**Music Performance**

**Down on ‘Jazz Street’**

Eastman students play to international audiences in Rochester’s ninth annual jazz festival.

The 162,000 jazz aficionados who filled “Jazz Street”—as the area near the Eastman School was known during this year’s Xerox Rochester International Jazz Festival—could pick from a cast of big names, including Jeff Beck, Herbie Hancock, and Gladys Knight. But fans could also hear many Eastman students among the 1,000 or so artists.

The lineup featured guitarists and Downbeat award winners Graham Keir ’10E and Gabe Condon ’13E. Accompanying Keir was Trio Slaye—pianist Chris Ziemba ’08E, bassist Dave Baron ’10E, and drummer Kevin McDonald ’10E. Joining Condon were drummer Jeff Krol ’13E, bassist Matt Krol ’13E, doctoral pianist Nick Weiser, saxophonist Ted Taforo ’12E, and doctoral trumpeter Mike Van Bebber.

Also playing well-received sets were members of The Po’ Boys Brass Band—trombonists Erik Jacobs ’11E, Chris Van Hof ’08E (MM), Nick Finzer ’09E, Evan Dobbins ’94E (MM), and T. J. Ricer ’10E (DMA), drummer Chris Teal ’09E (MM), and guitarist Mike Frederick ’09E (MM).

And Saxophonist Will Cleary ’10E (MM) took the stage with Van Bebber, Weiser, McDonald, and bassist Kyle Vock ’10E (MM).

At a concert featuring saxophonist Dave Glasser ’84E, ’86E (MM) with the Eastman Jazz Ensemble under the direction of Eastman professor Bill Dobbins, the jazz festival and the Eastman School presented this year’s jazz scholarships to saxophonist Erik Stabnaau of Brighton, N.Y., and guitarist Alex Patrick of Penfield, NY.

In addition to their own performances, Eastman faculty led high schoolers in a jam session that featured guitarist Bob Sneider, pianist Paul Hofmann, bassist Jeff Campbell, and drummer Rich Thompson.

For more about the festival, visit www.rochesterjazz.com.

**CENTER STAGE:** Trio Slaye, featuring pianist Chris Ziemba ’08E, bassist Dave Baron ’10E, and drummer Kevin McDonald ’10E, performed during the jazz festival.
PARTING ADVICE: “I really believe if you help others, give credit to others, and live with humility, you are a success,” Danny Wegman, the CEO of his family’s grocery store chain, told graduates of the School of Arts and Sciences and the Hajim School of Engineering in what he described as “counterintuitive” advice that has served him and his company well. Wegman, a University trustee, received the Eastman Medal during the College ceremony, one of several invited guests who helped congratulate members of the Class of 2010 during this spring’s commencement season. For more of the sights and sounds of commencement, visit www.rochester.edu/commencement/2010.

BIG DAY: Wegmans CEO Danny Wegman (above) addresses the graduates after receiving the Eastman Medal during the College ceremony; nursing students Danielle Ambeau ’10N, Aundrea Soong ’10N, and Anna Asiama ’10N (top) get ready for their ceremony.
DEGREE DAYS: New Eastman graduates Lauren Yu ’10E, Gregory Tompkins ’10E, and Stephanie Romanuk ’10E (above) celebrate with Molly Werts ’11E; Hajim School Dean Rob Clark presents Ed Hajim ’58, board chairman (left), with a Hajim School degree. The school was formally dedicated in Hajim’s honor last fall.

IT’S OFFICIAL: Melanie Green ’10M (MD) (above) gets a kiss from her grandmother, Joyce Green, after the MD ceremony; new graduates of the School of Arts and Sciences and the Hajim School (left) launch into the wave after their degrees are conferred.
STUDENT RESEARCH

Graffiti Gardener

URBAN ART: Dan Brooks ’10 was so intrigued by the “graffiti gardens” of Prague during a semester abroad in the Czech Republic that when he returned to the University he embarked on an ethnographic study of graffiti in Rochester. The anthropology and philosophy major from Tabernacle, N.J., used funds from an Anthropology Undergraduate Research Grant to explore the history and culture of Rochester graffiti, focusing on FUA, the city’s most established graffiti crew. “You could stare at it for hours,” Brooks says of the group’s work. “At least I could.”
Linguistics

Project Maps Native Languages—Before They Disappear

What is the sound of a language that’s no longer spoken? Rochester linguist Joyce McDonough doesn’t want to wait to find out.

