Chancellor Wise: Challenges abound; UI is up to the task

By Mike Helenthal
Assistant Editor

Chancellor Phyllis M. Wise urged the Urbana campus at a Town Hall meeting Oct. 1 to rise to the challenge of this “distinct time” in higher education and to continue its relentless drive toward excellence.

Wise’s state-of-the-campus speech was delivered exactly one year following her arrival as chancellor in 2011.

“It is easy to get swept up in worry about the challenges that face us,” she said.

But after completing her Listening and Learning Tour, during which she met with hundreds of people on campus, she thinks that worry already has been transformed into resolve.

“There is a palpable sense of anticipation and optimism about the future,” she said. “I believe if we do not seize this window of opportunity, we will have wasted a very distinct moment in time.”

Wise said the full results of her Visioning Excellence at Illinois initiative, which will be released in the coming weeks, will inform efforts to design and develop a “academic business plan” addressing the short- and long-term foundational needs of the university.

“We’re hoping we can bring the community around to us to start focusing on these important issues,” she said.

The chancellor said there are immediate improvements that can be made to further many of those goals. Among them, empowering faculty and staff members, making university decision-making processes agile and responsive, expanding the research portfolio and addressing diversity demands for students and staff.

She said she and Ilesanmi Adesida, vice chancellor for academic affairs and provost, are formulating advisory committees “to put action behind these words” in key areas: “You saw one example of this in early September in an announcement of a series of changes we have implemented to streamline our recruiting processes,” she said.

Wise said administrators also are addressing ways to configure class sizes and to “channel our resources more directly and effectively into teaching and scholarship.”

She said the recent Coursera agreement, which was approved in quick fashion State Town HALL, Page 16

Environmental safe electronics also vanish in the body

By Liz Ahlberg
Physical Sciences Editor

Physicists and environmentalists alike could soon be using a new class of electronic devices – small, robust, air tight and capable of disappearing completely in water – or in bodily fluids.

Researchers at the UI, in collaboration with Tufts University and Northwestern University, have demonstrated a new type of biodegradable electronics technology that could introduce new design paradigms for medical implants, environmental monitors and consumer devices.

“We refer to this type of technology as transient electronics.”

said John A. Rogers, the Lee J. Flory-Founder Professor of Engineering at the UI, who led the multidisciplinary research team.

“From the earliest days of the electronics industry, a key design goal has been to build devices that last forever – with completely stable performance. But if you think about the opposite possibility – devices that are engineered to physically disappear in a controlled and programmed manner – then other, completely different kinds of application opportunities open up.”

Three application areas appear particularly promising. First are medical implants that perform important diagnostic or therapeutic functions for a useful amount of time and then simply dissolve and resorb in the body. Second are environmental monitors, such as wireless sensors that are dispersed after a chemical spill, that degrade over time to achieve any ecological goal. Third are consumer electronic systems or sub-components that are compostable, to reduce electronic waste streams generated by devices that are frequently upgraded, such as cell phones or other portable devices.

Transient electronic systems harness and extend various techniques that the Rogers’ group has developed over the years for making tiny, yet high performance electronic systems out of ultrathin sheets of silicon. In transient applications, the sheets are so thin that they completely dissolve in a few days when immersed in biofluids. Together with soluble conductors and dielectrics, based on magnesium and magnesium oxide, these materials provide a complete palette for a wide range of electronic components, sensors, wireless transmission systems and more. (See sidebar, page 2.)

The team has built transient transistors, diodes, wireless power coils, temperature and strain sensors, photodetectors, solar cells, radio oscillators and antennas, and even simple digital cameras. All of the materials are biocompatible and, because they are extraordinarily thin, they can dissolve in even minute volumes of water.

The researchers encapsulate the devices in silk. The structure of the silk determines its rate of dissolution – from minutes, to days, weeks or, potentially, years. “The different applications that we are considering require different operating time frames,” Rogers said. “A medical implant that is designed to deal with potential infections from surgical site incisions is only needed for a couple of weeks. But for a consumer electronic device, you’d want it to stick around at least for a year or two. The ability to use material science to engineer those time frames becomes a critical aspect in design.”

Since the group uses silicon, the industry standard material for integrated circuits, they can make highly sophisticated devices in ways that exploit well-established designs by introducing just a few additional tricks in layout, manufacturing and supporting materials. As reported in the Sept. 28 issue of the journal Science, the researchers have already demonstrated several system-level devices, including a fully transient 64-pixel digital camera and an implantable appliance designed to monitor and prevent bacterial infection at surgical incisions, successfully demonstrated in rats.

Next, the researchers are further refining these and other devices for specific applications, conducting more animal tests, and working with a semiconductor foundry to explore high-volume manufacturing possibilities.

“It’s a new concept, so there are lots of opportunities, many of which we probably have not even identified yet” Rogers said.

“We’re very excited. These findings open up entirely new areas of application, and associated directions for research in electronics.”

The Defense Advanced Re- Search ELECTRONICS, Page 2

Vanishing act

John A. Rogers, the Lee J. Flory-Founder Professor of Engineering at the UI, led the multidisciplinary research team that developed a new class of electronic devices. The new type of biodegradable electronics technology could be used for medical implants, environmental monitors and consumer devices.

Electronic tools An interdisciplinary team has developed a Web-based social media environment for writing and assessment.

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The transient electronic devices demonstrated by researchers at the UI, Tufts University and others could be used to create sensors and power delivery systems. "The devices are encapsulated in layers of silicon, collected from silk worm cocoons, dissolved and recrystallized. By carefully controlling the crystal structure of the silicon, the researchers can control the dissolution rate, so that they can tune the lifespan of the material for a specific application," said John A. Rogers, a mechanical science and engineering professor at UI, who led the research. "We’ve figured out how to put those same materials together in ways that yield high-quality electronics, sensors and power delivery systems.

The devices are encapsulated in layers of silicon, collected from silk worm cocoons, dissolved and recrystallized. By carefully controlling the crystal structure of the silicon, the researchers can control the dissolution rate, so that they can tune the lifespan of the material for a specific application. The timescales for dissolution can range from several minutes to days, weeks, months or potentially years, depending on the specific packaging.
Margaret C. “Peggy” Day, an office support specialist in the Office of Online and Continuing Education, practices what she preaches.

Her office serves numerous colleges and units by managing their degree and non-degree online course registration processes, and she is involved with everything from registration to guiding students through their chosen degree program.

But recently she became more of an active participant.

“I've really enjoyed working here too; I've seen a lot of growth in the online learning environment in the past nine years. Online learning and its processes are different because it's not a normal campus environment.”

She said she still gets to use a variety of skills, but the most important is communication. As she is many times the first voice students associate with the university.

“Being patient and understanding is a very important part of my job,” she said. “I treat every student I talk to like a new freshman because I want to put them at ease and walk them through where they need to be.”

She said she has hundreds of students each semester, all of them with different backgrounds and from different locations, which changes her expectation of the job each day.

“I work with a wide variety of students from throughout the world and I find it very exciting,” she said. “I could be working with a high school student one day or a student who is 70 the next.”

The university started offering wireless Internet access more than a decade ago, though fewer than 300 access points initially were deployed. The buildup of campus access points, much of it coming in the last five years, has included classroom and other student gathering spaces.

Hayes said CITES is seeking funding to expand and improve campus access and that units can pay a nominal fee to have an access point added.

“Right now we're working hard to keep ahead of the trend and allow anybody to access the Internet from the convenience of anywhere on campus,” he said.
Deadline coming for Illinois Compass transition

By Mike Holenhalh Assistant Editor

The new generation of the Compass learning-management system does more than point instructors and students in the right direction; it literally gives them the tools to forge their own teaching and learning paths.

