access method of choice at home. The majority of Internet users are becoming more willing to spend the extra money for faster, more reliable service. The number of modem pool users continues to drop every month. Some of the holdouts are undoubtedly Minneapolis residents waiting for citywide broadband, which is scheduled to be complete in December.

In addition, the equipment that OIT uses to provide the modem pool service is aging. It needs to be replaced, which would cost thousands of dollars. With a declining user base, costs have become harder to justify. The campus will therefore join many other universities that have closed their modem pools.

OIT selected a number of outside vendors to provide residential, fee-based Internet service to U customers at a discounted rate. They looked for vendors that provide outstanding customer support, says Melissa Martyr-Wagner, manager of Customer Service and Support at Networking and Telecommunications Services (NTS). Cost and availability were also important considerations.

Users are free to purchase Internet service from whomever they wish. But OIT recommends looking first into the OIT-approved vendors to make sure you're getting the best deal. You can stick with a dial-up service, or you may choose to purchase cable modem or DSL service. Rather than forcing everyone to use the same service, the new Internet service providers' offerings allow students, faculty, staff, and alumni to select an affordable and well-maintained Internet service based on individual needs. Service can be purchased directly from the selected vendors through UMart.

Even though she'll miss the free service of the modem pool, Prince says she thinks the change is good. She upgraded to high-speed service when she made the switch because she wanted something faster if she was going to have to pay for it.

"I'll use my computer more now," she says. With the modem pool, "it was so hard to do anything. It was just so slow and clumsy."

Dunham laments that he really misses the cheery little songs that his modem made as it contacted the U's modem pool. But, he quickly adds, he "certainly like[s] the convenience of wireless at home and the increased speed."

The thousands of dollars that OIT saves can be more wisely invested in newer technologies--technologies that help bring the University closer to accomplishing its goal of becoming a top-three public research institution.

**Digital subscriber line.*

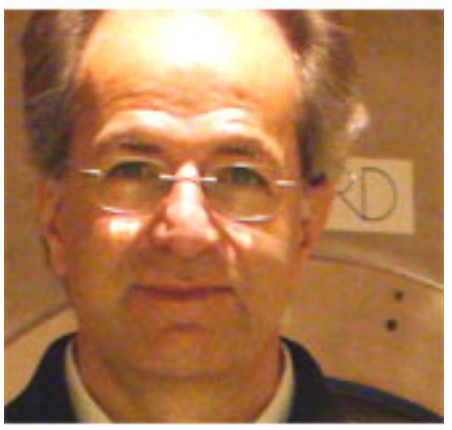
Ben Neeser is a technical writer at the Office of Information Technology.

Outstanding in his fields

Kamil Ugurbil, a pioneer in magnetic resonance imaging (MRI), is elected to national Institute of Medicine

By Nick Hanson

November 27, 2007



Today's brain imaging capabilities owe a lot to the University's Kamil Ugurbil, who was just elected to the national Institute of Medicine.

When Kamil Ugurbil joined the University of Minnesota in 1982, he didn't even have an office on the Twin Cities campus. Instead, the young assistant professor of biochemistry was stationed on the shores of Lake Minnetonka, at the Gray Freshwater Biological Institute. At the institute, established by the University for the study of lake biology, his skills with magnetic resonance spectroscopy were useful for monitoring metabolism in living bacteria. But Ugurbil didn't limit himself to the study of bacteria. Today he is the director and founder of the Center for Magnetic Resonance and Research (CMRR), a key interdisciplinary building used by researchers from nearly every medical field at the University. During the 25 years since Ugurbil arrived here, he and his colleagues in CMRR have developed techniques and machines that help researchers view the inside of human and nonhuman animal bodies through noninvasive, high-powered magnetic scans, and he has become a legend in the field of MRI. In October, Ugurbil was recognized for his achievements by being inducted into the Institute of Medicine. Established in 1970 by the National Academy of Sciences, IOM boasts a roster of the nation's top medical scientists. Getting into the IOM is no small feat. Members are elected through a highly selective process that recognizes people who have made major contributions to the advancement of the medical sciences, health care, and public health. Election is considered one of the highest honors in the fields of medicine and health. "It's a great honor to be recognized by your peers," Ugurbil said. "This is very important for a scientist. It's one of the most important rewards."

Stronger fields, higher stakes

After life on Lake Minnetonka, Ugurbil moved to campus and created the CMRR--first located near Coffman Union, now on the outskirts of campus--and began work with even more powerful magnets. "We were able to obtain fantastic information in the living animal," he says, "but we wanted to do [MRI] on humans."

"The scientific community has jumped into the game," Ugurbil says. "In the last two years, the type of instrumentation and research capability we pioneered has exploded."

And that's exactly what Ugurbil and his colleagues did. The University of Minnesota CMRR was one of the three institutions across the world to receive, for the first time, a 4 Tesla system capable of accommodating human scans at a time when MRI in humans was carried out at 1.5 Tesla. (The Tesla is a unit of magnetic field strength; a 5 Tesla magnet would have 100,000 times the strength of Earth's magnetic field.) Because high magnetic fields are not easy to work with, the consensus in the scientific field was that human imaging at 4 Tesla would be "scientific suicide," Ugurbil says. Sure enough, he and his CMRR colleagues were one of the two teams that independently and concurrently performed the first functional brain scan and presented images of the brain at work. This allowed researchers to better investigate how the normal brain functions and to use these methods to study mental illness. That monumental achievement thrust the CMRR into the spotlight. By 1993, CMRR housed a first-of-its-kind 9.4 Tesla system for animal research; in 1999 it received its first 7 Tesla human system, and it now possesses one of the world's three 9.4 Tesla systems for work with humans. The next step will be getting a 16.4 Tesla magnet for research animals. Ugurbil is confident the center will be home to one within the next year and a half. Looking back, Ugurbil says the University should be proud of its history in biomedical imaging. "We have developed a lot of the techniques and applied them to neurosciences, tumor biology, cardiac function, and others," he says. "It has been a very successful effort, and a very important one." Many of those whom Ugurbil mentored at the University of Minnesota are now at other universities and research institutions, practicing the techniques they learned and helped develop at CMRR. And the scientific field of magnetic resonance imaging continues to grow. "The scientific community has jumped into the game," Ugurbil says. "In the last two years, the type of instrumentation and research capability we pioneered has exploded." Yet there's no doubt, when it comes to neuroimaging, the University of Minnesota CMRR and Ugurbil are still the reigning kings.

The unusual biology of lichens

The unusual biology of lichens

By Jennifer Amie

November 27, 2007

Imke Schmitt is investigating the chemical compounds that give lichens such as this one their bright orange, red, or yellow colors.

Lichens are extraordinary organisms, at once commonplace and exotic. They grow all around us on ordinary trees and rocks and stone walls. But as symbionts that can survive the Earth's most desolate frontiers, they also seem the stuff of science fiction. In reality, lichens are complex organisms comprising a fungus and an alga living in symbiosis.

For biologist Imke Schmitt, the Bell Museum's new curator of lichens, these peculiar organisms have long been a source of fascination and a subject of study. Schmitt, who comes to the Bell Museum from the Field Museum in Chicago, has worked for many years on an international project aimed at finding out how different groups of lichens are related to each other. Using DNA samples, she has reconstructed the evolutionary history of several groups of lichens and is now researching the Pertusariales, a group with worldwide distribution.

"Lichens are not really a different group of organisms, but they are fungi that get their nutrients from their algal partners," explains Schmitt. Scientists refer to lichens as "lichenized fungi," and classify them according to the fungal partner, which gives the lichen its distinct form--crusty or leafy or shrub-like.

Scientists have identified more than 1,000 chemical compounds produced by lichens. "Some of these molecules haven't been found in any other organism," says Schmitt.

The fungi require a symbiont--an alga or, in some cases, a cyanobacterium--to survive. Algae can perform photosynthesis, and provide the fungal partner with essential nutrients. What the algae receive in return is less clear. It's likely that the symbiosis allows both partners to occupy a broader range of environments, but only the algae are capable of living on their own. Scientists have tried, with limited success, to replicate this complex symbiosis in the lab.

Most lichens cannot be cultivated; they exist only in nature. But they exist *everywhere* in nature. Lichens are most abundant in the tropics, but they can eke out a living even in the least hospitable conditions on Earth: the McMurdo dry valleys of Antarctica, where extreme cold temperatures and lack of precipitation are thought to resemble conditions on Mars.

"Lichens are better adapted than most other organisms to the harshest places," says Schmitt. Their survival skills include the ability to go dormant for decades or more when under stress.

Imke Schmitt

Because they require no soil for nutrition, have no roots, and glean minerals and moisture from dust and rain, lichens can thrive where most other plants cannot. They are considered pioneers, among the first organisms to colonize new territories such as volcanic islands.

Though their geographic expansion is unsurpassed, individual lichens grow extremely slowly--some species by only a millimeter a year. "Historic photos of Arctic expeditions show individual lichens that can still be found today," says Schmitt. "They're easily identifiable, because their forms have changed so little over time."

Having helped to establish a solid family tree for fungi, Schmitt is now turning her attention to the evolution of certain traits in lichens--in particular, their unique chemistry. Scientists have identified more than 1,000 chemical compounds produced by lichens. "Some of these molecules haven't been found in any other organism," says Schmitt.

The compounds serve many functions. Some produce the brilliant red, orange, and yellow hues found in lichens. Others are thought to aid in symbiosis, repel water, or function as a sunscreen. Some produce a bitter taste that may repel grazing animals. And others might prove useful to humans for their antibiotic properties.

Lichens have long been used to fight infection, but because they can't be cultivated, it is currently impossible to obtain large amounts of lichen compounds for testing and research. Schmitt, however, is working to identify the genes that produce various compounds, including those that may have antibiotic activity.

"If you know the genes," she says, "you could eventually put them into bacteria to produce a large amount of the compound, which may be useful in medicine."

New lichen samples must, as always, be obtained from nature, and in her new position at the Bell Museum Schmitt will continue to collect specimens and build the world-class lichenized fungi collection established by her predecessor, Cliff Wetmore.

"Lichens are difficult to study," Schmitt says, "but they have such an interesting biology and there is so much to be learned."

Republished from Imprint, *fall 2007, the magazine of the Bell Museum of Natural History.*

Clack relishes honor of being Minneapolis fire chief

By Rick Moore

From *M,* winter 2008

Minneapolis had officially named James Clack as fire chief less than five months before the Interstate 35W bridge disaster.

From behind his oversized mahogany desk in a corner office in City Hall, James Clack can look straight ahead at the portraits of the 14 people who have served before him as chief of the Minneapolis Fire Department, dating all the way back to 1868. Physically, he bears little resemblance to the first few chiefs--formal gents who sported handlebar mustaches and intense expressions. Clack, on the contrary, is clean-shaven and more on the casual side.

And he clearly isn't impressed with the big desk, or the power it suggests. ("It's too big; it's ridiculous, really," he joked.) Instead, he immediately points a visitor toward a cozy table in the corner overlooking the Government Plaza and shares his thoughts on getting a degree from the University of Minnesota, Crookston (UMC), on recently taking over the state's largest fire department, and on some historic events along the way.

Clack, 47, has spent much of his life in the comfort of rural surroundings. He was born in Crookston and grew up on a 160-acre plum farm in Fowler, California. He moved to Minnesota for his senior year in high school and less than a year later had his first date with wife-to-be Rose Marie Wilson at the Park Rapids High School senior prom.

Rose headed to the U's Twin Cities campus, and Clack decided to attend Crookston, in part because he was recruited to play basketball by coach Jim Sutherland. Back then the team played the regional community college circuit, traveling in two vans to towns like International Falls, Grand Rapids, and Devils Lake, North Dakota.

Clack graduated in 1980 with an associate's degree in applied science in general business administration.

> *"I'm so proud of all the firefighters who responded to the bridge collapse and did such a great job," Clack said. "It's just an honor to be a chief of this department at this time."*

"I had a great time [at UMC], and I had some great roommates," Clack said. "I remember Crookston as being really cold, too," especially the walk after practice "from the old gym to the chow hall.... Your hair would freeze solid."

With his business background, Clack harbored dreams of opening up a hardware store. But it was while working for the Army at Fort Snelling that his career aspirations changed. One evening, while sitting in the lobby of a health club in St. Louis Park waiting for his wife to emerge from the locker room, Clack picked up a recruitment brochure from the Minneapolis Fire Department.

"I was reading it more because I was bored, waiting for [Rose]," Clack recalled. But the brochure impressed him enough that he sent in the reply postcard, as did 2,800 other people. He survived a lottery that whittled the number to 800, then scored 39th best on the exam. That just left the interview, in which Clack--who still wasn't sure he even wanted the job--wasn't the slightest bit nervous.

And he thinks his degree from Crookston may have helped him get the job. "I was able to put that on my resume and use it in the interview, and I've got to believe that helped distance me from some of the other people they were interviewing."

Assuming control in a time of need

Clack began as a firefighter in February 1986 and spent five years at Station 11 in southeast Minneapolis on the hazardous materials team. In 1992 he was promoted to captain--where he moved from station to station--and in 1998 he was appointed deputy chief of personnel. "That's when I got down here to the office," he said, "and I've been here ever since."

In 2004 he became assistant chief, and this past March he was officially appointed chief after serving as acting chief for about a year.

Clack's time in charge has been relatively peaceful, with one notable exception--the Interstate 35W bridge collapse on Aug. 1. He was in Elk River with his daughter when he received the call, and his first thought was, "Well, a piece of it fell off--a guardrail or something." When he arrived at the scene 35 minutes later, he remembered "looking down there and thinking, 'This doesn't look real.' It was like a movie set or something."

For the first 24 hours, the Minneapolis Fire Department was the lead agency of the unified command team, making Clack the primary commander of the rescue effort. He said he was struck by how well people worked together, not just firefighters but also police, the sheriff's department, the Red Cross and even citizens. "I think the outcome is a testament to that," Clack said. "It's a disaster that is going to be studied by Homeland Security to figure out what we did *right.*"

He pointed out that there were 110 vehicles and 190 people on the bridge at the time of the collapse, according to the NTSB (National Transportation Safety Board). "We rescued 50 people in an hour and a half (the people who were brought in for treatment), and that's pretty impressive," he said. "It makes me have a lot of confidence that we can handle just about everything."

Clack feels he chose the best of careers for himself, but is quick to offer credit to everyone in the department.

"I'm so proud of all the firefighters who responded to the bridge collapse and did such a great job," he said. "It's just an honor to be a chief of this department at this time."

Down the road, when Clack slides his chair away from the big desk one last time, he envisions a return to his rural roots. He and Rose have a lot near Woman Lake by Longville, Minnesota, and although he loves his job and the city of Minneapolis, he'll be looking forward to the quiet of the north.

"I'm more of a rural guy; that's why I live out in Zimmerman (about 45 minutes northwest of Minneapolis)," Clack said. "That's where I feel at home--out in the country."

Capitol priorities

U takes 2008 Capital Request to legislature

By Rick Moore

From *M,* winter 2008; updated February 12, 2008

Patricia Simmons, chair of the Board of Regents, spoke to about 300 U supporters on January 23 at the annual Legislative Briefing. The event provided an overview of the University's capital request and encouraged attendees to share with legislators their story of how the U affects their lives.

The University of Minnesota has developed an ambitious plan to establish itself as a world leader. But the U's ability to carry out its mission--let alone fulfill its goal of becoming one of the top three public research universities--will be compromised without sustained and strategic investment in buildings and infrastructure.

That's why the University is taking its 2008 Capital Request, which totals $288.3 million, to the Minnesota State Legislature, whose 2008 session began on February 12. The request contains funding for buildings and basic infrastructure improvements all around the U's campuses.

"Our buildings support all aspects of our academic mission," President Bob Bruininks said. "Each project in the 2008 Capital Request is aligned with our strategic goal and priorities, and reflects pressing needs, prime opportunities, and sound financial and facilities management."

As is typically the case, the largest portion of the 2008 Capital Request ($100 million) is for what's known as "HEAPR"--Higher Education Asset Preservation and Replacement--which goes toward basic needs like roofs, windows, elevators, and mechanical systems. HEAPR funds will be used system-wide to extend the life of the U's physical plant.

> *"... It is important that the projects in this year's request not be viewed as isolated or disconnected," Bruininks said. "Rather, we should approach them as the continuation of a long-term vision that will secure and enhance the future of the U for the citizens of Minnesota."*

The U is seeking $72.5 million for a new Science Teaching and Student Services Building, which would replace the outdated and aesthetically challenged Science Classroom Building on the Twin Cities campus at the east end of the Washington Avenue Bridge. The new building would contain innovative classroom space for teaching basic sciences, and would also house student services including academic and career counseling and registration.

Other major projects on the Twin Cities campus included in the capital request are a new Bell Museum of Natural History ($36 million), which would be built in St. Paul, and a renovation to the interior of historic Folwell Hall ($39 million). The Folwell renovation would support the U's new Writing Initiative, and allow for the building to become a hub for the study and research of languages, literature, and writing.

For the Duluth campus, the capital request contains $15 million for instructional and laboratory space adjoining Voss-Kovach Hall for a new civil engineering program at UMD. The proposed new program would fill a need for engineering professionals across northern Minnesota.

The request also includes $7.5 million for a new Gateway Center at the University of Minnesota, Morris. The Gateway/Community Services building, in the Morris Historical District, will be the first point of entry to the campus for many visitors and prospective students.

In addition, the request contains $3 million for classroom improvements, $10 million for laboratory renovations, and $5 million for the U's Research and Outreach Centers (ROCs).

Join the network

Alumni and supporters of the U are encouraged to join the Legislative Network. By joining the network, volunteers learn how they can encourage legislators to support the U's capital request. To join the Legislative Network, visit the Network.

The University is also advancing a proposal for a Minnesota Biosciences Research Program, an idea it first proposed two years ago. If approved, the program would allow the U to construct four new biomedical research buildings in the next five years. Each building, in turn, would allow the University to house 40 new faculty researchers and 120 research assistants, attracting $20 million in new research dollars each year.

Governor Tim Pawlenty has already announced his recommendations for the state's bonding bill, which include $129.3 million in state funding for University projects. Pawlenty's plan does not include funding for the Bell Museum, classroom improvements and laboratory renovations, or research and outreach centers, and it only funds 40 percent of the U's HEAPR request.

The University's goal will be to get all of its budget items included in the legislature's final bonding bill.

