Trans fats hinder steps in blood flow regulation pathways

By Diane Yates
Life Sciences Editor

Partially hydrogenated vegetable oils in processed foods contain trans fatty acids that interfere with the regulation of blood flow. A new report reveals a new way in which these "trans fats" gum up the cellular machinery that keeps blood moving through arteries and veins.

In the August 2009 issue of the international journal Atherosclerosis, UI emeritus veterinary biosciences professor Fred Kummerow reports for the first time that trans fats interfere with more than one key enzyme in the regulation of blood flow.

Kummerow begins by describing the two main causes of heart disease – sudden blood clots in the coronary arteries, and atherosclerosis, the buildup of plaque in the arteries to the point where it interferes with blood flow.

"The arteries of someone who dies from atherosclerosis look like old scrub boards as a result of the formation of plaques," Kummerow said. "They look corrugated, and this plaque buildup continues to the point where it will stop blood flow."

Trans fats contribute to both of these causes of heart disease, Kummerow said.

Trans fats are made through hydrogenation, which involves bubbling hydrogen through hot vegetable oil, changing the arrangement of double bonds in the essential fatty acids in the oil and "saturating" the "unsaturated" carbon chain with hydrogen. Because double bonds are rigid, altering them can straighten out or twist fat molecules into new configurations that give the fats their special qualities, such as the lower melting point of margarine that makes it creamy at room temperature.

Kummerow, 94, has spent nearly six decades studying lipid biochemistry, and is a long-time advocate for a ban on partially hydrogenated fats in food.

While the body can use trans fats as a source of energy for maintenance and growth, Kummerow said, trans fats interfere with the body's ability to perform certain tasks critical to good health. Because these effects are less obvious, many researchers have missed the underlying pathologies that result from a diet that includes trans fats, he said.

Trans fats displace – and cannot replace – the essential fatty acids linoleic acid (omega-6) and linolenic acid (omega-3), which the body needs for a variety of functions, including blood flow regulation. Studies have shown that trans fats also increase low-density lipoproteins (LDLs) in the blood, a factor some believe contributes to heart disease.

Trans fats are associated with increased inflammation in the arteries. And trans fats have been found to change the composition of cell membranes, making them more leaky to calcium. Inflammation, high LDL cholesterol levels, and arteries that are the signature ingredients of atherosclerosis.

Trans fats also were shown to interfere with an enzyme that converts the essential fatty acid linoleic acid into arachidonic acid, which is needed for the production of prostacyclin (a blood-flow enhancer) and thromboxane (which regulates the formation of blood clots needed for wound healing). While some in the food oil industry believe this problem could be overcome simply by adding more linoleic acid to partial hydrogenation, Kummerow said, "I don't think so."

Trans fats are also associated with increased inflammation in the arteries, atherosclerosis, and diabetes. They may also contribute to some cancers, including breast cancer.

Kummerow is also the long-time advocate for a ban on partially hydrogenated fats in food. In 2004, he and his wife, Janet Kummerow, founded the American Institute for Cancer Research, which advocates for a ban on partially hydrogenated fats in foods.

"In the light-emitting transistor, the third terminal – the collector – effectively 'tilts' the charge and removes carriers with slower recombination lifetimes," said Holonyak, who also is a professor in the university’s Center for Advanced Study, one of the highest forms of campus recognition.

"As opposed to the charge 'pile-up' condition found in a normal diode, the dynamic 'tilted' charge flow condition in the transistor base is maintained with the collector in place," said Holonyak.

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Ahead of schedule

The campus is ahead of schedule in reducing energy consumption by 10 percent by FY 2010. The campus is nearing a 10 percent reduction in the past year.

Krammert Center

"Elmora: The Guitar Festival at Krammert" kicks off Krammert Center's 2009-10 season Sept. 10.