“It is much improved and offers many, which includes faculty and teaching assistants, will not be left on an island, however.

ON THE WEB
Compass 2g
www.cites.illinois.edu/illinoiscompass/
For Compass 2g training:
http://go.illinois.edu/citestraining

Yfantis said CITES has scheduled one-on-one help with Compass 2g to help faculty members transition to the new system, and that new-and-improved tutorials make the self-training process easier than ever.

“We offer consulting and training and even one-on-one help if somebody needs it,” he said. “There is a lot of training available and we are always here to assist.”

Yfantis said the transition is made easier because the same vendor created the interface of both systems.

He said the new features of Compass 2g include a simplified grading center, a student academic “early warning” monitoring system and an improved plagiarism detector. Compass 2g also gives users the ability to send emails to students from within the system to their Illinois.edu email address.

“We’re asking those who haven’t made the switch to try it as soon as they can and see how quickly they can adapt,” he said. “If it looks like it may be difficult, then there’s still enough time to attend a training session or ask for assistance.”

Marie-Christine Brunet, the assistant dean for undergraduate programs in the College of Engineering, said when she inherited an engineering course from another instructor last year, she was worried it might be difficult to adapt to the new system after being away from Compass for so long.

After accessing tutorials at Lynda.com, she realized it wouldn’t be as painful as she first thought.

“The videos were just the right length, so it was a real time-saver,” she said. “I learned how to use the different parts of Compass 2g and tweaked the class the way I wanted it.”

She said she’s also been impressed with the grading center feature.

“In particular, it is very convenient to be able to upload and download grade files, and it was easy to set it up the way I wanted it — again, thanks to Lynda.com,” she said.

Yfantis said work to improve the Compass system doesn’t stop at the next-generation transition deadline.

“There are still improvements we are working on and we are very receptive to any ideas anyone may have,” he said.

In fact, CITES is forming a campus advisory board to funnel ideas for changes or improvements straight to the vendor to facilitate the recommendations as quickly as possible.

“We’re inviting faculty members and students who are using the system to provide feedback,” he said. “We value that input; it’s critical in determining whether the service is meeting their needs.”

Amendment would eliminate constitutional protections

By Phil Ciciora Business and Law Editor

A little-publicized amendment to the Illinois Constitution on this November’s ballot could have a big impact on the pensions and health care of state workers if Illinois voters approve it, says John Kindt, a professor emeritus of business and legal policy at Illinois.

Kindt, who has testified before Congress and state legislatures about business and legal policy issues, says Amendment 49 would overrule the protection clause in the Illinois Constitution that restricts eliminating or reducing earned benefits such as pensions for state workers and retirees.

Amendment 49 clocks in at more than 700 words, making it longer than the entire first 10 amendments to the U.S. Constitution, Kindt says.

“It’s 700 words of verbosity and obfuscation that cloak the true intent and impact of its last sentence, which is to override the current constitutional protections for teachers and retirees,” he said. “Many legislators who originally supported Amendment 49 probably did not realize that.

But the offending sentence creates a constitutional blank check to override benefits accrued by state employees, including pensions and health care. It also was reportedly drafted outside normal legislative procedures. That doesn’t pass the smell test.”

Kindt says the ballot itself does not even include what people would be voting for or against.

“Currently, the certified ballot doesn’t even list the full text of the 700-word amendment,” Kindt said. “Experts believe the current ballot won’t survive a legal challenge. The State Universities Annuitants Association also contends that Amendment 49 was drafted outside of normal processes.”

Although Amendment 49 was passed through the legislative procedure, Kindt says the Illinois public should be informed on the issues and not unwittingly eliminate their current constitutional safeguards because of 700 confusing words.

A new direction Konstantinos Yfantis, the acting manager of teaching and learning services for Campus Information Technologies and Educational Services, said time is running out for instructors to meet the deadline for transitioning to the new version of the Illinois Compass learning management system.

The old system will be replaced by Compass 2g on Jan. 1.

For Compass 2g training:
www.cites.illinois.edu/illinoiscompass/
Federal law ought to play a stronger role in regulating social networking sites by allowing users to determine what happens to their ‘digital afterlives,’ says a recently published paper by a UI expert in intellectual property law.

Allowing social networking sites to set their own policies regarding the content associated with the accounts of deceased users does not adequately protect individual and collective interests, especially with people spending an increasing part of their lives online using social networking sites, says Jason Mazzone, a professor of law.

“Virtually no law regulates what happens to a person’s online existence after his or her death,” he said. “This is true even though individuals have privacy and copyright interests in materials they post to social networking sites.”

Mazzone says there are plenty of legal regulation, social networking sites are unlikely to adopt user-friendly policies for the disposition of copyright materials from the accounts of the deceased.

“The current situation is that there’s very little law involved,” said Mazzone, the Lynn H. Murray Faculty Scholar at Illinois. “So why is Facebook hoarding its current policy is to ‘memorialize’ the account of the deceased, meaning all uploaded content – status updates, photos, videos – disappears but the wall remains intact for current friends to express condolences.

“The content is no longer visible but it’s all still on Facebook’s servers,” he said. “It’s just that no one can actually see it.”

So why is Facebook hoarding all of this content?

“Well, I suspect that Facebook thinks that there’s going to be some future value to having all of that content locked away,” Mazzone said. “Either because it will have historical significance, or because Facebook thinks that there’s going to be something they are going to do with that content down the road. There are already pretty crude avatars being built based on their email exchanges and Facebook photos. We could be things like holograms that are developed 100 years from now thanks to the mining of all of this data. But Facebook doesn’t know that for sure, and that’s why they see the value in holding onto all of this.”

But the content is not Facebook’s to keep, Mazzone says. “Whoever uploaded the content has a property right that is protected – it’s not extinguished by anything that Facebook does,” he said. “The trouble, though, is how you or your heirs get your hands on that content. The person who has inherited the copyright, who has the ability to control the uses of the work, can’t take advantage of it because it’s locked away in Facebook’s digital vault. That’s why we need to get to a place where we can require an entity like Facebook to give individual users at least some possibility of deciding while they’re still alive what’s going to happen to their content after they die.”

Mazzone says there are plenty of different ways to produce that result, with the Health Insurance Portability and Accountability Act providing a good example of how to protect privacy interests while allowing users to ‘exercise affirmative control.’

“HIPAA allows patients to specify who is going to get access to health records, and you have to affirmatively opt-in to that system,” he said. “It’s another area of federal law where you have information that’s important and there are privacy interests involved. So I think that sort of model has some potential.”

According to Mazzone, it’s something of a sore spot for Facebook users.

“It’s pretty amazing that there is no way for individual users to say, ‘When I die, this is what happens to my account,’” he said. “Instead, it comes under the control of Facebook. I know many users have complained about the lack of just such an option. . . . I do think that it’s pretty essential that that be available given the sorts of intellectual property and privacy interests that are at stake.”

The paper, “Facebook’s Afterlife,” was published in the North Carolina Law Review.
Composer wins two international design competitions

By Dusty Rhodes
Arts and Humanities Editor

Composer George Walker will join Sinfonia da Camera on Oct. 6 for the world premiere of his “Movements” for cello and orchestra, featuring Dmitry Kouzov, a UI professor of cello. Tenor Albert Rudolph Lee will join Sinfonia to perform Walker’s “Lilacs” for voice and orchestra, a piece commissioned by the Boston Symphony Orchestra for which Walker was awarded the 1996 Pulitzer Prize for composition.

