



Campus ceremony will celebrate new stamp for UI physicist

By James E. Kloeppel
News Bureau Staff Writer

A stamp commemorating the achievements of former UI faculty member and two-time Nobel Prize-winner John Bardeen will be unveiled at a ceremony on campus March 6.

The UI physics department will host Urbana Postmaster Kathleen J.

Burr, regional U.S. Postal Service officials, university administrators, and family and friends of Bardeen (1908-1991) at the ceremony. The event is free and open to the public. It will begin at 12:15 p.m. in Room 144 of Loomis Laboratory.

"We are absolutely delighted to see John Bardeen remembered in this way," said Dale J. Van Harlingen, the head of the physics department. "It is particularly timely that he is being honored this year: May 23 will mark the centennial of his birth. We are very pleased that the Urbana postmaster chose to have the ceremony here in Loomis, where professor Bardeen studied and taught for 30 years."

One of four American scientists being honored this year, Bardeen was recognized for his co-invention of the transistor and his contribution to the first fundamental explanation of superconductivity. For each of these achievements, Bardeen was awarded a Nobel Prize. (The other scientists being recognized are biochemist Gerty Cori,



chemist Linus Pauling and astronomer Edwin Hubble.)

"John Bardeen was one of the greatest scientists of the 20th century," said Nick Holonyak Jr., a John Bardeen Professor of Electrical and Computer Engineering and Physics. Holonyak, who invented the first practical light-emitting diode and currently is developing

transistor lasers, was Bardeen's first graduate student.

"Bardeen was arguably the greatest master ever of the quantum theory of the conductivity of solids, which is at the core, the very heart of all of electronics," Holonyak said. "Legendary names in physics failed for almost 50 years in explaining the mystery of superconductivity until the successful Bardeen attack on the problem, which also introduced revolutionary particle-pairing notions into all of physics."

"Perhaps more vital to everyone on the planet is the transistor, and all it has spawned," Holonyak said. "No one sought so little for himself, gave so much, and was so generous and considerate of his fellow man."

To mark the event, the Champaign-Urbana Stamp Club has created a first-day cover, incorporating a cachet featuring drawings of Bardeen and Loomis Laboratory, created by local artist Jason Pankoke, and bearing the stamp and a special first-day Urbana cancel. These will be available after the ceremony for \$3 each. ♦

Gov. Blagojevich: Universities to receive no increase

By Sharita Forrest
Assistant Editor

The UI and other state universities would receive no increase in funding from the state next fiscal year if the budget proposed by Gov. Rod Blagojevich in his annual address on Feb. 20 is approved by legislators. However, Blagojevich did propose funding several capital projects at the UI campuses, including renovations at Lincoln Hall and the petascale computing facility at Urbana, and supported transferring operation of the four state scientific surveys to the UI. (See story page 2.)

Blagojevich recommended that appropriations for state universities and financial aid programs – the Illinois Student Assistance Commission, the ISAC Monetary Award Program and Illinois Veteran Grant – remain at their FY08 levels for Fiscal Year 2009, which begins July 1.

The UI's general fund appropriation for FY08 was \$720.5 million. The state is the university's single largest funding source, providing more than \$1.16 billion of the UI's \$3.9 billion annual operating budget.

All legislative add-ons for the UI also were eliminated in the proposed operating budget, including \$350,000 for Dixon Springs Agricultural Center.

"A lack of additional operating revenue creates a challenging situation given inflationary operational costs that the university faces, but we are realistic about the circumstances given the state's budget situation and a soft economy," UI President B. Joseph White said in a statement responding to the budget proposal. "This puts added pressure on the budget proposal." ♦

Hold on executions could continue after Supreme Court rules

By Jan Dennis
News Bureau Staff Writer

A historic capital punishment case pending before the U.S. Supreme Court could extend a de facto moratorium that has already halted executions for more than five months, a UI death penalty expert says.

A hold on executions that started soon after the court agreed to hear the case last fall will likely continue at least until justices rule, which could come before an August recess, said Catherine Grosso, a law professor who teaches and studies death penalty issues.

But she says death sentences could remain in limbo longer if the court backs a challenge that alleges drugs administered for lethal injection subject inmates to excruciating pain, violating Eighth Amendment rights against cruel and unusual punishment.

"The case has the potential to prolong the de facto moratorium," Grosso said. "If it establishes a new standard for Eighth Amendment challenges, that will lead to new cases applying the new standard. If it requires new protocols for lethal injection, states will need to develop and approve them. And it's hard to think there wouldn't be new challenges to whatever protocol comes next."

Grosso says the case, filed by Kentucky death row inmates Ralph Baze and Thomas

"What is cruel and unusual punishment given we have the death penalty and how do you know when something is too evil even when what you're trying to do is execute someone?"

—Catherine Grosso

Clyde Bowling Jr., has far-reaching implications, because 36 of 37 states with death penalty laws use a method of lethal injection similar to Kentucky's.

Baze and Bowling contend the three-drug injection used in Kentucky lacks safeguards to prevent torturous pain. A drug that suppresses muscle reaction to avoid making those watching the execution uncomfortable masks the suffering, the convicted murderers allege.

The case is the first Eighth Amendment challenge of lethal injection to reach the high court, and the first time the court has accepted a case alleging execution amounts to cruel and unusual punishment since a challenge to electrocution more than a century ago, Grosso said.

"It's a hard question to tackle and hard to even analyze," Grosso said. "What is cruel and unusual punishment given we have the death penalty and how do you know when something is too evil when what you're try-

ing to do is execute someone?"

"Maybe it's an oxymoron. Maybe you can't kill someone without suffering," she said. "Then the question would be how much suffering does the Eighth Amendment allow?"

The court also is considering another Eighth Amendment challenge that alleges a Louisiana law allowing the death penalty for the rape of a child amounts to cruel and unusual punishment.

Four other states have similar laws that would be rendered unconstitutional if the court sides with Patrick Kennedy, who was convicted of raping his 8-year-old stepdaughter and sentenced to death in 2004.

While the court has ruled that rape involving an adult does not qualify for a death sentence, Kennedy's challenge is the first test of whether child rape rises to that standard, Grosso said.

"It's an important case to watch. If you look at Supreme Court cases over the last several years, the court has consistently narrowed eligibility standards. Here, a state has challenged that trend by expanding the reach of the death penalty," she said.

Grosso says death sentences and executions are on the decline as public support grows for life in prison without parole as a more humane alternative, but doesn't think the trend suggests abolition is on the horizon.

"Instead of any abolition of the death



photo by L. Brian Stauffer

Historic decision Law professor Catherine Grosso says a historic capital punishment case pending before the U.S. Supreme Court could extend a de facto moratorium that has already halted executions for more than five months.

penalty, the death penalty might just become more rare," Grosso said. "But we also know that these things are cyclical and that support for the death penalty and the appetite for execution waxes and wanes over time." ♦

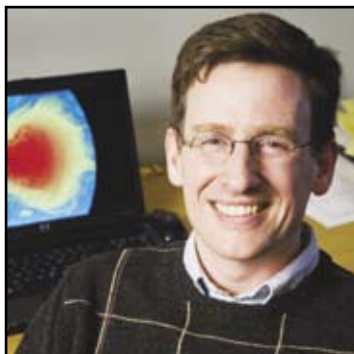
In This Issue



Task force reports

The Academic Professional Task Force has released its report after examining issues affecting academic professionals on campus.

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University Scholars

Six faculty members at Urbana are recognized as University Scholars.

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On the Web

www.news.uiuc.edu/ii

U-C Senate creates parking advisory committee

By Sharita Forrest
Assistant Editor

A committee is being assembled to advise Chancellor Richard Herman about parking-related issues such as implementing salary-based rates, enhancing safety, and reducing vehicular traffic on campus and promoting "green" transportation modes. The Urbana-Champaign Senate approved a resolution from the Committee on Campus Operations to form an advisory committee when the senate met Feb. 25. The advisory committee, which will be charged with developing short-term and long-term parking policies by January 2009, will include faculty and staff members, graduate and undergraduate students as well as experts in business/economics and sustainability and a member of the Illinois Center for Transportation.

The UI currently is engaged in collective bargaining with some of its labor unions and plans to implement a salary-based parking fee system for certain union members. The comprehensive policy to be developed by the committee also will address issues such as increasing the frequency of shuttles from remote lots to central campus, providing occasional access to employees who do not regularly drive to campus, allowing drivers to access multiple parking areas per permit

and increasing the cost of permits for high-demand parking areas.

During his opening remarks, Herman told the senate of his intention to attend the Feb. 26 study session of the Champaign City Council "to convince the council and the liquor commissioner, Mayor Jerry Schweighart, to act in the best interests of the community" by assessing penalties to bar owners during the annual bar-sponsored drinking promotion called Unofficial St. Patrick's Day. Bar owners, he said, do not face any penalties while students cited for underage drinking face \$300 fines.

In the past, the event has incurred thousands of dollars in expenses for the UI and the cities of Champaign and Urbana for police and medical personnel services as well as property damage, disruption of classes and the towing of hundreds of illegally parked cars.

Herman said the celebration's founder, bar owner Scott Cochrane, planned to extend the event from one to two days this year – Feb. 29 and March 1 – and to bus participants in from nearby colleges and universities, promulgating negative images of the UI and the surrounding community as destinations for unconstrained drinking.

"We are allowing Mr. Cochrane to define who we are, and that's unacceptable," Herman said. "I may be the chancellor of

this university, but I am also a citizen of this town, a parent and a grandparent and for this to go on without the city's taking anything related to a strong stance to me is totally unacceptable."

To help constrain the celebration, Schweighart issued an emergency order prohibiting licensed liquor establishments from serving alcohol before 11 a.m. on Feb. 29 and March 1, prohibiting sales of pitchers and shots, and making it illegal for private residences to possess more than one keg. In addition to increased presence by UI, Champaign and Urbana police, the Champaign Fire Department planned to monitor facilities for overcrowding and life safety code compliance as well as load limits on balconies at private residences.

Other business

A working group comprising staff members from the provost's office and various colleges and the Center for Teaching Excellence is exploring the possibility of implementing a program review process. The group, which has reviewed similar processes at peer institutions, is developing a concept statement to present to the Council of Deans later this semester. If the council is supportive, the group will consult extensively with appropriate senate committees and with faculty and staff members about the review process with the goal of hav-

ing procedures in place by the fall semester. The first program reviews are expected to be initiated as early as the spring 2009 semester. Herman thanked the department of computer science for volunteering to be the inaugural unit to undergo review, a process that will comprise internal and external feedback and be managed by the provost's office.

"It is, in the end, about academic quality; it is not about resources," Herman said.

The senate approved a proposal sponsored by the Educational Policy Committee to rename the College of Communications. The College of Media more accurately reflects the college's teaching, research and service missions as well as shifts occurring in the world of media. According to the proposal from Ronald Yates, dean of the college, College of Media was one of the top three choices of both faculty and staff members and more than 900 alumni who responded to a survey.

In response to a question from James Barrett, history, Herman said the committee that is examining the agreement between the UI Foundation and the group endowing the Academy on Capitalism and Limited Government is making progress and expects to share a redrafted agreement with him and the senate soon. ♦

State scientific surveys slated to become part of UI

By Sharita Forrest
Assistant Editor

The four state scientific surveys – the Illinois State Geological Survey, the Illinois Natural History Survey, the Illinois Waste Management and Research Center, and the Illinois State Water Survey – will become part of the UI if a plan proposed by Gov. Rod Blagojevich is approved. The surveys, on the UI's Urbana campus, would be organized as a new unit, the Institute for Natural Sciences and Sustainability, under the university's auspices beginning in Fiscal Year 2009.

The institute would serve as a focal point for applied energy, environmental science and sustainability programs throughout the state, taking advantage of the surveys' complementary goals and missions of providing the scientific underpinnings for energy, sustainability, environmental policy and natural resource management, ensuring that the natural environment is developed to enhance the well being of the citizens of Illinois and the state's economic viability.

The surveys and the campus each have strong programs in natural resources, energy and the environment, and their integration provides opportunities to build on the synergies between the academic and educational programs of the campus with

the state-focused research and outreach programs of the surveys. While creating operational efficiencies, the surveys' integration with the university also will expand opportunities for collaborative research and access to funding, technology commercialization, experiential learning for Illinois students and programmatic enhancements.

"The state surveys, long a part of our research activities, are truly significant contributors alone and through our joint work with them on issues of energy and sustainability," said Richard Herman, the chancellor of the Urbana campus. "Notably, the work of the surveys has helped to address real-world problems for the people of the state of Illinois. This is fully in keeping with our land-grant mission, and it makes the University of Illinois the right intellectual home for the surveys. The governor's proposed action is most welcome and timely."

"This institute will combine the world-class expertise of survey and Illinois scientists to provide the collaborative, interdisciplinary research necessary to address our modern, complex environmental problems," said David Thomas, chief of the Illinois Natural History Survey.

The surveys are supported by \$33 million in state funding, comprising \$18.5 million in General Revenue Funds and \$14 million in contracts with the Illinois Department of Natural Resources, the Illinois Department of Transportation, the Illinois Department of Commerce and Economic Opportunity, and other state agencies. More than \$12 million of grants and contracts come to the surveys from various federal agencies, foundations and other groups. Approximately 250 staff positions in the surveys are paid through general revenue funds; an additional 320

full-time-equivalent positions and many part-time student employees are funded by grants and contracts.

The proposed transfer, which would take effect July 1, must be approved by

the Illinois Legislature and the endorsement of the Illinois Board of Higher Education, the UI Board of Trustees and the Urbana-Champaign Senate. ♦

MORE ABOUT THE ILLINOIS STATE SURVEYS

ILLINOIS STATE GEOLOGICAL SURVEY

Founded in its modern form in 1905. The ISGS is the largest of the 50 U.S. states' geological surveys with research focused on environmentally responsible development of Illinois' energy resources and on three-dimensional geological mapping. A major research contributor to the national and international drive to control carbon dioxide emissions.

www.isgs.uiuc.edu

ILLINOIS NATURAL HISTORY SURVEY

Founded in 1858. The INHS investigates the diversity, life histories and ecology of the state's plants and animals and beyond; studies diseases of crops and wildlife, invasive species, habitat restoration and other topics; publishes research results so these resources can be managed wisely; and provides information to the public to foster a better understanding of natural resources.

www.inhs.uiuc.edu

ILLINOIS STATE WATER SURVEY

Founded in 1895, the ISWS is the primary agency in Illinois for research and information related to the quantity, quality and use of groundwater, surface water, and atmospheric resources enabling government agencies, the private sector, not-for-profit organizations and the public to make informed decisions.

www.sws.uiuc.edu

WASTE MANAGEMENT AND RESEARCH CENTER

Founded in 1985, with the mission of pollution prevention and natural resource conservation. The center provides expert and technical assistance in areas such as sustainability, waste minimization, energy efficiency, water purification, developing and testing alternative technologies. The center develops beneficial uses for river sediment while restoring habitat where sediment is removed. WMRC also has a program for converting waste oils into biodiesel.

www.wmrc.uiuc.edu

job market

Academic Human Resources

Suite 420, 807 S. Wright St. • MC-310
333-6747

Listings of academic professional and faculty member positions can be reviewed during business hours or online.