"The state has a responsibility to preserve and protect its investment in public education, research, and outreach--and it is important that the projects in this year's request not be viewed as isolated or disconnected," Bruininks said. "Rather, we should approach them as the continuation of a long-term vision that will secure and enhance the future of the U for the citizens of Minnesota."

To learn more about the U's capital request and see videos describing each of the items, visit the Office of Government and Community Relations Web site.

The inside story/M, winter 2008

From *M*, winter 2008

The November-December 2007 issue of *Minnesota* magazine features an interview with Donna Gabaccia, a professor of history at the University of Minnesota and director of the U's Immigration History Research Center, about immigration in the United States and around the world. Below is an excerpt from the interview:

Members of the University Alumni Association receive *Minnesota* six times a year.

Is it accurate to call the United States "a nation of immigrants"?

"First of all, it is not true that the United States has always called itself a nation of immigrants. The phrase was not used until the 1880s and it came into popular usage only 60 years ago, when the numbers and proportions of immigrants had reached their lowest point in U.S. history. "The problem with the phrase is that many Americans don't think of themselves as descendents of immigrants. [Many] African Americans don't because their ancestors did not choose to come here. Native Americans clearly do not think of themselves as immigrants. Many Hispanics of the Southwest don't think of themselves as immigrants, because the United States conquered that territory. They didn't cross the border; the border crossed them. Many of the Americans descended from the English who arrived in the 1600s and 1700s don't think of their forefathers as immigrants either. "So, calling the United States a nation of immigrants is a very recent development. We have to be aware of who is included and who is excluded if we use this phrase. Look at groups who don't identify with the term and you'll see that most of them are peoples of color who were excluded from the nation and from citizenship and its rights because they were slaves or conquered peoples. Whether or not the phrase "nation of immigrants" is flexible enough to accept the growing racial diversity among today's immigrants will be the question of the 21st century."

The same issue of *Minnesota* also contains a fascinating story on the history of smoking on campus. Here is an excerpt of that story: "Future *New York Times* editor and Pulitzer Prize-winning journalist Harrison Salisbury was editor of *The Minnesota Daily* in January 1930 when University President Lotus Coffman, responding to complaints about smoking in the University Library, issued a ruling that banned the activity. Editorial comments in the *Daily* suggested that Coffman had little authority to make his declaration, speculating: 'What can the University do about it?' "Salisbury, who years later would describe himself as 'a person who [tended] to be against the conventional way,' decided to challenge the administration in as direct a way as possible. Just a few days later, he lit up a cigarette in the library. Two campus employees, designated by Coffman to keep an eye out for smokers, fingered Salisbury, and a couple of days later, Harold Nicholson, the dean of students, acted. The editor of the *Daily* was suspended for a full school year. The dean, defending his drastic punishment, said it was due to the 'deliberateness and publicity of the defiance.' "Praise for Nicholson's actions came from alumni, editorial writers, and public officials from around the state. The *Waseca Herald*, the *Minneapolis Journal*, and the *Willmar Daily Tribune* all gave the dean their blessings, as did--in letters to Nicholson--a pastor from Austin, Minnesota; the St. Anthony Falls Study Club; and the Women's Christian Temperance Union, among others. The fact that the expulsion was reported in both the *New York Times* and the *Chicago Tribune* suggests that the problem of insolent smokers on campus was not unique to Minnesota." To read both articles in their entirety, go the *Minnesota* Web site. Members of the University of Minnesota Alumni Association receive *Minnesota* six times a year. To receive a sample copy or to join the UMAA, call 612-624-2323 or 800-862-5867 or visit www.alumni. umn.edu

Good news for stem cell research

Recent advances mean more weapons against intractable diseases, says U researcher Meri Firpo

By Deane Morrison

November 30, 2007

University stem cell researcher Meri Firpo says a new method of generating stand-ins for human embryonic stem cells gives a big boost to the fight against debilitating diseases.

Last week, University stem cell researcher Meri Firpo heard the same news as the rest of the world: Research teams at Kyoto University, Japan, and the University of Wisconsin-Madison had separately "reprogrammed" cells taken from human skin to become what appear to be embryonic stem cells (ESC's). The advance broke a barrier to research on conditions like Huntington's disease, Alzheimer's disease, and type I diabetes. Led by Shinya Yamanaka in Japan and James Thomson in Wisconsin, the work gives Firpo and other stem cell researchers another tool to generate stem cells from large numbers of people suffering from such diseases and to study how they develop, which could well yield clues to designing cures. Firpo, who came to the University in 2005, has developed many human embryonic stem cell lines. She is based in the University's Stem Cell Institute, which has a long history of advances in stem cell biology. And while she welcomed the latest news, she was not too surprised--the surprise had come at a conference in Vancouver early in 2006, when she heard Yamanaka describe essentially the same experiment with mice. His team had inserted just four genes into ordinary adult mouse skin cells, turning them into the apparent equivalent of ESC's. "When Yamanaka spoke, jaws dropped," recalls Firpo. "We couldn't believe it was only four genes."

Behind the headlines

Last week's press attention focused on the political and clinical fallout of Yamanaka and Thomson's work. On one hand, their technology lets researchers sidestep the ethical concerns and federal funding restrictions on ESC's. But because both groups inserted genes by means that could lead to cancer or other cellular malfunctions, the method has a long way to go before it finds clinical applications. Amongst all the euphoria and caveats, the immediate implications for research were nearly drowned out. But for scientists like Firpo, who has a major interest in using stem cells to defeat type I diabetes, the new method means that research material now rare and hard to come by will soon be plentiful.

"We can reprogram [patients' skin cells as stem cells] and look at the development of the pancreas and the immune system and see if we can induce the regeneration of beta cells or prevent their destruction," says Firpo.

Suppose, for example, a researcher has private funding--federal funding is prohibited--to derive new embryonic stem cell lines from human embryos discarded by in vitro fertilization (IVF) clinics. But if the researcher wants to generate and study a line of cells from an embryo destined to develop a certain disease, finding a source is a tall order. "Many diseases, such as diabetes, have no genetic test," Firpo explains. Therefore, there's no way to identify which embryos may exhibit abnormal development that results in diabetes, Alzheimer's disease, or any number of other conditions. Even if embryos could be tested for future disease, a researcher would only be able to test the embryos that were produced by parents undergoing IVF. And for a rare disease like Huntington's, there may be few who both have the disease and choose to go through IVF, which is expensive. A lot of time and effort would be wasted in the search for cells that carry the seeds of the disease. But with the new technology, Firpo can generate stem cells from donors who already have various diseases. Then she and her colleagues can study how the tissues affected by those diseases develop, comparing them to normal cells. The goal is to find abnormalities that suggest ways to cure or control the condition. For example, in type I diabetes the patient's own immune system destroys the insulin-producing beta cells of the pancreas. It may be possible to discover how that happens by generating stem cells from patients and coaxing them to form all the cells and tissues that play roles in the disease. "We can reprogram [patients' skin cells as stem cells] and look at the development of the pancreas and the immune system and see if we can induce the regeneration of beta cells or prevent their destruction," says Firpo. "It's not easy, but now we have tools that will allow us to begin that line of research." Firpo and her colleagues are also working to improve the technology of Yamanaka and Thomson. The two research groups each reprogrammed the skin cells with four genes (two of them were identical); but the Japanese group included a known cancer gene, and both groups ferried the genes into the cells with retroviruses, which also can cause cancer or other disruptions. Furthermore, neither group could control the location in the genome where the inserted genes landed. Random insertion of new genes into chromosomes could cause resident genes to malfunction. "We will replicate the work on [the new method] to make it reversible so cells don't have permanent genetic alterations," says Firpo. While the new stem cell technology is being hailed as a brilliant solution to a thorny political problem, Firpo points out that it was only possible thanks to actual embryonic stem cells. "This would never have happened without embryonic stem cells to compare to. They'll always be the gold standard," she says. "We now have another tool for understanding reprogramming, and, if we can make [the reprogrammed cells] safe, for clinical purposes. "With both [stem cells generated by the new method] and actual embryonic stem cells,we can move forward and bring in more scientists to the field. Ultimately, we will always have to have embryonic stem cells around."

Florida Minne-College

From *M*, winter 2008

The Southwest Florida Chapter of the UMAA will host a spectacular day of learning on January 26, when renowned faculty from five colleges on the Twin Cities campus come together in Naples for the 2008 Florida Minne-College. The program begins with a keynote address by internationally acclaimed neuroscientist Karen Ashe of the University of Minnesota Medical School, who has made breakthrough discoveries on Alzheimer's disease. Following her address, participants can choose between concurrent lectures featuring climatologist Mark Seeley of the College of Food, Agriculture, and Natural Resource Sciences; Jane Davidson from the Institute of Technology; Deborah Swackhamer from the School of Public Health; and Kathleen Thomas from the College of Education and Human Development. A reception featuring remarks by President Robert Bruininks will conclude the day's events. The Florida Minne-College will be held from 1 p.m. to 6 p.m. at the Naples Hilton Hotel, 5111 Tamiami Trail North in Naples. For information about registration and admission fees, call Chad Kono at 1-800-UM-ALUMS or 612-625-9183, or visit www.alumni.umn.edu/Minne-College.

A student learns the rules from soup to nuts at the annual Etiquette Dinner (see story below).

2008 Legislative briefing--save the date!

Mark your calendar now for the UMAA's annual legislative briefing and reception, the evening of January 23. Join other University supporters and President Robert Bruininks in this energizing annual event. You will get an insider's preview of the University of Minnesota's 2008 capital bonding request and learn how to share "your story" in a way that will help the leadership and citizens of Minnesota realize how the University touches each and every one of them. The event begins at 5:30 p.m. with a light dinner. Program begins at 6 p.m. and concludes at 8 p.m. There is no charge, but an RSVP is required at www.supportTheU.umn.edu

Be a part of the UMAA In August, membership in the UMAA reached an all-time high of 64,000, including more than 13,000 life members. That's good news for the UMAA, but it's even better news for the University. That's because the UMAA is dedicated to supporting the University's goal of becoming one of the top three public research universities in the world. Alumni, parents, friends, and U of M students are all welcome to join the UMAA. Members become part of a growing network of supporters who care deeply about the U and its future. Alumni initiatives in support of the U include the Mentor Connection, legislative advocacy efforts, Distinguished Teaching Awards, student leadership awards, scholarship efforts, and more. Members also enjoy great benefits, including Minnesota magazine and exclusive access to University Library databases. To learn more about how you can join the UMAA, visit www.alumni.umn.edu. Or, drop by the UMAA office, located in suite 200 of the McNamara Alumni Center, 200 Oak Street Southeast in Minneapolis.

New benefit for members UMAA members are entitled to a discounted registration fee on the Strategic Leadership Insights Speaker Series, an engaging new forum for upper-management professionals sponsored by the College of Continuing Education. Each session features a nationally recognized business expert who will address key workforce trends, followed by a moderated discussion on how to address these important issues. For more information, call 612-624-4000 or visit www.cce.umn.edu/insights.

A short course on social graces Any doubts about whether or not students are genuinely hungry for knowledge were dispelled in October when nearly 400 gathered at the McNamara Alumni Center for the annual Etiquette Dinner, an evening of instruction in social graces. Held since 2000, the Etiquette Dinner, sponsored by the University of Minnesota Alumni Association, the Campus Career Services Offices, and the Career Development Network, aims to help students navigate networking dinners and job interviews over meals by coaching them in the nuances of etiquette. Darcy Matz, an etiquette expert and vice president of Profile Resource Organization, guided students through a four-course meal. Among the lessons: how to make small talk, shake hands, and eat a cherry tomato; and whether or not to tell a fellow diner about the spinach wedged in his or her teeth (the answer is yes).

Art without reservation

Weisman exhibit showcases diverse forms of Native art

By Kristi Goldade

November 30, 2007

Teri Greeves's *Khoiye-Goo Mah* combines glass beads with commercially manufactured tennis shoes.

When you enter the Weisman Art Museum's latest exhibit, "Changing Hands: Art Without Reservation," the first thing you notice is a pair of intricately beaded shoes. The shoes aren't moccasins, or even leather boots--they are a pair of Converse All-Stars, much like the sneakers worn by the museum's student security guard, though his are slightly less adorned.

"Indian beadwork comes from a long tradition," says artist Terri Greeves of her beaded All-Stars. "Techniques and ideas that came before me are synthesized into a beadwork informed by living in today's world."

The decorated shoes are just one example of how this exhibit, featuring Native American artists from west of the Mississippi, blends traditional materials or styles with the contemporary to create a new kind of showcase of Native art. One memorable wall features a drug store Indian, whose face has been removed and replaced with a television playing Western movies.

"This exhibit insists that Natives are here," says Jane Blocker, associate professor of art history. "They are not idealized caricatures from the past."

Conventionally, art from indigenous peoples is arranged by region or function. Tools from a certain tribe would fill one cabinet, and earthen cookware would line another. "Changing Hands" challenges these practices by instead organizing the pieces according to conceptual categories: Beyond Function, The Human Condition, Material Evidence, and Nature as Subject.

The purpose of the categories is dual. First, because the museum does not arrange the art by tribe or utility, it defies a traditional ethnographic approach to Native work. Secondly, the arrangement serves to unite this massive and diverse collection--150 works by 130 artists--under like visual umbrellas. It is easy to see how Maxx Steven's paper sculpture, *Memory Prom Dress,* relates to Puni Kukahiko's chocolate *Lovely Hula Hands*, and it has nothing to do with their tribes.

Another prevalent theme is a sharp critique of the west. Artist James Luna satirizes America's fascination and romanticization of Native Americans in his performance piece, *Take a picture with a real Indian*.

In the video, he poses for pictures dressed in jeans and a shirt, then a loincloth, and finally in mock traditional garb. Museum-goers chose which "real Indian" they wanted to pose with, raising the question of what it means to be an authentic Native today.

"Changing Hands: Art Without Reservation" runs October 26 through January 13, 2008. Museum hours are Tuesday, Wednesday, and Friday 10 a.m. to 5 p.m.; Thursday 10 a.m. to 8 p.m.; and Saturday and Sunday 11 a.m. to 5 p.m. The exhibit is free and open to the public.

Extreme film

J.J. Kelley and environmental storytelling

By Cheryl Reitan

From *M,* winter 2008

Adventurer and UMD grad J.J. Kelley now works for National Geographic Television helping make complex issues understandable.

J.J. Kelley is an environmental educator, an extreme adventurer, and as of September 2007, a production coordinator at National Geographic Television.

Kelley has had some extraordinary journeys, including hiking the Appalachian Trail from end to end and kayaking around the glaciers in Kenai Fjords National Park. In 2006, Kelley and his friend, Josh Thomas, documented their 1,200-mile bike trip across Alaska to the Arctic Ocean. They shot 35 hours of footage on a digital camcorder and endured five mountain ranges, 460 miles on dirt roads, and 28 days in the remote Alaskan expanse. In between adventures, Kelley wedged in college classes and graduated from University of Minnesota Duluth (UMD) with a degree in Recreation and Outdoor Education.

Kelley and Thomas's film of their bike trip, *Pedal to the Midnight Sun,* landed Kelley a 2007 summer internship--which helped fulfill his final credits for graduation--and more recently, a full-time job at National Geographic Television as a production coordinator.

"The production coordinator does whatever it takes to make things go smoothly," he says. He's now working on a special production called *Six Degrees,* which depicts the consequences of global warming. "The show explains what could happen as the earth warms one degree, then two degrees, and up," he says. "Scientists try to predict when droughts will appear, and what the planet will look like. My task on this project is to help them express those ideas visually. How can we show how much water will appear when Greenland icecaps melt? Will the image of five billion soda glasses do it, or can we use another way?"

"I use J.J.'s film in class to teach about how we look at the wilderness," says Beery. "His enthusiasm about the natural world, his athletic ability, and his willingness to try anything, even film making, make him an inspiration for others."

During the summer of 2004, he was working in Seward, Alaska on a boat launching crew, when he met a group of kayak instructors and naturalist guides. He got to see them connect tourists with Alaska's land and water. Eventually he helped lead kayak tours. "That's when I realized I wanted to be an environmental storyteller," he says.

Kelley transferred to Duluth from a college in St. Paul, choosing UMD for it's outdoor education program. "I was instantly accepted [at UMD]," he says. "I didn't have to prove myself. There were great people like [faculty members] Ken Gilbertson and Tom Beery, who gave me advice, not just about which classes to take, but on a deeper level about my personal life."

Gilbertson and Beery are proud of Kelley. "I use J.J.'s film in class to teach about how we look at the wilderness," says Beery. "His enthusiasm about the natural world, his athletic ability, and his willingness to try anything, even film making, make him an inspiration for others."

Gilbertson recommended Kelley for the Carol and Richard Flint Scholarship, which he received in his junior year. "The Flint's were delighted with *Pedal to the Midnight Sun*. When J.J. got the internship with National Geographic and realized how much it was going to cost to live in D.C., the Flints extended his scholarship [beyond the original two years]," says Gilbertson. Educating students about the environment is important to Richard Flint, who is an attorney, a UMD graduate ('57), and one of the players behind the passage of the Boundary Waters Wilderness Act of 1978.

Using film to conduct environmental education is Kelley's current focus and he's committed to taking two months off from his new job to make his own expedition film next summer, again with his friend, Josh Thomas. "We're calling it *Paddle to Seattle*," he says. They'll start in Skagway, Alaska and kayak south, shooting footage the whole way.

"The work I'm doing at National Geographic is teaching me a lot about the logistics of making movies. It's an incredible experience," he says. Field productions are tricky. "The light, the weather, and the people are unpredictable. We need to work on the fly, so I try to be flexible and dynamic."

It's clear he has the "dynamic" part down.

To watch the highly entertaining trailer for *Pedal to the Midnight Sun*, type its title into the search bar on youtube.com.

Show me the Moebius

Video from University mathematicians is a hit--more than a million so far--on YouTube

By Deane Morrison

November 30, 2007; updated December 1, 2007

University mathematician Douglas Arnold and colleague Jonathan Rogness have a surprise hit on You Tube.