When Walker graduated from the Curtis Institute of Music in 1945, he became the first African-American to receive a diploma from the institute. His debut recital in Town Hall in New York City marked the first time a Black instrumentalist performed there. Walker has held faculty appointments at more than a half dozen colleges and conservatories, including Peabody Institute, Rutgers University and Smith College. He has composed more than 90 published works, which have been performed by major orchestras all over the world. His awards include two Guggenheim fellowships, two Rockefeller fellowships, an American Academy of Arts and Letters award, and grants from the National Endowment of the Arts.

He has received commissions from the New York Philharmonic, the Cleveland Orchestra, the Eastman School of Music, the Kennedy Center for the Performing Arts, the Pew Charitable Trust and the Boys Choir of Harlem, among others. Ian Hobson, the music director of Sinfonia, has made several recordings of Walker’s work and plans to record Saturday night’s concert as well. He has revised these scores and is putting out what he hopes are definitive recordings of his music, Hobson said.

Walker, who is 90, is “amazingly alert and involved in revising his compositions and supervising the performance and recording of them,” Hobson said.

Hobson has programmed Mendelssohn’s Overture to “Rey Bläs,” Op. 95, and Symphony No. 4, Op. 90 (the “Italian”), to begin and end the program, deliberately positioning compositions by a famous child prodigy adjacent to a new work composed by a nonagenarian. “The mood and the atmosphere and the orchestrations are totally different – both interesting in their own ways,” he said. “I think for the audience, it will make a wonderful sandwich. I was going for maximum contrast.”

The concert will begin at 7:30 p.m. in Foellinger Great Hall at Krannert Center for the Performing Arts. To purchase tickets, visit www.krannertcenter.com, or call 217-333-6280.

Composer to be on hand for Sinfonia world premiere

By Dusty Rhodes
Arts and Humanities Editor

Erickson detailed his development of ROPE Pavilion in a 19-page article for the ROPE Pavilion in a 19-page article for the summer issue of Process, the journal of the American Institute of Architects. In August, he presented a lecture, drawings and photos of the project at the Architecture Biennale in Venice, Italy.

Here previously designed a somewhat similar structure for a competition in New York City, celebrating the Jewish festival Sukkot. But Erickson said the design didn’t work well.

"I start with three dimensions first,” he said. “Once we know how to build it, we can figure out how to draw it. I do everything completely backwards.”

Erickson detailed his development of ROPE Pavilion in a 19-page article for the summer issue of Process, the journal of the American Institute of Architects. In August, he presented a lecture, drawings and photos of the project at the Architecture Biennale in Venice, Italy.

He previously designed a somewhat similar structure for a competition in New York City, celebrating the Jewish festival Sukkot. But Erickson said the design didn’t work well.

"I grow up on the U.S.-Canadian border,” he said, “so for me, it was great to do this competition. I think that’s part of the reason we executed it so well: The context wasn’t so foreign to me.”

Access to the fabrication facilities at the UI played a key role in ROPE Pavilion. For example, wrapping rope around the pavilion’s irregular, curvaceous ribs meant developing a system of holes and notches, equally distributed throughout the frame.

“Change this detail over and over,” he said, “so we wrote a digital script that allowed us to change the location of the holes.”

As chair of the UI’s Advanced Fabrication Lab, Erickson could easily tweak the geometrical formulas for the ribs’ design, and the school’s CNC (computer numerically controlled) router would cut according to his calculations.

Last January, with a team of current and former students, he built the hut in the School of Architecture’s Annex, then disassembled it and loaded it into a rental truck. While Erickson stayed on campus to teach class, two graduate students drove the hut to Winnipeg. A day later, he flew north to join them in constructing it.

“They said it was going to be 40 below zero,” he recalled, “and I said Fahrenheit or Celsius? They said at 40 below, it doesn’t matter.”

He has other projects now in development – a system of floating cloud-like construction scaffolding to protect sidewalks that was one of three finalists in a New York City competition; an “invisible” office tower that was one of seven finalists in a Tokyo competition; and an accessory from the ROPE Pavilion – a stowable made of rope, that’s now under consideration in a Singapore garden furniture competition.

“Design has to be really simple, but it needs to be bold,” Erickson said. “In particular, for me, it has to be forward-thinking. It has to move something to the next level.”

More than a hut: the ROPE Pavilion, which offers shelter to skaters on Winnipeg’s Assiniboine River Trail, won two international design competitions.

http://go.illinois.edu/Video_Biennale
Oct. 4, 2012

NEW faces 2012

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.

Derrick Spires

an assistant professor of English in the College of Liberal Arts and Sciences

Education: Ph.D. (English), M.A. (English), Vanderbilt University; B.A. (English), Tougaloo College, Mississippi

Research Interests: Early U.S. and African-American print culture, race and citizenship, American studies, African-American literature and culture.

“Spires’ current work centers around an archival recovery project focusing on theories of citizenship developed and tested in a range of documents representing early African-American print culture: pamphlets, periodical literature, convention proceedings and the like,” said Curtis Perry, the head of the department of English. “His research is meticulous and thorough, representative of the best kind of historical, archival research that our field has to offer. But Spires is not only an archival cultural historian, he is also an acute critical reader of these documents, able to demonstrate how the literary or symbolic qualities of these texts and documents carried the weight of generative political thought about the nature of citizenship and belonging. ... It is clear that his project has the potential to reshape the way we think of early African-American culture. We are very excited to have him join our faculty.”

Courses Teaching: ENGL 274, Literature and Society; ENGL 455, Major Authors

Why Illinois? “When I went on the market, I had Illinois circled,” Spires said. “The faculty in the department of English were doing the kind of work I saw myself doing moving forward, and I could see that the institution was dedicated to not only providing financial support for research, but also to sustaining spaces – the Unit for Criticism, Illinois Program for Research in the Humanities, the Sustainability Studies Initiative in the Humanities, etc. – that fostered collaboration and exchange across disciplines. I was also excited to be working with a diverse and intellectually curious group of undergraduate and graduate students.”

Clair J. Sullivan

an assistant professor of nuclear, plasma and radiological engineering in the College of Engineering

Education: Ph.D. (nuclear engineering), M.S. (nuclear engineering), B.S. (physics and astronomy), University of Michigan

Research Interests: Radiation detection and measurements.

“Clair Sullivan has had a varied and interesting career path before coming to Illinois. She works in the areas of radiation detection and signal analysis,” said James Stubbins, the head of nuclear, plasma and radiological engineering. “She worked on radiation detection technology at Los Alamos National Lab to aid first responders following the 9/11 attacks. She translated that work into advanced signal detection and processing techniques, which caught the eye of the CIA, where she worked before arriving at Illinois. At Illinois, she plans to develop advanced radiation detection and analysis technologies to support national security.”

Courses teaching: NPRE 451/NPRE Laboratory, radiation detection and instrumentation; radiation dosimetry and shielding; basic measurements in nuclear engineering; engineering application; micro computer data acquisition and experimental control.

Why Illinois? “One thing that really stood out to me about the UI was how collaborative the university is,” Sullivan said about her choice to come to Illinois. “I know of several places where you don’t collaborate with other faculty members in your own department, much less those from other departments. In my experience, the best research is done by groups of diverse thinkers. I chose Illinois because it is a place that wholeheartedly embraces that concept.”

John G. Wirtz

an assistant professor in the department of advertising in the College of Media

Education: Ph.D. (mass communication), M.A. (communication studies), University of Minnesota; B.S. (Bible/theology), Valley Forge Christian College

Research Interests: Intersection of mass media content and interpersonal communication: how to develop more effective, culturally relevant mass media campaigns for underserved populations.