For faculty, academic professional and other academic positions:

<https://hrnet.uhr.uiuc.edu/panda-cf/application/SearchForm.cfm>

Staff Human Resources

52 E. Gregory Drive, MC-562
333-3101

Information about staff employment is online at www.pso.uiuc.edu.

Paper employment applications or paper civil service exam requests are no longer accepted by SHR. To complete an online employment application and to submit an exam request, visit the online Employment Center:

<https://hrnet.uhr.uiuc.edu/panda-cf/employment/index.cfm>

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www.news.uiuc.edu/ii



On the Job *Mya Clements*



photo by L. Brian Stauffer

Mya Clements, a program secretary in the College of Medicine, began her career with the UI as a learner secretary in the department of nuclear, plasma and radiological engineering in September 2001. Clements, who has been in her current position since September 2006, works with the college's Internal Medicine Residency Program. Carle Foundation Hospital is the primary teaching hospital for the program. Clements' department is on the lower level of the Carle Forum. Along with the other members of her department, Clements provides support for medical residents and their families during their three-year stay. Before coming to the university, Clements worked as a customer service representative/receptionist for a local insurance agency.

What do you do every day?

I work with all the residents when they first come here. We go through the process of obtaining visas as well as medical licenses, Net ID passwords on campus, Social Security numbers. We do everything from reimbursements to coordinating an annual graduation banquet for them in June. I also provide support to our program director.

How many residents do you have each year? And what are the challenges of working with them?

We usually have 55. The main challenge is getting them here. When I started working here, I had no experience with medical licenses or visas whatsoever. Learning the immigration process, where rules change constantly, is a challenge.

There are cultural differences. The majority of our residents are from India or Pakistan, so they're coming from environments we know nothing about. They already have their medical degrees, but there's so much more that they have to do. A lot of the stuff they have already experienced, but because of their experience here they become more well-rounded physicians.

When they graduate, are they going into practice?

It depends. A lot of times, they'll be hospitalists – treating hospitalized patients of other physicians – or will go to fellowships.

What do you like most about your job?

I really enjoy the people that I work with. I'm one of the rare people who likes to get up and come to work in the morning. My boss, Kathie Buttitta, stresses the team concept, and we honestly do work together as a team and it's nice. We try to maintain that balance of work and fun. We have retreats where we have lots of fun and work gets done as well. Including the program director, we have four people in our department and two student workers.

I like developing relationships with the residents. We get to see their families during the banquets. In addition to meeting spouses and children, we also may get to meet their parents, aunts and uncles. And it gives you a sense of their values and culture.

We have a holiday banquet every year, and for the 2006 banquet, Dr. Robert Healy (director of the residency program) had an idea that we use the banquet to celebrate holidays from around the world besides Christmas. There were six or seven tables and each table celebrated different religious and cultural holidays. We were able to sample different foods. People wore traditional clothing they would wear in their home country. It was a lot of fun and we learned so much. The residents really enjoyed it; we got a lot of positive feedback and suggestions.

For many of the residents, it's their first time living in another country. It's stressful for them, so we try to be that family support base to them. We suggest restaurants to them, places to shop, how to get around town, community events and activities.

What do you like to do when you're not working?

One of my co-workers and I formed a book club called "ChocLits" because we love chocolate and literature. I enjoy reading and baking, especially cakes and cookies. I won a first place in a chocolate chip cookie contest at Carle. I made two three-dimensional cookies in the shapes of giant pills with the Carle logo and "250 milligrams" on them. I put a piece of paper, like a prescription, next to it that said "Take two and don't call us in the morning." I had an empty prescription bottle off to the side. That was the first time I competed in anything, and it was a lot of fun.

For Bosses Day, I decorated a cake with the Starbucks logo for Kathie; I made a white cake from scratch, soaked the layers with espresso, put an espresso butter cream between the layers and a chocolate espresso butter cream around the outside.

I also decorated a cake with the Diet Pepsi logo for Dr. Healy.

– Interview by Sharita Forrest, Assistant Editor

UI signs commitment to combat climate degradation

By Sharita Forrest

Assistant Editor

The UI has promised to achieve climate neutrality by joining a nationwide consortium of concerned colleges and universities that are signing the American College and University Presidents Climate Commitment. By signing the commitment, Chancellor Richard Herman pledged that the UI is developing a long-range plan for reducing and neutralizing greenhouse gas emissions on campus and is accelerating its research and educational efforts to equip society to re-stabilize Earth's climate and help the U.S. achieve energy independence.

The climate commitment marshals the extraordinary influence of the nation's higher education community – which comprises more than 4,000 institutions, more than 17 million students and millions of workers – to lead and model sustainability and good stewardship of the environment. College and university leaders who endorse the commitment agree to develop comprehensive action plans within two years, to conduct an inventory of greenhouse gas emissions on their campuses, and to initiate actions to reduce emissions in the meantime.

"Renewable energy and its partner, sustainability, are key initiatives in our strategic plan at Illinois," Herman said. "We are moving ahead toward our goal of transforming the campus into a learning laboratory for the practical application of sustainable technologies. We are fortunate that this critical moment in our planet's health comes when we have incredible brainpower and technology at our fingertips.

"We have to start looking at our natural world as a place from which comes not only energy and food, but also poetry, music, inspiration, creativity, hope – the

very lifeblood of our human spirit.

If we view our planet as possessing those kinds of precious resources – and I believe we must – it will ultimately sustain us, sustain our dreams, our hopes and our children's futures."

The Urbana campus has numerous short- and long-term eco-friendly research, scholarship and conservation efforts under way that fulfill parts of the commitment.

The Earth and Society Initiative, part of Herman's Strategic Plan for the Urbana campus, fosters interdisciplinary scholarship. SEE **CONSORTIUM**, PAGE 13

New systems translate to energy savings

A building systems retrofitting project at Krannert Center for the Performing Arts is generating big savings in energy usage, according to Terry Ruprecht, director of energy conservation in Facilities and Services. A retro-commissioning team in F&S analyzes heating, ventilating and air-conditioning systems to ensure they operate as efficiently as possible. Projects at Krannert Center and the National Soybean Research Center were completed in December, and another project is nearing completion at Newmark Laboratory.

Preliminary consumption data from completed buildings is showing 15-33 percent reductions in energy use. In comparison to a year ago, steam consumption for January was down 46 percent and electricity usage was down 23 percent at KCPA.

"We estimate the combined savings for December and January to be \$74,800, with steam savings comprising about 70 percent of that," Ruprecht said. "These savings were achieved by the combined efforts of Krannert staff members and the F&S retro-commissioning group."

A new computer-based control upgrade was put into operation in February for the majority of Krannert Center's heating and air-conditioning systems, enabling full monitoring and control by Krannert staff members, even from off-site.

"We believe this improved information and controllability will enable both additional savings and enhanced ability for Krannert to accommodate special event requirements," Ruprecht said. ♦

BUDGET, CONTINUED FROM PAGE 1

sure on tuition, fees and efficient university management to adequately fund the excellence and access that the U. of I.'s three campuses provide Illinois families. We will work with the governor and the Legislature for the best outcome we can achieve."

Blagojevich proposed funding several capital projects at Urbana, including \$60 million from the Build Illinois Bond Fund for costs associated with design and construction of the \$208 million petascale computing facility, \$55.1 million for renovating Lincoln Hall, \$18.9 million for constructing a Post Harvest Crop Processing and Research Laboratory, and about half – \$42 million – of the \$90 million needed for constructing an Electrical and Computer Engineering Building.

Additionally, the UI also would receive \$10.7 million for repairs and renovations at its three campuses, the top priority project in its capital budget.

"A state capital program is an urgent priority for the University of Illinois as we plan for the future and strive to maintain a 140-year investment by the state in facilities and equipment that are essential to fulfilling the university's missions of teaching, research, public engagement, and economic development across our three campuses," White

said.

Statewide grant programs would stay at their FY08 levels or be reduced or eliminated in FY09 under Blagojevich's proposed budget. Existing grant programs at the Illinois Board of Higher Education would remain at their FY08 levels; funding for Cook County Extension (\$5.05 million in FY08) would be eliminated; IllinoisVENTURES, the UI's technology commercialization company, would receive no funding; and grant funding for the Center for Applied Research would be reduced by \$135,000 to \$4.2 million.

Blagojevich proposed restructuring the state's pension systems by refinancing high-interest debt with low-interest pension obligation bonds, a plan he said would pump \$16 billion in assets into the five state pension funds immediately, save the state \$55 billion over the next 36 years and increase the funded ratio of the pension plans from 63 percent to 75 percent. ♦

ON THE WEB

■ **Gov. Blagojevich's budget address**
www.uiuc.edu/goto/illinoisbudget09

Report addresses issues faced by academic professionals

By Sharita Forrest

Assistant Editor

A new online community with resources and information specifically for academic professionals at Urbana is being considered as one component of a comprehensive plan for fostering personal and professional development of APs. The Web site was one of the recommendations in a recently released report about issues affecting APs at the Urbana campus.

The academic professional employee group has more than 4,300 full-time equivalent employees and is the second largest permanent employee group on campus. (Civil service is the largest.)

Provost Linda Katehi appointed a 16-member Academic Professional Task Force last June, and she and Elyne Cole, associate provost for human resources, charged it with examining issues of salary levels, title usage, promotional opportunities, policies for part-time workers and performance evaluations. In the charge letter, Katehi wrote: "It is clear that academic professional employees are extremely important to the overall health and success of this institution, and they will play a key role in helping the institution achieve its strategic goals during the next five years. It is of the utmost importance to me that this campus has equitable, clear and consistent policies and practices for academic professional employees."

Over the past 30 years, several committees have examined various issues and concerns relevant to APs, but all were faculty-led, said Ginger Winckler, assistant dean in the College of Veterinary Medicine and chair of the task force. "This was the first all-AP committee that reviewed its own group, attesting to the provost's commitment to the AP community. Much of the work to improve our employee group rests within ourselves."

The task force, composed of APs from across campus, reviewed current policies and practices pertaining to APs as well as eight previous committee/task force reports, studied comparable employee groups at five peer institutions and consulted with key staff members and units on campus, including Academic Human Resources, Training for Business Professionals and the Institute of Labor and Industrial Relations.

ON THE WEB

■ Full report of the AP task force

www.provost.uiuc.edu/committees/APtaskforce.htm

APs also were asked for their opinions about various aspects of their positions, such as promotional pathways and satisfaction with campus services through an online survey that was sent to 4,183 APs in October; 43 percent of the recipients responded.

APs, the survey revealed, care about their careers and 88 percent of respondents said they want opportunities for professional development and to contribute to the university, Winckler said.

Less than half, 41.8 percent, of the respondents reported having been promoted during their careers at Illinois, and more than 65 percent reported they perceived limited promotional opportunities in their units. Three-quarters of respondents also indicated that they perceived no clearly defined career pathway for someone of their education and skills in their unit or at Illinois.

Respondents' perception of a lack of advancement opportunities may reflect a general lack of understanding of applicable programs, processes and policies and of the wide diversity of positions and responsibility levels that exists within the AP employee group, Winckler said. Of the APs who responded to the survey, 60 percent had less than eight years' tenure at Illinois, a factor that also could correlate with a lack of awareness.

However, the task force also found that position titles are used inconsistently across campus and may not be representative of responsibility levels. Accordingly, similar position titles in different units also may have wide variations in responsibility and salary.

In studying employment practices and policies at the five selected peer institutions – Cornell, Michigan, Ohio State, Wisconsin and the University of California at Berkeley – the task force found that those institutions have more extensive development programs for employee groups similar to APs, but also may have "restrictive frameworks that limit career movement and require salaries to remain in prescribed ranges, regardless of the talent and market demand of the individuals," the report said.

The task force offered 20 recommen-

dations, some of which were made by previous groups that studied APs. The recommendations provide a framework of actions, policies and programs to be implemented across the university that would foster professional growth for APs, and involve them directly with the strategic plan, with cross-campus interest groups, with volunteerism and with each other.

"Integration of APs into the university community is an important concept that may become even more important in the future: a culture that encourages and expects APs to contribute to the university community, not just their position or department, to cross-pollinate ideas from diverse groups and participate in campus committees in their areas of expertise," Winckler said. "As the university strives to meet its strategic plan, the challenge is to develop a cohesive framework of guiding principles and programs that are consistent, empowering, and strengthen excellence in academic professionals."

The Academic Professional Task Force recommended the development of an online community for APs, a mock-up of which is available at www.cvm.uiuc.edu/work/ap_web/, to provide a centralized location for information about career resources and self improvement tools; policies, practices and job opportunities; and volunteerism and social networking opportunities.

In addition to the Web site, the task force recommended designing and communicating compensation philosophies, gathering input from APs about the strategic plan and tying performance reviews to the univer-

sity's and the campus units' strategic objectives, addressing issues pertinent to part-time APs such as notices of nonreappointment, and creating an AP-led campuswide mentoring program, a rotation program and internship programs for internal candidates.

"The recommendations are reasonable things for employees to want and expect," Cole said. "A steering committee has been appointed to review the recommendations in the report and identify priorities and establish timelines for implementing them." A chair for the steering committee has yet to be named. ♦



photo by L. Brian Stauffer

Planning for the future Virginia Winckler, assistant dean in the College of Veterinary Medicine, chaired the Academic Professional Task Force, which examined issues affecting APs on campus and recently released a report. APs serve in administrative, professional and technical positions. About one-third of those workers are 50 years or older and probably will retire within the next decade, making succession planning an important concern for campus units.

Heavy market volume doesn't always mean quick, easy trading

By Jan Dennis

News Bureau Staff Writer

Playing a hunch is as ingrained in financial markets as short selling, margin buying and the opening bell.

But a new study by a UI professor shows that gut feelings don't necessarily pay off when it comes to deciding the best time to trade.

Finance professor Timothy C. Johnson tested a widely embraced notion that volume equals liquidity in stock and bond markets – in short, that heavy trading makes it easier for people to get in or out of markets quickly with minimal costs or losses.

His findings, based on a review of government bond market transactions from the mid-1990s and stock market reports dating back to 1927, counter what Johnson calls an "intuitive feel" that high volume and liquidity should go hand in hand.

"We certainly feel that way in the real estate market," he said. "People feel that if there's a lot of people buying and selling houses, then it's probably easier for them to buy or sell quicker in an active market."