A video about mathematics making a splash on YouTube? Believe it. "Moebius transformations revealed," a visual journey through the land of 3-D geometry, has just passed the million-hit mark. And no one was more surprised than its makers, University mathematicians Douglas Arnold and Jonathan Rogness. "We thought a few people might see it, and we'd tell our friends," recalls Arnold, who is the director of the University's Institute for Mathematics and Its Applications. Set to the soothing strains of Robert Schumann's "Scenes from Childhood," the video shows the beauty of math by shining a spotlight on a group of mathematical operations called Moebius (yes, he's the guy who invented the one-sided strip) transformations. In such a transformation, a simple rule governs, for example, how points on a plane will be redistributed when the plane is rotated or inverted (turned inside out). "We wanted to show how beautiful mathematics is, and one way to get that across is visually," says Arnold. "It's good for people who aren't good at math. "We were featured [on YouTube] alongside talking cats and people charging their iPods with Gatorade. But I think people like to be challenged intellectually, too." The YouTube idea was born when Arnold attended a lecture on graphics and teaching by Rogness, an assistant professor of mathematics and associate director of the Institute of Technology Center for Educational Programs. Rogness suggested they do a project together, and Arnold suggested a Moebius transformation. They entered their video in the National Science Foundation's annual Science and Engineering Visualization Challenge, where it garnered an honorable mention. And they posted it on YouTube. A previous, more basic Moebius transformation video by Arnold also had attracted the attention of Canadian filmmaker Jean Bergeron. Bergeron used a short clip from the final version in his documentary about renowned Dutch artist Marits Cornelis Escher and Dutch mathematician Hendrik Lenstra. Lenstra used the mathematics related to Moebius transformations to guide him in completing Escher's celebrated drawing "Print Gallery," which features a mysterious blank spot in the middle. The key to finishing the drawing was to find the mathematical formula Escher used to twist and deform the landscape of the picture, then extend the landscape to fill in the blank. Bergeron's 53-minute documentary, "Achieving the Unachievable," received its world premiere at the University November 1, drawing an audience of 700. "Mathematics, when well presented, is something the public will respond to," Arnold says. A high-res, 130-MB version of the video can be downloaded from Arnold's Web site.

On the march

Thanks to donors and volunteers, fund raising for TCF Bank Stadium is progressing toward the goal line

By Steve Anderson

From *M*, winter 2008

The new stadium will give students a true Big Ten football experience.

What was once a sea of parking spaces is starting to look like the future home of Gopher football. With much of the groundwork completed, TCF Bank Stadium is taking shape as the countdown continues to the September 12, 2009 inaugural kickoff.

Just passing by the site of the stadium--the third point in a sports facility triangle that also includes basketball's Williams Arena and hockey's Mariucci Arena--offers a sense of what the stadium will mean for the University's campus atmosphere.

For the first time in over two decades, students will enjoy a true Big Ten student experience--one that is expected at a major public university. "Not only will it bring alumni back, but hopefully it will create future alumni who will support their alma mater because of the great memories they had there," explains Susan Augustine, B.S. '77, who along with her husband Scott, B.S. '75, M.D. '79. is a major contributor to the stadium effort.

> *The stadium plaza will be a place where people will learn not only about the University, but also about our state's rich heritage and history." --President Robert Bruininks*

Thanks to the generosity of individual donors and community-minded corporations, fund raising for the stadium continues its march toward the goal line. So far, $73 million has been raised toward the $86 million goal, including 22 gifts of $1 million or more.

Honoring history

Recently, TCF Bank Stadium received its largest gift to date: $10 million from the Shakopee Mdewakanton Sioux Community (SMSC). SMSC will donate an additional $2.5 million that the University will match to create a $5 million endowment to provide scholarships, with a preference given to American Indian students.

To recognize the gift, the stadium's largest and most central plaza will be named in honor of the Shakopee Mdewakanton Sioux Community. Although design specifics will be unveiled later on, plans for the space will celebrate the history, presence, and cultural contributions of the state's Native Americans.

"We thought it important to support this cause as a way to encourage a better understanding of the history and role of Indians in Minnesota," said Shakopee Mdewakanton Sioux Community Chairman Stanley Crooks. "It's good for our tribe, the tribes of Minnesota, and the citizens of Minnesota."

U of M President Robert Bruininks agreed: "The educational aspect of this gift is much broader than the scholarship initiative. The stadium plaza will be a place where people will learn not only about the University, but also about our state's rich heritage and history."

TCF Bank Stadium Fund Raising

Raised to date: $73.5 million

Left to raise: $12.5 million

Gifts of $1 million or more: 23

Largest gift to date: $10 million from the Shakopee Mdewakanton Sioux Community

A new phase

Stadium fundraising entered a new phase recently with the launch of a peer-to-peer effort led by nearly 50 "captains" who have volunteered to reach out to alumni and friends to encourage financial support. Each captain has pledged to raise or contribute $100,000.

Another new stadium-related fundraising initiative aims to raise $2.5 million for the marching band, to be split equally between completion of the band's facilities in TCF Bank Stadium and leadership scholarships for band members. The University plans to match private gifts, bringing the total funds for the marching band tied to the new stadium to $5 million.

Presently, the 300-plus members of the band practice in a crowded, dank space in the basement of Northrop Auditorium. "Band members put in up to 500 hours a season," explains marching band director Tim Diem. "Having a home in the new stadium is just giving back to these students what they deserve."

Visit the Web site for the latest on TCF Bank Stadium construction, including live webcam views, and to find out how you can support the effort.

Power of passion

Former basketball star Quincy Lewis leaves a legacy of opportunity

By Steve Anderson

From *M*, winter 2008

In the late 1990s, Quincy Lewis was a standout on the hardwood. Now he's stepping up with a gift to his alma mater.

Achieving his dream of playing in the NBA came at a cost for former Gopher basketball star Quincy Lewis: his degree.

After leaving college early for the pros, Lewis was determined to finish his bachelor's degree in environmental studies. He returned to campus for five summers between basketball seasons. Expecting faculty in the College of Food, Agricultural, and Natural Resource Sciences (CFANS) to be put off by his approach, he instead found supportive professors and staff "who reached out far beyond what they needed to" to help him succeed.

Now, he is passing on that support in the form of an endowed scholarship in CFANS, which will help attract more minorities to the college. "What makes me happy is giving back," says Lewis, who now plays pro basketball in Europe. "In some shape, form, or fashion, I want to help."

"When I started thinking about all the people an endowed scholarship can touch and the magnitude of the gift, it just started to make sense. It turned out to be a win for so many people."

Lewis' scholarship is only the start of his philanthropic vision. He's also working to set up an organization called the Power of Passion. The nonprofit will offer an environment for underprivileged kids to express whatever they're excited about, along with support for their pursuits.

"There comes a time when all kids have to make a decision about their future," says Lewis, who calls his own upbringing in Little Rock, Arkansas, "average middle-class." "My experience is that having something positive that you are passionate about can help you overcome challenging circumstances."

His own educational journey is a good model: "Sometimes, just having hope and the understanding that there is a way to achieve your goals is enough. The U helped me in that way and that's what I want to do for troubled kids."

Building blocks for a career

Scholarships--and Legos--help budding engineer explore his interest in robotics

By Trish Grafstrom

From *M*, winter 2008

U senior Alex Kossett may one day combine robotics and medicine into new life-saving technologies.

U senior Alex Kossett remembers everything being strange and upsetting when his family moved from Vandais Heights, Minnesota, to the Netherlands when he was 6 years old. That is, until his parents gave him a giant set of Legos. Soon the budding engineer had forgotten his troubles, and unbeknownst to him, his love of robotics had been sparked. "I enjoyed building stuff, but more than that, I enjoyed the process of holding it in my hands and working on it," he says. Upon returning to Minnesota two years later, Kossett focused on school, along with playing video games and the bass guitar in a rock band in his free time. "I knew I loved science and math, but I also loved activities with my hands," says Kossett. "By my junior year in high school, it became clear that mechanical engineering was for me. The U offered me a great scholarship package and I was on my way in engineering, but I still was a little unclear about my future." At the U, Kossett signed up for a required mechanical engineering class that involved creating a moving robot. After designing and building a robot that could follow a maze path, he was hooked on robotics--and thirsty for more.

"Thanks to scholarships, I am able to focus on school and volunteer in a lab where I can pursue my interests," says Kossett, who receives the Bentson Family Scholarship, the Frank Louk Scholarship, and the prestigious national Mercury 7 Astronaut Scholarship. For almost two years, Kossett has worked in the Center for Distributed Robotics, where he discovered his future career path. At the moment he's toying with the idea of applying robotics to medical treatments and procedures with the goal of introducing new life-saving technologies. "I start a robotics project by making and refining a computer model of a design," he says. "But the real fun begins when I finally receive the parts I've ordered or have made myself--it's like I'm 6 again, diving into a huge Lego set. Only now, the results can make a difference in the world."

Generosity in the genes

Giving back runs in the family for two generations of UMD alumni

By Mary Winstead

From *M*, winter 2008

Jeff and Roberta Carlson and their son, Ryan, are supporting students at UMD by giving to scholarships.

For the past two years, the Carlson family has attended the University of Minnesota, Duluth's scholarship banquet, a festive annual event where generous donors and grateful recipients meet and mingle.

In 2006, UMD senior Ryan Carlson and his parents were thanking the local business leaders who had made Ryan's engineering scholarships possible. But by the time of the 2007 banquet, roles had reversed: In a single year, two generations of Carlsons--Ryan and his dad--had earned their degrees; Ryan had funded a scholarship; and his parents, Jeff and Roberta, had established one, too. This time, UMD students were thanking them.

Shortly after graduation, Ryan landed a job at 3M and in six months had contributed to a scholarship for engineering students. "I wanted to give something back," he says. "I was lucky. I received help with tuition and I wanted to help other engineering students."

As an added incentive, the matching program offered by Ryan's employer made his decision to give doubly attractive. "I really wanted to do it," he says. "But with 3M's matching program, I couldn't afford not to."

The following year, Jeff Carlson graduated from UMD in geography and business. He and his wife, Roberta, then established the Carlson-Amys Scholarship for students studying at the Labovitz School of Business and Economics and UMD's College of Liberal Arts. "We chose business and liberal arts because of how important those fields have been in my life," Jeff says.

Throughout his 23-year career in facilities management at UMD, Jeff benefited from the Regents Scholarship to take classes toward his degree. "All that time I was juggling part-time schooling with full-time work and family," he says. "But going for the degree made an enormous difference in my career advancement."

"Our family believes in education," Roberta adds. "And this scholarship honors our family and my parents, who couldn't go to college but loved UMD. Education is a great thing, and in the long run it pays off. More scholarships mean more students going to college."

As for Ryan, he has wasted little time in extending the generosity. "I wanted to start giving as soon as possible," Ryan says. "I'm not that different from other people my age. I have a good job and can spend money on fun stuff like video games and a nicer car. But giving to scholarships is way more rewarding."

A class act

School of Nursing alumni finds strength in numbers

By Trish Grafstrom

From *M*, winter 2008

Carol Kelsey (left) and Mary Lou Christensen, both members of the School of Nursing's Class of 1960, rallied their former classmates to help future students.

Mary Lou Christensen, B.S.N. '60, had an idea to help increase scholarships in the School of Nursing and take advantage of the President's Scholarship Match program, which doubles the impact for students. She ran the concept past her classmate, former college roommate, and friend, Carol Kelsey, B.S.N. '60. Together, they developed the idea of creating a Class of 1960 endowed scholarship to the School of Nursing, and a plan was born.

"We decided to solicit help from our regular 'lunch bunch' group of nursing alumni," says Christensen. "None of us could afford to endow a scholarship on our own, but together with fellow classmates we could do it. The eight of us signed the first solicitation letter that mailed in January 2005. It went to 91 graduates and asked each person to consider a gift, and if possible to pledge $1,000 to be paid within three years."

Four months later, the group had raised $13,000 of the $25,000 needed. The alums mailed another letter the following spring and by October 2006, they were $6,200 from their goal. Then Kelsey's husband, Donald, offered to match remaining gifts, and the goal was reached by April 2007, just in time to make the big announcement at the all-class nursing alumni celebration.

"We were so thrilled to be able to create this scholarship," says Kelsey. "We are the first class from the School of Nursing that has done this. It's amazing what can be accomplished when classmates pool their resources to make a difference."

Tango bomb

By Kristi Goldade

From *M*, winter 2008

Students yawn through the last ten minutes of chemistry lab, unaware that just outside, a cultural stealth attack is in the making. Dancers from the Argentine Tango Club are readying a boom box outside Coffman Union on the Twin Cities campus.

The Tango Club demonstrates moves for potential members.

Classes are--finally--dismissed. Students let out a collective sigh and stumble out the doors. It's time.

A dancer presses "play" and music from the barrios of Buenos Aires wakes up the campus. Lunch crowds stare as pairs of dancers tango in jeans and jackets, gliding through bike racks and commuters, swaying passionately to the melodies.

It's official: the Tango Bomb has been detonated.

"It gives people a visual," says tango club president Lindsey Stratton. "The Tango Bomb allows people to really experience the dance, so hopefully, we can attract new members."

The club meets each Tuesday from 7:30 to 9:30 p.m. The lessons are open to University students, staff, and faculty, but non-University people can join with sponsorship from a University member. The first lesson is free. Additional lessons can be purchased which progress from beginner to more advanced, featuring tango vocabulary and "dancing creatively in crowded spaces."

The club also hosts weekend workshops and events, like free Friday night crash courses and special events with well-known teachers, dancers, and DJs.

So strap on your dancing shoes and head over to The Whole in Coffman Union to get your tango on!

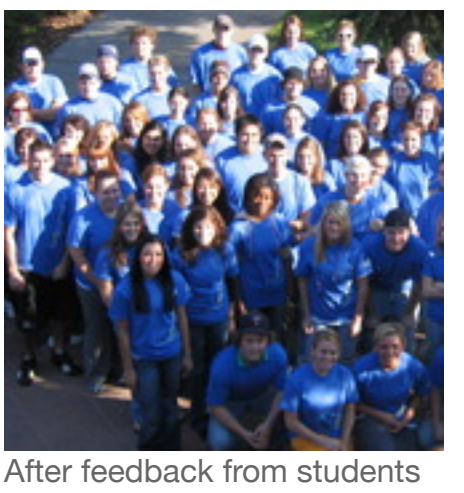
Email the club for more information.

Reality psych

Public engagement has transformed a UMD class

By Stephanie Wilkes

Brief, Dec. 5, 2007



After feedback from students and site partners that it was difficult to identify the Reality Psychology volunteers among other UMD volunteers, Butterfield heeded their advice: She wrote grant proposals to local businesses to raise enough money to make T-shirts for the entire class.

Partnerships between the community and the University are essential to public engagement. But how do those partnerships start, and how do they evolve?

Brenda Butterfield has created a network of partnerships with local community organizations for an undergraduate developmental psychology course that she teaches at the University of Minnesota, Duluth.

The focus of Psychology 2021 is the socio-cultural environment influences on human development, from childhood through adolescence. After Butterfield taught the course in fall 2006, she thought it was missing a crucial hands-on component. She got the idea to inject service-learning into the spring semester class.

"I felt like I was not reaching the students--that they were not getting it," says Butterfield. "I had to find a way to get them excited, and, as a social worker by training, I really wanted them to find a way to work with the local community agencies serving children and youth populations that we know are at greatest risk."

Butterfield began with a simple phone call. She contacted the local branch of Head Start, a national organization promoting school readiness, to discuss partnership possibilities. Then she worked closely with the UMD Office of Civic Engagement (OCE) to create the service-learning component for her class. With the help of OCE's Jenice Kienzle, Butterfield identified other community agencies serving diverse children and youth from lower socioeconomic backgrounds, and Reality Psychology-UMD was born.

"By just picking up the phone and starting to make these connections, things have really taken on a life of their own effect," says Butterfield. "By partnering with these community agencies, the class curriculum has been transformed into an active, challenging course where we have been able to discuss topics like educational disparity and issues of social justice."

This fall, Butterfield's class of 108 undergraduates had a choice of five local organizations where they are serving the 20 hours required to complete the course. At Head Start, student volunteers focus on language development with local children living in economic poverty. Through an after-school program called Compass, student volunteers tutor children in math and reading at two local elementary schools, Lowell and Nettleton. At Kenwood Edison School, a local charter school with a diverse population, student volunteers work in classrooms to aid the teachers. And at the Arrowhead Juvenile Center, students have a chance to work with an older group of abjudicated youth, ages 13 to 18.

Maintaining a delicate balance

Now in the new course's second semester, it has already undergone a number of important changes crucial to maintaining what Butterfield calls the delicate balance of a good partnership.

"It is a delicate balancing act, asking for community support while not overwhelming them," says Butterfield. "It really has to be a wise use of their time, and they have to feel the benefit--it cannot cost them more than they get out of it."

Butterfield has come to appreciate the value of "constant communication" with the community agencies, asking for feedback and making sure that their needs are being met. She also stresses the importance of the agencies' presence in the classroom.

Brenda Butterfield. Photo by Brett Groehler.

In its inaugural semester, the site partners visited the classroom only once--at the end of the semester--to participate in a panel discussion about the project. But Butterfield and her partners felt that one point of contact just wasn't enough, so this semester the site partners came to the classroom a total of three times. At the beginning of the semester, each agency gave a short class presentation about their organization, and then students signed up for their service organization and received a short orientation. Mid-semester, a panel discussion was held to talk about the students' progress and any problems.

Butterfield anticipates that during the final class visit this semester, the panel discussion will provide her and the students with useful feedback on their impact on the Duluth community.

"I am hoping to help my students understand that they can make a difference in the lives of others by volunteering their time," says Butterfield. "I am relying on the site reps and children and youth at each site to tell us if it is helping, if my students are making a difference."

Opening a path

One site partner, Pamela Rees, Head Start Duluth's Early Reading First coordinator, hopes that the students' short volunteering stint will serve as a motivation for a more sustained commitment.

"I want this experience to spark students' interest to be more active volunteers in the community," says Rees. "They need to see that it takes all of us giving time to change, and a course like this helps them see themselves as vital members of the community."

Butterfield is confident that Rees's wish will be granted. Many students have already expressed a desire to keep volunteering after the class ends.

Students like Dena Hansen, a junior studying communications and psychology, view Butterfield's course as a way to get them out into the community as well as a path to real learning.

"Textbooks can only teach to a certain extent," says Hansen. "Experiences like these are vital to education because they give insight into life's reality."

Stephanie Wilkes is a senior in English and linguistics and a communications intern in the Office of Public Engagement. If you have questions or comments, please e-mail wilk0268@umn.edu.