Inside Illinois

For Faculty and Staff, University of Illinois at Urbana-Champaign

Facing page: Milton Feng and Nick Holonyak have constructed a light-emitting transistor that has set a new record with a signal-processing modulation speed of 4.3 gigahertz.

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PAGE 8

In a pair of papers published in the June 15 issue of Applied Physics Letters, researchers at the UI and at UI licensees Quantum Electro Opto Systems in Melaka, Malaysia, report the fabrication and testing of the new high-speed light-emitting transistor and the new "tilted-charge" light-emitting diode.

Simple in design and construction, the tilted-charge light-emitting diode offers an attractive alternative for use in high-speed signal processing, optical communication systems and integrated optoelectronics," said Nick Holonyak, Jr., a John Bardeen Chair Professor of Electrical and Computer Engineering and Physics at Illinois, and a co-author of both papers.

The modulation speed of either a light-emitting diode or a light-emitting transistor is limited by the rate at which electrons and holes (the minus and plus charges – the carriers of current) recombine. The recombination lifetime is important in determining device speed.

With a usual "slow" recombination process, the speed of a light-emitting diode is limited to approximately 1.7 gigahertz, which corresponds to a carrier lifetime of 100 picoseconds. For more than 40 years, scientists thought breaking the 100-picosecond barrier was impossible.

Recombination speeds of less than 100 picoseconds are not readily achieved in light-emitting diodes because equal numbers of electrons and holes are injected into the active region to preserve charge neutrality, said Holonyak, who invented the first practical visible light-emitting diode more than 40 years ago.

These charges become stuck, stacked-up waiting to recombine, Holonyak said. To achieve high recombination speeds, an extremely high injection level and a very high charge population are required in light-emitting diodes. These conditions are not necessary in transistors, however.

Unlike a diode, a transistor does not store charge," said Milton Feng, the Holonyak Chair Professor of Electrical and Computer Engineering, and a co-author of the two papers. "Charges are delivered to the transistor’s quantum well active region, where they either recombine almost instantly, or they are kept moving on out of the device. The charges do not become stacked-up, waiting to recombine with their oppositely charged twins."

To increase the modulation speed of their light-emitting transistor, the researchers reduced the emitter size, increased the so-called collector thickness (the third terminal, and utilized a special internal common collector design. These changes resulted in a faster signal at a very low current level, and at low heat dissipation.

Having a "fast" recombination process, the modulation speed of the light-emitting transistor was measured at 4.3 gigahertz, which corresponds to a recombination lifetime of 37 picoseconds, well under the 100-picosecond barrier."
Governor names panel to investigate admissions process

By Christy Levy
UIC News

A news conference on the UIC campus June 10, Gov. Pat Quinn signed an executive order estab-
lishing an independent panel to examine UI admissions procedures.

UI President B. Joseph White later pledged the university’s full cooperation with the investigation.

The Admissions Review Commission, an independent group of seven appointees chosen by the governor, was created in re-

sponse to news reports that some students were admitted to the Urbana-Champaign campus based on clout, Quinn said at the news conference in Student Center East.

“ar two days to make the public sure that when someone is admitted to this institution, it’s done on their merit

and that politics and undue influence has no role,” Quinn said.

“I hold the University of Illinois in the deepest and highest regard. It’s very impor-
tant that the students, when they are admir-
ted, have full confidence that the process was fair.”

The commission will investigate claims of special treatment for prospective stu-

dents whose admissions was advocated by political officials, trustees, alumni and oth-

ers, with their names placed on a separate list called “Category I.”

“I am mandating complete and full co-

operation with the commission from every member of the university community,”

White said.

“The commission will have access to everybody and everything it needs to conduct its work.”

White said university counsel Thomas Bearrows will work with the commission in respon-
sing to its requests.

The commission will make recommenda-
tions for improvements in the university’s admissions procedures; a final report is due

by June 1.

“Transparency in admissions is a funda-

mental aspect of public trust,” he said. “It’s very important that the bottom line of this matter promptly and comprehensively.