“John is an outstanding addition to our faculty,” said Michelle Nelson, the acting head of the department of advertising. “His scholarship brings a theory-based understanding to designing effective health messages – a perfect fit with our ‘Sandage Way’ positioning in which we strive to provide an education that is professionally relevant, yet broad enough that students learn critical, analytical and problem-solving skills. His teaching in public relations will help serve all of our majors as well as students outside the college who are interested in earning a PR certificate. He is a well-trained, thoughtful and delightful colleague.”

Courses teaching: ADV 310, Introduction to Public Relations; ADV 350, Writing for Public Relations

Why Illinois? “I was really struck by the level of collegiality displayed by the members of my department when I visited here last spring,” Wirtz said. “They clearly liked and supported one another. I also was impressed by the quality of the undergraduate and graduate students I met during the interview. They were engaged and interested in what I would bring to the college. And, of course, the UI has an excellent reputation of promoting and supporting research and this was very important to me.”
Method monitors semiconductor etching as it happens

By Liz Ahlberg
Physical Sciences Editor

Researchers have a new low-cost method to carve delicate features onto semiconductor wafers using light — and watch as it happens.

“You can use light to image the topography and you can use light to sculpt the topography,” said electrical and computer engineering professor Gabriel Popescu. “It could change the future of semiconductor etching.”

Chip makers and semiconductor researchers need to very precisely control the dimensions of their devices. The dimensions of the components affect performance, speed, error rate and time to failure.

Semiconductors are commonly shaped by etching with chemicals. Etching errors, such as residual layers, can affect the ability to further process and etch as well as hamper device performance. Thus, researchers use time-consuming and costly processes to ensure precise etching — for some applications, to within a scant few nanometers.

The Illinois researchers’ new technique can monitor a semiconductor’s surface as it is etched, in real time, with nanometer resolution. It uses a special type of microscope that uses two beams of light to very precisely measure topography.

“The idea is that the height of the structures can be determined as the light reflects off the different surfaces,” said electrical and computer engineering professor Lynford Goddard, who co-led the group with Popescu. “Looking at the change in height, you figure out the etch rate. What this allows us to do is monitor it while it’s etching. It allows us to figure out the etch rate both across time and across space, because we can determine the rate at every location within the semiconductor wafer that’s in our field of view.”

The new method is faster, lower in cost, and less noisy than the widely used method of atomic force microscopy or scanning tunneling microscopy, which cannot monitor etching in progress but only compare before and after measurements. In addition, the new method is purely optical, so there’s no contact with the semiconductor surface and the researchers can monitor the whole wafer at once instead of point-by-point.

“I would say the main advantage of our optical technique is that it requires no contact,” Popescu said. “We’re just sending light, reflected off the sample, as opposed to an AFM where you need to come with a probe close to the sample.”

In addition to monitoring the etching process, the light catalyzes — in the etching process itself, called photochemical etching. Traditionally chemical etching creates features in steps or plateaus. For curved surfaces or other shapes, semiconductor researchers use photolithography. Usually, light shines through very expensive glass plates called masks that have distinct patterns of gray to let light through by degrees. A researcher must purchase or make a mask for each tweak of a pattern until the correct pattern of features is achieved.

By contrast, the new method uses a projector to shine a gray-scale image onto the sample being etched. This allows the researchers to create complex patterns quickly and easily, and adjust them as needed.

“To create each mask is very expensive. That’s impractical for research,” Goddard said. “Because our technique is controlled by the computer, it can be dynamical. So you can start off etching one particular shape, midway through realize that you want to make some change, and then change the projector pattern to get the desired outcome.”

The researchers envision this technology applied beyond etching, to real-time monitoring of other processes in materials science and life science — for example, watching carbon nanotubes self-assemble, or error monitoring during large-scale computer chip manufacturing. It could help chip manufacturers reduce costs and processing time by ensuring that equipment stays calibrated.

The National Science Foundation supported this work, published Sept. 28 in the journal Light: Science and Applications. Goddard and Popescu are also co-authors of the paper.
new study of the sense of smell lends support to a controversial theory of olfaction: Our noses can distinguish both the shape and the vibrational characteristics of odorant molecules.

In the study, in the journal Physical Chemistry Chemical Physics, demonstrates the feasibility of the theory – first proposed decades ago – that the vibration of an odorant molecule’s chemical bonds – the wagging, stretching and rocking of the links between atoms – contributes to our ability to distinguish one smell from another.

“The theory goes that when the right odorant binds to its receptor, the odorant’s molecular vibration allows electrons to transfer from one part of the receptor to another,” said UI physics professor Klaus Schulten, who conducted the analysis with postdoctoral researcher Ilia Solov’yov and graduate student Po-Yao Chang. “This electron transfer appears to fine-tune the signal the receptor receives.”

Many who study olfaction maintain that odorant receptors recognize only an odorant’s shape and surface characteristics. They dismiss the idea that molecular vibration has anything to do with it, Schulten said. Likewise, some proponents of the vibrational theory think that molecular vibration only, and not shape, guides the sense of smell. Schulten and his colleagues belong to a “third camp” that sees evidence for both, he said.

The vibrational theory of olfaction is supported by the discovery that humans and other animals can tell the difference between two versions of the same odorant molecule – a normal one and an identical one with deuterium atoms substituted for one or both.

“Marcus realized that when electrons are transferred through the protein,” Schulten said. “We also see that there are small, however, with a lot of high-frequency, high-energy vibrations, Schulten said. Some scientists have theorized that these high-frequency vibrations can, when an odorant binds to the right receptor, enhance the likelihood that an electron will transfer from one part of the receptor to another, sending an electrical signal that contributes to the detection of that odor.

Prior to the new study, no one had analyzed the energetics of the system to see if the vibrations of the odorant molecules – in the context of all the background vibrations that are part of the system – could actually promote electron transfer within the receptor. Schulten and his colleagues are the first to conduct such an analysis, he said.

Odorant receptors are embedded in membranes and so are more difficult to study than other proteins. But previous research indicates that some receptors are metalloproteins, and “the metals in the proteins are predisposed to transfer electrons,” Schulten said. “We also see that there are other amino acid side groups that can accept an electron, so the electron can be transferred through the protein.”

Like others before them, Schulten and his colleagues suggest that the odorant receptor contains both an electron donor and an electron acceptor, but that electron transfer occurs only when a specific odorant is bound to the receptor. The new calculations offer the first quantitative evidence that the odorant can in fact promote electron transfer.

In obesity, a micro-RNA causes metabolic problems

By Diana Yates

Scientists have identified a key molecular player in a chain of events in the body that can lead to fatty liver disease, Type II diabetes and other metabolic abnormalities associated with obesity. By blocking this molecule, the researchers were able to reverse some of the pathology it caused in obese mice.

Their findings appear in the Proceedings of the National Academy of Sciences. MiR-34a (pronounced MIER-34a), a micro-RNA, occurs at higher than normal levels in the livers of obese animals and in human patients with fatty liver disease. In the new study, researchers discovered that miR-34a gums up production of a protein receptor, called beta-Klotho, needed for metabolic signaling in the liver. This hinders normal glucose uptake, glycogen and protein synthesis and other metabolic activities.

In response to signals from the small intestine, beta-Klotho contributes to normal liver function after a meal, said UI molecular and integrative physiology professor Jongsook Kim Kemper, who led the study. But in obesity, levels of miR-34a surge much higher than normal, resulting in abnormal low levels of beta-Klotho.

“The downstream effect is more glucose in the blood, more fat in the liver,” she said. The effects are dramatic. Slices of liver tissue from obese mice are laden with fat, whereas normal mice have minimal amounts of fat in their livers.