Seeding the future

Regents Professor Ronald Phillips has created his own green revolution

By M.J. Pehl

December 4, 2007

Regents Professor Ronald Phillips is a world authority on modern plant genetics and crop science.

With his sonorous voice, striking smile, and bountiful silver hair, Ronald Phillips could be taken for a veteran anchorman. He's not; yet Phillips, a Regents Professor in the Department of Agronomy and Plant Genetics, does possess one journalistic trait: He can tell you about all the latest developments in crops and agriculture--many of which rest on his work. His office, complete with a bronze ear of corn doorstop, sits near the wheat and corn fields on the St. Paul campus. After 40 years of research at the University, he looks back on a sterling career in plant genetics while still forging ahead with new discoveries. Phillips was first exposed to plant hybridization as a young boy on a farm in Indiana, where his parents worked for a seed company. In high school he decided to pursue study in plant genetics. He went on to earn bachelor's and master's degrees from Purdue University and a doctorate from the University of Minnesota, followed by postdoctoral work at Cornell University. In his research Phillips seeks to improve cereal crops by selecting important traits, using techniques he has developed that couple plant genetics and molecular biology. The result is crop varieties that differ in traits such as yield and nutritional value. "You end up with the same kind of product as far as the farmer is concerned, but it can have some special traits like insect resistance or increased nutritional value," Phillips explains. Take, for example, rice--a staple crop for over half the world's population. A new variety, called golden rice, has genes for a higher level of vitamin A. "If we can improve the vitamin A content, it would have quite an impact on the health of people around the world," he says. Phillips serves on the board of the International Rice Research Institute, which is currently working to create rices that will grow under natural conditions and adapt to varying conditions of water supply. In Africa, for instance, this could mean a strain of rice for farmers who cannot afford irrigation, or a rice that could survive flooding.

> *"If we can improve the vitamin A content [of rice], it would have quite an impact on the health of people around the world."*

Phillips points out that the University's was one of the early research programs in modern agriculture-related plant biotechnology. "The University has provided a great opportunity to be on the cutting edge of these developments," he says. These days, crop breeding is a serious business involving serious tools like DNA sequence mapping systems and massive computer work. "We're not just working with soil and water anymore," Phillips says. But Phillips never thought his work would become so controversial when he began in the 1950s. He acknowledges the public controversy surrounding genetic engineering, and says it's not the technology that should be worrisome, but rather the kinds of products being produced. "In fact, over the past 10 years, over a billion acres of biotech crops have been planted with no issues," he says. In 1991 Phillips was elected to the National Academy of Sciences, and in 1993 he was named a Regents Professor by then-President Nils Hasselmo. "Oh, it was a big surprise!" he laughs, adding, "I view it as a recognition of my work, and it carries with it a responsibility to assist the University in any way you can." Among other honors, he served as the USDA's chief scientist in charge of the National Research Initiative Competitive Grants Program in the late 1990s. He is a founding member and former director of the University's Plant Molecular Genetics Institute and Center for Microbial and Plant Genomics, which have now merged to form the Microbial and Plant Genomics Institute. This May, Phillips received the Wolf Foundation Prize in Agriculture from Israeli President Moshe Katsa in the Knesset. The prize recognized his groundbreaking discoveries in genetics and genomics and his advances in plant sciences. Phillips and his wife directed the Wolf Foundation to give the $50,000 award to the University of Minnesota Foundation to establish scholarships. "The University has been a great place to be," he says. "I like the Midwest, and I admire the ethical values of the people around me. "I've been on the faculty for forty years. It feels like five." Phillips plans to retire a few years down the road so he can enjoy his family and pastimes like fishing and boating while still in good health. He loves taking guests out on his boat and hearing them say, "I didn't know you spent any of your time doing stuff like this!" But he'll also tell you that retirement is just "the right thing to do." "It's a fast-moving field," he says. "It's important that these positions turn over to others." But for now, Phillips remains absorbed in his work. "There's a thrill of discovery, and you get a real high," he says. "I'm still very excited about what I do."

Setting the stage

University of Minnesota student combines the study of biology and theater

By Stephanie Xenos

From *eNews*, December 2007

U student Lola Abdul plans to combine her passion for theater with her vocation for healing.

One of Lola Abdul's fondest childhood memories is of lying on the porch looking for shooting stars while her mother recounted tales from her native Nigeria.

"Storytelling was very much a part of my childhood," says Abdul. "My mom could tell me to clean my room, and it could go in one ear and out the other. But once she told me the story of how the turtle broke his shell from tripping over a misplaced stone, suddenly, I would pay more attention to picking up my toys."

The stories both educated and motivated her--and proved a precursor to her love of drama, which she plans to carry through into a career as a doctor and public health expert working in developing countries.

A fourth-year biology major and theater minor, Abdul decided early on to incorporate theater into her college plans. Along the way, she's discovered some surprising parallels between drama and medicine. "In a play that I was in, as I watched the director help create the performance, I realized that directing required certain skills," she says. "What I didn't expect was to find that the skills required in medicine seemed very similar to those required in theater. ... It was the discovery of the unexpected similarities between these two very different disciplines that helped shape my decision to merge theater and medicine."

Abdul lists confidence, trust, creative problem solving, and, especially, teamwork as key shared characteristics. "Whether watching a doctor consult with a nurse, pharmacist, or physical therapist, or watching a director collaborate with a costume designer, stage manager, or actor," she says, "both doctor and director seem to understand the importance of teamwork."

For now, Abdul is knee-deep in the medical school application process. Last summer, she completed a Howard Hughes Medical Institute Exceptional Research Opportunities Program Fellowship at the University of Washington, studying the interactions of the key proteins in the Hedgehog pathway, a key regulator of development. She spent this summer as a research fellow at the Mayo Clinic. Abdul is now back in the lab of Robert Hebbel, Regents Professor at the University of Minnesota Medical School, studying the genetic basis for the large gap in stroke rate and severity between African Americans and Caucasians.

As her final year at the U progresses, Abdul's motivation to study medicine remains strong. It is, after all, a lifelong ambition.

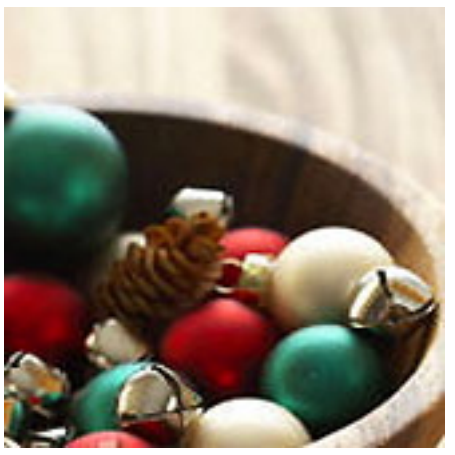
"After losing my father in Lagos, Nigeria, when I was 6 due to poor medical practice, I dreamed of becoming a doctor to help improve medical practices in Third World countries," she says. "I want to write plays that help raise awareness and facilitate necessary dialogue about the needs within national and international healthcare--plays that educate and inspire."

Decorating for the holidays

By Sue Jacobson

From *eNews*, December 6, 2007

For several hundred years Americans have been developing their own style of holiday decorating. Our melting pot of cultures has led to the development of the decorations we use today. Evergreens have been the most important greens for decorating since the late 1800s. Holly was very popular for wreaths in the 1920s and has remained an important Christmas green.



Liven up a tabletop this holiday season with a bowl filled with mini Christmas baubles, pine cones, and bells.

Poinsettias became important in the 1940s and by the '60s newer varieties were being developed that held their colorful leaves longer, and new colors were developed. Today poinsettias are available in red, pink, white, purple, and salmon, as well as speckled and other uniquely colored leaves. Painted poinsettias are plants that have been painted with an alcohol-based paint. They can be any color you can imagine, as well as blended shades, metallic, and glitter.

Decorating for the holidays should be as individual as each family.
Feel free to decorate the way you like, rather than based on what you see in the stores or other houses. Let your decorations be an extension of your own personality and heritage. Start your own family traditions.

Here are some suggestions for fun, safe decorating:

- When using fresh greens, replace them if they get dry and brittle. Dry greens can be a fire hazard.
- If you have a fresh Christmas tree, be sure to keep it watered. The first watering should be done immediately after the stem has been trimmed. Use hot water for better uptake by the tree.
- Light strings can be plugged together to make lighting the tree more convenient. Check the instructions to be sure you are not connecting too many strings together. You may blow fuses on the strings or start a fire by ignoring the warnings.
- When lighting candles, do not leave them unattended. Candles cause many fires each year.
- Incorporate fruits into your table decorations. Apples, pears, oranges, pomegranates, and grapes all work beautifully into an arrangement of evergreens and a few pine cones.
- An arrangement of evergreens and cones on floral foam in a container filled with water will stay fresh throughout the holidays. Use tree ornaments to add some color, and you can always stick in a few fresh flowers just before entertaining.
- Artificial evergreens can be used in place of fresh ones, but remember that they can be a fire hazard if used with candles.
- When setting your table for holiday meals, add color by layering your linens. A solid-color tablecloth can be a wonderful background for placemats, runners, and napkins that are more colorful or with patterns.

Sue Jacobson is a horticulture instructor at the University of Minnesota, Crookston.

UMC Horticulture Team places second in Mid-America competition

Despite being the smallest horticulture program in the competition, the University of Minnesota, Crookston still managed to grab second place--out of 13 schools--in the Mid-America Collegiate Horticulture Society competition in Wisconsin last month.

Participants had to take a written horticulture exam in addition to judging various types of horticulture crops and identifying both herbaceous and woody plants. Kaarina Visness, Scott Hoffman, Kathryn Stangler, and Jennifer Zoch made up the UMC team. (Visness took third overall in the individual category. Horticulture instructor Sue Jacobson served as adviser.)

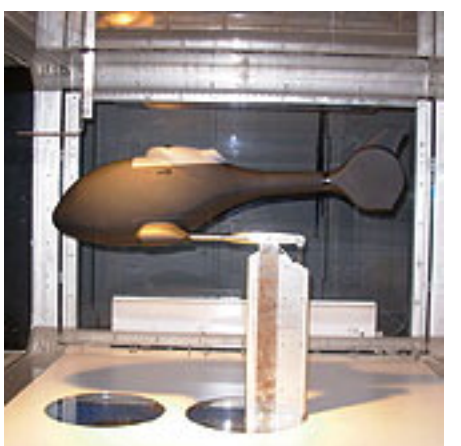
To learn more about the horticulture degree program on the Crookston campus, see UMC horticulture program.

Helping business is U business

Academic and Corporate Relations Center uses University expertise to help companies near and far

By Silva Young

December 5, 2007



Victory Systems uses the University's wind tunnels to test one-seventh-scale models of its unmanned helicopter. The testing helps the company optimize the fuselage design by minimizing drag.

The phone rings quite a bit these days at the University of Minnesota's Academic and Corporate Relations Center (ACRC). From a business executive looking for a strategic way to spend the company's year-end money to a client seeking venture capitalists for a startup company, the center gets up to 20 requests a day from businesses.

"When the calls come in, it's pretty much soup to nuts," says Dick Sommerstad, ACRC director. "We help businesses any way we can because we know it will almost always pay off for the University in some way. It's a lot of matchmaking. If we can't connect them here at the U, we'll tell them where they can find what they need, and we'll do it in 48 hours."

As the front door to the University, the center assisted hundreds of businesses last year with relationship managers acting as their corporate concierge, and provided free services valued at more than $3.5 million for businesses, which included sponsoring workshops, seminars, and conferences.

For the University, the ACRC also generates new revenue. In its first year of operation, the ACRC generated about $2.1 million in fees-for-services revenue from hundreds of businesses. Any time a new sponsored research agreement is reached, a faculty member is hired as a consultant, or a collaborative agreement is signed, it's incremental revenue the University would not have had. For the state of Minnesota, that means new businesses and more jobs.

U seeks input from business community

The ACRC is conducting a survey of business leaders across the state. The "Minnesota Business Survey" was developed in consultation with academic colleagues at the U, business leaders, and business associations.

Please participate in the survey by December 17, regardless of your current relationship with the University. The Web-based survey should take only about 15 minutes to complete.

The ACRC was named Innovative Collaborator of the Year in the 2007 Minnesota Tekne Awards.

Here is a closer look at one recent success story that illustrates how the ACRC and the U--in this case the Institute of Technology--are working hand in hand with businesses to improve the economic vitality of the state and the nation.

Taking flight: Victory Systems, LLC

Duane Cox, Victory Systems chairman and CEO, was attending a meeting of the Defense Alliance of Minnesota when he met ACRC director Dick Sommerstad in September 2006. His company, which is based in Woodbridge, Virginia, specializes in cutting-edge robotics--specifically, unmanned vehicles for defense and commercial use. Cox told Sommerstad that he had just received a large contract with the U.S. Army for his company's new high-performance drone helicopter. But before production could start, he needed to find a wind-tunnel facility that was capable of testing the one-seventh-scale model of the helicopter, which incorporates artificial intelligence in the control systems. Cox had looked at several facilities nationwide but felt they didn't meet all of his needs.

Upon gathering Cox's requirements, Sommerstad and Ron Antos, a relationship manager at the ACRC, put him in touch with Gary Balas, professor and head of the Institute of Technology's Department of Aerospace Engineering and Mechanics.

After evaluating the department's facilities, services, and expertise, Victory Systems decided they fit the bill for the testing required for their contract with the Army. An agreement was drawn up to use the department's wind-tunnel facilities as well as the services of Greg Nelson, a University aerospace engineering and mechanics staff scientist, who has been on the project since February.

"The company is looking to optimize the fuselage design by minimizing drag," explains Balas. "You obviously want the wind resistance to be as low as possible. The less wind resistance you have, the higher the helicopter's performance and speed."

The department's two wind tunnels, located on campus in Akerman Hall, are used for student instruction, research, and outside contracting. One is a large closed return (re-circulating) tunnel, the other a smaller open (blow down) tunnel.

"Our wind tunnels are instrumented to collect a variety of information concerning both wind tunnel and test subject performance," says Balas. "Tunnel air temperature, barometric pressure, differential pressure, and balance force and moment values can be configured, and data collected digitally in real time.... The closed tunnel is capable of airspeeds of about 90 mph; the open tunnel maximum is about 85."

As Victory's helicopter testing proceeds and its design takes flight, the company is building facilities in Burnsville and moving most of its operations from Michigan to Minnesota. The company expects to employ about 1,000 people--many of them engineers--within the first three years of operation.

That's good news for the state's economy.

"Minnesota would spend thousands to attract a company with 1,000 employees," says Sommerstad. "Once they are up and running, they will need accountants, human resources people, and all the support staff that make up an organization. The bottom line is that Victory is a high-tech company that is here in Minnesota because of the University's Institute of Technology."

For more information about the Academic and Corporate Relations Center, visit ACRC.

From Inventing Tomorrow, *a publication of the Institute of Technology.*

Amy Danielson contributed to this story.

Jack be nimble

U professor Jack Zipes continues to reshape the way we think about folklore and fairy tales

By Linda Shapiro

December 5, 2007

U professor Jack Zipes with some students from Jackson Elementary in St. Paul's Frogtown neighborhood. During summer 2007, the students participated in a storytelling and creative drama program co-created by Zipes.

"I think, therefore I provoke" might well be Jack Zipes's motto. An internationally renowned scholar and translator who has published prolifically, the University of Minnesota professor is also a cultural activist who motivates children to question the traditional stories they've been told and helps them create new ones. In the process, he has fundamentally reshaped the way we think about folklore and fairy tales.

Zipes has produced books with provocative titles like *Breaking the Spell: Radical Theories of Folk and Fairy Tales* and *Don't Bet on the Prince.* Across time and place, Zipes says, fairy tales reflect certain universal concerns.

"These stories get to the bottom of our natural inclinations and desires, critical issues such as mating, rape, incest, and inheritance that are germane to the human species and all societies," he says. And, it seems, the tales serve important functions in society. "We tell tales to communicate, to understand the world, to bring about some sort of social identity," he adds. "Throughout history, stories of various kinds were told in ritual ways to socialize children, give them a sense of identity, calm their fears, and explain natural phenomena."

In his latest work, *Why Fairy Tales Stick* (see sidebar) Zipes, who accepted a position as professor of German and comparative literature at Minnesota in 1989, argues that fairy tales need to be continually reinvented in order to remain relevant. So, for instance, the traditional Grimm brothers' version of "Cinderella," in which the heroine is beautiful and passive, the prince patriarchal, and the stepmother irredeemably wicked, may seem sexist and inappropriate in a contemporary society where women have been empowered and many children live with caring stepparents. Yet the story's primal themes of child abandonment and abuse, sibling rivalry, and parental love remain powerfully present in our culture.

According to Zipes, many writers and filmmakers in the late 20th and early 21st centuries have successfully adapted and transformed the basic themes of traditional stories. He cites the film Ever After as an example that presents the Cinderella character (played by Drew Barrymore) as a feisty, independent woman who is far from classically beautiful.

Digging in, reaching out

But Zipes isn't just writing about the ways that others have updated fairy tales. In 1997 he cofounded the Neighborhood Bridges project with Peter Brosius, artistic director of the Children's Theatre Company (CTC) in Minneapolis. Modeled on the exercises that Zipes developed in his book Creative Storytelling: Building Community, Changing Lives, the Neighborhood Bridges project encourages young children to create and animate their own stories while they explore the rich literary genres of fairy, folk, utopian, and mythic tales. The goal, Zipes says, is to transform children into critical thinkers and savvy storytellers through a flexible process that incorporates theater games, improvisation, and creative writing.

"So often you don't know the impact your teaching is having. Here you can see transformation," says Wendy Knox, artistic director of Frank Theater and one of the teaching artists for Neighborhood Bridges. And indeed, by the time the kids get to theater games like transitioning from one animal to another as they scuttle across the room, they have gone from "whatever" mode to fully engaged and imaginative action.

Not afraid to tackle cultural icons, Zipes has been critical of Bruno Bettelheim's highly praised psychoanalytic approach to interpreting fairy tales. He has also weighed in on the first four Harry Potter books, which he considers "sexist, elitist, conventional, and mediocre."

But he is equally quick to embrace artists and thinkers whom he believes have radically re-envisioned the fairy tale genre. He applauds the impact of films like Pan's Labyrinth that cause people to think critically about how society can manipulate them. "It imaginatively demonstrates how fascists of all kinds impose their will on good people," says Zipes.