Thanks to a two-year grant from the National Science Foundation, she and her research team are developing an online speech atlas of endangered native languages of the Mackenzie River Basin, a vast and sparsely populated region of northwestern Canada. The goal is to help preserve linguist diversity and help native communities hold onto their languages.

“Language for a community is like a second skin,” says McDonough, an associate professor of linguistics and brain and cognitive sciences. “It’s who they are. It’s their source of identity. And it carries all of their cultural knowledge. This is especially true in minority cultures or oral cultures, where there is no body of knowledge that exists outside the speakers of the language. So when the language disappears, that knowledge disappears.”

The atlas will focus on the sound systems of the Mackenzie Basin’s Athabaskan—or as speakers prefer, Dene—languages. Spoken from Alaska to the Rio Grande, the systems constitute the largest and most geographically widespread language family of native North America. Envisioned as an online site for sharing information, research, and educational resources between the Canadian Indigenous Language and Literacy Development Institute and the indigenous communities, the site will provide geotagged links to individual Dene-speaking communities. It will also provide examples and descriptions from each community, demonstrating sounds spoken by native speakers.

“Heritage languages are under considerable socioeconomic pressure from the English and French speaking overculture” in northwestern Canada, McDonough says. “Fewer and fewer native North Americans are becoming fluent in their heritage tongues, and those who are fluent or want to learn their languages face increasingly reduced opportunities to speak and learn in their tongue, a situation that undermines the stability of these communities and their cultural knowledge.”

“This Web site,” she says, “can be critical, too, to those interested in preserving linguistic diversity and for helping communities hold on to their native languages before they vanish.”

—Susan Hagen
In Rev

CITATIONS

Research Notes

MULTIPLE BRAIN REGIONS ARE WIRED FOR LANGUAGE
There’s no single advanced area of the human brain that gives it language capabilities above and beyond those of other animal species. That’s according to a Rochester study of American Sign Language led by Elissa Newport, the George Eastman Professor and chair of brain and cognitive sciences; Ted Supalla, an associate professor of brain and cognitive sciences, linguistics, and ASL; and Daphne Bavelier, a professor of brain and cognitive sciences and radiology. In a report published in the journal Proceedings of the National Academies of Science, the team found that humans rely on several regions of the brain in order to make sense of sentences, depending on the type of grammar used.

POPULAR AUTISM DIET DOESN’T DEMONSTRATE BEHAVIORAL IMPROVEMENT
A popular belief that specific dietary changes can improve the symptoms of children with autism wasn’t supported by a tightly controlled Rochester study, which found that eliminating gluten and casein from the diets of children with autism had no impact on behavior, sleep, or bowel patterns. The study—led by Susan Hyman, an associate professor of pediatrics, and presented at the International Meeting for Autism Research in May—is the most controlled diet research in autism to date.

ROCHESTER TEAM ADVANCES UNDERSTANDING OF DEADLY MALARIA
Rochester scientists are making strides against cerebral malaria, a fatal form of the disease that can ravage children’s brains and is often difficult to treat. New research points to platelets as a source of inflammation, leading to obstruction of blood vessels and causing damage similar to a stroke. Led by Craig Morrell, an assistant professor in the Aab Cardiovascular Research Institute, and published in the online journal PLoS One, the research suggests an effective treatment for the disease may involve targeting platelets.

ENGINEERING

Driven to Succeed
ROAD WORK: Dustin Canzonieri ’11, a mechanical engineering major from Plainview, N.Y., and other members of the University’s Society for Automotive Engineers demonstrated their engineering—and driving—skills with strong finishes this spring during the national society’s Baja car season. The Hajim School team placed 36th out of 89 teams at the Baja Carolina competition, hosted by Clemson University, and the team was 23rd out of 70 at the Rochester World Challenge, hosted by RIT. Cars in the competition are judged on design, cost, acceleration, and other factors.
In Deep Water

What does the BP oil spill mean for consumers and for the nation’s energy policy?

