Teacher collaborative releases guide to support new teachers

By Sharita Forrest
News Editor

When school bells began ringing a few weeks ago to convene a new academic year, thousands of novice teachers embarked upon their first teaching assignments in Illinois. However, statistics show that, in the first three years of their careers, 40 percent of these new teachers will leave the profession, often as a result of a perceived lack of support from their schools’ administrations.

To help Illinois schools support new teachers during their critical first few years in the classroom, the Illinois New Teacher Collaborative (INTC) has developed the comprehensive resource, the Illinois Induction Guide.

Released online last month, the guide offers a step-by-step service on planning, designing and implementing induction and mentoring programs for new teachers and provides school districts with the tools for evaluating and refining existing programs.

A team of 25 experts — which included K-12 teachers, mentors, administrators and program coordinators, as well as consultants, researchers and representatives from the Illinois Federation of Teachers and the Illinois State Board of Education — collaboratively wrote and vetted the information in the induction guide.

“Every teacher that leaves the profession in a mid-sized to large school district costs the district $10,000 to $18,000 in recruitment, hiring and training expenditures. However, intensive induction programs such as those promoted in the Illinois Induction Guide can mitigate those costs, resulting in a return of up to $1.66 for every $1 invested, according to the INTC.”

“Induction and mentoring makes new teachers more effective fast, makes principals’ jobs easier and distributes leadership so that administrators aren’t the only ones responsible for bringing up new teachers.”

“Ultimately, it’s for the kids. We want what’s best for the children of Illinois, and making sure that every child has a qualified teacher who is being adequately supported and given the resources that he or she needs is the best way to ensure that all children are able to succeed.”

Guiding teachers The Illinois New Teacher Collaborative has published a comprehensive online guide to help school districts develop and refine induction and mentoring programs for novice teachers. INTC staff members involved in the project include, from left, director Patricia Brady, outreach coordinator Jeffrey Ehmke, assistant director Nancy Johnson, and student Alexis Jones.

An executive board that comprises representatives from the Illinois Federation of Teachers, the Illinois Principals Association, the Illinois State Board of Education, Regional Offices of Education and the business and higher education communities guides the INTC’s policies and activities.

The INTC’s work is supported by the College of Education at the university, the Illinois State Board of Education and State Farm Companies Foundation.
left higher education struggling to prove its icy director for Lt. Gov. Sheila Simon, said he said. “It’s also a public good. It touches must lead to positive impact outside of uni-
for the U. of I. in particular, the outcome and Leadership, was on the panel. Professor of Education Policy, Organization marks and Nicholas Burbules, the Gutgsell and Social and Human Sciences, among others. into question as far as affordability, under-
much more for accountability and better academic into the middle class.”

These criticisms have merit and should “We are in the midst of monumental 
and Twitter: 

The Urbana campus’s Charles Tucker III, the vice provost for student affairs and 
and innovation, gave the opening re-
nicholas@illinois.edu Transfer to Parkland College

Brian Haeffele said leaders should embrace new technology and look at new ways to better prepare students in an effort to reach that 60 percent goal. She said doing so could also address some of the student cost issues as well. “Delivery models have not changed that much,” she said, but technology “has changed everything. I’m not sure that the (classroom) model fits the modern world.” She said solutions must be student-cen-
tered, involve quicker credentialing and a greater reliance on community colleges for basic courses, be geared toward helping the regional economy of a college or university, and increase costs. “The greater the contribution (to the region’s success), the easier it will be for communities to support the institutions,” she said.

Burbules challenged the terminology of “delivering” content, saying educators must rethink their approach and consider how students are “accessing” it. Having the ability to access content any-
time, anywhere “changes certain expecta-
tions for the learner,” he said. “It’s a differ-
ent kind of teaching/learning model” where learning becomes “more situated, more contextual.” With online learning, blended class-
rooms and massive open online courses becoming more popular, Burbules said pro-
ponents must consider the information and knowledge they possess with the change being how best to make it available. The “chucks” that make sense to them may not be making sense to other students. Even the modern MOOC movement, outside of its vast reach, falls short of a con-
This Greater the contribution (to the 
region’s success), the easier it will be for 
communities to support the institutions,” 
she said. Regardless of the de-
vice, at the most basic level, “people still want to learn things by sitting in a chair.”

She also saw great potential in how online course work fits into the traditional credit hour system and how those credits should be considered for transfer. She said there also may be unintended consequences in the “unbundling of faculty roles,” and that universities should resist the urge to outsource course work con-
struction to cut costs. Ultimately, it’s the universities who have to know about these judgments and whose repu-
tation is on the line, because accreditation is based on an institution’s “capacity to (acad-
emically) regulate itself.”

T he Parkland College Board of Trustees approved a three-year intergovernmental agreement with the U. of I. on Sept. 18 for the transition of the university’s aviation program to Parkland College by fall 2014. “The University of Illinois was eager to find ways to maintain flight training operations at Willard, and have mitigat-
ed many of the risks which could have deterred us from this venture,” said Tom Ramage, the Parkland College president. The agreement includes lease of facili-
ties and aircraft as well as marketing support. Parkland will develop and provide a two-year aviation-related associate in science degree program that continues the pilot training program of the U. of I.

Institute of Aviation, scheduled to expire next summer. Parkland plans to contract with Illinois-Champaign campus in the region beneath the University of Illinois. It is published on the first and third Tuesday of each month by the News Bureau of the campus Office of Public Affairs, administered by the associate chancellor for public affairs. Distribution is by campus mail. News is solicited from all areas of the campus and should be sent to the editor at least 10 days before publication. All news may be sent to dkdahl@illinois.edu. The campus mail address is Inside Illinois, 507 E Green St., Room 345, Champaign-Urbana, IL 61801. The phone number is 217-333-7124.

Aviation program to transfer to Parkland College
Risks to government pension insurer worse than thought

By Phil Ciclora
Business and Law Editor

A study co-written by a U. of I. pension policy expert warns that the financial risks facing the government-sponsored corporation that insures all private-sector pension plans in the U.S. are much greater than commonly thought.

U. of I. finance professor Jeffrey R. Brown says the Pension Benefit Guaranty Corp. is facing a very large financial shortfall and ultimately may need to be bailed out by taxpayers.

“Our in-depth review of the Pension Benefit Guaranty Corp.’s models indicates that they are likely to underestimate how bad things can get when the economy is weak.”

― Jeffrey R. Brown

PBGC’s long-term financial projections are excessively optimistic or pessimistic,” he said. “This is important because these pension plan actuaries discuss in some detail what steps, if any, Congress should take to strengthen the pension insurance program. Some interest groups believe that PBGC’s models overstate the program’s exposure, whereas many economists are concerned that the problem may be worse than it appears.

Brown, a former member of the bipartisan Social Security Advisory Board and other trade-related certifications, said the Council of Economic Advisers in 2001-2002, says that the federal pension insurance agency’s model is “likely to substantially underestimate the degree of fiscal risk to PBGC’s insurance programs.”

“During a financial crisis or recession, you tend to have clusters of corporate bankruptcies,” he said.

According to Brown, these clusters also tend to happen around the same time that the typical plan’s funding status is worsening as a result of investment losses that accompany an economic downturn.

“The PBGC’s model does not adequately account for these macroeconomic shocks that lead to correlated losses,” he said.

Brown says the PBGC is supposed to be self-financing and not receive taxpayer funding – but notes that the same was once true of beleaguered mortgage giants Fannie Mae and Freddie Mac.

“Taxpayers are probably going to have to foot the bill in the same way we bailed out savings and loans in the 1980s and the mortgage agencies during the 2008 financial crisis,” he said.

Nearly everyone believes that Congress is ultimately going to have to backstop the PBGC because it’s insuring the pensions of tens of millions of people. No one believes they’re going to just let it fail.”