But, heavy volume in financial

markets can just as easily put liquidity at risk, netting wide price fluctuations as sometimes small blocks of traders motivated by greed or fear fuel buy offs and sell offs, according to the study, "Volume, Liquidity and Liquidity Risk," published in the February issue of the *Journal of Financial Economics*.

"High volume is people piling in or out, while liquidity is provided by people who are staying in the market with no reason to leave," Johnson said. "Those core investors ultimately determine how easy it is to get in or out. How willing are they to accommodate other people's trades? There can either be great willingness or not very great willingness."

While heavy volume can bring steep price swings that threaten liquidity, light trading doesn't necessarily signal the best time to buy or sell quickly and easily, he said.

"You can't say that low-volume markets are better," said Johnson, a former hedge fund trader. "What is true in low-volume markets is that liquidity is more predictable and price swings are less dramatic."

The paper is the third on volume

and liquidity written by Johnson, who is working with the Chicago Mercantile Exchange on a real-time index that traders could use to gauge liquidity.

He hopes his latest study helps focus efforts to accurately measure liquidity. Many past academic studies have promoted a link between liquidity and volume, which he says is "probably a dangerous thing to do."

"I would say the main message from an investor's point of view is that high-volume markets can signal a great deal of liquidity risk and they're not necessarily markets where it's easy to transact. They're somewhat treacherous markets," he said.

Johnson says his research also could help shed light on market conditions, in general.

"High-volume markets are usually thought of as healthy markets, that things are functioning well if volume is high and that something must be wrong if volumes are low," he said. "That's not necessarily true and I'm pointing out that high-volume markets can sometimes be masking changes in market conditions that would seem quite dangerous, when liquidity is actually drying up." ♦



photo by L. Brian Stauffer

Predicting the market Finance professor Timothy C. Johnson tested a widely embraced notion that volume equals liquidity in stock and bond markets – in short, that heavy trading makes it easier for people to get in or out of markets quickly with minimal costs or losses.

Group homes appear to double delinquency risk for foster kids

By Craig Chamberlain
News Bureau Staff Writer

Group homes are generally the placement of last resort for children in foster care, and also one of the most expensive options for state child-welfare agencies.

It appears that group homes also play a significant role in pushing the children they serve toward the juvenile-justice system, according to a new study in Los Angeles County, led by a UI professor.

“Our results found that kids (mostly adolescents) who enter group home placements are about two-and-a-half times more likely to enter the juvenile-justice system relative to similar kids, with similar backgrounds, who are served in foster-home settings,” says Joseph Ryan, a professor in the Children and Family Research Center (CFRC) part of the university’s School of Social Work.

What is more, Ryan said, the group-home effect on delinquency appears to be fairly immediate. “The vast majority of (first-time) arrests occur while the adolescent is actually under the supervision of the group home,” rather than months or years after they leave, he said.

Keeping foster youth out of the juvenile-justice system is especially important because they have fewer options once there, Ryan said. “We know once child-welfare youth are in the juvenile-justice system, they’re less likely to get probation and more likely to get pushed deeper into the juve-

nile-justice system,” he said.

Another concern grows from the fact that African-Americans are overrepresented in the child-welfare system, and in group homes specifically, Ryan said. The group-home effect therefore might be contributing to the even greater overrepresentation of African-Americans in the juvenile-justice system, as well as in prisons, he said.

The study, “Juvenile Delinquency in Child Welfare: Investigating Group Home Effects,” has been accepted for publication and posted online (access restricted) by Children and Youth Services Review, a prominent journal for research on child-welfare issues. Co-authors of the study are Jane Marie Marshall, a doctoral student in social work; Denise Herz, a professor of criminal justice at California State University, Los Angeles; and Pedro Hernandez, a research analyst at the UI.

The study and its conclusions were made possible by a unique data-sharing agreement that gave researchers access to both child-welfare and juvenile-justice records in Los Angeles County, Ryan said. They were able to track individuals in their movements through both systems, and see connections between the two, he said.

Previous research has shown a connection between foster care and delinquency and other negative outcomes – some of that research even suggesting that children might be better off staying in troubled homes rather than going into foster care, Ryan said. “Those

findings might lead one to erroneously believe that all child-welfare placements are problematic, and perhaps equally problematic,” he said.

The study of Los Angeles County, he said, shows that different kinds of placements can have dramatically different effects.

As a starting point for the study, researchers had access to administrative records for all children and families involved with the Department of Children and Family Services and the Department of Probation in Los Angeles County, in both cases for the period between 2001 and 2005. From those records, they compiled a sample of all the children between the ages of 7 and 16 who had been placed outside their own home by child welfare at least once.

Children and adolescents placed in group homes, compared with those placed only in foster care family settings, have generally been through more placements, are slightly older, and have more characteristics often associated with delinquency, Ryan said. The authors used econometric methods, known as propensity score matching, to help disentangle the effect of those individual characteristics from the effect associated with group-home placement, he said.

By way of this method, they matched 4,113 youth who had been in group homes with 4,113 with similar characteristics who had only been served in foster family home placements. Twenty percent of the group-home sample



photo by L. Brian Stauffer

Negative impact Social work professor Joe Ryan, right; and Jane Marie Marshall, a doctoral student; and Pedro Hernandez, research analyst, collaborated on a study investigating the effects of group homes on delinquency rates. It appears that group homes have an immediate and negative impact.

experienced at least one arrest, as compared with 8 percent of the matched foster-care sample.

Ryan said he was surprised by

the size of the group-home effect, even after controlling for individual differences. He also was

SEE **GROUP HOMES**, PAGE 8

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Mechanism of blood clot elasticity revealed in high definition

By Diana Yates

News Bureau Staff Writer

Blood clots can save lives, staunching blood loss after injury, but they can also kill. Let loose in the bloodstream, a clot can cause a heart attack, stroke or pulmonary embolism.

A new study reveals in atomic detail how a blood protein that is a fundamental building block of blood clots gives them their life-enhancing, or life-endangering, properties.

The study, conducted by researchers at the UI and the Mayo College of Medicine, appears in the journal *Structure*.

Fibrinogen molecules form elastic fibers, the main material of blood clots. When a blood vessel is ruptured, signaling proteins in the blood convert fibrinogen into its active form, called fibrin. Fibrin molecules link together in a scaffold of fibers that seals the vesicle. Cells in the blood, such as platelets, fill the gaps.

Fibrinogen is highly elastic, able to reversibly stretch to two or three times its original length.

"Once they're formed, blood clots have to be elastic because they have a mechanical function to withstand blood pressure," said Klaus Schulten, holder of the Swanlund Chair in Physics at Illinois.

Understanding what gives fibrinogen its flexibility could help in the design of drugs to enhance their function, he said.

"We investigated what makes blood clots elastic," said Eric Lee,

a graduate research assistant and student in the M.D./Ph.D. program at Illinois. "How do we make them easier to break up or make them less likely to rupture?"

Bernard Lim, a cardiologist at Mayo and an expert on the science of blood clots, contacted Schulten's group in 2006 for help with a puzzling finding. Lim had conducted a series of experiments using atomic force microscopy to measure the amount of force required to stretch individual fibrinogen molecules.

After dozens of trials, Lim had come up with a "force extension curve" that showed how the fibrinogen molecule behaved when it was stretched. His data indicated that the fibrinogen molecule elongates in a sequential fashion, with three distinct phases. But he could not tell which parts of the fibrinogen molecule were involved.

Fibrinogen is a symmetrical molecule, containing a central region connected to two end regions by long, interweaving coiled chains, called alpha helices. These "coiled coils" were believed to give the molecule its elasticity. But how?

The Illinois team used a computational approach to tackle the mystery. Using steered molecular dynamics (SMD), they modeled the behavior of every atom of the fibrinogen molecule as it was stretched. The computation involved more than a million atoms, and required six months to complete.

The resulting simulation (see <http://www.ks.uiuc.edu/Research/>

fibrinogen/multiFIBI.mpg) generated a force extension curve that matched the one Lim had produced.

"This was an incredibly strong piece of evidence that what (Lim) saw wasn't just in the eye of the beholder, but he saw really a property of the protein," Schulten said.

The simulation also showed in molecular detail how the fibrinogen molecule responded to stretching. Each phase in the force extension curve corresponded directly with a distinct set of events in the elongation of the molecule.

"The simulations revealed that ... the extension occurs in a specific and orderly pattern, with distinct regions within the coiled-coil unraveling before others," the authors wrote.

Lim had also demonstrated that changes in calcium levels or in the pH (acidity) of a blood clot could alter fibrinogen elasticity, a finding that could influence the design of pharmaceutical agents.

"By understanding what happens at the molecular level, you can understand where to target drugs," Lee said.

This study points to the efficacy of combining molecular dynamics simulations with experimental data on actual molecules, Schulten said. This is proving to be an ef-

fective way to get to the heart of molecular behavior, he said.

Simulations can test important, but potentially ambiguous, experimental findings, Schulten said. "And we can see (the behavior of the molecule) in chemical detail, in

atomic detail. We see the full chemistry of this mechanical process."

Schulten directs the theoretical and computational biophysics group at the Beckman Institute for Advanced Science and Technology. ♦

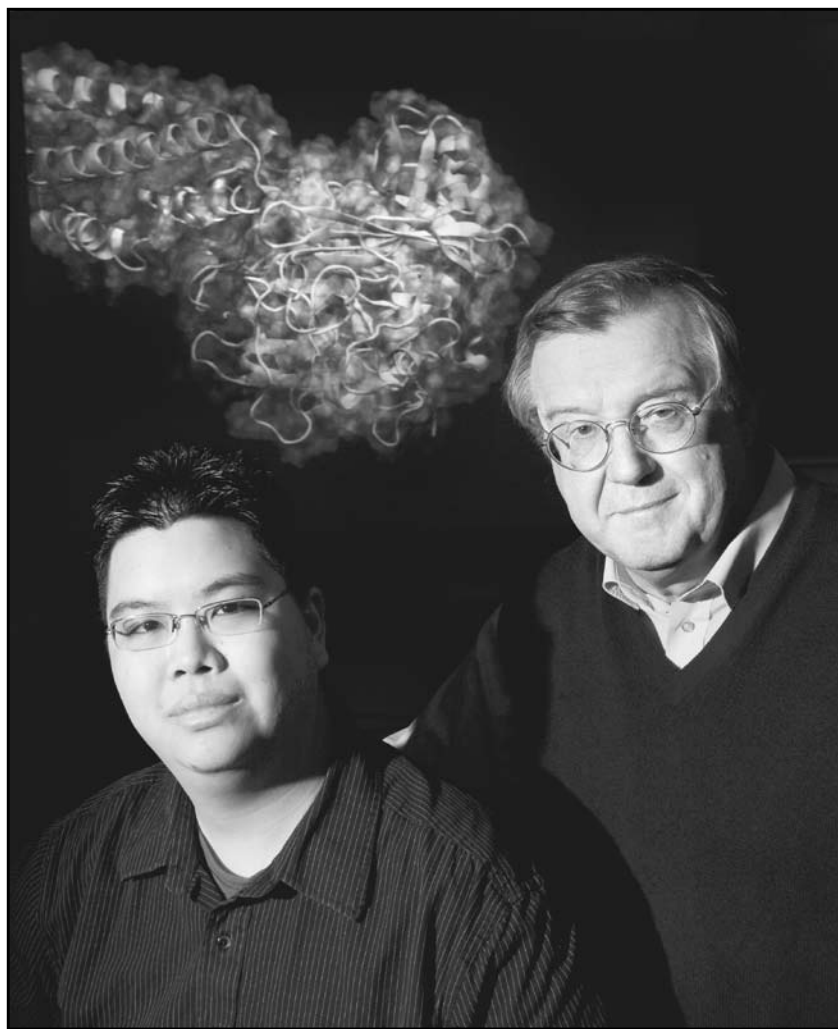


photo by L. Brian Stauffer

Dynamic research Illinois graduate research assistant Eric Lee (left) and physics professor Klaus Schulten used steered molecular dynamics to model the behavior of every atom of the fibrinogen molecule as it was stretched. The computation involved over a million atoms, and required six months to complete.

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Scientists propose novel test of string theory

By James E. Kloeppel
News Bureau Staff Writer

Ancient light absorbed by neutral hydrogen atoms could be used to test certain predictions of string theory, say cosmologists at the UI. Making the measurements, however, would require a gigantic array of radio telescopes to be built on Earth, in space or on the moon.

String theory – a theory whose fundamental building blocks are tiny one-dimensional filaments called strings – is the leading contender for a “theory of everything.” Such a theory would unify all four fundamental forces of nature (the strong and weak nuclear forces, electromagnetism, and gravity). But finding ways to test string theory has been difficult.

Now, cosmologists at the UI say absorption features in the 21-centimeter spectrum of neutral hydrogen atoms could be used for such a test.

“High-redshift, 21-centimeter observations provide a rare observational window in which to test string theory, constrain its parameters and show whether or not it makes sense to embed a type of inflation – called brane inflation – into string theory,” said Benjamin Wandelt, a professor of physics and of astronomy at the UI.

“If we embed brane inflation into string theory, a network of cosmic strings is predicted to form,” Wandelt said. “We can test this prediction by looking for the impact this cosmic string network would have on the density of neu-

tral hydrogen in the universe.”

Wandelt and graduate student Rishi Khatri describe their proposed test in a paper accepted for publication in the journal *Physical Review Letters*.

About 400,000 years after the Big Bang, the universe consisted of a thick shell of neutral hydrogen atoms (each composed of a single proton orbited by a single electron) illuminated by what became known as the cosmic microwave background.

Because neutral hydrogen atoms readily absorb electromagnetic radiation with a wavelength of 21 centimeters, the cosmic microwave background carries a signature of density perturbations in the hydrogen shell, which should be observable today, Wandelt said.

Cosmic strings are filaments of infinite length. Their composition can be loosely compared to the boundaries of ice crystals in frozen water.

When water in a bowl begins to freeze, ice crystals will grow at different points in the bowl, with random orientations. When the ice crystals meet, they usually will not be aligned to one another. The boundary between two such misaligned crystals is called a discontinuity or a defect.

Cosmic strings are defects in space. A network of strings is predicted by string theory (and also by other supersymmetric theories known as Grand Unified Theories, which aspire to unify all known forces of nature except gravity)

to have been produced in the early universe, but has not been detected so far. Cosmic strings produce characteristic fluctuations in the gas density through which they move, a signature of which will be imprinted on the 21-centimeter radiation.

The cosmic string network predicted to occur with brane inflation could be tested by looking for the corresponding fluctuations in the 21-centimeter radiation.

Like the cosmic microwave background, the cosmological 21-centimeter radiation has been stretched as the universe has expanded. Today, this relic radiation has a wavelength closer to 21 meters, putting it in the long-wavelength radio portion of the electromagnetic spectrum.