The researchers used a complementary strand of RNA (called antisense RNA) to neutralize miR-34a in obese mice. This therapeutic approach improved “metabolic outcomes, including decreased liver fat and improved glucose level in the blood,” Kemper said. The study team also included researchers from the Van Andel Research Institute in Grand Rapids, Mich. The National Institutes of Health and the American Diabetes Association supported this research.

Ads removed for online version
Scholars’ work aimed at transforming literacy education

By Shanta Forrest
News Editor

Today’s teachers face classrooms of students who cut their teeth using electronic communications, and two education scholars at the UI have released both a software application and a new book that they believe will profoundly change the teaching of literacy for this technology-savvy group and generations to come.

Scholar, the software application, is a Web-based social media environment for writing and assessment developed by an interdisciplinary research team led by education professors Bill Cope and Mary Kalantzis, who is also the dean of the College of Education.

Developed for use by students at all levels of learning, from fourth grade to higher education, the software embeds the practice of writing in a social media environment, stimulating peer interaction and promoting complex learning. Its developers believe the software will improve student outcomes in literacy and other curricular areas by integrating formative assessment into the instructional process and by nurturing discipline-specific knowledge and understanding.

Scholar is the culmination of the educators’ 30 years of research on teaching and learning as well as three years of intensive development that included partnerships with schools in Central Illinois and New York.

Working individually or collaboratively, students use the secure online workspace to create various types of multimedia projects, such as scientific reports or persuasive essays, in which they can embed images, sound and video.

Teachers can evaluate students’ projects according to rubrics that the teachers design— or in accordance with mandated standards— and individual student’s progress is measured over time and in comparison to classmates, the school or other cohorts.

Rather than waiting until the end of an activity or program, students receive continuous feedback on their work—from peers, the teacher or others—and comments can be anonymous or not, at the teacher’s discretion.

Within Scholar, teachers and students form knowledge communities for discussing, presenting and publishing projects. And teachers can use the application to share their ideas and network with other educators.

Developed by Common Ground, Cope’s startup company, in conjunction with an interdisciplinary team of experts in computer science and in education and evaluation at the university, the project was funded by four grants totaling $1 million from the U.S. Department of Education.

“We built this thing totally from the ground up with new code,” said Cope, who is a professor in the department of education policy, organization and leadership. “We think in a number of ways it’s kind of a paradigm shift beyond traditional work environments. It involves a lot of peer interaction, so it’s a very social writing environment, and it integrates various modes of expression—audio, images, text and video—that allow learners to achieve the intellectual objectives of a task with more than writing.”

“The College of Education always wanted to build on the PLATO tradition,” Kalantzis said, referring to the computer-assisted instruction system developed at Illinois in the 1960s. “We see this as an example of what you can do at the university with these genius software people, and

Educational tools. An interdisciplinary research team led by education professors Bill Cope and Mary Kalantzis has developed a Web-based social media environment for writing and assessment.

“New ways of learning, from fourth grade to higher education, support the intellectual objectives of a task with more than writing.”

According to the authors, new writing techniques that teachers can use to engage students and value what the students bring into the classroom and recognize that’s another form of effective communication,” Cope said. “Conventional literacy tried to teach everyone a standard form of the language, and everything else was wrong. But what we want to say is that in different contexts, people speak in different ways. There’s a

ON THE WEB
http://newlearningonline.com/kalantzisandcope/

when educators, engineers and computer scientists work together to invent tools.”

In the new book, Literacies (Cambridge University Press, 2012), Cope and Kalantzis, who are married, explore the ways in which technology has transformed literacy pedagogy and provide instructional techniques that teachers can use to engage today’s “wired” students.

According to the authors, new writing spaces—such as email, text messages, Twitter and other social media—with their abbreviations, friendly informality and cryptic ‘in’ expressions are more fluid, open and in keeping with the way people make meaning today and the manner in which young children learn than are traditional writing and didactic teaching methods.

While the “old basics” of literacy instruction strove for conformity to a single standard of “educated English” with endless lists of grammar rules, the “new basics” are much broader, promoting multiple literacies—fluency in multiple modes and numerous social languages that are appropriate in different contexts, the authors wrote.

Literacy education in today’s multimedia environment offers opportunities for “transformative diversity” and for redressing the ongoing and systemic inequalities that disadvantage certain students and result in poor academic outcomes, the authors said.

“The school has to start with the students and value what the students bring into the classroom and recognize that’s another form of effective communication,” Cope said. “Conventional literacy tried to teach everyone a standard form of the language, and everything else was wrong. But what we want to say is that in different contexts, people speak in different ways. There’s a

Ads removed for online version
UI creates interactive online ethics resource

The UI has announced a new interactive online resource to help researchers and professionals in the sciences, engineering and mathematics incorporate ethical practices into their professional lives.

Ethics CORE (NationalEthicsCenter.org), funded by the National Science Foundation, gathers and disseminates ethics resources, including educational curricula and online courses, reference materials, scholarly and research literature and resources available for use in Responsible Conduct of Research (RCR) education required by NSF and other funders of research. In addition, the site’s interactive community offers a place where users can publish and share scholarship, discuss ethics-related issues for professionals and researchers and develop and share new course offerings.

“From the outset, our goal has been to create a dynamic, one-stop environment where people can collaborate and discuss ethical questions and issues that arise on a daily basis,” said C.K. Gunsalus, the director of the National Center for Professional and Research Ethics, which has developed Ethics CORE. NCPRE is part of the UI’s Coordinated Science Laboratory.

Ethics CORE aims to help people seamlessly integrate ethics into their daily behavior by providing a toolbox of resources to meet their varied needs,” she said.

A beta test version of the site, which went live in 2011, has attracted nearly 900 registered users from across the world. Users are encouraged to share resources that they have developed, and researchers from around the country have contributed resources from videos to role-playing activities. An additional 300 people at a range of institutions are taking specialized RCR courses developed at the University of Illinois. In addition, instructors at Arizona State University and Rochester Institute of Technology have taught a multi-institution suite of courses on sustainability ethics using custom multimedia games and simulation exercises that have all been developed or enhanced at the UI.

Co-principal investigators include Taft Broome, Howard University (civil engineering) and from Illinois, Nicholas Burton (education), Michael Loui (electrical and computer engineering), and William Mischo (University Library). NCPRE senior advisors are Rebecca Sanderfer, Illinois (sociology and law); Ken Pimple, Poynter Center for the Study of Ethics and American Institutions (Indiana University); and Joan Sieber, Johnson of Critical Research on Human Research Ethics.

In addition, Ethics CORE collaborates with several partner institutes and organizations that contribute content and expertise to the project. They include the National Academy of Engineering, Howard University, the Institute of Electrical and Electronics Engineering, the Public Responsibility in Medicine and Research organization and the UI Center for Professional Responsibility in Business and Society.

“As we seek to make unprecedented breakthroughs in the fields of science, mathematics and engineering, it’s important to continue weaving ethics into our behavior,” Gunsalus said. “Ethics CORE provides administrators, instructors, researchers, professionals and students with the resources they need to move us forward.”

EDUCATION. CONTINUED FROM PAGE 10

kind of a vernacular that you might want to speak or write with your friends on Facebook, and that might be appropriate, but that’s different from writing a legal letter. Language is very diverse from context to context, and part of the trick is not only learning the rules but learning how to move into a new context and perform effectively.”

Designed for education students, in-service teachers, teaching instructors and researchers, the book explores four major approaches to literacy pedagogy, as well as their strengths and weaknesses, and various modes that are available to students and teachers today for conveying meaning.