“We all have a stake in the University of Illinois and this independent review is an opportu-

nity for questions and guarantee its rep-

utation as a center of higher learning and

achievement.”

White, a partner at the law firm of Mayer Brown and executive inspector general for the gov-

ernor’s office, and Maribeth Vander Weele, president of the corporate investment firm Vander Weele Group and former in-

spector general and chief of investigations for the state attorney general, will lead the commission.

White said because of the commission’s work, the university will not create its own task force on admissions, as he had an-

nounced June 1.

“However, each campus, academic unit and admissions office should prepare for the student admits.”

The university has suspended use of the Category I list until the review is complet-
ed and recommendations are considered, a spokesman said.

By Phil Cicola
News Editor

Robert Easter, the dean of the College of Agricultural, Con-
natural and Environmental Sci-
cences at the UI, has been named interim provost designate, pending approv-

al by the UI Board of Trustees at its July 22 meeting in Chicago.

Linda Katehi, the provost and vice chan-
cellor for academic affairs, will remain in

her position through mid-August, before as-

suming her new duties as chancellor at the

University of California at Davis.

Easter, also a professor of nutritional sci-
cences and of animal sciences, will then for-

ce to everybody and everything it needs to

A memorial service for

Leona R. Benner, 85, died June 7 at the Arthur

White Home, Arthur. She worked at the UI for

25 years, retiring in 1991 as a linen maid for

Housing Memorials: Alzheimer’s Associa-
tion or the Arthur Home.

Helen L. Knights, 94, died June 10 at Can-

terbury Ridge in Urbana. Knights worked at the UI for 33 years, retiring in 1977 as

an administrative secretary in the Graduate

School of Library and Information Science. William McMillan, 52, died May 30 at the Illinois Knights Templar Templer in Paxton.

He worked at the UI for nine years, retiring in 1975 as a storekeeper III with the Coordinat-
ed Science Lab. Memorials: Prairie Village

Village in Rantoul or the Illinois Knights Templar in Paxton.

John H. Padgett, 81, died Feb. 4 at her home in Tucson, Ariz. Padgett worked at the

UI for 11 years, retiring in 1985 as a li-

bary clerk II with the library.

G. Roland Peirce, 94, died May 20 in Fel-

cal, Calif. Peirce, a professor emeritus of

electrical engineering, retired from the UI

in 1973 after 35 years of service.

Barbara A. Stacy, 70, died June 5 at her

dughter’s home in Sadorus. Stacy was a

typing clerk III at the McKinley Health

Center, retiring in 1997 after 17 years at the university. Memorials: Shriners Hospital

or Carle Hospice.

Clifford J. Sudkamp, 91, died June 11 at

Lakeland Nursing Center, Effingham. He

worked at the UI for 31 years, retiring in

1976 as a steam distribution operator with

the Physical Plant. Memorials: St. Thomas

Church, Savoy. She worked as a secretary

at the UI from 1961 to 1972. A commemora-
tive service will be held at Illinois State Water Survey.

Alice Wallner, 83, died June 10 at the Carle Arbours, Savoy. She worked as a secretary for the Illinois State Water Survey. Memo-

rials: St. John Lutheran Church of Cham-
paign or Provena Covenant Hospice.

Memorial service

A memorial service for Robert Eugene

Hagen will begin at 7 p.m. June 18 at Lax Memorial Chapel, 1551 E. Grove St., Rant-

oul. Friends and family may gather an hour before the service.

Hagen taught at the University of Illinois at Country Health Nursing Home, Gifford.

He worked for the university in several posi-

tions, including a storekeeper with Purchas-

ing and a groundskeeper and construction laborer with the Physical Plant.

Inside Illinois

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Panel review

Gov. Pat Quinn announces his appointment of the Admissions Review Commission, an independent panel of seven people that will examine UI admissions procedures at the UI and investigate alleged claims of special treatment for prospective students on the “Category I” list. Quinn announced his signing of the executive order that created the panel June 10 in Student Center East at UIC.