As the fallout from the BP oil spill splashed into the halls of Congress early this summer, we asked a few faculty experts for their analyses.

Mark Zupan
Dean of the Simon School and
a professor of economics and public policy

In the short run, there’ll be very little impact on gas prices because there wasn’t the expectation that this oil would be hitting the market for a while.

The risks of something like this spill happening grow over time as oil becomes harder to find. When you push the envelope, you get greater risks. It also looks, though, like this incident involved basic complacency and not taking the rules seriously enough.

There are opportunities to learn from what has happened—we learn by doing. We may conclude that there are costs we need to factor into oil production—for example, there was no second rig on hand in this case, and that might have made a difference—things we need to pay for as backup insurance.

The spill is likely to change how we approach our liability laws and our regulatory policies. If companies aren’t fully liable for their costs, they end up running greater risks. When regulatory rules say you’re only liable up to $75 million—the current liability cap for the oil spill—people act on that.

If energy prices move to $150 a barrel, the issues become much more real for people, because we’re going to have to figure in the environmental component into the cost of procuring this oil. And as an economist, I say the best way of getting people to become aware of that cost is market forces. We—not just Americans, but people around the world—have to make choices about where we live, what we drive, and how far we’re going to commute.

Living day to day in contact with students and alumni, I’m very optimistic. I see ideas and passions percolate about how to solve these problems, and that gives me great hope.

George Cook
Executive Professor
of Business Administration

Firms facing a crisis like BP’s must take a proactive posture right from the beginning. A delayed, reactive approach doesn’t work today. All major companies should have a contingency plan on the shelf, ready to deploy the minute a disaster happens.

It’s a given that BP will be facing a multitude of problems as a result of the Gulf oil spill, which President Obama has called “an unprecedented environmental disaster.” Undoubtedly it will hurt future drilling—new leases are granted by the government—and that could impact future gasoline supply for the U.S. The overall environmental damage is huge, affecting wildlife, game
COMMUNITY CONNECTIONS

‘Knowledge Base’

Report highlights the University as an example of ‘knowledge-based’ economic shift.

By Kathleen McGarvey

THE UNIVERSITY IS THE SIXTH-LARGEST private employer in New York state and “the leader in the transition of Rochester’s economy,” according to a new report from the Center for Governmental Research, a nonprofit public policy agency based in up-state New York.

Employment growth has placed the University—which has been the top employer in the region for several years—among the largest private employers in New York, behind only the Presbyterian Healthcare System in New York City and national corporate giants Walmart, Citigroup, IBM, and JP Morgan Chase.

“One of the central goals of this institution is to provide a foundation—through education, culture, science, and medicine—for future economic growth in Rochester and beyond,” says President Joel Seligman.

The University is responsible for approximately 8.8 percent of the local labor force, providing some 47,000 jobs and $2.3 billion in wages in the region, the report notes.

Such economic impact puts Rochester in the company of other private research universities: the University of Southern California is the top private employer in the city of Los Angeles, as is the University of Pennsylvania in the city of Philadelphia and Johns Hopkins University in the state of Maryland.

“When the past several decades, our state has evolved increasingly to a knowledge-based economy in which by 2009 five of the largest 10 employers in New York either are universities, health centers, or both,” Seligman said in his Garden Party speech in May.

“A key to the University’s growth has been our focus on innovation,” he noted. “During the past eight years, we have been ranked as one of the top 10 universities in the country in terms of patent royalties—an extraordinary tribute to the talents of our faculty.”

The center’s new report calculated the economic impact of the University using two methods. A more conservative formula, called the traded sector, assumed that certain functions of the University—primarily those related to health care—would continue to be performed in the community even if the University did not exist. The second formula—called the local and traded sector combined—calculated the impact of all University activities.

“Education and health care have become key drivers of local and regional economic growth throughout the United States,” according to the report. “The increasing sophistication of medical science, rising affluence, and the aging of the population all contribute to the growing importance of the health sector.”

“We wanted to put the University’s role as a major employer in context, which is what led us to construct a list of the top private employers in the state,” says Scott Sitting, a project manager at the center and coauthor of the Rochester study.