To precisely measure perturbations in the spectra would require an array of radio telescopes with a collective area of more than 1,000 square kilometers. Such an array could be built using current technology, Wandelt said, but would be prohibitively expensive.

If such an enormous array were eventually constructed, measurements of perturbations in the den-

density of neutral hydrogen atoms could also reveal the value of string tension, a fundamental parameter in string theory, Wandelt said. “And that would tell us about the energy

scale at which quantum gravity begins to become important.”

Funding was provided by the Alexander von Humboldt Foundation. ♦

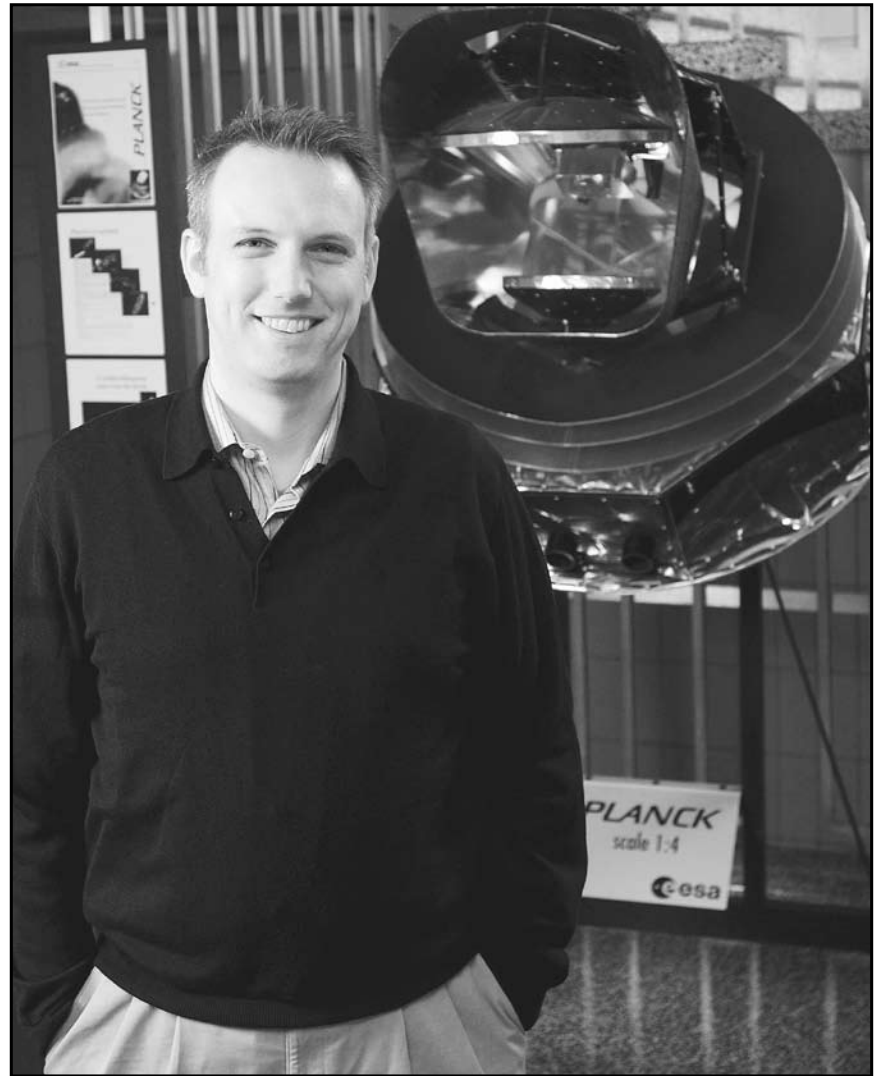


Photo by Jerry Thompson, Thompson/McClellan Photography Inc.

String quartet Benjamin Wandelt, a professor of physics and of astronomy, says string theory is the leading contender for a “theory of everything,” which would unify all four fundamental forces of nature. He and colleagues now propose a test of that theory.

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Music student leads choral group of singers with disabilities

By Melissa Mitchell

News Bureau Staff Writer

Vocalists were in abundance in Connecticut's capital city last month as the Eastern Division of the American Choral Directors Association met in Hartford for its annual convention.

But among the choruses making melodious music at the convention, few could claim a more expressive, more genuine sound than Joyful Noise, a group of singers with developmental disabilities led by UI music student Allison Fromm. The group is based in Cherry Hill, N.J.

Fromm, who has undergraduate and graduate degrees from Yale and Boston universities, respectively, is working on a doctorate in choral conducting at Illinois. She founded Joyful Noise in 2000 because she hoped it would not only be a welcome diversion for her own developmentally challenged younger sister, Elizabeth, but also something fun the siblings could do together.

"I have always loved singing in a chorus, and my sister also has loved singing since she was a year old," Fromm said. "I thought it would be a wonderful thing for her to share her love of singing communally with her friends. So I asked her."

When Elizabeth responded enthusiastically to the idea, the sisters approached the staff at Bancroft NeuroHealth, which oper-

ated the residential facility where Elizabeth lives. After Bancroft agreed to host the chorus, she announced the first rehearsal, and said she would be encouraged if at least eight people showed up.

over to the statehouse, where they performed in the rotunda on Feb. 15. Connecticut Gov. M. Jodi Rell proclaimed Feb. 16 to be Joyful Noise Day throughout the state.

Following the convention session, which also included discussions about music and cognition and exercises led by the group's unofficial "godmother," noted conductor-composer-educator Alice Parker, Joyful Noise also performed a concert for Hartford-area residents with disabilities, their caregivers, families and the public.

Fromm said her singers – who range in age from 20 to 65 – are extremely communicative through their music. Their repertoire includes traditional, simple folk standards such as "This Land Is Your Land" and "You Are My Sunshine," along with rounds, partner songs and tunes composed specifically for them. Some songs even include verses they've contributed.

"What's unique about these singers is they have no fear," she said. "They're very expressive and eager to connect with audiences." "They've been very excited about their trip and have been talking about it since August," Fromm said, adding that group members also take what they do very seriously. Most even understand – and are quite passionate about – their roles in an effort the conductor has dubbed their "Mission to Inspire."

"I've told them they will sing



photo by Ira Shanfeld

High praise Joyful Noise, a group of singers with developmental disabilities led by UI music student Allison Fromm, right, is based in Cherry Hill, N.J. Fromm's sister is second from the left.



photo by Ira Shanfeld

Fearless "What's unique about these singers is they have no fear," said Allison Fromm, who has undergraduate and graduate degrees from Yale and Boston universities, respectively, and is working on a doctorate in choral conducting at Illinois. "They're very expressive and eager to connect with audiences."

ates the residential facility where Elizabeth lives. After Bancroft agreed to host the chorus, she announced the first rehearsal, and said she would be encouraged if at least eight people showed up.

"We had 15 at that first meeting," she said, noting that in the eight years since she's directed the group – traveling about twice a month from Illinois to New Jersey for rehearsals – its membership has ebbed and flowed slightly, but typically averages about 30.

"We still have a little room to grow," she said.

Nearly half of the chorus's current 32 members – plus an entourage of caregivers and staff members from Bancroft – made the trip to Hartford with Fromm on Feb. 16 to participate in an "interest session" titled "Melodies That Sing: We Love to Sing This Song." But first, the vocalists made a detour

for choral musicians who have dedicated their lives to music and are just as passionate about it as we are," she said. Members of the ensemble also are enthusiastic about the possibility that they may serve as an inspiration for developmentally challenged individuals everywhere.

Chorus members' physical and neurological disabilities range from cerebral palsy and epilepsy to Down Syndrome, autism and brain injuries suffered later in life. Musically, their abilities run the full spectrum. Some have sung in choirs before; for others, communal singing is a new experience.

"We have a couple with real musical ability," Fromm said. "One picks out melodies on the piano after hearing CDs, but can't read or write. We also have a member who stutters severely, yet can sing his solo verse in 'Frère

Jacques' perfectly. Another, a research chemist injured in a car accident at the age of 49, has a terrible time with aphasia; he doesn't always remember my name, yet he remembers the words to all the songs."

Fromm attributes part of her success with the group to the fact that she doesn't modify her conducting style substantially.

"I apply the same skills and approach as a choral conductor would in any situation," she said. "The repertoire is less complex and maybe things take longer, but ... my essential approach is the same."

That methodology is what sparked Parker's interest in Fromm and the group.

"I first met Allison at a Chorus America conference and was just knocked off my feet because she was acting so professional with them," Parker said. "Their ability is limited, but she was not treating them like a bunch of kindergarteners ... she was asking so much of them."

Because Parker believes "music is for the people, not for art," she said that "seeing it succeed at this level was just so wonderful."

Parker has visited and worked with Joyful Noise in the past, and composed the song "Memories Flow" for the chorus. She and six other composers accepted Fromm's invitation to complete commissioned works that were funded in part by a \$3,500 grant from the Philadelphia Eagles. Parker and the other composers – UI music professor Chester Alwes, James Bassi, Gerald Cohen, Elliot Levine, Steven Sametz and Jon Washburn – also contributed much of their own time in kind to the project.

Another composer and choral director, Nick Page, was so inspired by the chorus that he composed a song for the group immediately after the Feb. 16 convention presentation – in the hotel lobby.

The generous response and interest from such highly regarded choral composers is just one way in which Fromm measures the success of Joyful Noise. The biggest

indicators, by far, she said, are the members' own personal growth and refined sense of self-worth.

"Their pride in themselves is something that's really developed. Also, their openness with others and self-confidence have increased."

For example, Christine Dwyer, the sister of chorus member James Gilligan, told Fromm she often hosts social gatherings, and when her brother visited, he typically retreated to his room when guests arrived.

"Now he takes out his karaoke machine and entertains the guests," Fromm said. "He's more confident around family and friends in social situations."

Other changes Fromm has noticed among the chorus members include improved diction and language skills, and a much better ability to focus.

Elene Kurtzman, whose daughter Jodi sings with Joyful Noise, said her daughter has benefited from the experience in yet another way.

"Jodi's always had more self-confidence than 10 people," Kurtzman said. "She's used to being the one that takes all the attention, so singing with Joyful Noise has helped her participate better in a group situation."

Since Fromm started Joyful Noise after she had already left

the East Coast to attend school at Illinois, she originally envisioned stepping back from her duties as conductor and turning them over to someone else after the group was firmly established. For now, when her schedule back in Illinois prevents her from trekking to New Jersey for rehearsals, she relies on support from assistant conductor Cathy Sonnenberg and UI alumnus and assistant conductor Mark Gary.

But so far, Fromm's been unable to let go.

In part, she says, it's because she feels she receives as much from the chorus as she gives.

"The experience has been valuable for me, in a doctoral program, where I tend to be very immersed in what I'm doing," Fromm said. "While it's important for me to try to polish the singing of (more professional) choruses I work with, it's easy to lose sight of the power of music and the beauty of connecting with other human beings, and to lose touch with the expressive side of it."

"So when I perform, I remind myself of Joyful Noise and carry their spirit into the performance. It makes me a better musician." ♦

ON THE WEB

■ **Joyful Noise Chorus**
www.joyfulnoisechorus.org

GROUP HOMES, CONTINUED FROM PAGE 5

surprised by the differences that emerged with regard to the type of offending. Group-home youth were significantly more likely to be arrested for violent and threat-related offenses.

As to why children in group-home settings are more likely to experience arrests and enter the juvenile-justice system, Ryan said he sees two promising areas for research.

One involves the possibility of "peer contagion," in which deviant adolescents influence one another to become more delinquent than they otherwise would have been. Related, he said, is the common practice of mixing delinquent and non-

delinquent youth in congregate or group-home settings.

The other area involves looking at whether group-home policies or procedures cause staff to more readily contact law enforcement in given situations and whether those might contribute to the likelihood of arrest for a given behavior.

"It does raise the question of whether there is a lower threshold in group settings versus other foster-home settings," Ryan said. "Are staff more likely to engage law enforcement to resolve physical and threat-related conflict, which then sets off a chain of negative events?" ♦

Researchers probe a DNA repair enzyme

By Kaushik Ragunathan
News Bureau Intern

UI researchers have taken the first steps toward understanding how an enzyme repairs DNA.

Enzymes called helicases play a key role in human health, according to Maria Spies, a professor of biochemistry at Illinois.

"DNA helicases act as critical components in many molecular machineries orchestrating DNA repair in the cell," she said. "Multiple diseases including cancer and aging are associated with malfunctions in these enzymes."

Spies' laboratory under-

took a recent study of an enzyme, called Rad3, which defines a group of DNA helicases characterized by a unique structural domain containing iron. The findings appear in the *Journal of Biological Chemistry*.

Helicases are a special category of molecular motors that modify DNA (deoxyribonucleic acid, the fundamental building block of genes and chromosomes). They do so by moving along strands of DNA, much the same way cars move on roads, using an energy-packed molecule, adenosine triphosphate (ATP) as a fuel source. Their primary function is to unzip double-stranded DNA, allowing replication and repair of the strands.

DNA is a fragile molecule that undergoes dramatic changes when exposed to radiation, ultraviolet light, toxic chemicals or byproducts of normal cellular processes. DNA damage, if not repaired in time, may lead to mutations, cancer or cell death. Many helicases in the Rad3 family are key players in the cell's elaborate machinery to prevent and repair such damage. Mutations in the human members of this helicase family impede DNA repair and may contribute

to breast cancer, Fanconi Anemia and Xeroderma pigmentosum.

The researchers studied the archaeal version of Rad3.

Archaea are microbes whose DNA repair systems are closely related to those of human cells.

"(The archaeal Rad3) is a very good representative of a unique family of structurally related DNA repair helicases, all of which have the same motor core and share an unprecedented (for helicases) structural feature – an accessory domain stabilized by an iron-sulfur cluster," Spies said.

Working with archaea has the advantage of allowing the researchers to increase the amount available protein and also permits easy genetic manipulation.

Like other helicases, Rad3 is composed of a chain of amino acids. It also contains an ancient prosthetic group called an iron-



photo by L. Brian Stauffer

DNA repair Biochemist Maria Spies and graduate student Robert Pugh have taken the first steps toward understanding how an enzyme repairs DNA.

sulfur cluster, an assembly of four iron and four sulfur atoms incorporated into the protein structure through interaction with four cysteine residues of the amino acid chain.

"DNA helicases, which belong to the Rad3 family, have an auxiliary domain inserted within a conserved motor core. The structure of this domain is stabilized by an iron-sulfur cluster, whose integrity seems to be essential for proper function of these enzymes in DNA repair," Spies said. By

mutating the cysteine ligands to the cluster, the researchers probed its role in the molecular mechanism of Rad3 enzymes. Some of these mutations uncoupled DNA translocation and ATP hydrolysis, meaning that the engine of the protein could still use the ATP fuel but was no longer capable of moving along the DNA.