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Debbie Lanter, office administrator for the School of Integrative Biology, has worked at the UI for nearly 32 years.

Lanter started as a secretary if in the purchasing division in 1976. A year and a half later, she moved to what was then the department of agronomy and was promoted to secretary II. After taking a year and a half off, she returned to campus as extra help in 1980 in the department of business administration in the College of Business. She eventually became the department’s staff secretary, and worked there for more than 26 years before moving to integrative biology in January 2007.

Lanter grew up in Allerton, a rural town of about 300 people near Homer. She and her husband, Randy, now make their home in Savoy. She has two daughters – Nicole, 21, a schoolteacher; and Heidi, 24, an office manager – and a grandson on the way.

Tell me about your job.

I do a little bit of everything. I work on the timetable, scheduling all the integrative biology courses with the associate director. I enter all the courses online, set enrollments and submit special requests for classrooms. I prepare the final-exam schedule and monitor grade collection for all integrative biology courses. That keeps me pretty busy, because you have to plan far in advance.

During the fall and spring semesters, I schedule seminars and speakers, which means that I plan all their travel arrangements and accommodations as well.

I process reimbursement vouchers for speakers, faculty members and graduate students; order IES (instructor and teacher evaluation system) forms for faculty and teaching assistants; submit textbook orders; and type, proof and copy all of the course materials and manuals for our core courses.

I also handle a lot of the correspondence that comes through the office and all the with questions.

What are you working on now?

Right now is freshman orientation time, so we have six weeks during which we have to monitor the courses very closely to make sure there’s space for students to register.

What’s the most enjoyable aspect of your job?

I love working with students. I really do. It’s fun, I also like putting the timetable together. It’s like a big puzzle that I get to put it together. When it’s finished, printed and published on the Web, it’s like, “Yes! It worked!” It’s such a huge accomplishment because all the pieces fell into place.

What’s the most challenging aspect of your job?

Getting everyone’s schedules to mesh when we’re recruiting a candidate. That usually happens during the semester, when everyone is at their busiest with teaching and research, so that just makes it more difficult to find a time that works for all parties.

I usually don’t see things as challenges; I see them as opportunities to help. I’ve always given 110 percent in my job, and I strongly believe there isn’t a challenge that I can’t find an answer to or a problem I can’t help to solve. I feel like I should at least be able to point them in the right direction – to the person who can solve their problem.

What was it like moving from business to biology after such a long tenure there?

It was a challenge learning all the new biology-related courses. I had been in business for so long, I had taken them like the back of my hand. But I’m catching on and learning lots of interesting things.

That, and the business school doesn’t have a cockroach lab! I visited it and survived, although I didn’t get too close to them.

What do you like to do off the job?

My husband and I like to travel a lot. Las Vegas and Lake Tahoe are two of our favorite destinations. Tahoe is absolutely gorgeous; I would go back there every year if I could. We go to St. Louis quite a bit to go to Cardinals games and just to get away. My husband is a big Cardinals fan. I find myself following the Cardinals and the Illini more and more now.

I also love to read, cross-stitch, crochet and spend time with the family. In a couple of weeks, my new hobby will be spending time with my first grandchild and spoiling him rotten.

Interviewed by Phil Ciciora, News Editor
The Urbana campus is ahead of schedule in achieving Chancellor Richard Herman’s goal of reducing energy consumption by 10 percent by Fiscal Year 2010.

The Lighting Retrofit Project, which entails replacing more than 80,000 old fixtures and ballasts in the 44 buildings that use the most energy. About two dozen buildings were retrofitted including the project’s first phase, and nine more buildings – including Chemistry Annex, Roger Adams Lab and the Biological Sciences building – will be retrofitted during the second phase, expected to begin by July 1 and run through December.