At home, Prunkard is heavily involved with the Catlin Church of Christ and regularly participates in missions and volunteer projects, where he uses his lifelong acquired skills to help others.

He likes to fish and hunt, though his son, Luke, a campus building service worker, “says I don’t know how to have fun. You can find me here even when I’m not supposed to be here, but sometimes I do throw the cellphone under the seat and head out to the quarry to fish.”

His wife, Jackie, is a retired physical education teacher, and his daughter is a teacher at an elementary school in Danville School District 118.

“My goal was always to live long enough to see my kids have productive lives and contribute to their church, job and community,” he said. “I’ve really been blessed.”

On the Job features U. of I. staff members. To nominate a civil service employee, email dkdahl@illinois.edu.

Financial shortfall

Illinois pension finance professor Jeffrey R. Brown says that the Pension Benefit Guaranty Corp., the federal pension insurance agency that steps in when private-sector employers with underfunded defined benefit plans go bankrupt, is facing a financial shortfall.

Board of Trustees since 2009. He also is the associate director of the Retirement Research Center of the National Bureau of Economic Research.
When it comes to offering massive open online courses, it’s already been proven that if you build the infrastructure, students will enroll – and usually by the tens of thousands. But according to professors who were part of the first U. of I. MOOC class cohort last year, there’s a lot more going on than just construction and big numbers.

In fact, they say participating in the process has increased their passion for teaching, made them reconsider the way classroom content can be delivered and ultimately the university’s role in educating the world.

“After being a part of Coursera is already paying off,” said Jose J. Vazquez-Cognet, a U. of I. professor of economics, who agreed to an online microeconomics principles lectures into a MOOC.

He’s expecting about 20,000 students to sign up for this fall.

“We’re getting students from around the world in different situations, but the thing they have in common is they really want to learn,” he said. “I knew there was a demand for economic course credit, but not for economic learning. It’s re-energized my teaching.”

Vazquez-Cognet said the experience has shown him that educators should embrace technical change in their classrooms – because it’s a way to engage students who have already embraced it themselves.

“It gives us the opportunity to experiment with different types of pedagogy before we offer them as campus courses,” he said.

“The fact that this is noncredit (though a course means we have much more flexibility to experiment.”

“It was an intellectually exhilarating experience,” said Rob Rutenbar, a professor of computer science who has turned his 15-week computer chip design course into an eight-week MOOC.

“We feel so good about the quality of information we’re delivering, though it’s a lot of the same information, it’s being delivered much differently and to a lot more students.”

From the ground up

Rutenbar, who has taught for 30 years, said that he and his three teaching assistants became energized knowing they were being academic pioneers. In all, it took them about 25 hours a week for nearly four months to convert the class to an online course.

The team had to create software and open source tools for students to use exclusively with the course. They built a “graphics environment” inside a browser and their own cloud-based teaching assistant software to provide immediate feedback to students seeking help.

Students are asked to solve logic and geometric design problems for integrated circuits and run their calculations through the software to determine whether it is workable.

“It has given students a chance to interact with their designs in a pretty sophisticated way – in a way they don’t in a traditional classroom,” he said.

Usually offered to 20 to 50 students at a time, Rutenbar watched as 17,000 participants registered for the Coursera class. For Vazquez-Cognet, making a MOOC was a natural progression.

He already had offered his basic economics course online for three years when Chancellor Phyllis M. Wise announced her intention for the U. of I. to become the first land-grant university to join Coursera.

“I was approached by campus leaders to be one of the first because the class was so large and in demand and I already had materials developed for the online course,” he said.

After the initial MOOC offering, Vazquez-Cognet decided to redesign the course, employing the help of campus instructional designers and other media experts versed in video and virtual classroom presentation. The process took about six months.

It was decided that using economic case study examples from the Champaign-Urbana area in the MOOC would not only bring in real-life lessons on supply and demand, but serve the added purpose of promoting regional economic development.

“We open each week in a different part of town,” he said, “and we visit several different local businesses. It’s a case study grounded in the community and the students seem to have really connected to it.”

Vazquez and Rutenbar said the most valuable part of the MOOC experience for the university is student feedback.

Those include assessment tools that help grade tests and measure mastery of concepts, and forums where students set out on their own to answer each other’s questions and even grade each other’s work (using Coursera’s peer-grading algorithm).

“If someone gets snarky, you can vote their posts up or down,” Rutenbar said. “Negative posters will just getammered to the point of irrelevance. As an online student, you can lob a question and your peers will answer it. And they find bugs quite rapidly, which are inevitable. There are a lot of eyeballs on the problem, which is always a good thing.”

Rutenbar offered top students extra credit that involved them trying to solve industrial cases.

He said one of the negatives that has been ascribed to MOOCS is a low rate of completion for some courses.

Many students do drop out or don’t finish, Rutenbar said, but mainly because “it’s harder to get an appointment with a good dentist” than to sign up for a MOOC.

The experience has shown him that different students learn at different rates – and that the rate is many times determined by other priorities in their lives, such as a job or family.

“Some of these students simply don’t have the time to sit down and watch a two-hour lecture video,” he said. “But they can watch a series of 10-minute videos over time.”

Vazquez-Cognet also paid special attention to his highest-performing Coursera students, congratulating them in a conference call that he also used to prod them for course feedback.

He said it is much too early to make grand statements about how the MOOC movement ultimately will fit within the structure of higher education because serious questions remain. A fundamental example: If credit ever were to be offered for a MOOC, how would the university verify the virtual student is really who the student claims to be?

“I’m not sure yet,” Vazquez-Cognet said. “This is part of the experiment. For now there will be two different and distinct spheres.”

Trending upward

The number of U. of I.-approved MOOCS will increase as the university works to develop and roll out a second cohort.

Right now, six of the 10 original U. of I. courses have been offered, two of the remaining four are nearing completion and will be offered early next year, and funding for five new MOOCs recently was approved by the campus review committee.

“Two important selection criteria are that the course has to reflect our mission as a land-grant institution and has to benefit our students in some way,” said Deanna Raineri, an associate dean in the College of Liberal Arts and Sciences.

Already half of the current MOOCs originate from LAS and Raineri said that trend may continue because general education courses are inherently easier to transfer to an online format – or already are being offered online.

The average cost so far for a MOOC conversion is still unknown because much of the content in the current MOOC roster already existed in an online format. Much of the expense is for audio and video production, captioning and graphics. And much of that work has been done by staff at LAS’ Applied Technologies for Learning in the Arts and Sciences, and the Office of Online MOOCs.
NEW faces 2013

Among the newcomers to the Urbana campus are faculty members whose appointments began this summer or fall. Inside Illinois continues its tradition of introducing some of the new faculty members on campus and will feature at least two new colleagues in each fall issue.

Anna Chen
an assistant professor of library administration and curator at the Rare Book and Manuscript Library

Education: Ph.D., M.Phil. and M.A. (English literature), Yale University; M.S. (information studies), University of Texas at Austin; B.A. (English literature), Johns Hopkins University

Research interests: Her research interests include medieval literature and childhood, archives and personal recordkeeping practices, and the relationships between material and digital cultures.

“Anna is one of a new generation of scholars who exhibits an exciting synergy for her field,” said John P. Wilkin, the university librarian. “Her scholarly background, passion for rare books and manuscripts, and eagerness to apply new and emerging technologies helps increase access and use of rare materials that scholars once had to travel to view and use.”

Why Illinois? “I was impressed not only by the library’s world-class collections, its engagement with the community both within and beyond the university, and its forward-looking approach to librarianship,” Chen said, “but also by the collegiality of everyone I met. I’m excited by the potential for innovative and collaborative work here.”