“Health care and higher education is the largest sector represented on the list with nearly twice the employment as retail, which came in number two,” says Kent Gardner, the president of the center and a coauthor of the study.

According to a report commissioned by the Associated Medical Schools of New York, academic medical centers nationwide contributed more than $500 billion to the U.S. economy in 2008—approximately 3.6 percent of the country’s total economy.

And New York state plays a critical role in that economic impact: Its academic medical institutions are responsible for almost 14 percent of the economic impact of all American academic medical centers, according to the association.

The new Rochester report also noted that the University has several major expansion projects under way, including the Clinical and Translational Science Building, a project to increase the number of beds at Strong Memorial Hospital, the renovation and expansion of the Eastman School, plans for a Warner School building, and the development of a college town on University-owned land on Mt. Hope Avenue.

For more about the study, visit the center’s Web site at www.cgr.org.
IT’S NOT NEWS TO MOTHERS THAT PREGNANCY can be stressful—and recent studies suggesting that maternal stress can be bad for a baby’s cognitive development have given moms-to-be yet one more thing to worry about.

But there’s reassurance for parents in a new study led by Thomas O’Connor, a professor of psychiatry and psychology. The research, published in the journal *Biological Psychiatry*, suggests that the negative link between stress and impaired cognition disappears almost entirely if the mother or another caregiver forges a secure connection with the baby.

“This is such refreshing news for mothers,” O’Connor says. “There’s already so much for mothers to be careful of and concerned about. It’s helpful to learn that sensitive care goes some way toward buffering children from the adverse effects of early stress exposure, even in utero.”

The study—conducted by O’Connor and his colleagues at the Medical Center and at Imperial College in London—represents the first direct human evidence that elevated levels of the stress hormone cortisol may be a factor in children’s later cognitive development.

“Our results shape the argument that fetal exposure to cortisol—which may in part be controlled by the mother’s stress level—and early caregiving experience combine to influence a child’s neurodevelopment,” O’Connor says. “If future studies confirm these findings, we’ll need to not only engineer ways to reduce stress in pregnancy, but we’ll also need to promote sensitive caregiving by moms and dads.”

For the study, O’Connor and study co-author Vivette Glover of Imperial College followed 125 women at an amniocentesis clinic in an urban maternity hospital, measuring the stress hormones in the mothers’ amniotic fluid. The mothers were at 17 weeks gestation on average; only mothers with normal, healthy pregnancies and subsequent deliveries were followed.

When the children were about 17 months old, researchers administered a test—called a Bayley Scales of Infant Development—that uses puzzles, pretend play, and memory challenges to gauge the youngsters’ cognitive development. They also evaluated the security of the attachment between the mothers and their babies. Secure attachment, O’Connor says, results when a caregiver reliably and predictably soothes the baby’s stress. Such reliable comforting allows the child to see the caregiver as “a secure base for exploration.”

With cortisol levels, relationship-quality results, and cognition scores in hand, researchers analyzed how the first two measures might influence the third. For children showing signs of an insecure attachment to their mothers, a high prenatal cortisol level was linked with shorter attention spans and weaker language and problem-solving skills.

But for babies who showed signs of secure attachment, there was no link between...
Elevated Prenatal Cortisol Levels and Cognitive Development

O’Connor notes that there are a couple of important nuances of the study. For example, the source of the in-utero cortisol is hard to pinpoint. It might be passed along the placenta from an anxious mother to her unborn baby—or it could be created and excreted directly by a stressed fetus.

“While many large-scale studies have observed that prenatal stress may influence child development, our particular study sheds some light on ‘how,’” O’Connor says. “Still, much more research is needed to better pinpoint the exact mechanisms behind a mother ‘transferring’ her stress to her unborn baby.”

This study plays into the much larger theory of fetal programming, which suggests that exposure in the womb may prime the developing child for long-term health and developmental outcomes. Past studies have found a pregnant mother’s diet can sway a child’s long-term risk for heart disease, diabetes, and obesity. Along with diet, prenatal stress has emerged as a factor looming large in such programming.

“Our results support this emerging theory,” says coauthor Glover. “In neurology, the idea emerging is that unborn children sense their mothers’ stress hormone levels, programming them for greater watchfulness. We’re trying to determine whether or not that sensitivity comes with greater anxiety during childhood, and if so, what we can do about it.”