“We’ve gone through the different historical traditions so people are clear that there have been different theories, practices and then we present what we think is entirely new – a grammar for multimodality,” Kalantzis said. “We’ve always believed that teachers need to be deeply knowledgeable about the nature of languages and the way that historically different theorists have tried to translate that into school practices.

“We believe that what we’ve produced is an alternative for the future,” Kalantzis added. “However, we think teachers need a repertoire, so that when they’re doing traditional grammar, they know that they’re doing it and why – because it does work for some reasons. When they want to draw on linguistic Noam Chomsky, they might do it deliberately so that their choices are deliberate choices from a repertoire rather than exercises that they just keep repeating.”

An increasingly important facet of literacy pedagogy today is schoolchildren students about multimodal communications’ potential power, as demonstrated by recent deadly uprisings that were incited by a video on YouTube that denigrated the Prophet Mohammed, Cope said.

“In fact, we’ve seen repeatedly that the visual has more power than the text,” Cope said. “We have a moral responsibility to understand this space and what it represents for meaning making.”


__Deaths__

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<tr>
<td>Thomas Ray Anderson</td>
<td>82, died Sept. 22 at his home in McLeansboro, Ill.</td>
<td>Anderson was a building service worker for Facilities and Services for 10 years, retiring in 1995.</td>
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<tr>
<td>Robert Raymond Harris</td>
<td>71, died Sept. 24 at Mason Point, Sullivan</td>
<td>Harris was a UI Extension adviser in Moultrie and Douglas counties for 34 years, retiring in 2001. Memorials: Mason Point, 1 Masonic Way, Sullivan, IL 61951.</td>
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Celebrating a milestone

LED birthday party will be Oct. 9

Fifty years ago, Nick Holonyak Jr., then a consulting scientist at Bell Labs, created the first LED. Today, the light-emitting diode is used in everything from flashlights to spacecraft and countless applications in between.

Chancellor Phyllis M. Wise is inviting the campus and community to celebrate the anniversary at a ceremony beginning at 11 a.m. Oct. 9 in the south lounge of the Illini Union.

Holonyak, who joined the UI faculty in 1963, plans to attend the event, talk informally about his work, cut a cake adorned with 50 LED candles and answer questions. He also will sign autographs. Holonyak is the John Bardeen Endowed Chair in Electrical and Computer Engineering and Physics at Illinois.

The first 100 people at the celebration will receive a copy of the documentary, “A Brilliant Idea,” created by Tim Hartin and Alison Davis-Wood, producers for the Big Ten Network.

Program attains department status

Asian American Studies celebrates Oct. 10

The Asian American studies program recently attained departmental status and is now known as the Asian American studies department. The campus community is invited to celebrate from 1-3 p.m. Oct. 10 at the Asian American Cultural Center. The program will include remarks by Ruth Watkins, dean of the College of Liberal Arts and Sciences, and Ron deRomao, vice chancellor for student affairs, as well as introductions of the faculty and staff members and students, and a review of current activities of the department and the cultural center.

The Asian American studies program was established in the spring of 1996. Asian American faculty members were hired and the curricular foundations for Asian American studies were established.

This past summer, the Illinois Board of Higher Education capped a two-decadeslong effort at institutional recognition of the program by approving its proposal for departmental status.

The event is sponsored by the Asian American studies department and the Asian American Cultural Center. More information is online at www.asianam.illinois.edu.

NCSA

Petascale Day is Oct. 15

The National Center for Supercomputing Applications will celebrate “Petascale Day” on Oct. 15.

Petascale refers to computing, data and science in the quadrillions—like the more than 11 quadrillion calculations the Blue Waters supercomputer can perform and the more than 300 quadrillion bytes that the center’s data storage system can handle.

And in scientific notation, 1 quadrillion = 10 to the 15th, so planners selected Oct. 15 to celebrate big science and the Blue Waters supercomputer, and screenings of the nonfiction film “Dynamic Network.

The theme of the summit this year is “MOOCs, Coursera and the Online Ecosystem: Online Education summit will be Nov. 1

The 2012 Summit on Online Education will be Nov. 1 in Illini Rooms A, B and C in the Illini Union.

The theme of the summit this year is “MOOCs, Coursera and the Online Ecosystem: Where Does Illinois Fit?”

The theme was inspired by the campus’ recent partnership with Coursera and faculty members’ interest in designing MOOCs (Massive Open Online Courses). Some of the discussions sparked by this recent partnership include questions about what the MOOCs phenomenon means for Illinois and what constitutes high-quality teaching and learning in an era of free, high-quality online courses.

Campus leaders and Coursera co-founder Daphne Koller will attend to facilitate discussions and share their views on these topics.

‘Future of the UI’ Easter interview will be Oct. 15

Craig Cohen, of Illinois Public Media, will meet with UI President Bob Easter and other members of the university community to discuss the university’s priorities and how the UI will deal with challenges such as shrinking state funding.

“The Future of the University of Illinois” will be broadcast on WILL-TV and WILL-AM (580 AM) at 9 p.m. Oct. 15.

“The program will also be streamed live on the internet at will.illinois.edu/video.”

The “New Middle East: Social and Political Change in the 21st Century” will begin at 7 p.m. Oct. 18 with a lecture by Prince Moulay Hicham ben Abdallah, a cousin of the king of Morocco and a consulting researcher at Stanford University.

Nearly two dozen scholars from North America, Europe and the Middle East— including several from the UI—will participate in a two-day conference on the future of democracy in the Middle East. The conference is free and open to the public.

The conference will conclude with a roundtable discussion on the future of democracy in the Middle East.

The Center for South Asian and Middle Eastern Studies Middle East conference begins Oct. 18

The “New Middle East” will be the topic of a conference Oct. 18-20 at the Levis Center, hosted by the Center for South Asian and Middle Eastern Studies.

For more information and the full schedule, visit http://giallinois.edu/video.”

The conference will run from 9:30 a.m. to 4:30 p.m. on both days and is free and open to the public.

The purpose of the conference is to bring together leading and emerging scholars in the fields of religious studies, history and the social sciences to explore the future of religious and secular life in the Arab world today. The conference will facilitate discussions and share their views on these topics.

For more information, contact Ebel, jebel@illinois.edu, or Murison, jmurison@illinois.edu.

Community Cinema

American labor film premieres Oct. 8

First General Motors shut down its century-old plant in Janesville, Wis., causing mass layoffs and exiled workers in search of jobs. Then Wisconsin Gov. Scott Walker ignited a firestorm by introducing a bill to end collective bargaining, unleashing a fury of protest and sparking a recall election.

“As Goes Janesville,” a documentary film that takes viewers to the front lines of America’s debate over the future of American labor, makes its world premiere Oct. 8 at the Champaign Public Library.

The film’s producers spent three years following the stories of laid-off workers trying to reinvent themselves; business leaders aligned with the governor to promote a pro-business agenda that they believe will attract new companies to Janesville; and a state senator caught in the middle, trying to bring peace to the factions at odds and protect workers’ rights.

The film will be broadcast on “American labor film premieres Oct. 8” and “Future of the University of Illinois” will be broadcast on “American labor film premieres Oct. 8” and “Future of the University of Illinois” will be broadcast on "Independent Lens" at 9 p.m. Oct. 8 on WILL-TV. Joining with Illinois Public Media for the discussion are the American Federation of State, County and Municipal Employees 698; the Champaign County Chamber of Commerce; Champaign Economic Development Corp.; and the economic development departments of Champaign and Urbana. They’ll talk about events of recent years that have affected the university’s reputation, efforts to foster communication, and partnerships on campus and in the community.