J. Michael Griggs
an assistant professor of scene design, department of theatre, College of Fine and Applied Arts

Education: M.F.A. (theater design), University of California at San Diego; B.F.A. (set design), Goodman School of Drama, DePaul University

Courses teaching: In addition to classroom instruction, he will oversee and mentor student work in production

Research interests: His creative research is an ongoing project of providing scenic design to a variety of theater productions for Illinois – including the upcoming Sullivan Project – and for other theaters across the region and the nation.

“Professor Griggs comes to us from the Tony Award-winning American Repertory Theater and Harvard University where he was a resident designer, technical director, lecturer and mentor for student projects,” said Jeffrey E. Jenkins, the head of the U. of I. department of theatre. “He has been cited numerous times for excellence in design and in teaching by peers in the profession and academia.”

Why Illinois? “My first position out of graduate school was at the University of Illinois so my decision to return was based on my first-hand experiences with the excellent faculty of the theatre department and the talented staff at Krannert Center,” Griggs said. “Our work is about imagination and finding that original creative idea, a very abstract concept to teach but the very basis of any new discovery. The theatre department here – with its wide variety of production work and exciting guest artists – does a great job cultivating an atmosphere that supports the incubation of that creativity and originality. ... For this next phase of my career I am happy to return to my home state and am looking forward to working with the next generation of designers.”
NCSA announces six supported collaborative projects

Eighty Graduate College Focal Point projects funded

**MOOCS, CONTINUED FROM PAGE 4**

*line and Continuing Education (now part of the Center for Innovation in Teaching and Learning).

*“For one thing, we’ve not doing this ex-
clusively for us or for Coursera – it’s part of our land-grant mission to really reach out to the world and we’re benefitting in many ways,” she said. “For example, being a part of Coursera has given educational research-

ers here access to an unprecedented amount of data. The sheer scale of MOOCs allows us to quickly identify whether a new teach-

ing practice or assignment works well and these best practices can then be applied to the classroom. It’s also an opportunity to

showcase what we do at Illinois.” Students from 140 countries have signed up since last year.

Raimer said instructors also are using MOOCS to test alternative forms of creden-
tiation, including the use of digital “badges” in an effort to recognize various levels of knowledge acquisition or mastery – though there are no plans to offer transcript credit.

“We can’t compare them to our own students because it’s an entirely different group of students with entirely different

needs,” she said. “Many of the Coursera students just want to look at the videos but they have no intention of taking the exams or finishing the course.”

Further integration of the MOOC menta-
ty will play out with creation of the Cen-
ter for Innovation in Teaching and Learning.

“I’m glad we did this,” she said. “We are learning so much and it is enriching our educational practice – especially for the first-year students.”

More information about Focal Point, in-
cluding past projects, is online.**
As strikes by fast-food workers expand across the U.S., do you think that this movement has momentum or do you foresee it fizzling out similar to the Occupy Wall Street movement? This is the largest movement of fast-food and retail workers in U.S. history, with the August one-day strikes affecting more than a thousand stores in 58 cities. The movement clearly has momentum, and there are several reasons why. There is less turnover in these jobs due to the weak economy, and there are a larger number of workers who were laid off from better-paying jobs who expect to earn enough to live on without government aid such as food stamps, free school lunches, free medical care for their kids and Medicaid. The average age of a fast food worker is now 28. Moreover, this is not a traditional organizing drive that typically lasts a couple of months. Organizers know this is an uphill battle that will take years. I’ve talked to many organizers and workers, and this is not a top-down affair; there are hundreds of fast-food and retail workers who are taking leadership of the campaign. And rather than just target one company, the campaign is unusual in that the effort is to organize all the downtown retail and fast-food workers in dozens of cities. The workers have chosen the tactic of a one-day strike, which they’ve engaged in three times so far, and due to the power of social media their message has rapidly spread nationwide. Each one-day walkout involves more cities and more workers than the previous one. As last month we celebrated the Rev. Martin Luther King Jr. and the 50th anniversary of the March on Washington, we should recognize that the fast-food and retail workers’ nationwide movement has simply picked up the baton of his poor people’s movement, which was dropped after King’s assassination.

Is the situation complicated by the fact that franchisees, not the parent corporations, set the prevailing wage rates for most stores? Or does that affect individual stores more latitude in setting hourly wage rates? The workers recognize that they cannot successfully improve wages and benefits at just one store, such as one McDonald’s, Victoria’s Secret or Jimmy John’s, which would put that store or restaurant at a competitive disadvantage. They aim to raise compensation for all the retail and fast-food workers in a city, and indeed, in the country. The campaign points out that the corporations they target can well afford to more fairly share their wealth – McDonald’s made $5.5 billion in profits last year, Walmart $17 billion and Macy’s $1.3 billion. Nationally, corporate profits are at or near record highs. Since the Occupy Wall Street movement two years ago, there has been increased news coverage that America is witnessing the fastest, greatest increase in the income gap in our history. Wages have fallen to a record low as a share of America’s gross domestic product. In 1970, wages accounted for 53.6 percent of GDP; today, wages account for just 43.4 percent. Today, the wealthiest 400 Americans have the same combined wealth as the poorest half of Americans – more than 150 million people.

Do we need to raise the minimum wage? President Obama has spoken out about the issue in the past, but should this be a pressing issue for Congress? It should be a pressing issue for anyone concerned with speeding America’s economic recovery, or anyone worried about the morality of tens of millions of people being paid poverty wages by prosperous corporations. Congress has not passed minimum wage legislation since 2006, and the last raise to $7.25 an hour was in 2009. Unlike Social Security, the federal minimum wage is not tied to inflation – although 10 states have laws that do this. (Illinois does not.) If in 1968 Congress had tied the minimum wage to inflation it would be $10.75 an hour now. An innovative element of the fast-food and retail workers’ one-day strikes is the depth of community support. Each time a worker returns to work, dozens of community activists and clergy walk the worker back in and meet with the boss to get a promise that the striker will not be illegally punished for their work stoppage. When polled on raising the minimum wage to $9 an hour, seven in 10 people agree. The bulk of Americans believe that all who turn in a hard day’s work deserve a wage they can live on without government assistance. Would raising the minimum wage to $10 or even $15 per hour hurt employment or the economy, as many business leaders have predicted? A major factor prolonging the economic crisis is that wage earners – the bulk of consumers – are paid too little. It is not a coincidence that six years of high unemployment and underemployment with no end in sight were preceded by two decades of wage stagnation. A raise to just $10 an hour would mean 30 million people would immediately get a raise, and have more money in their wallets to buy goods. A raise to $15 would mean workers would not need to rely on taxpayer-funded programs that aid the poor.

While we Americans pride ourselves as being, as President Obama recently stated, “exceptional,” the reality is that when comparing employment laws among wealthy nations we are exceptional in how poorly we treat working people. Australia has a minimum wage of over $16 an hour; France over $12; and Belgium, New Zealand, the Netherlands and Ireland over $11. Paying people poverty wages and having the highest income gap among wealthy nations is not intrinsic to capitalism; it is a moral and legislative choice that America has made, repeating the country’s trajectory in the first three decades after the New Deal.
Tiny antennas let long light waves see in infrared

By Liz Ahlberg
Page Editor

I
llinois researchers have developed arrays of tiny nanomaterials that can enable sensing of molecules in the infrared (IR) spectrum.

“The identification of molecules by their unique absorption resonances is very important for environmental monitoring, industrial process control and military applications,” said team leader Daniel Wasserman, a professor of electrical and computer engineering. Wasserman is also a part of the Micro and Nano Technology Laboratory at Illinois.