The team will revisit the children in the study when they turn six. At that point, researchers hope to give the group a battery of tests to see how the interplay between in-utero cortisol levels and sensitive parenting pans out in the long term. Those tests would include imaging studies of the children’s brains, looking to see if the higher cortisol levels may be linked to anatomical changes.

The findings are of broad public health significance, O’Connor says. “Stress in pregnancy is really something we need to attend to seriously.

“This is a helpful lesson for neuroscience and neuroscientists. We don’t want to leave behind a focus on family relationships while we investigate what happens under the skin and between cells.”

Becky Jones is a writer for Medical Center Public Relations and Communications. Additional reporting by Kathleen McGarvey.
UNIVERSITY ADMINISTRATION

Two Join Board of Trustees

Rochester entrepreneur, business consultant selected for board.

By Sharon Dickman

LAURENCE KESSLER, a ROCHESTER ENTREPRENEUR and owner of restaurant development companies, and Kathleen McMorran Murray ’74, the owner and founder of a consulting firm that specializes in business improvement initiatives, have been elected to the University’s Board of Trustees.

Ed Hajim ’58, chairman of the board, says the two will bring valuable perspectives as trustees. “They bring their considerable personal and professional strengths to an already outstanding board that is fully committed to taking the University to the next level.”

The founder and co-owner of The Kessler Group Inc. & Kessler Family LLC, Kessler and his brother, Dennis, who is the Edward J. and Agnes V. Ackley Executive Professor of Business Administration at the Simon School, are longtime supporters of the University.

They have established the Kessler Family Burn/Trauma ICU at the Medical Center. Kessler earned his bachelor’s degree at Adelphi University.

Murray founded McMorran Strategists LLC in 2008 after holding leadership positions at PricewaterhouseCoopers as managing director of operations, Aetna Inc. as senior vice president of Aetna Retirement Services, and chief operating officer of Aetna Business Resources, among other roles. She has established the Kathleen McMorran Murray Endowed Scholarship Fund to support students. In addition to her degree from the University, Murray graduated from the Advanced Management Program at the Harvard Business School.

Sharon Dickman is University spokesperson.

THREE QUESTIONS

Vivian Lewis Leads Diversity Efforts

For Vivian Lewis, creating change is about getting everyone involved.

As the new deputy to the president and vice provost for faculty development and diversity, Lewis will assist deans and department chairs in identifying, recruiting, and retaining faculty to increase diversity within the University’s schools and departments.

She’ll also oversee initiatives designed to enhance diversity at the University, such as faculty mentoring programs. In the spring, Lewis organized the first University-wide diversity conference.

A professor of obstetrics and gynecology and, until her new appointment, the associate dean for faculty development for women and diversity at the School of Medicine and Dentistry, Lewis took the job on an interim basis last October, succeeding Lynne Davidson.

What’s the greatest challenge in diversifying the faculty?
It’s getting the whole University engaged in the work of creating a more diverse and inclusive community. Our senior leadership has committed to the goal of a more diverse campus, but that is really just the beginning.

What’s the best way to address that?
We need more champions for diversity throughout the University who are willing to contribute their creativity, ideas, and sustained commitment to changing the culture.

Why did you decide to take on this position?
It affords me the opportunity to be part of a transformative change for the entire University. What could be more exciting?

—Kathleen McGarvey

LEWIS: The former medical school associate dean oversees University diversity efforts.
New Men’s Basketball Coach Introduced

MEET THE COACH: Luke Flockerzi, a one-time Rochester assistant basketball coach, will lead the men's basketball team when the Yellowjackets open the season in November. The former head coach at Skidmore College was introduced this spring as the successor to Mike Neer ’88W (MS), who retired after leading the men's basketball program for 34 years. Flockerzi (pronounced flah-CURT-see) is no stranger to Rochester's program, having served as an assistant to Neer in the 2006-07 season. In 2007, he moved to Skidmore and by his third season, he led the Thoroughbreds to a record-tying season for conference wins and overall victories. His teams also were recognized for their classroom work, leading the Liberty League in All-Academic Team selections in 2009-10.