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Registration is now open at https://illinois.edu/evb/sec/1595786. Pre-event registration ends at 5 p.m. Oct. 26. More information, including a detailed schedule, is online at http://go.illinois.edu/OnlineEdSummit. Call 217-333-1462 or email onlinesummit@mx.illinois.edu with questions.

This event is sponsored by Online and Continuing Education and the Office of the Provost. It has been co-organized by the Ubiquitous Learning Institute in the College of Education, the College of Liberal Arts and Sciences and the Graduate School of Library and Information Science.

ARCS Foundation
Wise, ARCS scholars honored in Chicago

The ARCS Chicago Annual Scholar Awards Luncheon in Chicago on Oct. 25 will honor Chancellor Phyllis M. Wise as ARCS Chicago’s Person of the Year and will introduce the first five UI recipients of the Chicago ARCS Scholar Award.

The ARCS Foundation (Achievement Rewards for College Scientists) was founded in 1958 by female philanthropists committed to advancing science in America. Toward this goal, the ARCS Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering and medical research.

The UI is now one of five academic partners of the Chicago ARCS chapter, joining the University of Chicago, the Illinois Institute of Technology, Loyola University and Northwestern University.

The UI students being honored: Michael Dorothy, aerospace engineering; Michelle Audrey Duennes, entomology; Mitchell James Minarick, agricultural and biological engineering; Nicholas Leo Naeger, entomology; and Sarah Marie Potts, crop sciences. The honor carries with it an unrestricted award of $10,000 per year per designated student.

For more information about the luncheon or to purchase a ticket, visit the ARCS Chicago website, http://go.illinois.edu/ARCS_Luncheon12.

Illini Union
One Book One Campus on Oct. 4

Journalist and editor Dan Gediman will present the One Book One Campus keynote address at 7 p.m. Oct. 4 in Illini Union Rooms A, B and C. The focus of this year’s program is the New York Times bestseller “This I Believe: The Personal Philosophies of Remarkable Men and Women.”

The lecture is free and open to the public. An informal reception and book signing will follow immediately after the lecture.

Gediman is the executive director of This I Believe, a nonprofit organization that engages people in writing and sharing stories that describe the core values that guide their daily lives. His work has been heard on NPR’s “All Things Considered,” “Morning Edition,” “Fresh Air,” “Marketplace” and “This American Life.”

Based on the NPR series of the same name, and inspired by the original 1950s radio series hosted by legendary journalist Edward R. Murrow, “This I Believe” is the first in a series of six collections edited by Gediman. It features 80 essays—from the famous to the previously unknown—completing the thought that begins the book’s title, “This I Believe.” The essayists include writer Isabel Allende, conductor-composer Leonard Bernstein, Microsoft founder Bill Gates and physicist Brian Greene, among others.

The One Book One Campus program, now in its eighth year, is sponsored by the Illini Union at the UI. “This I Believe” was chosen by Chancellor Phyllis M. Wise from several books selected by a committee composed of students, faculty and staff members.

The One Book One Campus program hopes to provide a shared experience for the campus community and the communities of Champaign and Urbana. While reading the same book, community members have the opportunity to engage in dialogue and explore various meaningful themes together.

For more information about the One Book One Campus keynote lecture or the One Book One Campus program at Illinois, visit union.illinois.edu/involvement/oboc.

Department of linguistics
MALT members to meet Oct. 5-6

The department of linguistics will host the 14th annual Midwest Association of Language Testers Conference, “Inferences and Actions in Language Testing,” Oct. 5 to 6 on campus. The conference is free to all UI faculty and staff members, visiting scholars and students. Registration is required.

To register or to view the proposed schedule, go to the conference website: http://go.illinois.edu/mwalt12/.

The plenary speaker is Paula Wilke, Michigan State University, who will address “Issues in Large-scale Placement Testing” at 11 a.m. Oct. 6 on the third floor of the

BRIEFS, CONTINUED FROM PAGE 12

Hundreds of UI veterinary students will host the annual College of Veterinary Medicine Open House from 10 a.m. to 4 p.m. Oct. 7 providing a behind-the-scenes look at the only veterinary college in the state.

More than 40 exhibits, demonstrations and hands-on activities, involving plenty of animals, will provide activities for all ages. For the first time, kids can bring their fuzzy toys for teddy bear repair from 11 a.m. to 3 p.m. Veterinary students will be on hand to patch up slightly injured stuffed animals.

The college’s Clinical Skills Learning Center, a key component of the veterinary curriculum, will house several of the exhibits. This facility provides a low-pressure environment for students to master clinical techniques in surgery, imaging, emergency medicine and other skills using animal manikins, simulations and state-of-the-art teaching equipment.

Aspiring veterinarians should attend the open house, as there will be a discussion on the admissions process. Attendees will learn about different career opportunities and continuing innovations to improve animal and human lives.

Open House is free and open to the public. For a list of exhibits, event information and directions, visit vetmed.illinois.edu/openhouse/ or call 217-333-2761. This event is for human visitors only.

Vet Med open house is Oct. 7

The ARCS Foundation (Achievement Rewards for College Scientists) is a nonprofit organization that engages people in writing and sharing stories that describe the core values that guide their daily lives. His work has been heard on NPR’s “All Things Considered,” “Morning Edition,” “Fresh Air,” “Marketplace” and “This American Life.”

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Sixteen authors to take part in Youth Literature Festival

By Sharita Forrest
News Editor

Celebrated authors of books for children and adults will share their enthusiasm for their craft in a series of events as part of the College of Education’s annual Youth Literature Festival, to be observed Oct. 4-6.

“Literature at the Heart of Our Lives” is the theme of this year’s festival. The event, now in its fifth year, celebrates the ways in which written works enrich peoples’ lives and promote reading as fun. Hands-on activities, performances and author presentations will be available for literature lovers of all ages to enjoy on Community Day, Oct. 6 at the I Hotel and Conference Center in Champaign.

“Much research tells us that there is a direct correlation between reading and success in today’s world,” said Mary Kalantzis, the dean of the college. “Our Youth Literature Festival brings 16 magnificent authors to our local communities to enthral and inspire our students. It is wonderful to see the intensive preparation by schools for these visits and the consequent bump in the borrowing of library books by students. Our day of festivities – involving public readings, activities, performances and author presentations – will be one of fun – brings together educators, parents, grandparents and many others to demonstrate just how much we value the power and joy of reading.”

This year’s participating authors will visit 58 schools and libraries in Champaign-Urbana and surrounding communities on the first two days of the festival to share their love of literature with area children through assemblies, book discussions, readings and writing workshops.

Chicago-based author Blue Balliett is among the 16 artists participating in the 2012 festival. Balliett’s best-selling books have been translated into more than 35 languages and garnered the Edgar Award and the Chicago Tribune Prize for Young Adult Fiction. Balliett’s fourth and most recent book is “The Danger Box,” a mystery set in a tiny town in Michigan with a plot that explores the nature of science and the special capabilities of people with physical disabilities.

Also participating this year:

- Acclaimed photographer and author Nic Bishop, a prolific artist who has more than 60 children’s books to his credit but began his career writing and producing photography for natural history books for adults. Educated as a biologist, Bishop has explored the remote cloud forests of New Guinea, survived ice avalanches in New Zealand and trekked the Gobi Desert of Mongolia. His books on spiders, tree kangaroos and tarantulas each won the American Library Association’s Robert F. Sibert Honor Award. Bishop’s numerous other honors include the Orbis Pictus Award and The Boston Globe-Horn Book Award.
- UI alumnus Nnedi Okorafor, a science-fiction/fantasy writer, playwright and essayist, whose works for adults and children explore many themes salient to her ancestral homeland of Nigeria, including death, myths and magic, and poverty in oil-rich regions. A professor of creative writing at Chicago State University, Okorafor has been the recipient of numerous awards, including the World Fantasy Award and the Kindred Award for her first adult novel, “Who Fears Death” (DAW Books, 2010).
- Poets Pat Mora and Greg Neri, three-time Emmy Award-winning comedy writer Bill Odenkirk, storytellers Joseph Bruchac and Dan Keating, and nature writers April Pulley Sayre and Jennifer Ward.