The $4.2 million project was funded in part by a $1.2 million grant from the Illinois Clean Energy Community Foundation and by the Academic Facilities Maintenance Fund, which pays the employees. The campus has applied for additional funding of $800,000 from the Illinois Energy Community Foundation.

“Now that the campus Retrofit Lighting project is expected to save about 55 million – or 12.8 billion kilowatt-hours – annually, based on 12-hour days. During the summer, 250 occupancy sensors, which turn off lights when rooms are unoccupied for 30 minutes, are being installed in many classrooms. The sensors can reduce electricity usage by 30-50 percent, but they are costly to install all over in our buildings, which have multiple circuits and switches, so ‘you have to be fairly judicious about where to put them,’ Ruprecht said.

Thus far, sensors have been installed in classrooms in the For- man Program from the Illinois Clean Energy Community Foundation and by the Academic Facilities Maintenance Fund, which pays the employees. The campus has applied for additional funding of $800,000 from the Illinois Energy Community Foundation.

What’s watt

Terry Ruprecht, director of energy conservation at Facilities and Services, is shown with a power meter. Replacing outdated building systems with more energy efficient equipment and promoting personal and unit-level responsibility for conservation helped reduce energy consumption on campus by more than 9 percent during the first 10 months of the current fiscal year, and is expected to save about 55 million in energy costs.

Assistant Editor
By Sharita Forrest

Campus ahead of goals in reducing energy consumption

Giving garden

Suhail Barot, a graduate student in electrical and computer engineering and chair of the Student Sustainability Committee, examines prairie grass seedling from a flat in preparation for planting. The committee funded the purchase of the seedlings for the installation of a sustainable prairie garden at the Veterinary Medicine Basic Sciences Building. On June 6, volunteers from campus and the community planted the seedlings, which will provide a habitat for native insect and vertebrate species and a teaching tool on prairie flora.

Units implement conservation programs to use less energy

By Sharita Forrest

Assistant Editor

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By Sharita Forrest

Assistant Editor
Are new lie-detection methods better than old ones?  

By Melissa Mitchell  
News Editor  

I 

In today’s forensically sophisticated, “CSI”-influenced world, polygraphy—which bases its results on functions of the autonomic nervous system—is increasingly dismissed as dated and unreliable. Rapidly replacing older truth-seeking technologies are new brain-based techniques such as functional magnetic resonance imaging (fMRI), and the electroencephalography (EEG)-based technology known as Brain Fingerprinting®.

“Functional magnetic resonance imaging and Brain Fingerprinting® produce models of the brain,” says Melissa Littlefield, a professor of English and of kinesthesiology and community health, in an article published in the May issue of the journal Science, Technology & Human Values.

“Besides describing the brain and its functions, fMRI and Brain Fingerprinting® produce models of the brain,” says Melissa Littlefield, a professor of English and of kinesthesiology and community health, in an article published in the May issue of the journal Science, Technology & Human Values.

Further, she said, “they share an assumption that truth and deception are somehow connected — that is, and their ‘interesting relationships with fiction, in particular Sherlock Holmes and ‘CSI.’”

“Without these stories, I think you’d have a much harder time trying to get the public to identify with things like forensics or fMRI or lie detection,” she said.

This ‘9/11’ kind of hype has allowed and fueled the desire both in scientists and the media, and in popular culture, to try to find something to hold onto for security’s sake. But I don’t think it’s really there,” she said. –

Macroscopic quantum tunneling detected in nanowires  

By Phil Ciciora  
News Editor  

A team of researchers at the UI has demonstrated that, counter to classical Newtonian mechanics, a nanonear collection of superconducting electrons in an ultrathin superconductor can be “uncoupled” from a state with a higher electrical current to one with a notably lower current, providing clear evidence of macroscopic quantum tunneling.

Physics professor Alexey Bezryadin and graduate student Mitrabhanu Sahu, who performed the bulk of the measurements. Their research was published on the Web site of the journal Nature Physics on May 17.