The four industries use light to detect contaminants and to ensure quality. The same basic principles that are used in the molecules, which resonate at particular frequencies, giving each molecule a “spectral fingerprint,” but hardly anyone, neglecting it has very long wavelengths of light. The semiconductor materials more strongly resonate in the IR end of the spectrum, which has long been advantageous for low light – often longer than the molecules themselves.

“The absorption signatures of some of the molecules of interest for these applications can be quite weak, and as we move to nano-technology materials, it can be very difficult to see absorption from volumes smaller than the wavelength of light,” Wasserman said.

“It is here that our antenna array surfaces could have a significant impact.”

Other nano-scale antenna systems cannot be tuned to a longer wavelength because of the limitations of traditional nanotechnology materials. The Illinois team used highly doped semiconductors, grown by a technique called molecular beam epitaxy, to make IR lasers and detectors.

“We have shown that nano-structures fabricated from highly doped semiconductors act as antennas in the infrared,” said Staphanie Law, a postdoctoral researcher at Illinois and the lead author of the work. “The antennas concentrate the very long wavelength light into ultra-subwavelength volumes, and can be used to sense molecules with very weak absorption resonances.”

The semiconductor antenna arrays allow long-wavelength light to strongly interact with nanoscale samples, so the arrays could enhance the detection of small volumes of materials with a standard IR spectrometer – already a commonplace piece of equipment in many industrial and research labs.

The researchers further demonstrated their ability to control the position and strength of the antenna resonance by adjusting the nanoantenna dimensions and the semiconductor material properties. The group will continue to explore new shapes and structures to further enhance the detection at very small scales and to potentially integrate these materials with other sensing systems.

“We are looking to integrate these antenna structures with optical devices to make more efficient, smaller, optoelectronic components for sensing and security applications,” said team leader Daniel Wasserman, a professor of electrical and computer engineering.

The paper, which was published in the Journal of Physical Chemistry C, is available online. According to law professor Richard L. Kaplan, the income tax consequences for retirement income until they’re in retirement, said Kaplan, the Peer Professor of Law, and Sarah Pedersen Professor at Illinois.

“The paper, which was published in the Virginia Tax Review, examines the three major sources of retirement income: Social Security, employment-based retirement plans and personal savings. We’re looking to buy nonretirement assets, or for those who own properties that are not as ubiquitous as it is today, older adults often have a home that has appreciated in value, but may face a particularly nosy form of ‘lock-in’, making a reverse mortgage to supplement their retirement income less appealing. Kaplan said.

“Some combination of homeowner age and longevity of ownership could entitle the person to exclude all gain upon sale of the home,” he said. “In effect, no tax would be due upon the sale or annuity payment is made.”

Co-principal investigator George Herman is a visiting professor with the Illinois Foundry for Innovation in Engineering Education at the U. of I. whose most recent research has focused on lowering barriers to sustainable education reform. He will head the instructional support team.

The National Science Foundation will fund the multyear study, slated to begin in January, through a $2 million WIDER (Widening Implementation & Demonstration of Evidence Based Reforms) Grant. The ambitious U. of I. STEM education reform project spans three colleges – Liberal Arts and Sciences, Engineering and Education – and targets 10 academic units – chemistry, civil and environmental engineering, computer science, electrical and computer engineering, mechanical and aerospace engineering, physics, the School of Integrative Biology and the School of Molecular and Cellular Biology.

They estimate that enrollment in these units annually will exceed 17,000 students, and several of the courses are required for nearly all STEM majors on campus.

“U. of I. physicist and educational psychologist Jose Mestre is the principal investigator on the study. "The big idea here is not to invent new reforms," Mestre said. That’s taking evidence-based reforms – these are best practices for teaching and learning in gateway STEM courses that have already been extensively tested and proven – and looking at how these can most effectively be implemented in an institutional setting.

The team will establish "communities of practice" – collaborations of key faculty members within each academic unit that will develop each unit’s strategy for implementing new pedagogies that move away from the traditional strictly lecture-based model of instruction. It’s hoped that these courses in particular will include those who have used evidence-based teaching reforms within their respective departments.

Co-principal investigator Jennifer Greene is a U. of I. educational psychologist and evaluation expert. She will head the team that will perform ongoing quantitative and qualitative assessments of each "community of practice" and will evaluate student experiences and student performance in the courses. Evaluative feedback will be recorded and shared with the “communities of practice” to inform each unit’s conversations and processes of change.
IGB’s ‘Art of Science’ on display at Midway Airport

By Claire Sturgeon
Institute for Genomic Biology

Twelve pieces from the “Art of Science: Images From the Institute for Genomic Biology” exhibition are on display at Midway Airport in Chicago.

The exhibition, located past security in Concourse A, features images used in institute research projects that address problems facing humanity related to health, agriculture, energy and the environment.

“Art is a really cool way to learn and jumpstart conversations about research,” said Kathryn Faith Coulter, the institute’s multimedia design specialist and the exhibition’s managing artist. “By sparking a natural curiosity through these vibrant images, we hope people will discover how the research conducted at the University of Illinois relates to their families, friends and communities.”

The exhibition, which includes two 10-foot banners and 10 pictures, illustrates the microscopic subjects that researchers are able to capture through the institute’s resources for biological micro-scopy and image analysis.

“This exhibit includes images from a variety of scientific disciplines, from polyps to kidney stones and human cancers,” said Glenn Fried, the director of Core Facilities at the institute. “The images represent much more than art. They represent scientific breakthroughs and discoveries that will impact how we treat human diseases, produce abundant food and fuel a technologically driven society.”

The images are expected to be on display over the next year. The exhibition was made possible in part by the Chicago Department of Aviation.

The Art of Exhibition was made possible in part by the Chicago Department of Aviation.

Science as art

Among the images that are on display at Midway Airport in Chicago that highlight research at the Institute for Genomic Biology (clockwise from bottom left): Computer simulation of the architecture of geothermal hot springs, blender and proprietary simulations, simulations and theory by John Veysey and Nigel Goldenfeld with rendering assistance from Nicholas Guttenberg (Nigel Goldenfeld Lab) and Bruce Paula Levy, Ellesmere color-coded orientation rolls, ELVEPA superresolution microscope, Vladimir Kolossov (Rex Gaskins Lab), 3D cleared and tiled Minocutlas stev, Zeiss LSM 710 Confocal Microscope, MyungHo Stengwar.

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U. of I. expert Sean M. Anderson on same-sex marriage and federal employee benefits

Editor’s note: The Department of Labor announced last month that for purposes of federal employee benefit plans, the terms “spouse” and “marriage” would be interpreted to include same-sex couples who are legally married under the law of any state, even if they live in a state that does not recognize same-sex marriage. The announcement was part of the federal government’s ongoing response to the Supreme Court’s decision in United States v. Windsor, which struck down section 3 of the Defense of Marriage Act. U. of I. law professor Sean M. Anderson, an expert in employee benefit policy and regulation, spoke with News Bureau business and labor editor Phil Ciciora about the impact of the decision.

What does this new Labor Department announcement mean for gay couples in Illinois?

First, it’s important to understand what the department’s announcement does not mean.

It doesn’t mean that employers – in Illinois, or anywhere else – are required to provide any particular employee benefit, such as health care coverage, for same-sex spouses. For the most part, employers get to choose whether to provide benefits, and what kind.

The Windsor decision itself meant that a same-sex couple that got married in, say, Massachusetts, and then kept living in that state, would be treated as married for purposes of federal law. The Department of Labor announcement is a step in the other direction. In combination with the Internal Revenue Service’s similar policy announcement in August, means that that same couple would continue to be treated as married under federal employee benefits law, even if they live in a state, like Illinois, that doesn’t allow same-sex marriage.

What are some examples of how the announcement can help same-sex couples?