Author biographies and a complete schedule for Community Day, which will be 10 a.m.-3 p.m., is available online: http://youthlitfest.education.illinois.edu/. Admission and parking will be free at the I Hotel.

Community partners and sponsors of this year’s festival: Adams Outdoor Advertising, Busey Bank, Carle Foundation, Champaign-Urbana Mass Transit District, the Kiwanis Club of Champaign-Urbana, the News-Gazette and Siurr Limousines.

UI partners and sponsors: the College of Education, the department of special education and performing arts 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 2013-14 are due Oct. 9 and may be made online at http://cas.illinois.edu/online/. Letters of support are due Oct. 16. For more information, contact Masumi Iriye, 217-333-6729 or iriye@illinois.edu. Current research appointments for 2012-13 and faculty members’ projects are online at http://cas.illinois.edu/faculty/.
Michael Plewa, a professor emeritus of crop sciences, received the Environmental Mutagen Society’s Service Award at the society’s meeting in Bellevue, Wash. The award recognizes long-standing dedication and service to the society.

The society is dedicated to promoting critical scientific knowledge and research into the causes and consequences of damage to the genome and epigenome in order to inform and support national and international efforts to ensure a healthy, sustainable environment for future generations.

Two UI professors received the IEEE Sidney Fernbach Award from the Institute of Electrical and Electronics Engineers. The award was established in 1992 in memory of one of the pioneers in the development and application of high performance computers for the solution of large computational problems. A certificate and $2,000 are awarded for outstanding contributions in the application of high-performance computers using innovative approaches.

Sanjay Kale, a professor of computer science, was honored for his outstanding contributions to the development of widely used parallel software for large biomolecular systems simulation.

Klaus Schulten, a professor of physics, was recognized for his outstanding contributions to the development of widely used parallel software for large biomolecular systems simulation.

Ollie Watts Davis, a University Scholar and a professor of voice in the School of Music, received the Lifetime ACE (Arts, Culture and Education) Award from 40 North, an arts, culture and entertainment council in Champaign County. Davis was recognized for her tireless service as teacher and mentor for countless young people in the performing arts and her lifetime of achievements in music and teaching.

The program is dedicated to cultivating creativity in Champaign County.

Nathan Gunn, a professor of voice in the School of Music, has been appointed the director of the American Repertoire Council of the Opera Company of Philadelphia. The council began in June and is dedicated to commissioning and performing new American operas for 10 consecutive seasons.

Gunn, an internationally renowned lyric baritone, will work with the opera company on artistic planning, serve as artistic advisor to two composers in residence, and star in one of the four new operas already commissioned by the council – a work based on “Cold Mountain,” a bestselling novel by Charles Frazier.

Fred Hoxie, a professor of history, will be awarded the Western History Association’s American Indian History Lifetime Achievement Award at the association’s annual meeting next week. The award is in recognition of his many years of advancing the field of American Indian history, through publications, a commitment to helping Native and other students in the field, and through service that includes working with tribal communities. The association promotes the study of the North American West.

Earlier this month, the college honored the following faculty and staff members with excellence awards in various categories.

Dongwan Yoo, a professor of pathology, received the Pfizer Animal Health Award for Research Excellence, presented to a current faculty member who shows promise of attaining or has already attained national recognition.

Matt Stewart, a professor of veterinary clinical medicine, received the Dr. Gordon and Mrs. Helen Kruger All-Round Excellence Award. This is presented to the faculty member who demonstrates excellence in teaching, research and service.

Amber Labelle, a professor of veterinary clinical medicine, received the Dr. Gordon and Mrs. Helen Kruger Teaching Excellence Award in recognition of an instructor who presents material with enthusiasm, dedication, clarity and creativity.

Ralph Hamor, a clinical professor of veterinary clinical medicine, received the Dr. Gordon and Mrs. Helen Kruger Service Award for outstanding committee work, clinical service and continuing education.

Gee Lau, a professor of pathobiology, received the Dr. Gordon and Mrs. Helen Kruger Research Excellence Award in recognition of quality and quantity of publications, research awards and outside recognition of the nominee’s work.

Anne Barger, a professor of pathobiology, received the Dr. Erwin Small Pathobiology Teaching Award. This is presented to a current faculty member who shows promise of attaining or has already attained national recognition.

Steven Drake, the video producer for the Beckman Institute for Advanced Science and Technology, won a regional Emmy Award for his video, “Sculpting Proteins,” in the Informational/Instructional Feature category. The video features a unique art collaboration among UI physicist Klaus Schulten, UI chemist Dan Gunton; art professor Jacob Stanley, from DePauw University in Indiana; and German-American sculptor Julian Voss-Andreae, who is based in Portland, Ore. This is the second regional Emmy Drake has won.

Frank Lentz, a video producer in the Division of Intercollegiate Athletics, won the Emmy in the Sports: One-Time Special category. The video features a combined highlight of Illinois’ upset win over number 12 Maryland and the Illini’s victory against Indiana State.

Amber Labelle, a professor of voice in the School of Music, was honored for her outstanding contributions to the development of widely used parallel software for large biomolecular systems simulation.
Big and bold  Chancellor Phyllis M. Wise hosted a series of meetings across campus to learn what faculty and staff members and students deem to be the greatest challenges that will face society in the coming 20-50 years. This word cloud represents the six main themes from those discussions. Word clouds are a visual representation of the topics that were mentioned most frequently. The responses that were used to create this cloud will help formulate an academic business plan for the campus.

TOWN HALL, CONTINUED FROM PAGE 1
summer break with consultation of senate leaders, is an example of the importance of agility – especially as technology continues to drive how education is offered.

“We have to incorporate change as part of our DNA,” she said. “If we don’t manage change, change will manage us.”

Wise said several recent changes had improved the university’s ability to capitalize its research, including the establishment of “innovative partnerships” and programs designed to “build on the outstanding success we have seen in this area in the past.”

She said the addition of Peter Schiffer, the new vice chancellor for research, will only bolster the university’s reputation as a national research leader.

“He has immersed himself,” she said of Schiffer.

Wise said diversity statistics among staff members and students continue to improve, but that the university has a long way to go to consider itself fully representative of the community as a whole.

“This is not new and trends are all in the right direction,” she said, “but a faster pace is needed. The reality is that the population on campus still does not mirror the community around us. The more diverse the group is around that table, the better the solutions are.”

She announced a change in the name of the Office of Equal Opportunity and Access, which now will be called the Office of Diversity, Equity and Access to better reflect its mission.

“I realize that changing the name of the office will not lead automatically to changes in our actions; however, it does signal a new direction for our campus in the area of diversity,” she said. “Over the next few months, I will personally be engaged in working with a small team to aggressively advance issues of diversity on our campus.”

Wise said the university continues to attract stellar students, which means it must work even harder to serve them. She said diminishing student aid and rising tuition expenses continue to be daunting issues facing students – despite ongoing efforts to bridge that gap.

“Issues of affordability and access are increasingly undermining our competitive edge in attracting the top students,” she said.

Despite the challenges, Wise said the campus is looking at “a year of opportunity for Illinois. It is extremely exciting to think that we will get to see these ideas as they’re taking shape and being born.”