“Functional magnetic resonance imaging and Brain Fingerprinting® have been hailed as the next, best technologies for lie detection in America,” said UI professor Melissa Littlefield.

“Truth or consequences? Functional magnetic resonance imaging and Brain Fingerprinting® have been hailed as the next, best technologies for lie detection in America,” said UI professor Melissa Littlefield.

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According to Bezryadin, who is also a researcher at the Beckman Institute for Advanced Science and Technology, the small superconducting wires are able to tunnel as a phase change from a state with a higher electrical current to one with a notably lower current, providing clear evidence of the phenomenon of macroscopic quantum tunneling.

“Quantum leap” Physics professors Alexey Bezryadin, center, and Paul Goldbart, right, with graduate student Mitrabhanu Sahu who performed the bulk of the measurements. Their research has demonstrated that an entire collection of superconducting electrons in an ultrathin superconducting wire is able to tunnel as a phase change from a state with a higher electrical current to one with a notably lower current, providing clear evidence of the phenomenon of macroscopic quantum tunneling.

“Quantum leap” Physics professors Alexey Bezryadin, center, and Paul Goldbart, right, with graduate student Mitrabhanu Sahu who performed the bulk of the measurements. Their research has demonstrated that an entire collection of superconducting electrons in an ultrathin superconducting wire is able to tunnel as a phase change from a state with a higher electrical current to one with a notably lower current, providing clear evidence of the phenomenon of macroscopic quantum tunneling.

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Fiscal Year 2009-10
Campus holiday schedule announced

Urbana campus holidays for the fiscal year 2009-10:

2009
July 3: Independence Day
Sept. 7: Labor Day
Nov. 26: Thanksgiving Day
Nov. 27: Day after Thanksgiving
Dec. 24: Christmas Eve (half gift day/half excused)*
Dec. 25: Christmas Day
Dec. 28:30: Reduced-service Day**
Dec. 31: New Year’s Eve

2010
Jan. 1: New Year’s Day
Jan. 18: Martin Luther King Jr. Day
May 31: Memorial Day

**Dec. 24 is a one-half gift day from the chancellor and therefore the university will not be closed; employees may exercise the use of benefits.

*Staff employees who are required to work any part of this day will be compensated in accordance with the University of Illinois’ policy for gift days.

**Dec. 28-30 are reduced-service days. As in past years, the University will operate as scheduled for most employee workdays. Additional information about these reduced-service days will be communicated this year closer to the holiday period.

Two floating holidays can be taken anytime during this fiscal year; however, the scheduling of these holidays is subject to departmental approval.

Five-Day Piano Institute offers classes, recitals, gala concert

By Melissa Mitchell
Art Editor
On the Web: krannertcenter.com

A "key" annual event on the UI campus will take place this summer June 28 through July 2.

The Summer Piano Institute, now in its third year, attracts students from the university community and from throughout the state. Also integral to the institute is a series of nightly recitals, performed primarily by piano faculty from the UI School of Music. The institute concludes with a gala concert featuring this year’s enrolled students.

The institute was originated in 2007 by Swandunlmad Professor of Piano Ian Hobson, who is well known to local concert audiences as an excellent pianist and conductor of Sinfonia da Camera, said Edward Ruth, associate director of the music school at Illinois.

This year’s featured performers:

■ June 28, UI piano professor William Heiles, who will play works by Schumann and Ravel.

■ June 29, Rochelle Sennet, the newest member of the Illinois piano faculty and a winner of the Krannert Debut Artist Award. She will perform pieces by Liszt and John Corigliano.

■ June 30, returning guest pianist Timothy Ehlen, who specializes in music of the classical and early romantic eras in Vienna. He will perform compositions by Beethoven and Schubert.

■ July 1, institute founder Hobson will perform Mussorgsky’s “Pictures at an Exhibition,” along with selections by Chopin.