This analysis also revealed that the integrity of the cluster and the iron-containing domain is crucial for recognition of specific DNA structures believed to be physi-

ological targets for this helicase. "On making these mutations, the helicase no longer behaves like it's supposed to," said graduate student Robert Pugh, lead author on the study. "The cluster is still there but the environment around it is somehow changing."

This research was performed in collaboration with Isaac Caan's group from animal sciences whose lab is engaged in the study of nucleotide metabolism in archaea. ♦

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Six faculty members recognized as University Scholars

By Roxana Ryan
News Bureau Intern

Six Urbana campus faculty members have been recognized as University Scholars. The program recognizes excellence while helping to identify and retain the university's most talented teachers, scholars and researchers. Now in its 22nd year, the program provides \$10,000 to each scholar for each of three years to use to enhance his or her academic career. The money may be used for travel, equipment, research assistants, books or other purposes.

"The University Scholars Program, inaugurated in 1985, recognizes faculty who are nominated by their colleagues as among the very best in their fields," said Mrinalini "Meena" Chatta Rao, university vice president for academic affairs. "The University Scholar designation is not awarded for a specific project or proposal, but rather, it symbolizes the recipient's excellence and the university's commitment to foster outstanding faculty and their work."

The recipients:

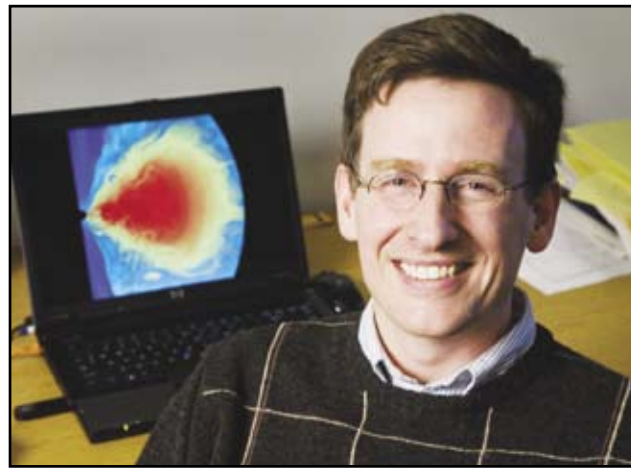
Edward Feser, a professor of urban and regional planning, joined the faculty three years ago. "His analyses of regional economic structure are affecting policy decisions of many governments," wrote Lewis Hopkins, emeritus professor of urban and regional planning. "His methodological research has enabled other scholars and practitioners in several countries to use his methods in their research. His own experience with government agencies has positioned him for innovative work on how government organizations can influence regional economic development."

Feser also is a superb teacher to individual students, in framing courses, and in articulating curriculum, according to Hopkins.

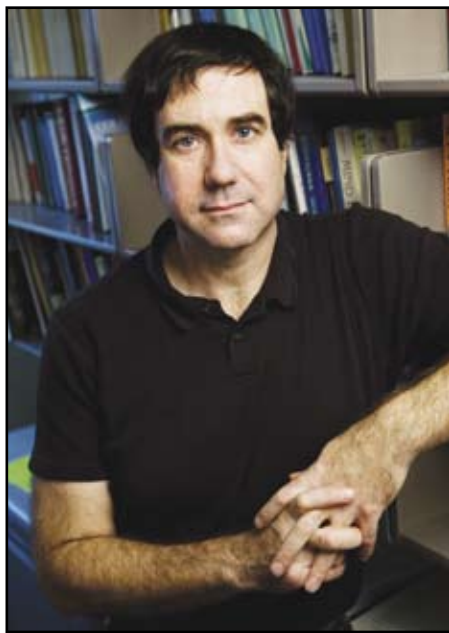
Charles Gammie, professor of astronomy, joined the faculty in 1999. Gammie is one of the leading young theorists working in astrophysics, according to You-Hua Chu, chair of astronomy. "Professor Gammie has made pioneering contributions to understanding the structure and dynamics of accretion disks around black holes and newly formed stars," Chu said. "His focus has been on problems that require large-scale computations for solution, and he has helped formulate new approaches and algorithms to tackle long-standing, unsolved problems



Catherine Prendergast, English



Charles Gammie, astronomy



Richard Sproat, linguistics



Huimin Zhao, chemical and biomolecular engineering



Romana Nowak, animal sciences

Photography by L. Brian Stauffer

in astrophysics." Gammie's teaching also has been widely recognized. "He should be commended for raising the competitiveness of the next-generation psychical scientists," Chu said.

Romana Nowak, professor of animal sciences, joined the faculty in 2000. Since then she has established an internationally recognized research program that focuses on understanding the mechanisms that regulate remodeling in the uterus and how dysregulation of these pathways leads to the reproductive diseases of uterine leiomyomas and endometriosis, said Neal Merchen, head of the department of animal sciences. Nowak's work is an outstanding example of basic research that is clinically relevant and goes from the bench to the bedside, Merchen said. She was awarded more than \$5.3 million in research funding and has provided a broad range of services to the academic community and to governmental and professional organizations.

Catherine Prendergast, professor of English, joined the faculty in 1997. "In her teaching at Illinois, Prendergast has translated the commitments of her scholarship to social action by preparing future teachers for challenges they will face in teaching, writing and literacy in our high schools," said Martin Camargo, head of the department of English. Prendergast won four national awards including the Modern Language Association's Mina P. Shaughnessy Prize for her first book, "Literacy and Racial Justice After Brown v. Board of Education," an examination of the tangled history of literacy and racial justice in the United States. For her forthcoming book, "Buying into English: Language and Investment in the New Capitalist World," she moved her research offshore to reveal the economic and psychic toll of the worldwide chase to learn English.

Richard Sproat, professor of linguistics, joined the faculty in 2003 after 20 years in the private sector. "Richard is a world renowned first-class scholar; a serious, committed and demanding mentor of students; and a forward-looking member of the department and the university," wrote Elabbas Benmamoun, head of the department of linguistics. "He has worked tirelessly to develop the curricular and research programs in language and speech studies, which in turn has made the UI competitive for external funds and the best students in this area." Sproat has done research in many areas related to language, speech and computational linguistics. "He has been able to engage colleagues from the humanities, social sciences and engineering with a full understanding of what each discipline can contribute to the project or plan at hand," Benmamoun said. "Sproat embodies the best of the interdisciplinary spirit and first class scholarship UI is committed to encourage."



Edward Feser, urban and regional planning

Huimin Zhao, professor of chemical and biomolecular engineering, is a premier researcher who continues to make profound contributions to the field of directed evolution and protein engineering, according to Deborah Leckband, the Reid T. Milner Professor of Chemistry in the School of Chemical Sciences. "Zhao's advances have numerous important applications in many domains, including, for example, biocatalyst engineering, biofuel production, therapeutic treatments for human diseases and bioremediation," Leckband said. As an independent scientist, Zhao rapidly developed and now maintains an enormously productive research program at Illinois that is centered on the directed evolution of proteins and organisms. "Students at Illinois also are the beneficiaries of Zhao's creativity and enthusiasm," Leckband wrote. "He has been a major force in the modernization of the department's curriculum through his development of biomolecular engineering courses and his key involvement in establishing a new biomolecular engineering minor." ♦

ON THE WEB

■ **University Scholars (past Urbana recipients)**
www.research.uiuc.edu/usp/past.asp

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Archaeologist: Royals weren't only builders of Maya temples

By Andrea Lynn

News Bureau Staff Writer

An intrepid archaeologist is well on her way to dislodging the prevailing assumptions of scholars about the people who built and used Maya temples.

From the grueling work of analyzing the "attributes," the nitty-gritty physical details of six temples in Yalbac, a Maya center in the jungle of central Belize – and a popular target for antiquities looters – primary investigator Lisa Lucero is building her own theories about the politics of temple construction that began nearly two millennia ago.

Her findings from the fill, the mortar and other remnants of jungle-wrapped structures lead her to believe that kings weren't the only people building or sponsoring Late Classic period temples (from about 550 to 850), the stepped pyramids that rose like beacons out of the southern lowlands as early as 300 B.C.

"Preliminary results from Yalbac suggest that royals and nonroyals built temples," said Lucero, a UI professor of anthropology.

In fact, judging by the varieties of construction and materials, any number of different groups – nobles, priests and even commoners – may have built temples, Lucero said, and their temples undoubtedly served their different purposes and gods.

That different groups had the will, resources and freedom to build temples suggests to Lucero that "the Maya could choose which temples to worship in and support; they had a voice in who succeeded politically."

Yalbac's location on the eastern periphery of the southern Maya lowlands and its distance from regional centers may explain its particular dynamics and its "relative political independence," Lucero said.

Her new propositions challenge academic thinking on Maya temples. "Maya scholars have basically assumed that rulers built all the temples," she said. "No one has questioned this, although cross-cultural compar-

ison alone would suggest otherwise."

To be sure, the historic record is largely silent on why the Maya, a complex culture with many mysteries still to unravel, had several temples in any given center, which is why Lucero, among others, believes that archaeologists must seek answers from the buildings themselves and "construct more creative ways to assess what temple attributes can reveal about their non-material qualities."

Lucero's latest findings are detailed in the most recent issue of *Latin American Antiquity* in an article titled "Classic Maya Temples, Politics, and the Voice of the People."

Lucero is the leading expert on Yalbac and the sole authorized archaeologist on the site, authorized by the Belize Institute of Archaeology. She has conducted research in the area since 1997, and on the Yalbac site since 2002. The work will provide the basis for her next book project, an exploration of temples as text.

While largely unknown – except to looters and loggers – Yalbac is a rich site. In addition to the six temples, it also includes two plazas, a large royal residence or acropolis, and a ball court. Several of the temples are likely royal, three likely residential or memorial. None so far has been cleared of surface debris. Only one of the temples has escaped looting.

Looters, ironically, paved the way for Lucero's work to map, excavate and analyze Yalbac's Late Classic period temples. Over the years, thieves have carved nine trenches into the site in their pursuit of priceless booty. These same trenches have become Lucero's access routes to the temples. Still, in order to reduce additional invasion and damage to the historic site, Belizean authorities restrict her excavation beyond the trenches.

Some of the evidence she is accumulating is in the tons of fill – cobbles, boulders and stone pebbles, some in the tons of mortar – marl, plaster, and various kinds of loam.



photo by L. Brian Stauffer

New theory *Lisa Lucero, professor of anthropology at Illinois, believes that kings weren't the only Mayan people building or sponsoring Late Classic period temples (from about 550 to 850), the stepped pyramids that rose like beacons out of the southern lowlands as early as 300 B.C.*

Lucero – either on her own or leading groups of archaeology field school students – has been able to map the Yalbac site, including its structures, trenches and stelae – upright marker stones, sometimes inscribed, erected by the Maya over the millennia.

Over the years, she has dated ceramics found at Yalbac from about 300 B.C. through A.D. 900; her plaza test pit excavations have exposed floors that date to the same period.

"We also have placed test units throughout the site to get an idea as to monumental architecture construction histories and functions."

She has taken four New Mexico State University field school classes to Yalbac. She will take her first UI field school class

this May for a six-week hands-on course in archaeological survey and excavation. Lucero joined Illinois' department of anthropology last August, after a decade at NMSU.

The focus this summer will be on profiling the temple looters' trenches and test excavations. Lucero and 10 undergraduates and two graduate assistants will collect data from the six temples in order to compare temple frequency, size differences, location, layout, accessibility, history of use, construction patterns, surface decoration and ritual deposits.

"We also will expand the trenches to see if the looters missed caches – artifacts consisting of shell, jade, ceramics, lithics, etc. – that may provide clues as to temple function and purpose." ♦

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Effects of exercise on multiple sclerosis being studied

By Melissa Mitchell

News Bureau Staff Writer

Of all the debilitating diseases, multiple sclerosis may be among the most cruel, UI researcher Robert Motl believes. That's because it can literally stop people in their tracks in the prime of their lives.

"At the end of the day, MS is a disease that stops people from moving, that robs people of their ability to ambulate," said Motl, a professor of kinesiology and community health. "It is chronic, progressive and unpredictable, and it occurs at the most devastating time of life for people – between the ages of 20 and 40. It strikes women most often."

And it's relatively common.

"Most people know someone with MS," said Motl, who added that while certain drugs can be effective in treating various symptoms, there's no cure for the disease. And as it progresses, so does the afflicted person's overarching concern: "the fear of not walking."

"People use walking as a primary way of understanding disease progression with MS," he said. Progression goes from being fully ambulatory at the time of diagnosis to losing one's balance, tripping easily or walking with an awkward gait to being unable to walk 500 yards, using a cane, holding onto walls or other people for balance, and using a walker or scooter for mobility.

While others work to find a cure – which Motl said is unlikely to materialize any time soon – he and colleagues at the UI are focusing their research on "understanding the role of exercise as rehabilitation for MS, with the goal of slowing, mitigating or ending the devastating effects of the disease."

That work, some of which has included collaboration with graduate student Erin Snook and kinesiology and community health professor Edward McAuley, includes examining the impact physical activity may have on symptoms, behavior, disability progression and overall quality of life of individuals diagnosed with MS.

In a meta-analysis, the results of which appeared in a recent issue of

the journal *Multiple Sclerosis*, Motl and another graduate, Jessica Gosney, reviewed published research conducted over the past four decades. They looked at studies that considered the effects of exercise training interventions on quality of life among people with MS, and found a positive connection.

"We used effects from each study to come up with an average effect across studies and found that exercise is associated with a small improvement," Motl said. "But, that small improvement is clinically significant."

Putting the finding in perspective, "disease-modifying drugs also reap what is considered to be a similarly sized and meaningful effect," he said.

How and why physical exercise can translate to improved quality of life for an individual with MS is something Motl and McAuley are trying to pinpoint with support from a grant from the National Institutes of Health.

"What we've found are quite a few variables," Motl said. Most notable among them is a relationship between exercise and self-efficacy, or the confidence that individuals will succeed at what they're doing.

"Those who are more physically active have more confidence in their exercise performance, are more self-confident in general, and have more confidence in their ability to manage the disease," Motl said.

Feeling in control of the disease means they're more confident they can maintain their ability to walk, and that, he added, "translates to a better overall quality of life."

Working from that knowledge, Motl said, rehabilitation efforts – especially for individuals who've recently been diagnosed with MS and have not yet developed severe disabilities – should focus on "trying to generate exercise programs that are designed in ways to maxi-



photo by L. Brian Stauffer

Quality of life Rob Motl, right, and Edward McAuley, both professors of kinesiology and community health, and graduate student Erin Snook are studying the role of exercise in mitigating the effects of multiple sclerosis.

mize self-efficacy in order to manage quality of life."

Designing such programs can be challenging he said, "since most exercise involves upright ambulatory movement," which becomes more difficult as the disease progresses.