Using theories of evolutionary biologist Richard Dawkins, Zipes is currently studying how we may be hardwired by the linguistic structures in our brains to prefer fairy tales over other literary genres.

"I'm intrigued by the theory because it may offer a new way to explain why fairy tales are so relevant. As the brain is reconfigured from generation to generation, it may cause a predisposition to certain narrative or linguistic forms," says Zipes, who was instrumental in obtaining a highly competitive grant from the German Academic Exchange, a powerful cultural wing of the German government, to create the Center for German and European Studies (a collaboration between University of Minnesota and the University of Wisconsin) in the U's College of Liberal Arts.

If indeed we are wired to gravitate toward fairy tales, Zipes will have additional validation for a life spent thinking about storytelling--something that is, he's always been convinced, as elemental as breathing.

More kudos for Zipes

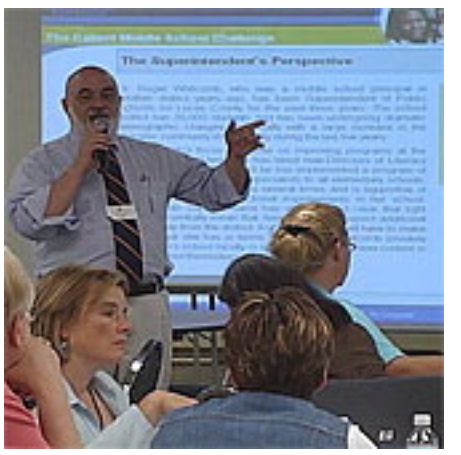
The Folklore Society announced at the Warburg Institute that Jack Zipes was awarded the 2007 Katharine Briggs Award for his book Why Fairy Tales Stick: The Evolution and Relevance of a Genre. The annual prize was established to encourage the study of folklore, to help improve the standard of folklore publications in Britain and Ireland, to establish the Folklore Society as the arbiter of excellence, and to commemorate the life and work of the distinguished scholar Katharine Mary Briggs (1898-1980; Society president 1969-1972).

Win-win for principals

University of Minnesota offers new professional development program for school principals

By Pauline Oo

From *eNews*, December 6, 2007



A Principals' Academy class in session. The professional development program for public and nonpublic K12 school administrators runs over the course of a year.

If Jeanne Swanson wants to make the 8:30 a.m. Principals' Academy roll call, she has to catch the sunrise in her car. The Waseca High School principal, who faces an almost two-hour drive from southern Minnesota to the Twin Cities, is one of 24 participants in the University of Minnesota's new professional development program for public and nonpublic K12 school administrators.

"As principals we need to know educational standards and all the [classroom] content areas so we can support or help give direction to the teachers in our building," says Swanson, a principal for 14 years (seven as assistant principal). "There are things we're learning here [at the Principals' Academy] that we didn't even know about."

Swanson and her colleagues meet twice a month at the Minnesota Department of Education in Roseville. They represent only the second group of participants; the U launched the academy in September 2006. Representatives from the National Institute for School Leadership (NISL) trained the first batch of 48 Minnesota principals and school leaders, and beginning June 2007, teams of graduates from that group (a.k.a. the Leadership Team) now serve as curriculum facilitators. The academy, offered to principals and school districts at no cost--thanks to a legislative appropriation passed with bipartisan support--is the result of a partnership among the U, the Minnesota Department of Education, Minnesota Elementary School Principals' Association, and the Minnesota Association of Secondary School Principals.

"We all came together to build a program to support our principals and other school leaders because nothing makes a high-performing school like a high-performing principal," says Kent Pekel, executive director of the University of Minnesota's Consortium for Post-Secondary Success--the office that coordinates the academy.

A principal's job is an extraordinary mix of small details and big ideas, of crisis management and long-range planning. "Our work doesn't stop," says Mary Donaldson, director of Concordia Creative Learning Academy in St. Paul. "We're on the go from 6 a.m. to midnight."

The Principals Academy curriculum is adapted specifically for Minnesota principals and school leaders from a NISL-designed program that's firmly rooted in leadership best practices from education, business, the military, and other fields. The program is also being used in other states, such as Massachusetts, Florida, and Pennsylvania. Participants are kept abreast of the latest developments in K12 education, as well as challenged to examine their leadership style and confront prevailing stereotypes about being a principal through a combination of face-to-face instruction, at-home readings, and study groups with interactive Web-based learning.

"When you get 20-25 professionals together, it's a win-win situation," says Jason Ulbrich, educational director for Stride Academy in St. Cloud. "Good ideas come up as a group, and they come up on the fly. Each of us has 100 ideas--so there is a lot of sharing that happens."

Ulbrich adds that the networking is also a plus. "Let me give you an example," he says, "I wanted to implement a standards-based report card and I sent an e-mail to everyone [in my program] asking if they would send me their sample. Within 24 hours I got 10 report cards. Where else can I get that much information?"

To learn more about the Principals' Academy and to watch a clip of the KSTP-Channel 5 news story, see www.umn.edu/mnprin.

See how they run

Men and women manage family businesses differently

By Deane Morrison

December 7, 2007

Men and women differ in how they manage family businesses and how they are affected by changes in management practices, according to a study led by Sharon Danes.

If you're a family business owner, how you run that business may well depend on whether your baby blanket was pink or blue. Men and women differ in how they run family businesses, and understanding those differences is one key to helping both business and family life thrive, says Sharon Danes, a family social science professor and lead author of a recent study on male-female management styles published in the Journal of Business Research. "A lot of people think profit and growth are end-all and be-all of running a business," she says. But while businesses run by women tend to earn less revenue than those run by men, this "underperformance" may reflect a difference in goals, not ability, and studies that look only at business variables like the bottom line will likely miss the reasons for the performance gap. That's why Danes, with Kathryn Stafford of Ohio State University and Johnben Teik-Cheok Loy of the University of Minnesota, zeroed in on the intersection between families and businesses, using data from 301 family businesses in the National Family Business Survey, taken in 1997 and 2000.

Money can't buy me contentment

Their findings supported an idea called the "contentment hypothesis," which states that some business owners seek contentment from their lives as a whole, not just from getting the fastest growth and highest profit from the enterprise. "Women, more than men, are willing, or only want, to grow a business to a level that they can manage with all the other responsibilities they have in their life," says Danes. "They want to balance work and family. As a result, they manage their businesses differently."

> *"What women would do is to have family members there helping them out, unpaid, if business is hectic. ... But men tend to keep family and business separate. They wouldn't have unpaid family members working unless the business isn't doing well financially and it's absolutely necessary."*

The case of a business consultant brought in to help one family business illustrates why it's important to recognize how management practices and changes in them affect men and women differently. The consultant noted that a husband and wife worked side by side, discussing their young children right along with their business. The consultant advised them to move to well-separated offices to discourage them from getting together for any reason besides talking business. Two years later the couple was on the brink of divorce. The business had grown, but both partners were spending less time with the family. It was much harder on the woman, who couldn't talk to her husband about family and children issues during work hours but still had to take care of the children. As bookkeeper for the business, she had to squeeze in that work late at night, after the kids were in bed. "When you have both a male and a female involved, you need to look at the impact of management practices and changes in those practices on both partners," Danes says. A new consultant figured out the problem and had the couple move back into the same office. From there, they rebuilt their relationship.

Pros and cons of free time

In the study, three general findings leapt from the data. First, in a female-owned business, family members tend to donate their time to the business when revenues are booming; but in a male-owned operation, they are more likely to work for free when revenue is down. "What women would do is to have family members there helping them out, unpaid, if business is hectic," says Danes. "It's a way to dovetail work and family and manage both. But men tend to keep family and business separate. They wouldn't have unpaid family members working unless the business isn't doing well financially and it's absolutely necessary."

Counting money, or sheep?

Second, men are more likely to lose sleep when their businesses are hurting, whereas women sleep less when times are good. Part of the reason could be that women are more likely to work in retail, where periodic marketing efforts and seasonal demands for products lead to a flood of orders. "Let's say you got a whole bunch of orders at once in response to a new marketing effort," says Danes. "In that case, women would more likely lose sleep in order to [spend more hours working] to make the business succeed. But men would more likely hire out." If business is brisk, men are better able to put more time into their businesses by taking hours away from time with family, rather than dipping into sleep hours, she adds. Supporting this behavior is the societal expectation that women, not men, are the primary caretaker of children. Men, says Danes, probably sleep less only as a last resort, when the business is in trouble financially.

Managing just fine

In the third finding, female business owners saw a bigger monetary return on extra time spent managing their staffs. Such efforts lead to employees who know what to do with customers, how to make decisions, and which ones they can make themselves without asking the boss, all important to customer satisfaction. "Overall, lots of research shows women are much more relationship-oriented," says Danes. "Perhaps a corollary is that they pay more attention to people relations in business, which would involve personnel management." Another factor may be the tendency of female owners to be in retail, which depends on large numbers of employee-customer interactions going well. In her next project, Danes is investigating the impact of spousal support on business startups to learn whether male or female business owners get more such support and its impact on the survival and success of the fledgling businesses.

Nobel ceremony at Ted Mann Concert Hall

Watch live broadcast as Professor Leonid Hurwicz receives honor

December 7, 2007

The University named Leonid Hurwicz a regents professor, its highest faculty honor, in 1969.

On Monday, December 10, University Regents Professor Emeritus Leonid Hurwicz will receive the Nobel Prize in Economic Sciences in a ceremony at the Ted Mann Concert Hall on the Twin Cities campus in Minneapolis. The ceremony will immediately follow the Nobel ceremony in Stockholm, Sweden, which Hurwicz is unable to attend.

The morning festivities will begin at 9:20 a.m. with opening remarks by President Robert Bruininks, then the Swedish ceremony will be broadcast live on a large screen at Ted Mann. During this ceremony, the Nobel laureates in physics, chemistry, medicine, literature, and economics will receive their medals and diplomas. The ceremony will also include speeches about the award winners for each prize and several musical selections.

When that broadcast ends, Swedish Ambassador Jonas Hafstr?m will present the Nobel medal and diploma to Hurwicz on the Ted Mann stage. This portion of the event will also be broadcast live.

Although all tickets to the event have been spoken for, you can still participate by watching both the Swedish and local presentations on Monday via streaming video:

- At about 9:30 a.m., go to the Nobel Foundation Web site to watch the Stockholm ceremonies.
- At about 10:30 a.m., immediately following the ceremony in Stockholm, you can watch a streaming video of the local presentation. The exact time of the presentation depends on the program in Sweden, so continue to check in so you do not miss this historic moment.

Hurwicz, along with Professors Eric Maskin of Princeton and Roger Myerson of the University of Chicago, received the prize in economics for laying the foundations of mechanism design theory, which helps set rules for transactions ranging from auctions to elections. You can read more about Prof. Hurwicz and his work at University professor wins Nobel Prize

To learn even more about mechanism design and the three economics laureates, you can listen their Nobel lectures on Saturday, December 8 on the Nobel Foundation Web site. Their lectures will be broadcast live at 6 a.m CST, and then archived.

Mind the digital generation gap

Faculty and students are not that different when it comes to educational technology use

By Christina Goodland

From *eNews*, January 10, 2008

J. D. Walker coordinates evaluation and research services for the Digital Media Center in the Office of Information Technology, Twin Cities campus.

Current traditional college age students have grown up with Xboxes and the Internet--game controllers and mice in their hands. To use learning expert Marc Prensky's term, they are "digital natives."

Their professors, by comparison, are "digital immigrants" in the electronic landscape, struggling to keep up in unfamiliar surroundings with outdated tools. Is this true at the University of Minnesota-Twin Cities?

Yes and no, says J. D. Walker, coordinator of evaluation and research services for the Office of Information Technology's Digital Media Center. He's an author of several reports on student and faculty educational technology surveys conducted on campus biannually since 2001. According to the recently released 2007 reports, it is true that students are technologically experienced: 92.3 percent own cell phones, 78 percent own laptops, 68.6 percent own MP3 players, 88.3 percent have taken at least one course supplemented by online educational technology, 39.8 percent have taken a fully online course, and 58.7 percent access online course materials at least once a day.

"When it comes to digital technology, students are experienced, but not sophisticated," says Walker. "Their experience is wide, but not deep."

But students aren't as digitally expert or virtually connected as we may think.

"When it comes to digital technology, students are experienced but not sophisticated," explains Walker. "Their experience is wide, but not deep."

Students report using simpler online communication tools with far greater frequency than more complex programs. Student responses also suggest that they more often consume than produce online content.

Faculty respondents were somewhat more fragmented in their technology experience levels and attitudes and want more training and support, but they aren't Luddites: 71.5 percent have taught at least one course supplemented by online technology during the past two years, and only 5.4 percent use neither in-class nor online educational technology.

Like students, faculty respondents rank uses of technology that support collaboration, interaction, and engagement below uses that support information delivery, increase access to course materials, and the like.

Still, both students and faculty respondents are strongly positive about educational technology. Walker says that this attitude is the most important theme that has emerged from the surveys.

"For over three years, we've heard faculty and students say many of the same things about educational technology," says Walker. "They have positive attitudes toward it, they're comfortable using it, and they think it's useful in teaching and learning."

Christina Goodland is the communications coordinator for the Digital Media Center, Twin Cities campus.

Assessing interdisciplinary success

New Graduate School associate dean will facilitate reviews of U-wide centers and institutes

By Gayla Marty

Brief, Dec. 12, 2007

Engineering professor Doug Ernie's new position will take advantage of his deep knowledge and experience in both graduate education and interdisciplinary work.

On topics from food to ethics, the number of interdisciplinary centers and institutes at the University is growing. More than 320 that focus on research and education have been identified.

Such centers respond to urgent issues, help attract funding, and keep the University competitive and responsive. They help faculty who share intellectual concerns find each other across departments and even colleges and campuses. They give students a home for working on new interdisciplinary research.

Some are University-wide centers, a designation that indicates substantial central investment and alignment with the University's strategic priorities. Over the past two years, the U has established the Institute on the Environment, the Institute for the Advancement of Science and Engineering, and several other U-wide centers and institutes--many in response to needs identified by planning task forces from 2004 to 2006.

"It all comes down to generating and disseminating new knowledge in a collaborative environment," says Doug Ernie, associate professor of Electrical and Computer Engineering. "That's what these centers are all about."

Ernie is the new associate dean in the Graduate School with a new responsibility: administering the review of academic interdisciplinary centers, institutes, and initiatives that are designated University-wide. The Office of the Vice President for Research will participate in reviews that involve research centers, and other appropriate administrators will be involved in reviews for institutes and initiatives that primarily advance education and training.

Ernie's new half-time position, created by the Office of the Provost and the Provost's Interdisciplinary Team, is located in the Graduate School, which spans the Duluth, Twin Cities, and Rochester campuses. It's one of many initiatives under development to support interdisciplinary scholarship. *(See box, right.)*

The position was created to help answer questions like, "How does the U know a center is successful? When, and how, should centers be evaluated? By what criteria?"

Once designated as University-wide centers, reviews will be conducted at regular intervals, with Ernie facilitating and managing the reviews to ensure that they are rigorous and fair. External peer reviewers will provide insights into centers' and institutes' performance and direction. Internal members will contribute to quality assessment of their research, educational, and training functions.

The Provost's Interdisciplinary Team envisions assessment of U-wide centers and institutes approximately every five years. Evaluation criteria are currently being developed by the team, which includes Graduate School dean and vice provost Gail Dubrow; assistant vice provost for interdisciplinarity Jeanie Taylor; undergraduate dean and vice provost Craig Swan, to be succeeded by Robert McMaster in January; and vice president for research Tim Mulcahy.

U INITIATIVES TO SUPPORT INTERDISCIPLINARY SCHOLARSHIP

* Provost's Interdisciplinary Team
* Network of Interdisciplinary Initiatives (NII)
* Office of Interdisciplinary Initiatives (OII)
* Consortium on Fostering Interdisciplinary Inquiry

New policies were approved in June for Creating and Evaluating Interdisciplinary Centers and Sharing Indirect Cost Recovery Among Collaborating Collegiate Units.

Learn more at the Graduate School OII.

"The collaborative approach in reviewing centers will help draw out important connections among research, education, and training that are needed to ensure outstanding returns on academic investments made by the president and provost in recent years," says Dubrow.

Building on experience

Ernie is no stranger to interdisciplinary issues. He was a co-principal investigator on the funded project that built the University's MAST lab, which opened in 2004. The lab allows scientists around the world to perform experiments that gauge the impact of large-scale forces on structures such as buildings and bridges, all within a collaborative environment. It's part of a national network of labs focused on earthquake engineering that involves researchers in fields from civil engineering to computer science.

He's also directed the UNITE distributed learning program for the past 11 years. Through UNITE, professionals have enrolled in distance courses in several Institute of Technology fields since 1971. Today, about 250 enroll in 50 to 60 mostly graduate-level courses each semester. Ernie has also served on the U's Technology-Enhanced Learning Council since 2001.

Dick Westerlund, interim vice chancellor for academic affairs at the Rochester campus, has worked with Ernie on UNITE for more than a decade.

"Doug's a very strong communicator and has a good foundation inside as well as outside of academia," says Westerlund. "As director of UNITE, he's worked very closely with industry, employers, and students to understand their needs."

Because the new position is half-time, Ernie will continue to teach, do research, and direct UNITE. Meanwhile, as associate dean, he will not only facilitate reviews of U-wide centers but take major responsibility for expanding the Graduate School's capacity to conduct academic program reviews, which are conducted on a cyclical basis.

"His expertise in science and technology brings new skills to the leadership team in the Graduate School," Dubrow says, "and his experience on National Science Foundation and other review teams will serve all his new roles well."

"This is a real confluence of my interest and passion in graduate education and interdisciplinary work," says Ernie. "It's an opportunity to contribute significantly to both."

Contact Doug Ernie at ernie@umn.edu or 612-625-0581.

A day for music makers

University of Minnesota hosts annual conducting symposium

By James Patrick Miller

December 11, 2007

Conductor and U alum Paul Kile leading a University of Minnesota ensemble at the Third Annual Instrumental Conducting Symposium hosted by the School of Music.

For musicians interested in performing and conducting, Ferguson Hall on the Twin Cities campus was the place to be last weekend. The University of Minnesota's School of Music hosted the Third Annual Instrumental Conducting Symposium and once again drew the maximum number of participants--50 local music teachers, music education students, and professional musicians, including 12 conductors. The goal of the event is to provide those interested in making music a day to focus on their art form while learning how to deepen the musical communication between conductors and performers.