Here’s one: Federal law has long protected opposite-sex spouses by requiring some types of pension plans to pay benefits out so that if the spouse who participated in the pension plan dies, the surviving spouse continues to receive payments. If one spouse dies in a state that doesn’t recognize same-sex marriage, the other spouse often has to get a waiver or consent from the nonparticipant spouse for those payments to go on. With the new Labor Department announcement, the surviving spouse doesn’t need to get that waiver or consent. Another example: If one spouse dies and with money in a 401(k)-type plan, the other spouse gets to “roll over” that money into their own plan, or an individual retirement account, without any adverse tax consequences. With the new Labor Department and IRS policies, married same-sex couples get the same treatment, no matter where they live.

There are other examples, too, including rights to buy continued health care coverage under COBRA after the loss of a job, a divorce or other events.

One huge advantage, which is more attributable to the IRS announcement in August, is that a same-sex couple who is covered under the other spouse’s health care plan can now treat the benefits as tax-exempt, the way opposite-sex couples always have – and, again, that’s true regardless of whether the couple lives in a state where same-sex marriage is legal.

Critics of the policy have noted that it would be easy to imagine a legal challenge. Do you foresee any potential litigation?

It’s possible, but I don’t see a lot of potential for serious challenges. Employers’ groups, which would be one potential source of challenges, have reacted very positively; they are happy to have clear guidance on what federal law requires, as opposed to letting the federal statutes vary according to how the state the couple lives in.

What other kind of effects will United States v. Windsor have on federal law?

The effects have already been pretty far-reaching, and that is going to continue as federal agencies keep issuing guidance documents, amending regulations, etc. The Windsor case itself was about estate taxes, and it was a big change for same-sex married couples with significant estates. In addition to the IRS and Labor Department announcements, we’ve seen changes to things like military benefits for spouses. We’re also starting to see the beginnings of change in the Social Security system.

One additional change that’s pretty likely to come soon, also from the Department of Labor, is a change so that same-sex spouses will be entitled to leave under the Family Medical Leave Act to tend to their spouses’ serious medical conditions, even if they live in a state without same-sex marriage.

Another big change that’s not so much about federal law is a likely increase, maybe a huge one, in so-called “marriage tourism.” With these changes in federal law, a same-sex couple living in Illinois has a much bigger incentive to go get married in one of the states that allow it. I wouldn’t be surprised if some of those states, recognizing the economic opportunities, relaxed or eliminated residency requirements and other barriers to marriage tourism.

A Minute With...™ is provided by the U. of I. News Bureau. To view archived interviews, visit go.illinois.edu/annw.
Emeritus professor chronicles his quest for a black swan

By Liz Ahlberg
Physical Sciences Editor

The history of nuclear energy research from the height of the Cold War into space colonization of the future is detailed through one man’s career in the new book “Life at the Center of the Energy Crisis: A Technologist’s Search for a Black Swan,” published by World Scientific.

A memoir of nuclear, plasma and radiological engineering professor emeritus George H. Miley, the book chronicles the 79-year-old Miley’s career-long quest for something new and paradigm-altering in the burgeoning energy industry.

“Simply put, a Black Swan is an unforeseen, un-expected event which has immense direction-changing implications,” Miley writes in the book’s preface. “That is, most of my research has been aimed at finding new phenomena which would have a dramatic impact on new energy sources and their applications.”

The narrative begins as a young Miley, bright-eyed and eager, sets off to study chemical engineering and physics at Carnegie Tech (now Carnegie Mellon University), and follows him through adventures with nuclear submarines, lasers, nuclear fusion, hydrogen fuel cells, nuclear batteries, power plant safety, teaching, starting a company and more.

“As an individual researcher I saw the immediate problem, for example, high gas process, but I chose topics to work on that often were aimed at long-term improvements to energy sources,” Miley wrote.

While somewhat chronologically organized, Miley divides his chapters into areas of research rather than historical eras. A timeline in the book’s appendix helps the reader see when in the course of Miley’s career, and more broadly in the history of energy development, certain technologies or branches of research came into play.

Miley’s storytelling gives a sense of situating in his office listening to his account of the people and events that shaped the energy landscape, or of being a student in his classroom as he explains the principles of fusion and fission or the structure of fuel cells. Miley includes pictures and graphics to set the historical tone and illustrate scientific concepts, both of which add to his colorful narrative.

Readers with an interest in the principles or the history of nuclear energy, or of its future in a post-Cold War era — could space colonization be made possible by fusion-propelled spacecraft? — will find much to interest them in this book. Alumni and students of the Illinois NPRE program would especially appreciate the insights and reminiscences of the man who spent 50 years in the department and served as program chair, helping to develop the program and hiring many of the faculty members in the department today.

While Miley has yet to find his elusive black swan, his work has furthered energy research on a number of fronts. And though now retired from full-time work, he is determined to continue his quest. As he says in the book’s optimistic final pages, “Much of the fun comes with the search.”

## Index signals economic growth, but unemployment unchanged

The U. of I. Flash Index registered a strong increase in September, rising to 107.0 from its 106.5 level in August. This is a new post-recession high and the highest level since April 2007 when the index stood at 107.4. The reading is well above 100, the dividing line between growth and decline.

However, a disconnect remains between the unemployment rate and other measures of economic activity such as the Flash Index and gross domestic product. The national unemployment rate has fallen over the past year, but remains well above 7 percent, which is high in comparison to past recoveries.

“Unemployment in Illinois is even more dire,” said economist J. Fred Giertz, who compiles the index for the university’s Institute of Government and Public Affairs. "The state rate is 9.2 percent. This is the same as one year ago and the second highest in the nation; only Nevada’s rate is higher.”

The expanding Illinois economy has not experienced sufficient growth to absorb the unemployed while creating jobs for new workforce entrants.

All three components of the index were up in real terms compared to the same month last year. Corporate and individual tax receipts were up substantially while the increase in sales tax receipts was more moderate.

The index is a weighted average of Illinois growth rates in corporate earnings, consumer spending and personal income.
Paper removes for online version
Janice Bonniveille, the deputy director of the Illinois Department of Central Management Services, will speak at the fall meeting of the Urban University Annuitants Association on Oct. 20 at the I Hotel and Conference Center. Refreshments will be served starting at 1:30 p.m. and the presentation will begin about 2 p.m. The free event is open to the public.

Bonniveille will provide an overview of current major health insurance issues for annuitants and dependents of the State Universities Retirement System, including an update on changes. She will accept questions from the audience.

Her talk will provide important information considering that a new health insurance cost structure is now in place, with further adjustments expected in July 2014. Review processes are underway for new health insurance policy alternatives, both for retirees who are eligible, Medicare-eligible and those who are not.

Following the presentation, the chapter will conduct a brief business meeting.

SUAA is a statewide organization whose members are current employees and retirees of Illinois public universities, community colleges and allied agencies. SUAA’s main purpose is to advocate a strong and secure retirement pension and health benefit system for all members of the SURS system, whether active employees or retirees.

Graduate College

Diversity in higher ed lecture is Oct. 15

Lee C. Bollinger, the president of Columbia University, will deliver the Fall 2013 Graduate College Distinguished Lecture, which also is part of the Chancellor’s Inclusive Illinois Lecture Series on Diversity and Cultural Understanding. Bollinger’s talk, “The Meaning and Importance of Diversity in Higher Education: Reflections After Fisher v. Texas,” will begin at 1:30-p.m. Oct. 15 in the Illini Union’s Bleacher Room B. This event is free and open to the public.

Bollinger is a prominent advocate for affirmative action, particularly with the recent Supreme Court case Fisher v. University of Texas at Austin. From 1996 to 2002, he served as the president of the University of Michigan. He played leading roles in the twin Supreme Court cases, Grutter v. Bollinger and Gratz v. Bollinger (2003), which upheld and clarified the importance of diversity as a compelling justification for affirmative action in higher education.