But given that Motl's research also has indicated that exercise interventions can have "an overriding (positive) effect on walking ability," including an outcome comparable to drug interventions – but over a much shorter period – he remains interested in exploring determinants for inactivity among this population.

In a paper just published online in the journal *Research in Nursing & Health*, Motl, Snook and co-author Randall T. Schapiro examined overall and specific symptoms to see if there were correlations between activity levels and physical symptoms. The 10 most common overall symptoms associated with MS range from fatigue, difficulty walking, stiffness and spasms to dizziness, problems with vision, memory

and other cognitive functions.

"We initially examined the intensity of overall symptoms as a correlate of physical activity, and then examined the possibility that specific symptoms of fatigue, depression and pain would account for the association between overall symptoms and physical activity by way of difficulty walking," the authors wrote.

Initial results indicated a statistically significant link between low exercise participation and higher levels of overall symptoms, fatigue and difficulty walking. Similar connections were not found, however, with respect to depression or pain.

Ultimately, the researchers determined that walking difficulty may explain the relationship between intensity of overall symptoms and decreased levels of physical activity.

These results reinforce Motl's belief that in order to get people with MS to exercise, "we have to start by trying to manage their symptoms." ♦

"For instance, with fatigue, there are certain things you can do," he said. "If people may get more tired by afternoon, they could make sure they get exercise in the morning." Similarly effective, he said, is the concept of energy conservation: "Do only what you have to do, and do it efficiently." Also key, he added, is "planning well."

And if this approach to managing symptoms to increase participation and adherence in exercise programs can work for those with MS, he suspects it also can be effective for people suffering with depression, fibromyalgia and Chronic Fatigue Syndrome.

"This is about focusing on rehabilitation as opposed to medication," he said. And that represents a significant paradigm shift since most past research has been "all about finding drugs that stop or slow the disease."

A new, complementary approach is needed, he said, because "we're not even close to curing it." ♦

Steering group formed to take next steps in resource summit

By Mike Lillich

University Relations

As part of President B. Joseph White's resources summit initiative, he has appointed a systemwide steering group and charged it to construct a long-term revenue and expenditure plan that "delivers the most resources possible to the academic front lines."

Making up the group are Walter K. Knorr, vice president and chief financial officer; Meena C. Rao, vice president for academic affairs; and Avijit Ghosh, vice president for technology and economic development; Douglas H. Vinzant, senior associate vice president for planning and administration; and provosts Linda P.B. Katehi in Urbana, R. Michael Tanner in Chicago and Harry Berman in Springfield, who will appoint campus working groups to address resource issues such as salary competitiveness, administrative and academic program redundancy and waste reduction.

The steering group will meet with White and chancellors Richard H. Herman,

Urbana; Eric A. Gislason (interim), Chicago; and Richard D. Ringeisen, Springfield. They will propose five-year operating and capital budgets as well as short-term actions to improve effectiveness and efficiency at the campus and system levels.

The first meeting of White's Dec. 6 resource summit brought together 125 leaders – the chancellors, provosts, faculty senate representatives, deans, department heads and students – representing the three campuses; university administration; the foundation; and alumni association at the Illini Union in Urbana.

White described the group's task as "a dialogue on how we can deliver maximum resources to the front lines: faculty positions and salaries and financial support of our core academic missions of teaching, research, service and economic development."

The daylong dialogue then migrated to a dedicated Web site where the participants continued their discussions.

In a February e-mail to faculty and staff members, White declared himself "passion-

ately committed to strengthening the quality, academic environment and reputation of the University of Illinois and ... the fundamental change to achieve these goals."

In addition to five-year budgets, long-term plans include streamlining administrative functions at both the system and campus levels through careful planning and attrition; achieving cost containment through energy production efficiency and conservation; regularly and rigorously reviewing academic programs to avoid overlap and sprawl; and seeking change in externally imposed regulations that impose unnecessary financial burdens.

In his message, White also announced a number of short-term actions suggested by the summit attendees to be implemented immediately. They included ensuring sufficient financial support of all faculty members in support of their teaching, research and professional development, taking immediate steps to promote energy efficiency, developing service centers to support aggregations of small departments where appropriate and

reducing administrative duplication and bureaucratic waste.

White enumerated the substantive questions the resource initiative seeks to answer going forward:

■ Are we trying to support "too much university" with the dollars we have?

■ How can we examine the scope of academic offerings at our three campuses to improve quality and free up resources to better support faculty members, academic programs and students?

■ How can we reduce the growth of central costs at all levels – university administration, colleges/schools and departments?

■ How can the university leadership collaborate to undertake this initiative in a way that will yield meaningful and constructive results?

White said that while the UI's resources from the state, tuition payers and private donors have grown at a reasonable rate in the past few years, the softening economy and state budget woes suggest a period of tight budgets on the horizon. ♦

Honey bee invaders exploit their genetic resources

By Diana Yates

News Bureau Staff Writer

Like any species that aspires to rule the world, the honey bee, *Apis mellifera*, invades new territories in repeated assaults. A new study demonstrates that when these honey bees arrive in a place that has already been invaded, the newcomers benefit from the genetic endowment of their predecessors.

The findings appear last week in Proceedings of the National Academy of Sciences.

The researchers, UI entomology professor Charles Whitfield and postdoctoral researcher Amro Zayed, analyzed specific markers of change in the genes of honey bees in Africa, Europe, Asia and the Americas. They also focused on geographic regions – such as Brazil in South America – where multiple honey bee invasions had occurred.

The researchers were looking for tiny variations in the sequences of nucleotides that make up all genes. Certain versions of these single nucleotide polymorphisms (SNPs, or “snips”) are more common to African honey bees, while others occur more frequently in honey bees in western Europe, eastern Europe, or Asia.

By comparing these SNPs in bees from different geographic territories, and by looking at the frequency at which particular alleles, or variants, occur in functional and nonfunctional parts of the honey bee genome, the researchers were able to determine that the invading bees were not just randomly acquiring genetic material from their predecessors by interbreeding with them, but that certain genes from the previously introduced bees were giving the newcomers an advantage.

An earlier study led by Whitfield and published in Science in 2006 showed that *A. mellifera* originated in Africa and not Asia, as some had previously hypothesized.

That study revealed that the honey bee had expanded its territory into Eurasia at least twice, resulting in populations in eastern and western Europe that were quite different from one another.

The earlier analysis also confirmed and extended results of previous studies showing that African honey bees had mixed with but largely displaced their prede-

cessors in the New World, which were primarily of western European stock. When the European old-timers mixed with the African newcomers, their offspring looked, and in most respects behaved, like the African honey bees.

These more aggressive, “Africanized” bees (so-called “killer bees”) received a lot of media attention in the U.S. as they moved north from South America. According to the U.S. Department of Agriculture, the first Africanized honey bees appeared in Texas in 1990. In less than a decade they also had spread to southern California, Arizona, Nevada and New Mexico.

Whitfield and Zayed wanted to understand the evolutionary mechanism that allowed the African honey bees to move into these new territories and dominate the bees that had arrived in the New World centuries earlier from eastern and western Europe.

Their analysis of about 440 SNPs selected randomly from throughout the Africanized honey bee genome showed that most of the alleles were common to African honey bees. But of the alleles common to European bees, those found in functional parts of the genome (in genes) were showing up more frequently than those in nonfunctional regions (between genes).

“We asked the question: Is hybridization an essentially random process?” Zayed said. When the African honey bees mated with the western European honey bees that had been in South America for centuries, one might expect that the hybrid offspring would randomly pick up both the functional and nonfunctional parts of the ge-

nome, he said.

“But actually what we found was there was a preference for picking up functional parts of the western European genome over the nonfunctional parts.”

It appeared that the Africanized bees that kept some of the functional western European genes were gaining an advantage, Whitfield said.

“Those African bees are doing better because there were western European honey bees there for them to mix with,” he said. “Now we can say we have a signature for evolution in the genome.”

While the researchers do not yet know how these European honey bee genes are enhancing the survival and fitness of the Africanized bees in the Americas, Whitfield said, it may be that specific traits from western Europe are beneficial, or it may be that being a hybrid is, in and of itself, a good thing for these bees.

In a separate finding, the researchers also discovered a genomewide signature of evolution associated with the ancient expansion of honey bees from Africa into temperate regions of western and northern Europe. In this expansion, functional parts of the genome have changed more than nonfunctional parts. Whitfield thinks that these changes may involve social adaptations to survive the hard winters.

“The way the honey bees survive in temperate regions is sort of the way humans do,” Whitfield said. “They have a shelter. They



photo by L. Brian Stauffer

Genomic evolution Entomology professor Charles Whitfield, right, and postdoctoral researcher Amro Zayed analyzed specific markers of change in the genes of honey bees in Africa, Europe, Asia and the Americas. They also focused on geographic regions – such as Brazil in South America – where multiple honey bee invasions had occurred.

store resources.”

Not needing to survive in such cold weather, African bees store less food and reproduce more.

“So how does an animal that’s basically tropical make it? How does it expand its territory and

thrive in very harsh winter conditions in this temperate region?” Whitfield asked. “Humans did it, and *Apis mellifera* did it in some interestingly parallel ways.”

Whitfield is an affiliate of the Institute for Genomic Biology. ♦

CONSORTIUM, CONTINUED FROM PAGE 3

ship on environmental issues and has provided seed funding to five working groups that are developing curricula and conducting research into global warming, renewable energy, and other issues. Through the Energy Biosciences Institute, a collaboration with the University of California-Berkeley, the Lawrence Berkeley National Laboratory and BP, the UI established the world’s first research institution dedicated to the emerging field of energy bioscience and the development of next-generation biofuels.

Herman also recently endorsed the Urbana campus Energy Use Policy, establishing seasonal building temperature guidelines, emphasizing personal responsibility in energy

conservation, and requiring larger renovation projects and new construction projects to qualify for silver-level certification under the U.S. Green Building Council’s Leadership in Energy and Environmental Design program. The Business Instructional Facility, opening this fall, is being constructed to LEED gold standards with a green roof, photovoltaic panels and special lighting controls. Accordingly, the preliminary design for the National Center for Supercomputing Applications’ Blue Waters petascale computing facility, expected to go online in 2011, includes a 98 percent efficient power distribution system and a cooling tower for water-cooled hardware. The campus also is retro-fitting the heating, ventilating and

air conditioning systems in many other buildings to maximize efficiency.

Students are involved in many green projects on campus, including a program in which waste vegetable oil from university dining halls is being collected and converted into biodiesel for fueling university vehicles. Curricular initiatives include student teams performing energy audits of campus buildings and developing a sustainable design for the South Farms. Interdisciplinary student teams also participate in the U.S. Department of Energy’s biennial Solar Decathlon, in which they design, build and operate energy-efficient, fully solar-powered homes. ♦

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Institute launches inaugural projects

Three diverse efforts will be the inaugural projects of the new Institute for Advanced Computing Applications and Technologies at the UI. The institute transfers advances from the computer science and engineering research at the National Center for Supercomputing Applications to the larger scientific, engineering, and arts, humanities and social science communities in order to speed progress across all of these frontiers.

"These projects will bring the development and deployment competencies of NCSA to bear on challenges in diverse disciplines and will forge unique collaborations between Illinois faculty and NCSA staff," said institute and NCSA director Thom Dunning. "It's very exciting to be able to foster such innovative work."

The institute is organized around five broad themes: Advanced Information Systems, Computing and Creativity, Data-intensive Applications and Technologies, Simulation of Natural and Engineered Systems, and the Center for Petascale Computing. Two of the initial projects are under the Simulation of Natural and Engineered Systems, while the third falls under Computing and Creativity.

The three projects launched in January:

■ **Synergistic Research on Parallel Programming for Petascale Applications**, led by Duane Johnson, materials science and engineering, and Laxmikant Kale, computer science. Effectively harnessing the power of supercomputers – like the sustained-petascale Blue Waters system scheduled to come online at the UI in 2011 – will require the coordinated development

of petascale parallel programming tools and petascale applications. This project will combine potentially petascale applications including codes for astrophysical (FLASH) and biomolecular (NAMD) simulation and for determining the electronic-structure of materials (QMCpack and MECCA) with needed computer science research. Efforts will focus on adaptive runtime systems that automate dynamic load balancing and fault tolerance, enhancement of parallel programming abstractions, best-practice software engineering to petascale applications via refactoring tools, productive programming environments that integrate performance analysis and debugging tools, and automatically tuned libraries.

"Our major goal," Johnson said, "is to focus on applications having impact on challenging physical problems of broad community interest and that could really show sustained petascale performance given the right computer science tools and libraries on the planned hardware. Concerted effort between the physical and computer scientists is critical for this to happen – not all square blocks fit into the same round hole. The outcome is solutions to problems that, up until now, were impossible."

■ **Next-Generation Acceleration Systems for Advanced Science and Engineering Applications**, led by Wen-mei Hwu, electrical and computer engineering/Coordinated Science Laboratory. This project will develop application algorithms, programming tools, and software artifacts for seamless deployment of next-generation accelerators – including graphics processing units (GPUs) and field-programmable gate

arrays (FPGAs) – in science and engineering applications. The mission is to empower science and engineering researchers by enabling their applications to run 100 times faster and at much lower cost than traditional parallel processing techniques. Researchers will work on new algorithms and programming styles for taking full advantage of acceleration technologies in molecular dynamics and quantum chemistry (collaborating with Klaus Schulten, Todd Martinez, Jim Phillips, Laxmikant Kale, and John Stone), cosmology (Robert Brunner), and biomedical imaging (Brad Sutton).

"Acceleration technology is a truly exciting area, and with the combined expertise of the university's academic units and NCSA we can accelerate advancement in computational science and engineering by a full decade," said Hwu.

■ **Cultural Informatics**, led by Michael Ross (Krannert Center for the Performing Arts). The project will apply information science and technology to the creation and comprehension of human experience, to the understanding and expression of the human condition, and to the revelation and communication of human values and meaning. This may include the creation of new aesthetic works, public engagement, formal and informal education, the performing arts, museum and other exhibition venues, and design strategies that affect society. ♦

ON THE WEB

■ **Institute for Advanced Computing Applications and Technologies**
www.iacat.uiuc.edu

deaths

Dale E. Coad, 80, died Feb. 22. He was an electronics technician for the School of Chemical Sciences from 1954 until his retirement in 1988. Memorials: Our Lady of the Lake Catholic Church, 501 W. State St., Mahomet, IL 51853.

Ethel Mae Davis, 61, died Feb. 25 at Carle Foundation Hospital in Urbana. She retired in 1999 after 28 years as a secretary in aerospace engineering.

Darrell "Deak" Hulmes, 72, died Feb. 27 at Carle Foundation Hospital in Urbana. He was employed in steam distribution at the UI from 1967 to 1997. Memorials: Salvation Army, Mahomet Area Youth Club or American Cancer Society.