A primary draw for the participants this year was University of Minnesota professor of conducting Craig Kirchhoff, a renowned leader in the world of conducting and educating. Through a series of lectures, an open forum, and conducting clinics, Kirchhoff demonstrated conducting techniques and offered conducting strategies for daily rehearsals, in addition to addressing issues of communication and motivation in teaching and inspiring dynamic performances. "Watching my teacher [at] work helps reinforce what we study and practice in our graduate seminar," says University graduate student Peter Haberman. Participants who were interested in conducting at the symposium had to submit a personal statement outlining their musical goals and what they hoped to get out of the experience, and those who were selected then had the chance to conduct two 12-minute sessions--a morning session with the U's Symphonic Band and an afternoon session with the U's Wind Ensemble.

The sessions were videotaped, complete with commentary or observations from Kirchhoff; Jerry Luckhardt, University associate director of bands; and both Mary Schneider and Timothy Diem, University assistant directors of band. Each conductor also received feedback from the other participants and the students in the ensembles. To watch the faculty, students, and participants in open, honest discussions was testament of Kirchhoff's vision for the event: blending art and education seamlessly to uncover the most vital issues facing all musicians, not only conductors. "As a performer this conducting symposium is appealing because it offers insight and pedagogy that is applicable not only to the conductor, but also to me as an instrumentalist," says Joseph Peters, a junior oboe performance major in the School of Music and a member of the wind ensemble. "Professor Kirchhoff makes this a great event for undergraduates interested in both performing and conducting." According to Luckhardt, who also serves as interim director of the School of Music, the symposium is valuable because "our music education students get to look into their future and make personal connections to the profession." The symposium, he adds, "provides a creative model for how to live life as a musician, conductor, teacher, and artist." And for School of Music education student Aaron Cole, there was no place better than Ferguson Hall last Saturday. "To take a day for creating and experiencing great art--it doesn't get any better than that," he says.

James Patrick Miller is a Doctor of Musical Arts candidate and graduate teaching assistant at the University of Minnesota School of Music.

Chiimps and the change of life

A study on chimps renews debate on why menopause happens

By Deane Morrison

December 14, 2007

Anne Pusey, director of the Jane Goodall Institute's Center for Primate Studies at the University, is an expert on chimpanzee behavior.

To some it brings blessed relief; to others, a heartbreaking loss of possibility. But whatever its personal significance, menopause has long been a subject of debate. The big question for researchers is why it evolved in the first place. Clues to human evolution are often found in our closest relatives, chimpanzees, whose ancestors split from ours sometime in the past seven million years. Now, a study of 172 wild chimps stirs the waters by reporting no evidence for a menopause-like event in the apes. If upheld, this finding would hand biologists the task of explaining how the timing of a major reproductive event evolved separately in two closely related primates. The study draws on data from chimpanzees at several sites in Africa, including Gombe National Park, where Jane Goodall began her pioneering work in 1960. The Gombe data is now stored at the University, in the Jane Goodall Institute's Center for Primate Studies. Its director, ecology professor Anne Pusey, is an author of the paper, which was published Dec. 13, 2007, online in Current Biology. The first author is Melissa Emery Thompson of Harvard University.

A big difference

The researchers compared the chimps to hunter-gatherers in two tribes: the !Kung of Botswana and the Ache of Paraguay. In chimps and women, fertility, measured as births per female per year, declined similarly with advancing age, coming to a halt near the age of 50. Chimps tended to die off as they lost fertility, and so few survived beyond their reproductive period. But for women, survivorship didn't drop as steeply as fertility. Close to 40 percent of Ache and 60 percent of !Kung lived past reproductive age, with about 20 percent of !Kung living into their seventies. "This pins down that wild chimpanzees don't have a long post-reproductive life," says Pusey. "But even now, we don't have a good fix on wild chimp lifespan. The big question is, are people really different from apes, other primates, and other mammals in general with respect to the timing of reproductive [decline] versus [general bodily decline]?" According to Emery Thompson, the decline in fertility is something all animals are expected to experience if they live long enough. But menopause is unique in that it occurs because declines in reproductive function happen much faster than declines in other bodily systems. And indeed, the survivorship and fertility curves in the paper show a clear post-reproductive life for women but not chimps.

"The big question is, are people really different from apes, other primates, and other mammals in general with respect to the timing of reproductive [decline] versus [general bodily decline]?"

Therefore, she says, scientists will have to "look to other unique features of human biology and socioecology to help explain why humans have menopause."

Or maybe not so big

Not so fast, says University ecology professor Craig Packer. He has studied the latest data, but says he is uncomfortable with saying that the longevity of chimpanzees is known. "We don't know enough about the end of life in chimps in the wild or captivity," he says. "Studies at Gombe have been going on only 47 years [since Jane Goodall began them in 1960]. In the paper, they had to estimate some females' ages. "Also, in every field study, [chimpanzees] are disturbed in some way. In Gombe it's epidemic disease like pneumonia and polio. In other places, the chimps are horribly mangled by poachers' snares. We know of at least one captive chimp that lived into his seventies. I think it's too soon to say with any confidence where [in the life course] reproductive decline occurs in chimps." Packer says he'd like to see fossil records from before the dawn of agriculture and technology to settle the question of what the primitive human lifespan is. People rarely lived past their forties in agricultural societies around the 1800s or so, he says, and "even in hunter-gatherers, an occasional anti-malarial pill will extend life a lot." Packer says post-reproductive life occurs in other nonhuman primates, rodents, whales, dogs, rabbits, elephants, and domestic livestock and appears to be a universal feature of mammalian females. In a previous study of baboons and lions, he found that females tended to live past reproductive age, and the reason could well be tied to the needs of offspring. For example, female baboons don't live past 26 or 27, and their infants require at least two years of maternal care. Baboon reproductive rates decline around age 21, which allows ample time for the youngest infant to reach independence. Similarly, lion cubs need only one year of maternal care, and lion maternity drops at age 14, at which point life expectancy is 1.8 years. Humans, of course, require a lot more time. What the age of independence might have been in pre-technological times is hard to say, but Pusey says it could have been sometime in the teens. Meanwhile, chimps seem to need only three years of maternal care to get on their feet. So from that point of view it's no surprise that post-reproductive life is longer in humans.

A matter of definition?

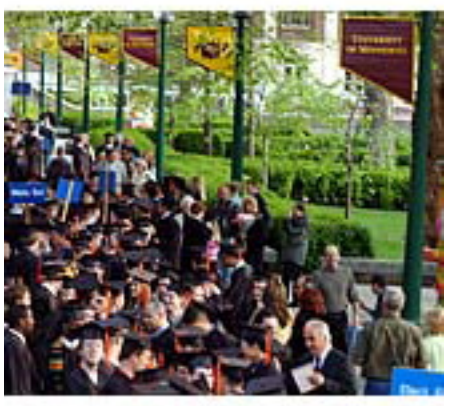
In a way, the argument seems to be over what menopause is. Supposing women do enjoy a much longer period of post-reproductive life than their ape counterparts; does that mean something different is going on with women? Or is human "menopause" a manifestation of the same evolutionary forces as a chimp's short post-reproductive life? That is, could the length of post-reproductive life in both species be driven by the same thing, namely, the needs of offspring, who happen to be much more demanding in our species? Or, says Packer, "Maybe humans have just applied their greater intellect to looking after their elders." Still, says Pusey, it is remarkable that many chimpanzees reproduce well into their forties or fifties. In the future, she wants to determine just how long a young chimp needs its mother in order to survive and thrive. That will predict how long the post-reproductive interval in the species ought to be if the needs of offspring are driving its evolution.

Graduation rates continue to rise on Twin Cities campus

Four-year graduation rate now near 45 percent; six-year rate up to 63.6 percent

By Rick Moore

December 14, 2007



The University announced that for the Twin Cities campus, the percentage of students graduating in four years increased to 44.9 percent in 2007, up from the 2006 rate of 41.1 percent.

To learn more about steps the U is taking to increase graduation rates, watch the University News Service video.

As the University of Minnesota continues to enhance its undergraduate experience, the payoffs are becoming readily apparent in rising graduation rates on the Twin Cities campus.

The percentage of students graduating in four years increased to 44.9 percent in 2007, significantly up from the 2006 rate of 41.1 percent. In addition, the five-year graduation rate increased to 60.5 percent from 58.2 percent and the six-year rate has climbed to 63.6 percent, up from 61.1 percent.

The gains on the Twin Cities campus continue an upward trend in graduation rates over the past two decades. As recently as nine years ago the four-year graduation rate was under 30 percent, and 15 years ago the rate was less than 20 percent.

Given those flagging numbers, 45 percent is a significant accomplishment.

"That's an all-time high, as far as we know, for the University," said Craig Swan, vice provost for undergraduate education.

"[But] it's not where we need to be," he added. "We've announced very aggressive goals that would take us to a four-year graduation rate of 60 percent, a five-year graduation rate of 75 percent, and a six-year graduation rate of 80 percent. But we are absolutely on track to meet those goals, and that's the right and important thing to do for students."

Swan stresses that while the gains of recent years are impressive, more work needs to be done. "This takes continued effort," he said. "This is not a case where we can relax. This is a case where we need to sustain and reinforce our commitment to student success."

Swan highlighted manifestations of that commitment in a presentation to the Board of Regents' Educational Planning and Policy Committee meeting on Thursday, December 13. In recent years the University has implemented a host of new programs aimed at increasing retention and graduation rates and, in general, enhancing the undergraduate student experience. (In fact, the U has invested about $61.4 in student initiatives over the last four years, noted Thomas Sullivan, senior vice president of academic affairs and provost.)

Examples include assuring affordable access for students with the greatest financial need, through efforts like the Founders Free Tuition Program; supporting the transition to college life with initiatives like the yearlong Bridge to Academic Excellence program and an expanded Welcome Week (to be initiated in fall 2008); improved academic advising; expanded career services, including the online GoldPASS program that connects students and employers; an increased emphasis on undergraduate research opportunities; expansion of freshman seminars and the University Honors Program; and a new emphasis on writing, through a first-year writing program and new writing studies department.

The U is also committed to "globalizing" the undergraduate degree. As Swan explained, this is a two-way process, which involves bringing more international undergraduate students to the Twin Cities campus and sending more students abroad for study. In the last nine years, the number of students studying abroad from the Twin Cities campus has doubled, he said, and the goal is for 50 percent of all students to choose that option.

The committee also had the chance to watch Doug Ahlgren, a sophomore in the College of Food, Agricultural and Natural Resource Sciences, demonstrate the benefits of the U's new Graduation Planner--a state-of-the-art online tool that students began using this semester. Ahlgren showed how the planner lists degree requirements and detailed course information, including suggestions as to the best semesters to take certain classes based on the student's needs. The new tool is user-friendly and "very easy to work with," said Ahlgren, who called it "one of the most useful tools for graduating in four years that I've come across."

Changing a campus culture

Years ago, when the graduation rates for the Twin Cities campus languished, it was assumed that the campus was a victim of special circumstances--an overabundance of commuters, students who worked too much on the side, and students who maybe were distracted by life in the Cities.

To some extent, according to Swan, those notions functioned as a built-in excuse that kept people from addressing the problem. He said that a commitment to timely graduation traces back to when Nils Hasselmo was president and the U "recognized and confronted the fact that its systems were not working the way they should for students. And we've taken a number of steps since then to ensure that the undergraduate experience we offer students is absolutely the best experience that we can [offer]."

The Twin Cities campus has indeed become less of a commuter campus. More than 80 percent of freshman now live on campus (compared to about 60 percent a decade ago), and only 35 percent of students in 2006 identified themselves as commuters (compared to 60 percent in 1980).

But Swan credits much of the progress in graduation rates to two things: a recognition by the entire University community that timely graduation is important, and making clear to students the University's expectations for them. Another key was the restructuring of tuition in 2002 so that students taking more than 13 credits receive additional credits free of charge. "As a friend said, 'A student would be foolish not to take 15, 16, 17 credits a semester; those extra three or four credits are free,'" Swan said.

Swan stresses that while the gains of recent years are impressive, more work needs to be done. "This takes continued effort," he said. "This is not a case where we can relax. This is a case where we need to sustain and reinforce our commitment to student success."

There are other reasons for students to want to graduate in four years, not the least of which is the potential financial gain. In addition to paying less for tuition, those students get out into the workforce earlier, Swan said. "They get on career ladders at an earlier stage, and so they're always one or two steps ahead of friends who may have taken longer to graduate."

He quipped that, "The U should be an important part of [students'] life, but it should be a *part* of their life." And to people who say that the college years are the best years of one's life, Swan said he hopes that's not true. "If it's all downhill after graduation, that's not much of a future."

Related reading: The write way to learn: New baccalaureate writing initiative to be essential for every student

Behind the scenes and on stage

U faculty member and local artist Michael Sommers named 2007 USA Ford Fellow

By Pauline Oo

December 14, 2007; updated Dec. 18

Michael Sommers with his fire-breathing hell-mouth--a contraption he designed for *A Prelude to Faust* at the Open Eye Figure Theatre.

It all started with a grandfather who had a penchant for making things and telling mesmerizing tales. Then came a tiny basement that Michael Sommers used for building and storing all the gizmos that sprouted from his imagination. Today, 30 years later, the University of Minnesota assistant professor is one of the Twin Cities' most versatile and ingenious theater artists--he writes, performs, and directs, as well as designs and manipulates puppets. Sommers recently landed a $50,000 grant from the United States Artists (USA) organization for his work over the years.

"I look at [the 2007 USA Ford Fellowship] as this really exquisite punctuation mark in my work," he says. "It's definitely not a period, but more like a question mark, exclamation mark, and comma."

The USA Fellows program honors artists working in eight artistic disciplines and at all stages of their careers. Sommers was one of 53 artists selected from a pool of almost 350 nominated applicants. Other recipients include choreographer Bill T. Jones, visual artist Ann Hamilton, and jazz pianist Jason Moran.

Sommers, who earned the fellowship for his "dark symbolism and vaudevillian energy" says he will invest the unrestricted grant in his craft.

"I'm going to use it to find a way to keep investigating, to do research, to travel a little bit, to buy some tools, and to find out what the new direction of my work is," he says. "I'm at a point in my life where it's like, 'Oh, I should be painting, understanding technology, or doing this, this, this, and this. But instead, I have tunnel vision. I want to concern myself with one thing. This fellowship is really going to allow me to focus. And whatever that [focus] is, I don't know. That's the exciting thing."

Sommers and his wife and business partner Sue Haas received news of the fellowship in September--the day they opened at their new theater location. *(Photo courtesy of Open Eye Theatre)*

Sommers, who founded the Open Eye Figure Theatre in south Minneapolis with his wife and creative partner Sue Haas, started his teaching career on the U's Twin Cities campus in 2002 as an adjunct professor in the Department of Theatre Arts and Dance, and was invited to join the newly formed Interdisciplinary Program in Collaborative Arts last year.

"My favorite part about teaching is supporting the idea of students and having their thinking manifest and seeing their thinking grow," he says. "I like opening those weird little windows and covered doors that all of these young people have [and hearing them say], 'Holy cow, I never thought of that or I never imagined that was possible.'"

Sommers's work on stage is often a marriage of actors' theater and puppet theater. Thus far, Sommers has collaborated with University of Minnesota students on *Articulations: An Evening of Student Puppetry* (2003), *Mississippi Panorama* (2006), and *Master and Margarita* (2006) with Luverne Seifert from the theatre arts and dance department. In spring 2008, Sommers will initiate The Woyzeck Project, a six-week intensive workshop with students and instructors from a variety of University departments. (*Woyzeck,* a stage play written by Georg B?chner, is one of the most performed and influential plays in the German theatre repertory.) "We're going to work with 40 students from dance, visual arts, theater, and German studies--both graduate and undergraduate--and we're going to make a spine or a shape for something that's going to be produced the following year on the Mainstage." explains Sommers. "There'll be a public showing of just whatever we have in March. It'll be over two nights at Norris [Hall] gym on the East Bank. Hopefully, it's going to be a big mess of mistakes and ideas--good ideas and bad ideas."

So, after half a lifetime of working hard in the theater business, why does the 52-year-old Sommers still do what he does? What keeps him going?

"It's the only thing I know how to do," he says. "And I think what keeps me going is my work is such a mystery. It proposes bigger questions that I don't have the answers for, and that excites me."

On Monday (December 17), Sommers played Lucifer in his annual holiday show--which started in his garage 17 years ago--at Pantages Theatre in downtown Minneapolis. The one-night performance of *The Holiday Pageant,* which retold the Christian nativity story through the eyes of a fallen angel, also starred Kevin Kling, Sarah Agnew, Luverne Seifert, and Amy Matthews.

To learn more about Sommers or his theater and its 2008 offerings (*Eleanor's Cabinet* in February and *Dancing With a Contagium* in the spring), see Open Eye Figure Theatre.

Further reading Puppetry cabaret showcases student creations A play on the lawn
University Theatre presents The Master and Margarita outdoors

Long live the artist...

United States Artists, a new organization dedicated to supporting America's finest living artists, was founded in 2006 in response to an Urban Institute study that found that while 96 percent of Americans appreciate the arts, only 27 percent believe that artists contribute to the good of society. The study also noted that the median reported income for artists was only $5,000, and that more than half of the two million artists in the United States pay for their own health insurance. See "Investing in Creativity: A Study of the Support Structures for U.S. Artists".

In February 2006, the "Artists' Centers: Evolution and Impact on Artists, Neighborhoods, and Economies" study from the U's Humphrey Institute of Public Affairs showed that Minnesota's strong creative economy owes much of its success to the large number of gathering spaces for artists in the state. Read "Centers for the artist."

U names Wippman new dean of Law School

December 17, 2007

On December 17, University of Minnesota Provost Thomas Sullivan named professor David Wippman as dean of the University of Minnesota Law School. Pending approval by the Board of Regents, Wippman will start the new position July 1.

The University has chosen David Wippman to lead the Law School.

Wippman will be the 10th dean of the Law School, which is consistently ranked in the top 20 law schools in the nation.

"David Wippman is an eminent scholar, a trusted and collegial leader, a highly admired teacher, and an experienced practitioner, with the very highest aspirations for our great law school," says Sullivan. "I am confident that we have chosen one of the very finest deans in the country to lead our law school forward, locally, nationally and internationally."