■ July 2, gala performance highlighting the talent of institute participants. All performances begin at 7:30 p.m. in Foellinger Great Hall, Krannert Center for the Performing Arts. Tickets — $15 for adults, $10 for senior citizens and $5 for young people — are available through the center’s ticket office or online.

Ruth said a reduced price is available for piano-music enthusiasts wishing to purchase tickets for the entire series: “Five concerts for the price of four.”

Guitar festival kicks off Krannert Center’s 2009-10 season

Opening night for the 2009-10 Martineau Season on Sept. 10 at the UI’s Krannert Center for the Performing Arts is something of a two-for-one this year. This year, the event doubles as the kick-off for the center’s recently renamed, third biennial guitar festival.

“Ellnora: The Guitar Festival at Krannert” is the new name for the three-day festival that is designed to rock audiences and take the clock with concerts and other activities. Featured artists will be Chicha Libre, Junior Brown, the Derek Trucks Band and the Frank Vignola Trio.

According to a Krannert Center news release, a key aspect of Ellnora Krannt’s vision for the facility was her “captivating plan to utilize the central lobby as a crossroads for audiences, artist, academics and community members to meet, mix and mingle in celebration of the arts.”

As in 2005 and 2007, this year’s globally flavored festival was organized by Krannert director Mike Ross and his staff in collaboration with artistic advisor David Spelman founder/director of the New York Guitar Festival and Adelaide International Guitar Festival in South Australia.

The event will feature more than 30 guitarists, scores of musical collaborators, the return of the John Lennon Educational Tour Bus, a Guitar Hero gaming station and a variety of events planned to engage the public — including 11 free performances.

The diverse line-up — which allows audiences to sample nearly every conceivable contemporary musical genre, from rock and folk to jazz, blues and bluegrass — includes Am DiFranco; the Keb’ Mo’ Band; “Bill Fisol’s Disfarmer Project” — featuring hometown bass hero Viktor Krauss; the National; The Jerry Douglas Band; and Dan Zanes & Friends.

In addition to the guitar fest, the 2009-10 season at Krannert will feature performer s rooted in musical, dance, theatrical and other artistic genres representing the incredible breadth of cultural traditions around the world — from Indian raga, Yiddish hip hop and Russian ballet to Italian arias, contemporary opera and urban percussion. The entertainers hail from near and far, and in some instances, near and far will take the stage together. For example, the School of Music’s own Nathan and Julie Gunn will perform with Metropolitan Opera star Yvonne Gonzales Redman, while its quartet-in-residence, Pacifica Quartet, will perform with the Orchestra de Sao Paulo.

The center also will host the fifth annual Pygmalion Music Festival’s headliner Iron and Wine and a free Afterglow event with Ra Ra Riot. Other highlights include a performance by musical team of Marvin Ham- lisch and Michael Feinstein, who’ll present a nostalgic tour of the Great American Songbook; dancer-illusionists MOMIX; and multimedia wizard Mikel House, who will debut his work “Gravity Radio.”

Details regarding the entire season, including ticket information, also are available on the center’s Web site.
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June 18 to July 5

Much of this information is drawn from the online Campus Calendars on the UI Web site at http://illinois.edu/find/calendars.html. Other calendar entries should be sent 15 days before the desired publication date to insideil@uiuc.edu. More information is available from Marty Yealey at 333-1085

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calendar

of events

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June 18, 2009

Insidelninois
Stimulus package provided hope for economy

By Jan Dennis
Business & Law Editor

Without government’s massive stimulus package, the U.S. economy could have spiraled into an epic collapse rivaling the Great Depression, a UI economist says.

Along with $787 billion to jump-start the sour economy, the stimulus package also provided an intangible that is as good as currency—a glimmer of hope, said Hadi Salehi Esfahani, an economics professor and former economic policy researcher for the World Bank.