Merle M. Ohlsen, 93, died Feb. 26 in Savoy. Ohlsen was a professor of education for 19 years, retiring in 1969. Memorials: Merle Ohlsen Scholarship Fund at Indiana State University or the UI Foundation.

Ina Rae Patterson, 77, died Feb. 18. She was an administrative clerk in the Office of the Chancellor for 25 years before retiring in 1995.

Mima J. Spencer, 79, died Feb. 12 in Eugene, Ore. She worked for the Early Childhood Resources Center for more than 20 years and retired as associate director in 1991. ♦

achievements

A report on honors, awards, appointments and other outstanding achievements of faculty and staff members

agricultural, consumer and environmental sciences

The Illinois Council on Food and Agricultural Research presented the 2008 Donald A. Holt Achievement Award to the **Illinois Center for Soy Foods** at the organization's annual meeting Feb. 12 in Springfield. Each year, the council recognizes a research team that has demonstrated outstanding and innovative team research and outreach. The award is named in honor of Holt, a longtime advocate for practical and sound food and agricultural research.

Led by UI researchers Keith Cadwallader, Barbara Klein, Pradeep Khanna and Karl Weingartner, the center's team of 15 faculty members and academic professionals have used their expertise in food chemistry, nutrition, management and food technology to undertake a variety of successful projects and activities to promote soy foods.

"Over the past seven years, this research team has provided the necessary expertise and leadership to position the center as the world leader in soy foods research, educa-

tion and outreach," said W. Lyle Roberts Jr., chief executive officer of the Illinois Soybean Association.

campus award

The **UI's Urbana-Champaign campus** has been selected to receive the 2008 Sen. Paul Simon Award for Campus Internationalization.

The award, presented by NAFSA: Association of International Educators, recognizes the university for "outstanding and innovative efforts in campus internationalization."

NAFSA is the world's largest non-profit association dedicated to international education. The award honors the memory of Simon, a lifelong advocate of international education who, until his death in 2003, supported efforts to expand U.S. students' participation in study-abroad and exchange programs.

The UI is one of five universities receiving this year's Simon Award, and will be featured with the other institutions in the NAFSA report "Internationalizing the

Campus 2008: Profiles of Success at Colleges and Universities." Others recipients are Goucher College, Nebraska Wesleyan University, Pittsburgh State University and Valparaiso University.

William Brustein, the UI's associate provost for international affairs and director of International Programs and Studies, said Illinois' status as the only institution in the United States to rank in the top five in three key metrics of campus internationalization was a key reason for the recognition. Illinois ranks second in the number of Title VI U.S. Department of Education National Resource Centers (with eight), fourth in the number of international students on campus, and fifth in the number of undergraduates who study abroad.

fine and applied arts

Dianne Harris, professor of landscape architecture, was named editor for a new series to be published by the University of Pittsburgh Press. Books in the series will focus on social justice, human rights and

histories of the built environment and visual culture.

university library

Jane Block, head of the Ricker Library of Architecture and Art at the UI, will be honored by the Belgian government for her scholarship on the art and culture of Belgium.

Block will be granted the honorary title of "Officer in the Order of Leopold" and will be presented with a civic decoration and certificate signed by King Albert II during a private ceremony at 12:30 p.m. March 7 at the Sofitel Chicago Water Tower hotel.

Renilde Loeckx-Drozdiak, the consul general of Belgium in New York, will present the honors. Paul Van Halteren, the honorary consul of Chicago, also has been invited.

Block, the Andrew Turyn Professor in the University Library, has focused her scholarship on various aspects of European progressive art in the decades before and after 1900, with a particular emphasis on developments in Belgium. ♦

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brief notes

Illinois State Geological Survey

Open House is March 7-8

The Illinois State Geological Survey will host its 2008 Open House from 9 a.m.-4 p.m. March 7 and 10 a.m.-2 p.m. March 8. The event will showcase the earth science research conducted by the survey scientists. There will be demonstrations and activities for all ages. The open house is at the Natural Resources Building. More information is at www.isgs.uiuc.edu.

American Association of University Professors

Promotion and tenure workshop

The Urbana chapter of the American Association of University Professors will sponsor a workshop March 11: "Achieving Tenure and Promotion – Policies and Procedures on the UIUC Campus." The program will begin at 2:30 p.m. in 314B Illini Union.

Five panel members will make short presentations, lead the discussion and answer questions from the audience. This program is of particular interest to new and continuing tenure-track assistant professors and associate professors seeking promotion.

The panelists (and the topics they will address): Provost Linda Katehi and Vice Provost Ruth Watkins (campus policies, three-year review procedures); Gary G. Porton, the Charles and Sarah Drobny Professor of Talmudic Studies and Judaism, and past chair of the Campus Promotion and Tenure Committee (procedures followed by the Promotion and Tenure Committee); Billie Jean Theide, professor of art and design, chair of the Faculty Advisory Committee (appeal procedures); and Cary Nelson, Jubilee Professor of Liberal Arts and Sciences and president of the National AAUP (position of and support provided by the AAUP).

Registration is not required; all faculty members are welcome. Refreshments will be served. For more information, contact Harry H. Hilton, 333-2653, h-hilton@uiuc.edu.

CITES security office

SSN removal deadline is March 14

March 14 is the deadline for unit heads to submit the data-collection forms and certificates to the security office in the Office of Chief Information Officer indicating that they have completed the Social Security Number elimination program for all computer systems for which they are responsible.

The SSN removal program and scanning tools identify sensitive personal data such as SSNs and credit-card numbers in computer files so the files can be eliminated to prevent accidental disclosure.

As part of the project, the Urbana campus has adopted standards that require all faculty and staff members with access to SSNs deploy the SSN scanning software annually, and that any laptop computers they use be registered in use of the software annually. Laptops containing sensitive data must be identified as such. Unit heads must sign off every year certifying that their unit has fulfilled the data-security requirements.

The security office is providing consultation and support during and after the SSN elimination project to assist units in securing systems that warrant retaining SSNs and in developing plans for the elimination of SSNs from other systems. The security office also will provide the chancellor's and provost's offices, as well as the university's auditors, with a summary report on the status of each unit.

See www.cites.uiuc.edu/ssnprogram/ for more information, including deadlines and required forms.

Staff Human Resources

Town hall meetings, training announced

The Staff Human Resources is starting a contemporary performance-management system, the Performance Partnership Program, for employees represented by AFSCME Local 3700 and Open Range Civil Service employees. The start-up date for the program is April 1.

Several town hall meetings will be conducted for these employees to review features of the program and answer questions. These meetings are considered approved events. Employees may be released from work to attend without loss of pay, departmental operations permitting, and with appropriate supervisory approval.

In addition, for staff members who supervise these employees, mandatory training will demonstrate how the Performance Partnership Program will be administered and the tools that will be used.

Town hall meetings in the auditorium of the Beckman Institute: March 10, 10:30 a.m.-noon or 1-2:30 p.m.; March 18, 10:30 a.m.-noon.

Supervisor training in the Beckman Institute (room varies) will be from 9 a.m.-noon or 1:30-4:30 p.m. on March 11, 13, 14 and 20 and at 9 a.m. -noon on March 24.

The town hall meetings and supervisor training sessions require advance registration. For more information and to register, visit www.pso.uiuc.edu/Labor/PPP.html

Project takes contemporary look at Shakespeare classics

All the community's a stage this spring as the UI theater department and other local thespians explore Shakespeare's classic works in a contemporary context.

The drama – and comedy – began last month and continue through April with performers and speakers from the UI and throughout Champaign-Urbana introducing audiences to the best of the Bard at various venues. Those venues include the Krannert Center for the Performing Arts, McKinley Foundation, Parkland College Theater, Channing-Murray Foundation and Station Theater. University Laboratory High School students also are in on the act.

Taking the lead on the communitywide project is Tom Mitchell, interim head of the UI theater department. Mitchell has been working collaboratively with academic colleagues and community counterparts on a full-spectrum of Shakespearean experiences that he hopes will provide both seasoned Shakespeare enthusiasts and relative newcomers to the playwright with forums for exploring the many facets of producing, performing and enjoying the classic works.

"This focus on Shakespeare presents an opportunity to see the variety of theatrical experiences available in

the community," Mitchell said. "We're lucky to have so much going on. We've got high school, college and community actors all performing in great plays.

"I'm looking forward to the fresh and irreverent approaches in some of the productions," he said.

Krannert Center creative specialist Bridget Lee-Cal-fas said the center's Promenade gift shop is even playing a small part in the festivities.

"Visitors will be able to indulge in all things Shakespeare by visiting the shop, where, among other Elizabethan novelties, they can find After Shakespeare Mints and William Shakespeare action figures," she said. And at the almost weekly Krannert Uncorked, beginning at 5 p.m. x Thursdays, guests will be able to sample Shakespeare-inspired wine selections.

A full schedule of events and activities is online at www2.krannertcenter.com/Shakespeare. ♦



Intersection of biology and politics

Conference is first of its kind

Biology and politics may seem like strange bedfellows, especially in higher education, but for a growing number of social and natural scientists on college campuses across the country, the intersection of these disciplines offers intriguing potential for scholarly inquiry.

That intersection is the basis for an upcoming conference to be held March 7-8 at the UI's Institute for Genomic Biology.

The conference is the first of its kind, said conference co-organizer Ira H. Carmen, a professor of political science who has devoted much of his research to the intersection of genetics and politics. "We will be exploring a new paradigm linking political science with genomic and neuroscientific research."

The conference Web site is at www-app.igb.uiuc.edu/biopolitics. Registration is open and limited to 70 people. Organizers may be contacted at biopolitics@igb.uiuc.edu.

Gene E. Robinson, a professor of entomology, is the other conference organizer. Both he and Carmen are affiliated with the institute. Robinson's area of expertise is the mechanisms of behavior in social insects. He directs the neuroscience program at Illinois and is the chair of the institute's genomics of neural and behavioral plasticity theme.

Scholars from around the U.S. will discuss the biological antecedents of human social behavior, particularly political attitudes and behaviors, Carmen said.

The conference will offer panels on: "Genetics and Politics," "Neuroscience and Politics," "Cranial Responses to Out-Groups," "Personality and Ideology: Evolutionary Implications" and "Biology and Sociality."

The conference sponsors are the National Science Foundation, the IGB, the College of Liberal Arts and Sciences, and the department of political science.

Illinois Program for Research in the Humanities

Photos reflect Cuban hip-hop scene

The Illinois Program for Research in the Humanities is hosting the exhibition, "Que Bola: Cuban Hip Hop in Motion," by UI professor Marc D. Perry, through May 9.

The exhibition offers a series of photographic images that Perry shot in Havana in the summer of 2006, celebrating the vibrant energy and creative design of Cuba's hip-hop movement. This is the first exhibition of photographs by Perry, a professor of African-American studies and of anthropology and a 2007-08 IPRH Faculty Fellow.

The images provide a compelling view of the intensity of the performer and audience in the making of hip hop in Cuba and are part of his current book project, "Revolutionizing Blackness: Hip Hop in Late Socialist Cuba."

"The project centers on the ways young Afro-Cuban men and women are using hip-hop culture to fashion new expressions of black Cuban identity and accompanying anti-racist critique," Perry said.

The exhibition is free and open to the public. For more information, call 224-3344 or visit www.iprh.uiuc.edu.

Family Resiliency Center

Family wellness series announced

The Family Resiliency Center is offering a Family Wellness Series this semester. The series focuses on the six dimensions of wellness (physical, intellectual, spiritual, emotional, social and environmental) and will offer a research and an applied perspective on a particular topic within one of the dimensions.

The series is free and open to the public. Each session is from 4-5 p.m. in the studio of Doris Kelley Christopher

Hall. More programs for other dimensions of wellness will be featured next semester.

Events:

March 11 (social): "The Benefits of Volunteerism," Beth Welbus, senior coordinator of research, UI Center for Prevention Research and Development, and Lynn Peisker, Volunteer Connections coordinator, United Way of Champaign County.

April 1 (environmental): "A Dose of Nature: Everyday Contact With Nature and the Impact on Wellness," William Sullivan, professor of landscape architecture and director of the UI Environmental Council, and Judy Miller, environmental program manager, Anita Purves Nature Center, Urbana Park District.

April 29 (physical): "Successful Aging and the Brain," Art Kramer, professor of psychology, Campus Neuroscience Program, Institute of Aviation, and the Beckman Institute, and Laura Payne, Extension Specialist, UI department of recreation, sport and tourism.

For more information, contact Brenda Koester at 244-6486 or bkoester@uiuc.edu.

Child Development Laboratory

Apply now for academic year 2008-09

The Child Development Laboratory is accepting applications for the 2008-2009 school year. Half-day preschool programs for 2-, 3- and 4-year-old children will be Tuesday through Friday for three hours a day during the regular academic year. Full-day child-care programs for children from 6 weeks to 4 years are in session from 7:30 a.m.-5:30 p.m. Monday through Friday year-round.

Orientation tours of both facilities are offered weekly. Hour-long tours depart from the lobby of the Early Child Development Lab facility at 3:30 p.m. on Wednesdays and 9:30 a.m. on Thursdays. Use the Lincoln Avenue entrance off of the Jimmy John's parking lot. Tours are suspended during the enrollment months of April and May.

To complete an online enrollment application, visit www.cdli.uiuc.edu. For more information or to schedule a tour, call 244-8622. For full consideration, submit applications for half-day programs by April 1 and full-day programs by May 1.

Civil Service Employees

Apply by April 4 for scholarships

Applications for civil service employee and dependent scholarships are available online through the Staff Human Resources home page at www.pso.uiuc.edu. Printed copies may be obtained from civil service representatives Barney Bryson, Gary Fry or Jeff Goldberg. The application deadline is April 4.

Typically, recipients are selected the second week in May and honored at an award ceremony in mid-June. Last year scholarships were awarded to two employees and four dependents of employees. The committee tries to award about eight scholarships each year to qualified people pursuing degrees of higher education at an accredited college or university.

College of Engineering

Starting a business through research

The College of Engineering will host a presentation that will explore questions to consider when deciding whether to start a company. John Rogers, UI professor of electrical and computer engineering, will discuss "Spinning Out a Company From Your Research" at 4 p.m. March 12 in Room 190 of the Engineering Sciences Building.

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BRIEFS, CONTINUED FROM PAGE 15

The talk will explore Rogers' experiences as a faculty member starting a company, Semprius Inc. After the talk, Rogers will be joined by patent lawyer Stephen Barone, Illinois-VENTURES' senior director John Regan, UI Research Park manager Scott Pickard, and senior technology manager Mark Kaczor for a discussion to answer audience questions. To register, e-mail nnair@uiuc.edu by March 7.

School of Social Work**Continuing education event is March 28**

The UI School of Social Work and the School of Social Work Alumni Association will present the Spring 2008 Continuing Education Event on March 28 at the Hawthorn Suites Hotel and Conference Center, 101 Trade Centre Drive, Champaign.