Search committee member and former U.S. Vice President Walter Mondale adds, "David Wippman has a unique blend of leadership that will inspire and engage our alumni, students, faculty, staff and friends. I'm very excited about the new dean. He's simply remarkable on so many levels. Once you get to know him you will see why he's already generated so much enthusiasm from our community. And let's not forget he's a son of Minnesota."

Wippman, 53, was born in St. Louis Park. He now lives in New York with his wife, Meredith, and their two children, Brianna and Lauren.

"I'm very excited about the new dean. He's simply remarkable on so many levels. Once you get to know him you will see why he's already generated so much enthusiasm from our community. And let's not forget he's a son of Minnesota."--Walter Mondale Wippman is one of the world's leading scholars in international law and human rights. Currently, he is Vice Provost for International Relations and professor of Law at Cornell University. He is a native of Minnesota and attended high school here. After graduation from Yale Law School, he clerked for Chief Judge Wilfred Feinberg of the U.S. Court of Appeals of the Second Circuit. He practiced law in Washington, D.C. from 1983 until joining Cornell Law School's faculty in 1992. Wippman served in the Clinton administration as a director in the National Security Council's Office of Multilateral and Humanitarian Affairs from 1998-99.

"I'm honored to have been asked to lead the University of Minnesota Law School. As dean, I look forward to meeting and working closely with all faculty, alumni, students and staff to move the Law School to ever higher levels of achievement and impact," Wippman says. "I'm excited to begin our work together."

Wippman holds a bachelor of arts degree summa cum laude from Princeton University, a master's degree from Yale University and earned his juris doctorate from Yale Law School, where he was editor-in-chief of the *Yale Law Journal*.

Tenure policy revised in historic effort

Changes mean more rigor and flexibility

By Gayla Marty

Brief, Dec. 19, 2007

Members of the 2006-07 Academic Freedom and Tenure Committee met 21 times between September and March. They paused for a photo at the May meeting. "The people involved all had a good sense of humor," says regents professor and chair Tom Clayton. "There was a lot of laughter at all sorts of points in the course of doing this. It was a serious enterprise but not solemn!"

When the Board of Regents approved changes in the faculty tenure policy last June, the University of Minnesota achieved something few other universities have done. In a process led by the faculty, the board endorsed a tenure policy with criteria and standards both more rigorous and more explicit.

It was undoubtedly the top faculty story of 2007 for the University of Minnesota, though the train of governance didn't stop before moving on to the painstaking process of revising a set of procedures to implement the changes to the policy.

"We thought we had it done in June, but it kept coming back to haunt us!" jokes English and classical civilization regents professor Tom Clayton. He chairs the Academic Freedom and Tenure Committee--the University Senate workhorse on the endeavor. "We were working on writing the procedures through the summer and into fall semester."

The new "Procedures for Reviewing Candidates for Tenure and/or Promotion: Tenure-Track and Tenured Faculty" went into effect in October.

The basis for the revisions to the faculty tenure policy grew out of the 2005-06 Task Force on Faculty Culture as part of strategic positioning. Those task-force recommendations were passed from the Office of the Senior Vice President and Academic Affairs and Provost to the Academic Freedom and Tenure Committee.

"What the University of Minnesota seeks above all in its faculty members is intellectual distinction and academic integrity." --Section 7, general criteria for awarding tenure

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In the summer of 2006, Clayton had served three years on what was formerly the tenure subcommittee of the University Senate. Suddenly, he found himself the chair of an expanded committee with a major task.

"We started meeting in the usual way, biweekly, and in no time at all, we were meeting weekly, and that continued for the rest of the academic year," he recalls. He credits vice provost for faculty and academic affairs Arlene Carney and Faculty Consultative Committee (FCC) member Carol Chomsky, as well as the other committee members, for an incredible effort.

"Really, it took some part of every day and parts of every weekend," Clayton says. "We ate and slept with this as well as wrote it."

In all, the committee met 21 times from September 2006 to March 2007. Minutes were widely dispersed to the faculty across the University, and input was sought throughout the process. It was discussed twice in the Faculty Senate, with comments incorporated into revisions. In large part because of the consultative process, the Faculty Senate voted unanimously, 108-0, to pass the revised code in April.

The committee didn't set out to compare the University with other institutions.

"We thought of the University of Minnesota as an archetypal university," says Clayton. "I think everyone on the committee would see the changes we made as what everyone *should* do."

Academic Freedom and Tenure Committee, 2006-07

-Tom Clayton, CLA, chair
-Arlene Carney, vice provost
-Yusuf Abul-Hajj, Pharmacy
-Tracey Anderson, Morris
-William Doherty, CEHD
-James Farr, CLA
-Joseph Gaugler, Nursing
-Candace Kruttschnitt, CLA
-Karen Miksch, CEHD
-John Mowitt, CLA
-Paul Porter, CFANS
-Terry Simon, IT
-Jianyi Zhang, Medical School
-Gary Engstrand, staff, U Senate

Mapping the path for a new generation of faculty

Tenure traditionally takes six years to attain and requires a strong record of scholarship or creative work and teaching. The typical tenure-track faculty member progresses from assistant professor to associate professor, when tenure is acquired, and then to full professor. Tenure assures an academic home for life, barring a significant change in faculty performance according to department and University standards.

The University of Minnesota's first policy on faculty tenure was adopted in 1945, when most faculty members were male, with wives at home to care for their children. Today, more than half of those earning Ph.D.s nationwide are women. In 2007 at the University of Minnesota, 40 percent of faculty in their typical six-year probationary period are women.

The faculty tenure policy has been revised several times over the years. But key changes in the 2007 revisions are significant.

See the Board of Regents policy, Faculty Tenure, in official PDF format (29 pp.) and unofficial HTML format.

"We used to have a policy about faculty tenure," says Carney. "We now have a policy that maps the path for an extraordinary faculty career, including promotion to the rank of professor. At the same time, we have a policy that points the way for the new generation of faculty, which includes a significant proportion of women."

Among the highlights:

- The section on general criteria now begins, "What the University seeks above all in its faculty members is intellectual distinction and academic integrity." (Section 7.11)
- The policy specifies that candidates for tenure have established, and are likely to continue to develop, a distinguished record of academic achievement...and that achievement should be the foundation for a national or international reputation. The candidate's record must also show promise of his or her achieving promotion to professor. Formerly, the policy required only the *potential* to contribute to the University's mission of teaching, research, and service, with no mention of future promotion. (Section 7.11)
- To be promoted to full professor, a faculty member must have added substantially to his or her record of achievement and established a national or international reputation, or both, with a primary emphasis on scholarly or other creative achievement and on teaching. The weight of teaching, research, and service varies by campus, but service alone is not sufficient. (Section 9.2)
- Interdisciplinary work, public engagement, international activity and initiatives, attention to questions of diversity, and technology transfer are identified for consideration both in gaining tenure and in advancing to full professor.
- The revised policy adds flexibility in case of faculty illness and injury to existing flexibility for pregnancy or adoption or caregiver responsibilities. It also expands the three-month window to request an extension--also called "stopping the clock" on the normal time granted to achieve tenure--to a window of one year.

Reviewing the changes in advance of approval, the Board of Regents commended the faculty on leadership and ownership of the process. The University's system of shared governance, one regent predicted, will prove to be an advantage in drawing talent.

"We already have a great university," says Clayton. "The tenure code revision enables us to have an even greater university."

FURTHER READING

"Keeping the best: How the U is changing the climate for new faculty members," from *M,* fall 2007

Emotional competence and breakthrough leadership

UMD's Transformational Leadership Program integrates a key component

By Stephanie Vine

Brief, Dec. 19, 2007

Rick Aberman and colleague Judy Skoglund (below right) led the workshop, "Managing Yourself and Leading Others," at UMD.

Cognitive and analytical skills are only part of the overall "breakthrough leadership" equation, according to Rick Aberman. To successfully manage others, a leader must be able to successfully manage him- or herself in a holistic manner. A key component is emotional intelligence.

Aberman and associate Judy Skoglund from the Lennick Aberman Group, a national leader in moral and emotional competence education and training, led a one-and-a-half-day workshop Dec. 11-12 for current and former participants of the UMD Transformational Leadership Program (TLP).

The workshop, "Managing Yourself and Leading Others," challenged current and future University leaders to examine their emotional competence, individually and as managers of project teams or units. To successfully lead a team, program, department, or collegiate unit, Aberman said, a leader must learn to draw upon all of his or her intelligences...cognitive, moral, and emotional.

When leaders align their thoughts and actions with their emotions and moral values, all parties benefit by attaining higher performance, whether in the organization itself, its employees, or the people it serves on a daily basis.

Emotional intelligence requires that one achieve a sense of self-awareness. That, in turn, results in enhanced self-management. When leaders are able to self-manage, they are better able to understand their own personal strengths and weaknesses as well as those of the teams or units they lead. By identifying and addressing personal limitations, leaders prepare to address organizational shortcomings and make the necessary changes to move forward and achieve organizational goals.

Asking the core question of why

In 2006-07, the University of Minnesota, Duluth--through the work of the Student Success Work Team--developed the Strategy Map for Improving UMD Retention and Graduation Rates. As part of its findings, the group concluded that, for UMD to effectively address issues that negatively impact student retention and timely graduation rates, departments must continually evaluate the services they provide from both process- and value-based perspectives.

Leaders must continue to ask themselves, "Do our daily actions reflect our departmental and institutional values?" and "Are our values and actions aligned with the goals and values of those we serve?"

Judy Skoglund

If the answer to either question is no, leaders and units must examine the moral and emotional competencies of themselves and their units.

While TLP examines units' daily processes, moral and emotional competency reviews address the core question of *why* we do what we do. When leaders develop their emotional intelligence, Aberman asserts, they have the capacity to create alignment between their organizations' goals, actions, and values.

Stacy Crawford, assistant academic adviser for the School of Fine Arts, described the workshop as extremely pertinent for student advisers. Emotional intelligence complements the TLP training by bringing a new perspective to leadership development, she said.

"I now better understand how I can help students align their real selves--that is, their actions and behaviors--with their ideal selves, or their values and goals," said Crawford. She also spoke from a personal perspective: "As a leader, I know improvements can always be made. Often times, self-awareness is overlooked in organizational leadership, and if we don't take the time to build self-awareness, we are not functioning to the best of our abilities."

The associate director of the Advisement Coordination Center, Vince Repesh, agreed.

"Emotional intelligence principles can be applied to any organization, whether it is business, education, or sports," said Repesh. "The content was outstanding and should be discussed at all levels of the institution."

To supplement the workshop curriculum, Lennick Aberman will help each participant create an emotional competency development plan. Personal coaching will be provided through June.

Continuous improvement

The U of M Office of Service and Continuous Improvement (OSCI), sponsor of the UMD Transformational Leadership Program, provided the financial resources to make the workshop possible.

"By including emotional intelligence as part of the overall University leadership development program," said OSCI director Scott Martens, "leaders--both current and future--will be better prepared to manage change and realize transformation and the goals of the University's strategic positioning process."

FURTHER READING

"Transformational Leadership Program heads north"

"UMD graduates its first Transformational Leadership Program class"

"Improving student persistence"

Stephanie Vine is an associate administrator for Health Services and the coordinator of the UMD Transformational Leadership Program.

Be aware of states that lack strong seat belt laws

From *eNews,* December 20, 2007

The University of Minnesota Center for Excellence in Rural Safety recently released an analysis showing a strong connection between states lacking strong seat belt laws and states with a high proportion of fatalities on rural roads.

Listen to Lee Munnich Jr., U's Center for Excellence in Rural Safety director, discuss driving on rural roads.

"For some reason, the states struggling most with rural fatalities are not using one of the most powerful tools at their disposal," said center director Lee Munnich Jr. Seat belts were first invented by George Cayley in the 1800s. University professor James J. "Crash" Ryan received a patent for the first automatic retractable safety seat belt in 1963.

Of the 10 states with the highest percentage of fatalities in rural areas in 2005, none had primary seat belt laws, or laws that allow law enforcement officers to pull people over for not using their seat belts. In contrast, 13 of the 20 states with the lowest percentage of fatalities in rural areas had enacted primary seat belt laws.

States that enact primary seat belt laws have increased their seat belt usage rates dramatically, by an average of 14 percent, which in turn reduces the number of injuries and deaths. According to the National Highway Traffic Safety Administration, 250 more lives per year are saved and 6,400 serious injuries per year are prevented for every one percentage-point increase in safety belt use nationally.

"It makes no sense that, in more than half of the states, law enforcement officials can stop drivers for having a burned out tail light or outdated license tags, but they are banned from enforcing the safety law that may prevent more highway fatalities than any other," Munnich says.

This is particularly relevant in rural areas. While U.S. Census Bureau figures show that about 21 percent of Americans live in rural areas, the Federal Highway Administration has found that about 57 percent of highway deaths happen on roads that it considers rural.

There are many reasons for America's high rate of rural crash deaths. Rural roads, with lighter traffic and pleasant scenery, can easily lull drivers into a false sense of security. An over-relaxed comfort level can lead to motorists driving at unsafe speeds, and being distracted, fatigued, unbelted, or impaired, all of which increase the likelihood of a crash. Additionally, emergency response time to a rural crash and hospital transport can be lengthy and thus jeopardize survival rate. Crash victims are five to seven times more likely to die from their injuries unless they arrive at a trauma center in the first half-hour following the crash.

"Over 90 percent of [holiday] trips will be by car, and many will pass through rural areas," says Munnich. "Those scenic rural drives 'over the river and through the woods' may seem safer than urban trips, but that's not true, particularly if you can get away with not buckling up."

CERS researchers compiled state-by-state rural fatality data from 2005 using information from the U.S. Department of Transportation. Rural roads are identified as those located outside of areas with a population of 5,000 or more.

A color-coded map capturing the information in this table is available at the Center for Excellence in Rural Safety. To view a chart and a graphic map by state, see 2005 Rural Fatalities and Primary Seat Belt Laws.

Virtual driving in road research

U Center for Transportation Studies researcher Mick Rakauskas has surveyed drivers in Minnesota and discovered that rural drivers are practicing as many common safety precautions on the road as their urban counterparts.

He says "the most interesting thing about the research is that people were willing to tell us the truth about their behaviors--that rural drivers aren't wearing their seatbelt and think that drunk driving isn't that dangerous, so education may help prevent crashes for these risk factors."

Watch an interview with Rakauskas.

Materialism linked to self esteem

U study finds link between materialism and self-esteem

From *eNews,* December 20, 2007

To buy or not to buy... Listen to U professor Deborah Roedder John explain how good parenting could save you cash and help your kids on University of Minnesota Moment.

Peer pressure, targeted marketing campaigns, and bad parenting have all been blamed for increasing materialism in children. Until now, there has been little evidence showing when this drive for material goods emerges in kids and what really causes it. In one of the first studies to focus on the development of materialism among children, Deborah Roedder John, a professor of marketing at the University of Minnesota's Carlson School of Management, reveals that a young person's level of materialism is directly connected to his or her self-esteem.

In her recent paper "Growing up in a Material World: Age Differences in Materialism in Children and Adolescents" in the December issue of the Journal of Consumer Research, John and coauthor Lan Nguyen Chaplin, assistant professor of marketing at the University of Illinois and Carlson alum, report the results of two studies conducted with children in three age groups.

In the first study, they found that materialism increases from middle childhood (8 and 9 years old) to early adolescence (12 and 13 years old) but then declines by the end of high school (16 to 18 years old). This mirrors patterns in self-esteem, which instead decreases in early adolescence but increases in late adolescence.

"The level of materialism in teens is directly driven by self-esteem," said John. "When self-esteem drops as children enter adolescence, materialism peaks. Then by late adolescence, when self-esteem rebounds, their materialism drops."

In a second study, John and Chaplin boosted self-esteem by giving children positive information about peer acceptance. Children were given paper plates with positive descriptors about them, such as "smart" and "fun," which were provided by their peers in a summer camp setting. This seemingly small gesture drastically reduced the high levels of materialism found among 12- to 13-year-olds and the moderate levels of materialism found among 16- to 18-year-olds.

"Particularly relevant," said John, "is the fact that by simply increasing self-esteem in teens, we see a decreased focus on material goods that parallels that of young children. While peers and marketing can certainly influence teens, materialism is directly connected to self-esteem."

For parents interested in instilling positive values in their children and teens, the message is clear: encouraging a sense of self-worth among young people can reduce the emphasis on material goods. In other words, more self-esteem means less desire for $150 athletic shoes and $250 purses.

To forgive or not to forgive

By J. Trout Lowen

From *eNews,* December 20, 2007

At some point in our lives, each of us has been hurt by another, be it betrayal by a friend, rejection by a partner, or victimization by a criminal. And at some point, we have had to decide whether to carry that hurt indefinitely or to forgive.

Graduate student Ling-Hsuan Tung is studying the healing impact of forgiveness.

Ling-Hsuan Tung, a doctoral candidate in counseling psychology, has watched many clients struggle with that decision, and she's seen the healing impact that deciding to forgive can have. "When clients tell me they finally, truly forgive the person, they mention feeling free," Tung says. "What happened still matters, but it helps them to free themselves from being hurt."

Through her work as an intern counselor at Bethel University's Counseling Services and at the Walk-In Counseling Center in Minneapolis, among other places, Tung has discovered that it's important not to push clients to forgive, however. "If it's a very serious offense, then it's really hard. You cannot push yourself to forgive right away." That's particularly true, she says, for some of her clients who have a strong faith that encourages forgiveness.

But what makes a person decide to forgive? That's the question Tung's dissertation research seeks to answer. "My hope is to learn more about the factors that affect people's choice to forgive and reconcile, and by knowing those things, to help us develop better skills to help clients to be able to forgive," Tung says.

A native of Taiwan, Tung began researching forgiveness as a master's student at the University of Minnesota; she designed a study to determine how likely someone is to forgive using eight short scenarios that ranged from intimate offenses, such as adultery and incest, to more distant events including plagiarism and a car accident. She asked subjects to read the scenarios and respond as the victim to three questions: Would they forgive the offender? Would they tell the offender they had forgiven them? And would they reconcile with the offender?

Tung also examined the effect of four variables on that decision: the scenario itself, whether there was an apology, the closeness of the relationship prior to the offense, and the time elapsed since the offense. Among the most significant factors that influence the decision to forgive, Tung says, are the severity of the offense and whether the offender has apologized.