He is a fellow of the American Academy of Arts and Sciences, and the American Philosophical Society. He has received the National Humanitarian Award from the National Conference for Community and Justice, and the National Equal Justice Award from the NAACP Legal Defense and Educational Fund for his leadership on affirmative action.

Bollinger is a member of the Pulitzer Prize board and serves as the chair of the board of the Federal Reserve Bank of New York.

Danny Did Foundation

5K to benefit epilepsy awareness

Snyder Hall’s Support a Cause 5K race on Oct. 12 will benefit the Danny Did Foundation.

More than 3 million people face the challenges of epilepsy in the U.S. and more than 50,000 lose their lives annually as the result of a seizure. Founded by Mike and Mariann Stanton in 2010 after the death of their 4-year-old son, Danny, the foundation works to prevent deaths caused by seizures by raising awareness of Sudden Unexpected Death in Epilepsy while working to provide seizure-detection and seizure- prediction devices that may assist in preventing seizures. The foundation name is derived from the last line of Danny’s obituary: “Please go and enjoy your life. Danny did.”

The race, which starts on the Quad outside the Illini Union, will begin at 9 a.m. for runners and at 9:15 a.m. for walkers.

Participants may register online at www.events.org/5k. Volunteers to assist on race day are still needed. To volunteer, email snyderhall5kace@gmail.com for more information.

Illinois Public Media

PBS’ Mr. Steve to visit Central Illinois

Steve Roslonek, who is PBS KIDS host Mr. Steve, blends participatory songs with clever storylines to hold kids in rapt attention and create a fun experience at his concerts and shows. Kids know the recording artist from the songs he performs between children’s programs on PBS.

Families have two opportunities to see Mr. Steve in October. He will perform at Springfield’s Sangamon Auditorium in SteveSongs concert performances at 5 and 7 p.m. Oct. 11. Tickets are $10 for adults and $8 for children. To buy tickets, visit www.uis.edu/sangamonauditorium or call 217-206-6160.

In addition, from 2-4:30 p.m. on Oct. 12, Mr. Steve will be at Illinois Public Media’s Campbell Hall for three brief performances at 2:15, 3:15 and 4:15 p.m. as part of a free PBS KIDS Open House. Performance seating is limited. Parking will be available in U of I lot B.22 on Clark Street just east of Goodwin Avenue and north of Campbell Hall.

Friends of WILL can reserve up to four spots for either the 3:15 or 4:15 performances by calling 800-898-1005 during business hours. By calling the same phone number, non-members can get a family membership in the Friends of WILL for $5 a month and be able to reserve up to four seats.

Learning activities will be available at both events. Kids can explore the free PNC Mobile Learning Adventure traveling exhibit outside Sangamon Auditorium from 4-7 p.m. Oct. 11 and outside Campbell Hall during the open house on Oct. 12. The exhibit has touch-screen kiosks with interactive learning activities, a staffed craft area, a giveaway table with activity books and learning kits, and a What I Want to Be When I Grow Up photo station where children can dress up as different professionals, such as an astronaut, firefighter or ballet dancer. Children can then have their picture superimposed on an appropriate background and receive a souvenir photo.

At the Campbell Hall event, community storytellers and volunteers from Illinois Public Media’s Book Mentor Project will be on hand to entertain young children, children who may take up to one hour to attend, operations permitting, and with prior supervisory approval.

More information, including a list of vendors, is online.

ON THE WEB

go.illinois.edu/Expo13

WILL-TV’s ‘Illinois Pioneers’

Nugent, Roscoe and Edgar featured

Five more pioneering Central Illinois residents tell their stories Thursday at 7:30 p.m. in October on WILL-TV.

On Oct. 3, host David Inge talks to Tim Nugent, whose trailblazing program at the U. of I. changed the way disabled students went to college across the country. Nugent believed that veterans injured in World War II should be able to take advantage of the GI bill and attend college. He built ramps in his garage and proved that these students, if given an opportunity to have access to classrooms, could succeed academically.

Jennifer Roscoe has been entering Central Illinois living rooms for the past 20 years as a reporter and news anchor at WCIA-TV. In her interview with Inge, being broadcast Oct. 10, she talks about her career, and about finding her biological mother earlier this year. On Oct. 17, Guy Little talks about his role in bringing 175 famous singers, comedians and actors, including Betty Grable, Kitty Carlisle, Tab Hunter and Robert Conrad, to Central Illinois for productions at The Little Theater on the Square in Sullivan.

On Oct. 24, Jim Edgar, who served two terms as Illinois governor, explains how his attitude about women’s issues was shaped by being raised by a widowed mom, and he talks about his desire to hold an elected office. Edgar is now a distinguished fellow in the U. of I. Institute of Government and Public Affairs.

On Oct. 31, Inge talks to Claudia Quigg, founding ex-

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Vet Med Open House is Oct. 6

Move animals and want to know more about the art and science of caring for them? Then you are a “good human” who would enjoy the annual Vet Med Open House.

From 10 a.m.-4 p.m. Oct. 6, more than 300 Illinois veterinary students will provide a behind-the-scenes look at the college, its Clinical Skills Learning Center and its Veterinary Teaching Hospital.

More than 40 exhibits and demonstrations will illustrate the many aspects of veterinary education and practice, with lots of animals and animal-related activities for young and old. Prospective veterinarians are encouraged to attend career talks that demystify the path to that career choice.

Open house is free; registration is not required. Directions and a list of exhibits are online. Attendees should note that the event is for human visitors only. The public may not bring their animals to open house.

ON THE WEB
vetmed.illinois.edu/openhouse

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ecutive director of Baby TALK in Decatur, who has led the way for professionals dedicated to supporting families of young children.

CITES

Flexible Learning Spaces Seminar

Campus Information Technologies and Educational Services will host the Flexible Learning Spaces Seminar on Oct. 22 at the I-Hotel and Conference Center.

Flexible learning combines student-centered pedagogy with physical infrastructure in the classroom to provide teachers and students with multiple ways to engage in learning. Flex will discuss the notion that the standard lecture-style setup is the only way a classroom can be organized, and instead looks for teaching benefits that can be gained by creating collaborative learning environments in the classroom.

The Flexible Learning Spaces Seminar is intended to bring together designers, faculty and staff members, and students to explore the theoretical and philosophical aspects of flexible learning, and to understand how to start implementing flexible learning practices in future projects and classes.

The seminar will have several sessions that include presentations from representatives at the University of Minnesota as well as a Chicago design firm. The event is free to faculty and staff members, and students; advance registration is required. The seminar is from 10 a.m.-3 p.m. with morning refreshments and lunch provided.

The event agenda as well as online registration can be found at: go.illinois.edu/flexiblelearning.

Beckman Institute Director’s Seminar

Computational imaging featured

Emaid Tafjordh will speak on computational imaging in the biological and membrane proteins at the Beckman Institute Director’s Seminar on noon Oct. 2 in Room 205 of the Beckman Institute. Lunch will be served.

Tafjordh will discuss recent computational and methodological advances developed in his lab that have made it possible to view membrane proteins, which play central roles in cellular processes, in large-scale molecular systems. Recent research relies on detailed and high-resolution imaging to understand underlying processes and advance technological development.

Tafjordh is a professor of biochemistry, of pharmacology and a member of the Theoretical and Computational Biophysics Group at the Beckman Institute.

Future Director’s Seminars include Florin Dolcos (Nov. 17), presenting “Optimization in Enhanced Raman Spectroscopy.”

Wellness Center

Smoking cessation class begins Oct. 8

Smoking cessation classes will begin on campus this month. “Freedom From Smoking,” an eight-session program held over seven weeks, will meet Oct. 8, 15, 22, 29 and 31, and Nov. 5, 12 and 19. Classes meet at 5:30 p.m. in the U. of I. Wellness Center, located on the concourse level of the Activities and Recreation Center.