This year's workshop schedule offers four sessions. Each session has been approved for three hours of continuing-education credit. Seating is limited, so register early.

For a brochure, call 244-5241 or e-mail ambeck@uiuc.edu. The cost for the full day is \$135 (\$120 if registered by March 18)/\$15 for students. The cost for a half-day is: \$80 (\$65 if registered by March 18)/\$10 for students.

The sessions:

■ "Bridging the Chasm: How Social Workers Can Help Immigrant Families," 9 a.m.-12:15 p.m.

■ "Response to Intervention: Implementing Effective Tier II Interventions," 9 a.m.-12:15 p.m.

■ "From Subpoena to Trial: Courtroom Preparation for Social Workers," 1:30 p.m.-4:45 p.m.

■ "Parenting and Severe Mental Illness," 1:30 p.m.-4:45 p.m.

Asian American Awareness Month**Cultural center hosts activities**

Activities during Asian American Awareness Month center on the theme, "We are Here ... This is Our Voice."

The celebration begins with an exhibition: "Asian American Art Show: 'Reflections of Who I Am...'" at the Asian American Cultural Center, Monday-Friday, 8:30 a.m.-5 p.m. On display through April, the exhibit also will be featured at an art reception from 2-4 p.m. April 20 during the Boneyard Arts Festival.

Events continue with the Asian American Studies Program's Asian American conferences:

March 7-8: "Philippine Palimpsests" will examine the Filipino Diaspora with respect to past and present.

March 28-29: "Korean Education Exodus" will focus on the changing Korean America with the arrival of new immigrants.

April 15-16: "Southeast Asians in the Diaspora" will explore the identity of Southeast Asian Americans as a result of their specific histories.

For information about activities, go to the Asian American Cultural Center Web site, www.odos.uiuc.edu/aacc/, or contact May Xiong, 333-9300 or aacc@uiuc.edu.

Windsor Lecture**Abbot speaks on library research**

Andrew Abbott, the Gustavus F. and Ann M. Swift Distinguished Service Professor in the department of sociology at the University of Chicago, will give the Spring 2008 Windsor Lecture at the Graduate School of Library and Information Science at 4 p.m. March 12. During his talk, "Library Research and Its Infrastructure in the 20th Century," Abbott will discuss the co-evolution over the 20th century of the library research community and the libraries in which that community worked.

Known for his ecological theories of occupations, Abbott also has pioneered algorithmic analysis of social sequence data. He has written on the foundations of social

UI Extension hosts Moon Walk April 4-June 27

Responding to a challenge to "race to the moon" by the city of Peoria, UI Extension Champaign County has announced its sponsorship of Moon Walk 2008, a 12-week race aimed to encourage people to walk more and reap the related health benefits.

To accomplish the mission to the moon, Extension is recruiting teams throughout Champaign County who will record their miles walked. Participants' miles will be combined with all local moon-walkers. The race begins April 4 and ends June 27.

"We are always looking for fun ways to encourage people to be active. Moon Walk is just the right program because it involves a friendly competition between the city of Peoria and Champaign to see who can get to the moon first," said Jamie Kleiss, UI Extension Health and Wellness Programs.

Moon Walk is based on research that shows in 30 minutes a day, five or more days a week you can help prevent, arrest and reverse major health issues such as obesity, heart disease, hypertension, Type II diabetes and depression.

Families, businesses, organizations and individuals are encouraged to participate. Registration is required. Cost is \$5 per participant, which includes a T-shirt after



100 miles walked and an invitation to the Moon Walk Launch Party on April 3 at Parkland College Planetarium. The first 100 people to register also will receive a pedometer.

To register or to learn more, call the UI Extension Champaign County office at 333-7672 or visit <http://moonwalk.extension.uiuc.edu>. ♦

science methodology and on the evolution of the social sciences and the academic system.

A reception will follow the lecture.

University YMCA**International dinner is March 9**

The University YMCA, Cosmopolitan Club and International Student and Scholar Services will host the 25th Annual International Dinner and Performance Night at 6 p.m. March 9 at the University YMCA. Tickets are \$8 for a sampling of food and music from all over the world.

Tickets can be purchased at the University YMCA. Seats are limited.

Families, international students and faculty members come together for an evening of food from more than 30 countries and a variety of live entertainment.

Historic urban environment**Heritage Cities Workshop is March 7-8**

Scholars will talk about cities in Bolivia, China, Cuba, Eastern Europe, Egypt, North Africa, Peru and the U.S. during the Heritage Cities workshop March 7-8.

Heritage Cities considers the historic urban environment both with respect to problems – such as authenticity and the preservation of something that is inherently unstable and dynamic – and possibilities – such as revival and revitalization. The preservation of cultural heritage is typically regarded as a common good, but heritage also is intertwined with identity and territory, where individuals and communities may compete. This aspect of heritage is particularly problematic in cities across the globe that are marketed as heritage cities. Multiple claims from diverse inhabitants are inevitable and more than one of these may claim the right to interpret or possess an individual site or building. Does the historic urban fabric belong to the current or past residents?

The workshop is 9:30 a.m.-6 p.m. March 7 in Doris Kelley Christopher Hall and 9 a.m.-noon March 8 at Illinois Project for Research in the Humanities. The workshop is free and open to the public and lunch is provided on March 7 with reservation. Visit www.champ.uiuc.edu for program details. Contact slirish@uiuc.edu to register.

The workshop is organized by the Collaborative for Cultural Heritage and Museum Practices.

Handel's 'Solomon'**BACH to perform March 15**

The Baroque Artists of Champaign-Urbana will present Handel's oratorio "Solomon" at 7:30 p.m. March 15 at Smith Memorial Hall.

UI professor Chester Alwes Jr. will conduct the orchestra, chorus and soloists, including countertenor Jay Carter (as Solomon) and sopranos Sherezade Panthaki, Meagan Smith and Leann Schuering.

Tickets prices are \$18 for general admission, \$15 for senior citizens, and \$10 for students (for students only: Buy one, get one free). Tickets are available at the door, from the BACH office (378-6802), at Techline (24 E. Green St., Champaign) or at www.baroqueartists.org.

Lincoln Bicentennial Lecture**Civil War historian will speak March 12**

James M. McPherson, widely regarded as the greatest living historian of the U.S. Civil War, will deliver the Lincoln Bicentennial Lecture at the UI on March 12.

His lecture, "Tried by War: Abraham Lincoln as Commander-in-Chief," will begin at 3:30 p.m. in the auditorium of the Alice Campbell Alumni Center.

The talk is sponsored by the history department and is free and open to the public. The event inaugurates the history department's yearlong celebration of the Lincoln bicentennial, which will include a series of distinguished speakers, specialized undergraduate courses and outreach workshops for area teachers.

McPherson is the George Henry Davis 1886 Professor Emeritus of American History at Princeton University.

University Library**Spring book sale March 10-14**

The University Library's Book Nook is planning a half-price book sale from 10 a.m.-2 p.m. March 10-14. Paperbacks will cost \$1 to \$1.50 and most hard-cover books will cost \$2. The Book Nook is located at the welcome desk on the first floor of the library in the bronze tablet hallway. ♦

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more calendar

CALENDAR, CONTINUED FROM PAGE 18

gram
8 a.m.-5 p.m. 1011 W. University Ave., Urbana. Phone 244-5312. 24-hour crisis line: 244-7739.

Illini Union Ballroom
11:30 a.m.-1 p.m. Monday-Friday. Second floor, NE corner. Reservations: 333-0690; walk-ins welcome.

Japan House
For a group tour, 244-9934. *Tea Ceremony*: second and fourth Thursday of the month. \$5/person. *Hina Doll Display*: 1-4 p.m. Thursdays.

Krannert Art Museum and Kinkead Pavilion
Tours: By appointment, call 333-8218.

Gallery hours: 9 a.m.-5 p.m. Tuesday-Saturday, open until 9 p.m. Thursday; 2-5 p.m. Sunday.

The Fred and Donna Giertz Education Center: 10 a.m.-noon and 1-5 p.m. Tuesday-Friday; open until 7 p.m. Thursday; 10 a.m.-2 p.m. Saturday.

Palette Café: 8 a.m.-4 p.m. Monday-Friday.
Office hours: 8:30 a.m.-5 p.m. Monday-Friday.

Krannert Center for the Performing Arts

Interlude: Open at 4 p.m. most Thursday and Friday evenings. Close at 7 p.m. on non-performance nights and until after the performance on show nights.

Krannert Uncorked: Wine tastings at 5 p.m. most Thursdays.
Intermezzo Café: Open 7:30 a.m.-3:30 p.m. on non-performance weekdays; 7:30 a.m. through weekday performances; weekends from 90 minutes before until after performances.

Promenade gift shop: 10 a.m.-6 p.m. Monday-Saturday; one hour before until 30 minutes after performances.

Ticket Office: 10 a.m.-6 p.m. daily, and 10 a.m. through first intermission on performance days.

Tours: 3 p.m. daily; meet in main lobby.

Library Tours
Self-guided of main and undergraduate libraries: go to Information Desk (second floor, main library) or Information Services Desk (undergrad library).

Meat Salesroom
102 Meat Sciences Lab. 1-5:30 p.m. Tuesday and Thursday; 8 a.m.-1 p.m. Friday. For price list and specials, 333-3404.

Robert Allerton Park
Open 8 a.m. to dusk daily. "Allerton Legacy" exhibit at Visitors Center, 9 a.m.-5 p.m. daily; 244-1035. Garden tours, 333-2127.

Yoga at Krannert Art Museum
Fridays at noon.

organizations

Association of Academic Professionals
For events: www.ieanea.org/local/aap/

Book Collectors' Club - The No. 44 Society
3 p.m. First Wednesday of each month. Rare Book and Manuscript Library, 346 Main Library. More info: 333-3777 or www.library.uiuc.edu/rbx/no44.htm.

Council of Academic Professionals Meeting
1:30 p.m. First Thursday monthly, location varies. More info: www.cap.uiuc.edu or mjreilly@uiuc.edu.

Classified Employees Association
11:45 a.m.-1 p.m. first Thursday monthly. More info: 244-2466 or nblackbu@uiuc.edu.

UIUC Falun Dafa Practice group
4:10-6:10 p.m. each Sunday, 405 Illini Union. More info: 244-2571.

French Department: Pause Café

6 p.m. Thursdays, Espresso Royale, 1117 W. Oregon St., Urbana.

Illini Folk Dance Society
8-10 p.m. Tuesday and some Saturdays, Illini Union. Beginners welcome, 398-6686.

Italian Table
Italian conversation Mondays at noon, Intermezzo Café, KCPA.

Lifetime Fitness Program
6-8:50 a.m. Monday-Friday. Kinesiology, 244-3983.

Normal Person's Book Discussion Group
7 p.m. 317 Illini Union. Read "Little, Big," by John Crowley for March 13. More info: 355-3167 or www.uiuc.edu/~beuoy.

PC User Group
For schedule, www.uiuc.edu/~pcug.

Scandinavian Conversation Group
3-5 p.m. Wednesday. The Bread Company, 706 S. Goodwin Ave., Urbana. More info: clacatus@uiuc.edu.

Secretariat
11:45 a.m.-1 p.m. third Wednesday monthly. Illini Union. More info: www.uiuc.edu/ro/secretariat.

The Deutsche Konversationsgruppe
1-3 p.m. Wednesday. The Bread Company, 706 S. Goodwin Ave., Urbana.

The Illinois Club
Open to male and female faculty and staff members and spouses. More info: www.TheIllinoisClub.org.

VOICE
Poetry and fiction reading, 7:45 p.m. Third Thursday of each month. The Bread Company, 706 S. Goodwin Ave., Urbana. ♦

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Co-workers most powerful influence in organizational change

By Jan Dennis

News Bureau Staff Writer

The seeds of workplace change may come from the top, but take root from the bottom up, according to a new study co-written by a UI business professor.

The findings show co-workers create a local culture that wields powerful influence over their colleagues when organizations try to break from tradition and launch initiatives, said Janet Bercovitz, a professor of business administration in the UI College of Business.

If most close co-workers embrace new ways of doing business, others will likely get on board. But if most of those cohorts resist,

others are apt to follow that lead, too, even if it runs counter to their own training, according to the study, "Academic Entrepreneurs: Organizational Change at the Individual Level," which appears in the February issue of *Organization Science*.

While management directives can also sway employees, some may conform only to please higher-ups, Bercovitz said. In contrast, she says workers are more likely to actively embrace change modeled after cohorts.

"What is key is that people are influenced by their social unit more than generally acknowledged and that needs to be the starting point when looking at how you make organizational changes," said Bercovitz,

who co-wrote the study with University of Georgia professor Maryann Feldman.

The study tracked nearly 1,800 faculty members at two university medical schools to gauge participation in new programs that let colleges pursue ownership and commercialization of inventions developed with federal research funding.

Universities across the country are pushing the new initiative to help boost revenues, but have encountered resistance from some faculty members who contend their work should be open and available to all rather than licensed to private parties, Bercovitz said.

Despite support from top administrators, the study found that faculty members were influenced most by peers when deciding whether to follow rules requiring them to disclose research findings.

"What we see is there's a reversion to the local norm," Bercovitz said.

The study found that individual attributes also play a part, and that faculty members who trained at institutions with successful, well-established disclosure programs are more likely to participate at their new schools. That training, the study says, set an expectation for their future career.

But the study says the influence of co-workers is so strong that when faculty members join a workplace where practices differ from their own training "they will conform to the group, rather than sticking with what they knew from their prior experience," Bercovitz said.

"Individuals who were trained to be entrepreneurial will revert if co-workers are not engaged," Feldman said. "Likewise, if individuals did not train under entrepreneurial expectations, their local group can catalyze a change in behavior."

Bercovitz says the study's findings of a "bottom-up approach" to organizational change could help universities seeking to



photo by L. Brian Stauffer

Peer pressure *The seeds of workplace change may come from the top, but take root from the bottom up, according to a new study co-written by Janet Bercovitz, an Illinois business professor.*

lock faculty members into routinely disclosing their research, which can bring in much-needed revenue and also attract more research funding.

"It's important to build a critical mass of people who are behind a practice. If you do that, then it spreads," she said.

Bercovitz says the findings also could help other businesses with change by highlighting the intra-organizational social dynamics that are involved.

"A university is actually much more institutionalized, so it's a harder place to change," she said. "Faculty have a lot of independence, so it's not like companies where they can just say 'Do this or I'm going to fire you.'" ♦



image courtesy Cinema Gallery

Local exhibition

Drawings by UI art and design professor Ron Kovatch will be on view through April 5 in the two-person exhibition "Flesh and Blood" at the Cinema Gallery, 120 W. Main St., Urbana. Ceramic sculpture by Jacob Foran also will be featured in the exhibition.

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