While it might seem like common sense that someone is more likely to forgive after an apology, Tung's adviser, educational psychology professor Tom Hummel, says Tung's research is unique in that it seeks to actually quantify how much more likely someone is to forgive by using techniques more common in economic and marketing research. Having the more precise results could help clinicians treating both victims and offenders, he says.

Now Tung is broadening her research. She recently completed interviews with 128 graduate and undergraduate students using scenarios similar to the first study, but expanding the variables to include options such as the offender's intent and whether the victim is religious.

She is also probing more deeply into the question of reconciliation. Forgiveness doesn't always include reconciliation, Tung notes. In some cases, such as sexual assault, the victim may want nothing to do with the offender, but forgiveness is still possible, even if the offender never knows of the decision, Tung says.

Deciding to forgive, she explains, can give patients a sense of power and control. "It's important to empower clients, to say you have the control, you have the power to say you're going to forgive the person."

Dealing with loss during the holidays

By Martha Erickson

From *eNews,* December 20, 2007

Light a candle in memory of a loved one this holiday season.

The holiday season is filled with images of happy families gathered around the fireplace, singing songs and making wonderful memories together. For most families it is hard to measure up to that perfect image; and for families who have experienced a recent loss, especially one as profound as the death of a family member, the gap between the "greeting card" image and reality can be huge.

Although each family's experience is unique, there are some common issues that often come up around holidays following a loss. Many families find that the familiar holiday rituals evoke strong memories that, as one parent told me, "peel away the scab" of the loss. Feeling so vulnerable themselves, family members sometimes become protective of each other--dancing around the feelings, uncertain of how to behave for fear of triggering a flood of emotion.

Some family members find that when they do begin to have fun--perhaps for a moment almost forgetting the lost loved one--they suddenly feel guilty for enjoying themselves. Another common response is to idealize the deceased family member, remembering only how wonderful he or she was and forgetting the loved one's human faults. Although this is a natural reaction, surviving family members may feel left out or less important than the one who died. This is especially difficult for surviving siblings when a child dies.

Here are some steps you can take to help cope and even find some joy in the holiday season:

- Within your family, talk openly about your feelings before the holiday. Often, it's a relief to all family members just to say out loud that this is really a challenging time.
- Decide together what you want to repeat from past holiday rituals and what you would like to do differently this year. Note that some families decide to do everything differently, perhaps even going away to a new place that doesn't evoke so many memories. Some families find comfort in doing what they've always done, and other families do some of both. The important thing is that you and your family figure out what works best for everyone.
- Set aside some time for remembering the experiences you shared with the person you lost. Sometimes, designating a special memorial time can free up the family for a deeper appreciation of the holiday and keep the sad feelings from being so pervasive.
- Remember to focus on the surviving family members, especially children. They are still here to be cherished and celebrated. And, of course, they need special attention as they deal with their own loss.

Finally, keep up your own strength (remember to rest and eat) and seek or accept extra support from friends. And, if you haven't already done so, this would be a good time to seek out a peer support group, especially if you're a parent who has lost a child--many communities have chapters of Compassionate Friends listed in the phone book. (If not, contact your clergy or a community mental health center for a recommendation.)

Martha Erickson is senior fellow and director of the Harris Programs for Infant and Toddler Training in the Center for Early Education and Development.

When alumnus Earl Bakken invented a wearable pacemaker, he sparked a revolution

When alumnus Earl Bakken invented a wearable pacemaker, he sparked a revolution in medicine

By Deane Morrison

December 21, 2007

University alumnus Earl Bakken holds his revolutionary invention: the first wearable cardiac pacemaker. Around his neck is the Russ Medal for outstanding achievement, awarded by the National Academy of Engineering.

October 1957 is remembered as the start of the Space Age, but that month also witnessed the birth of a new era in medicine. As the Soviet satellite Sputnik sailed overhead, a power blackout in Minneapolis led University alumnus Earl Bakken to invent a tiny metal box that sparked a revolution: the first wearable cardiac pacemaker. Earlier this month Bakken, an electrical engineer who graduated in 1948, received the first honorary Doctor of Medicine degree from the University in recognition of his contributions. Last week, at a symposium in his honor, he recounted the tale of the pacemaker's genesis. The blackout on Halloween 1957 left a legendary University heart surgeon, C. Walton Lillehei, with a tiny patient who needed electricity to stay alive. Lillehei had repaired a hole in the baby's heart, but the electrical signals that control the heartbeat had been blocked. An AC-powered stimulator was standing in for the heart's natural rhythm until the child's heart could recover. The stimulator plugged into wall sockets, limiting patients and doctors alike. "It was hard when you had to move a patient," Bakken recalls. "You had to run extension cords, sometimes down an elevator." Whether the baby survived or not (memories differ on that point), it was clear to Lillehei that there had to be a better way. So the next time he ran into Bakken, who was already in the business of fixing and calibrating medical equipment, he asked if Bakken couldn't rig a battery to back up the stimulator. Bakken was then working out of a cramped, kerosene-heated garage with business partner Palmer Hermundslie, his wife's sister's husband. Eight years earlier, in that same space, they had created a company called Medtronic. When Lillehei made his request, Bakken first envisioned a cart loaded with a battery, charger, and inverter--all the necessities for running an AC-powered pacemaker. Then another idea struck.

"I remembered a two-transistor circuit for a metronome. I plagiarized the circuit and built a pacemaker. ... Then I walked in the hospital one day and saw it connected to a child."

"I remembered a two-transistor circuit for a metronome," Bakken says. "I plagiarized the circuit and built a pacemaker." Four weeks later, Bakken brought Lillehei a transistorized, battery-powered pacemaker housed in an aluminum circuit box about the size of a slice of bread. A trial on a research animal was successful, and Bakken assumed many more such trials would be performed. "Then I walked in the hospital one day and saw it connected to a child," he says. The device was strapped to patients' chests and was connected to two electrodes: one surgically placed in contact with heart muscle and the other implanted under the skin. The external box had an on/off switch, plus knobs for controlling the stimulus rate and strength. Sure enough, young patients started playing with the knobs, so the first commercial models of the pacemaker had recessed, kid-proof knobs. "It was a great experience, saving the lives of kids," Bakken muses. The invention allowed the University to lead the way in short-term pacing of the heart, keeping patients alive until their hearts recovered normal function--usually about two or three weeks. Then the electrodes could be pulled out. Soon, both Medtronic and pacemaker technology started to take off. In 1959 a Medtronic engineer named Norman Roth teamed up with Samuel Hunter, a surgeon at St. Joseph's Hospital in St. Paul, to design a new pacemaker lead that combined both electrodes inside a plastic patch that could be stitched to the heart. This more permanent pacemaker was first used on a patient, Warren Mauston of St. Paul, in April 1959. Mauston lived with it for more than seven years. The first successful implantable pacemaker also came along in 1959, the creation of Wilson Greatbatch of the University of Buffalo and William Chardack, chief of thoracic surgery at the Buffalo Veterans Administration Hospital. It was first used in 1960, and in 1966 Medtronic bought the associated patents. The rest is history. Medtronic has been phenomenally successful; the company now sells medical devices all over the world and reported revenues of $12.3 billion for the year ending April 29, 2007. Among the many spinoff companies founded by Medtronic employees is St. Jude Medical, famous for its mechanical heart valve. Pacemakers have shrunk to the size of two silver dollars stacked atop each other, and more than 400,000 are implanted every year. In 1984 the pacemaker was named one of the 10 outstanding engineering achievements of the second half of the 20th century by the National Society of Professional Engineers. In 2001 Bakken and Greatbatch were recognized with the $500,000 Fritz J. and Dolores H. Russ Prize from the National Academy of Engineering and Ohio University. The prize recognizes achievements that improve the quality of life and have attained wide application or use. Today, visitors to the Bakken Museum, sitting on the western shore of Lake Calhoun in Minneapolis, can trace the history of electricity in medicine and hear the life story of the museum's founder and namesake. Its executive director, David Rhees, says he always gets a charge out of watching children tour the museum. "One of them is going to be the next Earl Bakken," he predicts.

Fighting HIV in cyberspace

U professors use the Internet to help prevent HIV

By Robyn White

December 21, 2007

B. R. Simon Rosser (left) and Joseph Konstan

A new Web-based software program is the latest tool University of Minnesota researchers are using to help fight the spread of HIV.

A team of researchers led by Joseph Konstan, a professor in computer science and engineering, and B. R. Simon Rosser, a professor in epidemiology and community health, are embarking on a clinical trial this month to test a software program that aims to reduce risk-taking behavior associated with the spread of HIV and other sexually transmitted infections.

It's the second phase of a project Konstan and Rosser's research team has been working on for more than five years. Phase I of the study entailed assessing the risks undertaken by men seeking sex with other men through online venues.

This month's clinical trial prompts users to answer questions about issues such as body image, self-esteem, sexual health and risk-taking behaviors. The program then offers users information about HIV/AIDS, along with instructive stories. "The goal of this research is to create a genuine online experience that promotes healthier sexual behavior and encourages people to take fewer risks in sexual encounters outside of cyberspace," Konstan says.

The team's work has become a multi-phased, interdisciplinary project, called the Men's Internet Study (MINTS). The group is also joining with a technology company--Allen Interactions--to develop the intervention techniques. Konstan and Rosser hope these trials will show that the Web-based program is effective in the prevention of risk-related behavior leading to sexually transmitted infections.

"If we don't do [HIV prevention outreach] right or in a way that's most responsive, we're going to have a new HIV epidemic," says Rosser. "There's enormous urgency in addressing gaps in HIV prevention."

Rosser, program director for the HIV/STI Intervention and Prevention Studies (HIPS), says that it's crucial to use the Internet for disease prevention, because their research shows that seeking sex is the most popular use for the Internet among high-risk populations. "If we don't do [HIV prevention outreach] right or in a way that's most responsive, we're going to have a new HIV epidemic. There's enormous urgency in addressing gaps in HIV prevention," he says.

A new model

Andy Birkey, the Health Education Coordinator at the Minnesota AIDS Project, says Internet outreach is a big part of his job in helping to prevent HIV. He says having an additional computer-based resource like the one being developed through the University MINTS project would be a huge help.

"A big part of what we do is to refer people to other resources online," says Birkey. "Having a larger place to send people that's comprehensive is a really good thing." Birkey says this prevention work is crucial not only because of the number of people meeting online, but also because a lot of the people he's reaching don't have adequate access to sexual health information or health care in general.

To that end, in addition to hopes for HIV prevention Rosser and Konstan hope the prevention model can be used for other public health purposes. "The importance of the MINTS Internet study is not just addressing HIV," Rosser says.

This fall, he and Konstan and Rosser also began teaching a course focused on the concepts and methodologies of developing online prevention for public health issues like cancer, substance abuse, and obesity. Rosser says the course drew students from the School of Public Health, the Medical School, the Institute of Technology, and the College of Liberal Arts.

For more information about the new study, visit MINTS.

Garden of Iron Mirrors reflects past and present

New public art on TC campus honors history and future of renovated Education Sciences Building

By Pauline Oo

December 21, 2007

One of the seven rocks that make up the Garden of Iron Mirrors public sculpture on the Twin Cities campus.

If you've ever been to England, you may have made the trip to see Stonehenge--that eyebrow-raising ring of about 30 upright stones, each more than 10 feet tall. Closer to home, on the University of Minnesota's Twin Cities campus in Minneapolis, there is the Garden of Iron Mirrors--a sculpture of seven massive boulders reminiscent of Stonehenge.

"There's definitely an inspiration from ancient rock formations, Japanese and Chinese landscape design, as well as my own practice using mirrored and reflective surfaces," says Andrea Stanislav, U assistant professor of sculpture, of her commissioned piece. Garden of Iron Mirrors is made up of two formations beside the renovated and recently opened Education Sciences Building--three in the back garden overlooking the Mississippi River and four on the grassy knoll on East River Road.

Each 10-ton taconite stone from Minnesota's Iron Range is placed the way it is for more than beauty's sake. For example, the mirror-polished stainless steel plates on some of them serve as metaphors of the building's current purpose--enlightenment and education of children--and of knowledge and learning at the University of Minnesota in general. The formation of rocks on the grassy knoll is patterned to the points of a compass: The stone facing east reflects sunrise and the one facing west reflects sunset, while the north and south rocks have polished surfaces that reveal the brownish swirls of the iron-bearing taconite inside them. "As far as rocks go, they have been aged--these rocks are over two billion years old," says Stanislav. "For me, [the polished surfaces] are like looking into this window of the past. Aesthetically, too, they are an echo of the river next to it ... the rocks are not just an ornamental sculpture, but a space that people could engage with and spend time at."

A cast iron rock will be installed inside the building in mid-February, just in time for a public unveiling of the Garden of Iron Rocks in the spring.

The Renaissance Revival-style Education Sciences Building originally housed the Mines Experiment Station. It was designed in 1923 by state architect Clarence Johnston, Sr., and in time became the Mineral Resources Research Center--the birthplace of the taconite refining process. (see sidebar) The University began remodeling the 62,000-square-foot building, tucked in the far northwest corner of the Twin Cities campus in Minneapolis, in spring 2005. (The renovation was a finalist for "Redevelopment/Extensive Renovation" in The Business Journal's 2007 Best in Real Estate awards.) Elements of its past, such as industrial tools and machines and its skylight atrium, have been retained. Pipes and valves are exposed along the high ceilings, as are steel-support beams. The building currently houses three College of Education and Human Development units: the Department of Educational Psychology, the Center for Applied Research and Educational Improvement, and the Center for Early Education and Development.

Taconite and iron
Edward Wilson Davis was known as the "father of taconite." The University professor was regarded as one of the world's foremost authorities on the processing of iron ore and taconite. In 1946, he received a patent for the development processes that would convert taconite into iron ore. In 1955, his taconite pellet process allowed for the use of lower-grade iron ore and breathed new life into Minnesota's iron range.

"It's a very pleasant place to work in," says Kristen McMaster, University assistant professor of special education, whose office was formerly in the nearby Burton Hall. "I like the layout and openness to it--the upper levels are very conducive to interacting, for example--and I also like the blend of old and new."

The Education Sciences Building on East River Road in Minneapolis.

For Stanislav, the artist, the Garden of Iron Mirrors came to her very quickly. "It was one of these ideas that come to you very, very late at night, or I think at this point, it was very early in the morning," she says. The Chicago native found not only "excellent specimens" of taconite during her rock-finding expedition at Cliff's Erie mine near Virginia, Minnesota, but gained a greater appreciation of her host state.

"It was my first time in a mine, and it was really an amazing and very educational experience for me," she says. Garden of Iron Mirrors is, in a way, her tribute to Minnesota's landscape.

"I would like people to go away from this sculptural installation with regard and further understanding of the location and the building's history," she adds. "And I want them to also have a beautiful physical experience that adds to their day."

U gets creative, wins award

Commuter Choice Award honors U for creative transportation solutions

By Rick Moore

December 27, 2007

Rush hours were less trying than some expected during fall semester, thanks in part to the number of students, faculty, and staff who signed up for U-Pass and Metropass.

Almost four months ago, the University of Minnesota community on the Twin Cities campus braced for the worst. It was a month after the I-35W bridge had collapsed and fall classes were about to start, the day after the Labor Day weekend.

Everyone assumed that the holiday would be over in more ways than one--that ordinary commutes to campus would turn into extraordinary gridlock, frustrating students and staff alike. Fortunately, that scenario never materialized, thanks in part to the efforts and ingenuity of the University and its Parking and Transportation Services (PTS) department.

The University was recently recognized with a 2007 Commuter Choice Award in the category of Outstanding Promotion for a Large Organization.

The awards, sponsored by Metro Transit and the region's five transportation management entities, recognize organizations and individuals from across the seven-county metro area for their creative solutions in promoting alternatives to driving alone to work, such as mass transit, carpooling, and bicycling.

"We're real pleased to be honored and recognized for the hard work we did," says Mary Sienko, PTS marketing manager. "And it really was a lot of hard work, because we had to do it in such a short period of time."

PTS at a glance

The Twin Cities campus at the University of Minnesota is the third largest traffic generator in Minnesota. Parking and Transportation Services (PTS) is committed to establishing, maintaining, and improving a comprehensive transportation system that reduces congestion, eases accessibility, and enhances a friendly U community.

PTS offers a wide array of parking options for the Twin Cities campus, including hourly, daily, carpool, event, motorcycle, and discounted options. The department has also developed a number of services designed to encourage the use of alternative transportation modes, like U-Pass and Metropass, Zipcar (see story), and the Helmets and Headlights promotion.

Without the I-35W bridge in place as a major artery to and from the Twin Cities campus (it's estimated that the bridge carried about 140,000 vehicles a day), it became incumbent on the U to promote various alternatives to driving. And so Parking and Transportation Services came up with five major initiatives: ease traffic flow; lower the cost of Metropass, the unlimited-ride employee bus pass; add bike racks; develop a new Park and Ride location at the corner of Como and 29th avenues; and communicate the message about changing commuting behaviors to the public.

As part of those initiatives, the price of Metropass--originally scheduled to increase from $62 a month to $64 in October--was lowered to $45 for the current fiscal year. Some contract parking spaces, meters, and a bike lane were removed from Pleasant Avenue to better accommodate the increased automobile traffic there. The timing of traffic signals was modified along Washington and University Avenues, which meant working collaboratively with outside organizations, including the City of Minneapolis and Washington County. The U also pushed hard for the 10th Avenue Bridge to be reopened in time for the start of classes.

And there was a multifaceted communications campaign to encourage members of the University community to, as much as possible, leave their cars at home.

Looking at the numbers, it appears the strategy worked. Sales of Metropass rose by more than 430, an increase of 29 percent. Sales of U-Pass, the all-you-can-ride pass for University students, went up another 10 percent from fall 2006 and have now topped the 20,000 mark.

And perhaps the most telling indication that commuters responded to the message could be found at the East Bank's parking facilities, which were not even full as the semester kicked into stride. According to Sienko, that's even more impressive when you consider that the U was 800 parking spots short from a year ago due to the stadium construction.

"We really were expecting horrible congestion the first week of classes, and it just wasn't there," says Sienko.

Which is not to say that commutes to and from campus won't occasionally be difficult until a new bridge is finished, especially during snowfalls.

But thanks to some quick work, creativity, and quality communications, the U helped students and staff navigate to campus this fall much more easily than expected.