The course is based on proven addiction and behavior change models and offers a structured, systematic approach to quitting. It has a positive focus, with an emphasis on the benefits of better health. Because no single cessation technique is effective for all smokers, the program includes a comprehensive variety of evidence-based cessation techniques. Participants learn to address the physical, mental and social aspects of their addiction.

The small-group setting also provides peer support and personalized attention. A self-help manual complements the group sessions. The program does not begin with quitting. Participants go through several lessons first, ensuring that they prepare before Quit Day.

The program was developed by the American Lung Association. A health educator from the Champaign Urbana Public Health District will lead the campus sessions.

The cost of the program is $10. Participants who attend at least six of the sessions will be reimbursed the fee.

Registration is required. To register, contact Nikki Hillier at the Champaign Urbana Public Health District at 217-531-2914 or nhillier@c-uphd.org. For more information, contact Michele Guerra at the U. of I. Wellness Center at mguerra@illinois.edu or 244-2205, or go to the smoke-free campus website go.illinois.edu/smokefree.

East Asian languages and cultures

Conference on religion is Oct. 9-10

The department of East Asian languages and cultures will host a conference, “Religious Performance, City and Country in East Asia,” Oct. 9-10 at the Levis Center.

The conference brings together leading scholars in the field from North America and Japan to examine the relationship between metropolitan and rural religious performance by drawing a set of clear lines of liturgical practice in the case of East Asia, with special reference to Japan. The keynote speakers will be professors Masato Koichi, of the National Museum of Japanese History, and Haruo Shirane, of Columbia University. Participants, with the exception of Koichi, will comment in English, and discussion will be in English and Japanese. Japanese participants will present in Japanese.

Registration is free but required because of limited seating. To register, contact professor Brian Ruppert, ruppertshogy@gmail.com.

This symposium is part of “Exchanges and Regional Activities of East Asian Religions” and “Changes and Exchange in East Asian Religions,” collaborative research groups which have been funded by the Japanese Ministry of Education, Culture, Sports, Science and Technology.

The event also is sponsored by the U. of I. School of Languages, Cultures and Linguistics; the National Museum of Japanese History; Nagoya University; the U. of I. College of Liberal Arts and Sciences; the department of East Asian languages and cultures; the department of religion; the Program in Medieval Studies; and the Center for East Asian and Pacific Studies.

Beckman Institute

Apply now for postdoctoral fellowships

The Beckman Institute for Advanced Science and Technology is accepting applications for postdoctoral fellow appointments. Applications are accepted online at go.illinois.edu/beckmanfellows.

The Beckman Institute Fellows program provides an opportunity for young scholars to initiate a post-Ph.D. career of independent research in an interdisciplinary environment. The fields of research encompassed by the program include the behavioral, biological and environmental sciences; chemistry; physics; computers; engineering; human factors; neuroscience; and cognitive neuroscience.

Fellowships are available for up to three years, beginning as early as July 2014 and no later than Dec. 31, 2014, and receive $52,000 annually and a research budget. Selection of fellows is based on evidence of professional promise, capacity for independent work, outstanding achievement to date and interdisciplinary research interests corresponding to one or more of the Beckman Institute’s programs. To be eligible, candidates must have earned their doctorates no earlier than December 2010.

Applications are due Dec. 2; the 2014 fellows will be announced about Feb. 21.

Linguistic sciences

Kachru distinguished lecture is Oct. 11

Salikoko S. Mufwene, the Frank J. McLoraine Distinguished Service Professor in the department of linguistics at the University of Chicago, will deliver the Brag and Yamina Kachru Distinguished Lecture in the Linguistics Sciences at the U. of I. on Oct. 11.

The lecture, “Colonization, Indigenization and the Differential Evolution of English: Some Ecological Perspectives,” will take place from 5:30 p.m. on the third floor of the Levis Center. The talk is free and open to the public.

The lecture is named for Yamuna Kachru (1933-2013), who was a professor emerita of linguistics at the U. of I., and Brag B. Kachru, a professor emeritus of linguistics in the U. of I. College of Liberal Arts and Sciences; and the department of religion; the Program in Medieval Studies; and the Center for East Asian and Pacific Studies.

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Oct. 3, 2013
Music professors step out of the classroom to play

By Dusty Rhodes
Arts U. of I.’s Center for Advanced Study

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Larry Gray will be joined by

J. Michael Holmes

Charles ’Chip’ McNeill

Jon Pugh

members of Chicago’s Association for the Advancement of Creative Musicians for his faculty recital at 7:30 p.m. at Krannert Center for the Performing Arts.

Gray, who also holds degrees in cello performance, has performed and collaborated with artists ranging from jazz legends Ramsey Lewis, McCoy Tyner and Nancy Wilson to the Lyric Opera of Chicago and dancers from New York City’s Joffrey Ballet. His composition “Five Movements” was commissioned and performed by the Chicago Symphony Orchestra Chamber Ensemble.

He will perform his recital with the Chicago saxophone and clarinet player Ed Wilkerson, known for his leadership of 8 Bold Souls, Shadow Vignettes and the Ethnic Heritage Ensemble; and percussionist Avireayl Ra, who has performed or recorded with a long list of notable musicians, including Sun Ra and Henry Byrd (“Professor Longhair”).

On Oct. 12, saxophone professor J. Michael Holmes will be among the musicians of the Chicago Symphony Orchestra as they perform Prokofiev’s Suite from “Romeo and Juliet” under the baton of Riccardo Muti in Krannert Center’s Foellinger Great Hall. As a relatively modern instrument, the saxophone isn’t typically used in symphony orchestras, but Prokofiev included several novel instruments in the “Romeo and Juliet” score. Holmes, who has performed and toured with the St. Louis Symphony Orchestra, also will play with CSO at Chicago’s Symphony Center on Oct. 3, 5, 8 and 11.

Charles ’Chip’ McNeill, the chair of the U. of I. jazz studies program, returned Oct. 1 from a two-week tour with "The Tonight Show" legend Doc Severinsen and his Big Band. Severinsen is now 86, but "still sounds great," McNeill said.

Music professors step out of the classroom to play

By Dusty Rhodes
Arts U. of I.’s Center for Advanced Study

In addition, a symposium honoring the work of Yamuna Kachru will be held from 8 a.m. to 5 p.m. Oct. 12 on the third floor of the Levis Center. The symposium also is free and open to the public.

Mufwene earned a Ph.D. in linguistics from the University of Chicago in 1979. He is the author of "Créoles, Ecologie Sociale, Evolution Linguistique" (Institut de la Francophonie 2005) and "Language Evolution: Contact, Competition and Change" (Continuum 2008). He also has edited eight books for the series "Cambridge Approaches to Language Contact," including "The Ecology of Language Evolution" (2001).

Mufwene’s talk will explain the extent to which the study of the emergence of creoles, pidgins and indigenized Englishes, focusing especially on their sociocultural contexts, sheds light on differential language evolution. The speaker will argue that all evolution is local and driven by ecology-specific factors.

A reception on the third floor of the Levis Center will follow Mufwene’s lecture, which is sponsored by the U. of I. department of linguistics; the School of Literatures, Cultures and Linguistics; the Center for Advanced Study; the Center for South Asian and Middle Eastern Studies; International Programs and Studies; and the Illinois Program for Research in the Humanities.

Center for Advanced Study
Research appointment apps due Oct. 8

Each year, faculty members are invited to submit scholarly/creative proposals for consideration by the Center for Advanced Study’s permanent professors. Faculty members with winning proposals are appointed associates (tenured) and fellows (untenured) and awarded one semester of release time to pursue their projects in the coming year. The appointments offer faculty members time off from teaching in order to pursue a research or creative project, and also bring to campus a steady flow of world-class scholars and performing artists for public events and small group meetings.