“In economics, expectations are almost everything,” he said. “The picture of the future that we have in mind drives all of our spending decisions. Fear curtails spending, hope loosens it up. This stimulus package is providing hope and, in my view, has been managed very well given the circumstances.”

Based on hopes buoyed by the stimulus package, many companies hoarded workers rather than laying them off, preventing job losses that could easily have pushed unemployment much higher—perhaps to 20 percent—more than double the current rate, Esfahani said.

“Companies kept workers based on expectations that the recession would be short,” he said. “If they thought it was going to be long, they would have let workers go, and the downturn would have been much longer and deeper.”

Esfahani says the recession appears to be bottoming out, based on indicators such as housing sales, which are edging up in many cities, and rising consumer confidence. Commodity prices surged an average of almost 20 percent in May—the biggest monthly increase in decades—signaling that investors expect demand and production will soon rise.

Growing signs of inflation also will drive up spending, creating more demand for products and pumping more money into the economy, said Esfahani, a panelist for a June 15 economic forum in downtown Chicago who also appeared June 16 on “First Business,” a nationally syndicated television program focusing on markets and investments.

He predicts the lingering economic downturn will level off through the end of the year, followed by a slow rebound beginning in early 2010.

“It’s not going to be a classic V-shaped rebound, jumping right back up,” Esfahani said. “But I don’t think it’s going to go down a whole lot further. A little bit up, a little bit down for the next six months, then a rebound.”

Oil prices that have jumped from $40 nearly $70 a barrel are another positive indicator, signaling that investors think production increases loom that will drive up energy demand and transportation, he said. Rising oil costs also could fuel inflation, sparking more spending.

But Esfahani warns that oil prices could impede recovery if they rise too much, too soon. “If the price goes over $100, it could start choking recovery and we could have a period of stagnation, where inflation rises so much that people feel poorer so they spend less,” he said. “It’s a danger, but I doubt it’s going to be the case.”

The economy likely will fully rebound more slowly than historical averages because the current downturn is deeper than most, said Esfahani, the director of the UI Center for South Asian and Middle Eastern Studies.

“But in three years, the economy is going to be significantly beyond where it was two years ago,” Esfahani said. “And that has everything to do with our capability as human beings. There are more of us and we’re constantly discovering new things, new ways to do things. And whatever we discover is going to be put to good use.”

Trans fats, CONTINUED FROM PAGE 1

Partially hydrogenated fats, in 2007 Kummerow’s team reported that extra linoleic acid did not overcome the problem.

“Trans fats inhibited the synthesis of arachidonic acid from linoleic acid, even when there was plenty of linoleic acid available,” he said.

The new study reports that in addition to interfering with the production of arachidonic acid from linoleic acid, trans fats also reduce the amount of prostacyclin needed to keep blood flowing. Thus blood clots may more easily develop, and sudden death is possible.

According to the American Heart Association, each year more than 330,000 people in the U.S. die from coronary heart disease before reaching a hospital or while in an emergency room. Most of those deaths are the result of sudden cardiac arrest, the Heart Association reports.

“This is the first time that trans fatty acids have been shown to interfere with yet another part of the blood-flow process,” Kummerow said. This study adds another piece of evidence to a long list that points to trans fats as significant contributors to heart disease, he said.

Kummerow believes the U.S. Food and Drug Administration’s new requirement (begun in 2006) that trans fats be included on food labels is inadequate and misleading. Anything less than one-half gram of trans fats per serving can be listed as zero grams, Kummerow said, so people are often getting the mistaken impression that their food is trans-fat-free.

“Go to the grocery store and compare the labels on the margarines,” he said. “Some of them say zero trans fat. That’s not true. Anything with partially hydrogenated oils in it contains trans fat.”

“Partially hydrogenated fats can be made trans fat-free,” Kummerow said. “The industry would be helped by an FDA ban on trans fat that would save labeling costs, medical costs and lives.”