In accordance with the center’s mission, the appointments provide an incentive to pursue the highest level of scholarly achievement. They also provide faculty members with an opportunity to explore new ideas and demonstrate early results.

Applications for 2014-15 are due Oct. 8 and may be made online at cas.illinois.edu. Letters of support are due Oct. 15. For more information, contact Masumi Iriye, iriye@illinois.edu or 217-333-6729. Current research appointments for 2013-14 and faculty members’ projects are online at cas.illinois.edu/faculty.
Nick Offerman is a star to co-host Japan House fundraiser

Shozo Sato is the founder of Japan House, built in 1998, five years after he graduated. Offerman flew in to attend. During that visit, Offerman toured Japan House – a facility that with his busy schedule, he’s willing to do this.

For the past two decades, Offerman and Sato have remained close. In 2003, when Offerman married actress Megan Mullally, Sato officiated at their wedding ceremony. And last year, when Sato had his final Kabuki performance at Illinois, Offerman flew in to attend. During that visit, Offerman toured Japan House – a facility built in 1998, five years after he graduated.

“Shozo is constantly teaching lessons in discipline and mindfulness, mostly by demonstrating these principles himself,” Gunji-Ballsrud said. “It’s impossible to get away from the philosophy of traditional Japanese arts and culture when you’re with professor Sato, because that’s just his way. He’s a constant teacher.”

For more information, or to purchase raffle tickets, call 217-244-9934.

Japan House to feature Japanese quilting at open house Oct. 5

The dinner will conclude with sashiko and Japanese fabrics. Mary DeRay will display and discuss traditional American techniques for pictures with guests at the East Meets Midwest dinner – an 11-course meal beginning at 2 p.m. that will be prepared by chefs Shin Matsuda, Thad Morrow and Drew Starkey.

Matsuda, a graduate of the Culinary Institute of America, is the chef at Arami Go! in Chicago. Previously, he was chef de cuisine at the Winnie OceanSide Resort on Martha’s Vineyard in Massachusetts. In Chicago, he was chosen to help open Arami and Slurping Turtle.

Morrow is the owner and chef of Bacaro in downtown Champaign, where Starkey also works as a chef. Bacaro is known for using fresh produce from local and sustainable farms. Both Morrow and Starkey trained under Mario Batali, a chef featured on the Food Network, PBS and now on ABC’s “The Chew.”

Ho Etsu Taiko, a Japanese drumming group from Chicago, will perform midway through the meal. The dinner will conclude with a trio of Japanese sweets created especially for the occasion by Tamaki Levy, the chef at Japan House.

Despite achieving a successful acting career, Offerman has kept up his carpentry skills, and displays some of his handiwork on his website, www.offermanwoodshop.com. Gunji-Ballsrud said Offerman is working on a special piece for Japan House.

“He has been so unbelievably generous, kind and humble, it’s been a joy to associate with him,” she said.

onesia, the Japanese quilting practice that dates back to the 17th century, will be featured at Japan House on Oct. 5, during its annual open house, 10 a.m. to 4 p.m.

In presentations at 11 a.m. and 2 p.m., Mary DeRay will display and discuss both traditional quilts and quilts that combine traditional American techniques with sashiko and Japanese fabrics.

Jim Bier – designer, donor and caretaker of the Japan House gardens – will give tours at 1 and 3 p.m. Tranquil tea ceremonies, with a bowl of matcha tea and a traditional sweet, will be available throughout the day for a reduced rate of $5.

Visitors at the open house also can purchase raffle tickets for a chance to win prizes, including a pair of tickets to Nick Offerman’s Oct. 26 “American Ham Tour” performance at Krannert Center for the Performing Arts; a tea ceremony with Offerman and professor Shozo Sato at Japan House; a poster autographed by Offerman; or one ticket to East Meets Midwest, an 11-course dinner hosted by Offerman and Sato at Prairie Fruits Farm on Oct. 27. The raffle tickets, $10 per ticket or five for $40, will be drawn Oct. 25, with winners notified by email.

For more information, or to purchase raffle tickets, call 217-244-9934.

ON THE WEB

Japanhouse.art.illinois.edu

prairiefruits.com

KrannertCenter.com

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By Dusty Rhodes

Arts and Humanities Editor

Nick Offerman, best known for his role as Ron Swanson on the hit NBC comedy series “Parks and Recreation,” will bring his “American Ham Tour” to Krannert Center for the Performing Arts on Oct. 26 as a benefit for Japan House. He also will co-host an “East Meets Midwest” fundraising dinner at Prairie Fruits Farm in Champaign on Oct. 27 with Shozo Sato and his wife, Alice.

Shozo Sato is the founder of Japan House and a professor emeritus of art and design.

Tickets for “American Ham Tour” are still available through Krammert Center. The performance is supported by the College of Fine and Applied Arts, and Krannert Center. Tickets for the dinner are sold out although Japan House is selling raffle tickets at its Oct. 5 open house for a ticket to the dinner and for a pair of tickets to the Krannert Center performance. (See story at right.)

Offerman is featured in the current big screen hit “We’re the Millers,” as well as the 2012 action comedy “21 Jump Street,” the 2012 action comedy “Men Who Stare at Goats,” and a long list of other movies and television shows. However, in the early 1990s, Offerman was a theater major at the U. of I., and not yet known for his role as Ron Swanson. How-

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Kabuki theater class, and there, he flour-
ished. Offerman became a frequent dinner guest at the Sato home, and traveled to Ja-

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Japan House is selling raffle tickets at its Oct. 5 open house for a ticket to the dinner and a pair of tickets to Offerman and Sato’s Oct. 26 “Ameri-

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It takes an academic village to determine an enzyme’s function

By Diana Tateo
Life Sciences Editor

Scientists have sequenced the genomes of nearly 6,900 organisms, but they know the functions of only about half of the protein-coding genes thus far discovered. Now a multidisciplinary effort involving 15 scientists from three institutions has begun chipping away at this mystery – in a big way. Their work to identify the function of one bacterial protein and the biochemical pathway in which it operates will also help identify the functions of hundreds of other proteins.

A report of their new approach and findings appears in the journal Nature. The research team used computational methods combined with a broad array of laboratory techniques to narrow the list of possible small molecules that interact with the unknown protein, an enzyme (now known as Hp8D), and to identify its role in its host, the marine bacterium Pelagibaca bermudensis.

“The goal was not simply to identify the protein’s function but to forge a new way to tackle the vast and growing body of sequence data for which functional information is lacking,” said U. of I. biochemistry professor John Gerlt, one of five co-principal investigators on the study.

“At present, the number of proteins in the protein-sequence database is approaching 42 million,” Gerlt said. “But no more than 50 percent of these proteins have reliable functions assigned to them.”

Without knowing what all of the proteins the bacteria are capable of doing, “researchers can use to accomplish similar feats of discovery,” Gerlt said. And because the researchers also identified the functions of all the enzymes in the pathway that allows the microbe to consume Hp8D, the AH悲伤 group found other roles that enzymes perform in similar pathways in other organisms.

“Researchers with the EFI are working to develop strategies and tools that other researchers can use to accomplish similar feats of discovery,” Gerlt said. “That was a long time ago, although some people still practice that. Now, genome-sequencing technology has changed the way that biologists have to look at problems. We can’t keep looking at problems in isolation.”

Metabolic partners. Chemistry professor Jonathan Sweedler, left, microbiology professor John Cronan, biochemistry professor Juha Gerlt and their colleagues developed a streamlined approach to discovering enzyme function.