



Carnegie Mellon

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G-20 Summit A “Teachable Moment” For Campus

■ Heidi Opdyke

The G-20 brings together important industrial and emerging-market countries from all regions of the world. The leaders of the nations and organizations that comprise the “Group of 20” will meet Sept. 24-25 in Pittsburgh.

As part of the activities leading up to the summit, the university will host “Carnegie Mellon’s G-20 Forum — an expert preview of the Pittsburgh Summit” at 7 p.m. on Monday, Sept. 14, in McConomy Auditorium, to offer the campus community an overview on economics, policy, development and some

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Campus Gem Being Polished for Opening **WORK WRAPS UP ON SCS CENTERS FOR DEDICATION**



PHOTO BY KEN ANDREYO

THE BUILDINGS WERE DESIGNED TO PROVIDE INTERIOR SPACES AND OFFICES WITH AS MUCH NATURAL LIGHT AS POSSIBLE.

■ Byron Spice

A keynote address by Microsoft Chairman Bill Gates will highlight the Sept. 22 dedication of the Gates Center for Computer Science and the Hillman Center for Future Generation Technologies.

Gates, who last spoke on the Pittsburgh campus 18 months ago, will be joined by Pittsburgh philanthropists Henry and Elsie Hillman for the ribbon-cutting ceremony before an expected crowd of 1,200 students, faculty, staff, donors and other guests in Wiegand Gymnasium. A \$20 million gift from the Bill and Melinda Gates Foundation and a \$10 million gift from the Henry L. Hillman Foundation were instrumental in making the buildings a reality.

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PHOTO BY JOSHUA DEBNER (CIT '11)

Welcome Back!

ORIENTATION COUNSELORS DANIEL BURDZY (CFA '13), REBECCA USSAI (CFA '11), MATT WILSON (HSS '12), ERIC ROUDABUSH (CIT '11) AND TIFFANY CHANG (MCS '11) HELPED WELCOME THE CLASS OF 2013 DURING ORIENTATION. THIS YEAR'S THEME WAS “UNLEASHED” AS NEW STUDENTS WERE ENCOURAGED TO TRY NEW THINGS AND DISCOVER THEIR POTENTIAL AT CARNEGIE MELLON. TO LEARN MORE ABOUT SOME OF THE NEW FACES ON CAMPUS, SEE PAGE 6.

The H1N1 Flu: A Q&A With SHS Director Anita Barkin

■ Bruce Gerson

The flu season has started early this year thanks to the novel H1N1 influenza, also known as the swine flu. Students became ill with suspected cases of the H1N1 during orientation week and the first week of classes and Student Health Services, Housing, Dining and Student Affairs are working diligently to care for ill students and nurture them back to good health.

Anita Barkin, a certified registered nurse practitioner who holds a doctorate in public health, is leading the effort to keep the campus community a safe and healthy environment for all students, faculty and staff. Barkin is also playing a key role nationally as chair of the Coalition of Emerging Public Health Threats and Emergency Response Planning for the American College Health Association.

The Piper caught up with Barkin in late August to talk about the H1N1. An H1N1 information hotline has been established at Carnegie Mellon at 412-268-4161 (H1N1) where parents, students, faculty and staff can call with questions or concerns.

How are we caring for ill students? Are we sending them home?

If students meet the clinical definition for having the H1N1 flu, the first thing we're doing is asking them if they live within 150 miles of Pittsburgh and can go home and be cared for by a parent, or if they can be cared for by a family member or friend of the family who lives in the area and can be taken there in a private vehicle. If the answer is no, then we're using a number of strategies for isolation, including isolation housing and isolation in their place of residence. If the student is moved to isolation housing, we are providing nursing care until they can be released after being fever-free for 24 hours. Most students are resuming normal activities in five days.



the PIPER 9/09 Issue

PUBLISHER
Teresa Thomas

EDITOR
Bruce Gerson

MANAGING EDITOR
Heidi Opdyke

WRITERS
Bruce Gerson Byron Spice
Abby Houck Chriss Swaney
Heidi Opdyke Kara Zamanski
Shilo Raube Andrea L. Zrimsek
Eric Sloss

DESIGNER
Melissa Stoebe
Communications Design Group

PHOTOGRAPHY
Ken Andreyo
Communications Design Group
Joshua Debner

To contact The Piper staff, call 412-268-2900 or email bg02@andrew.cmu.edu.

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In addition, Carnegie Mellon University does not discriminate in admission, employment or administration of its programs on the basis of religion, creed, ancestry, belief, age, veteran status, sexual orientation or gender identity. Carnegie Mellon does not discriminate in violation of federal, state, or local laws or executive orders. However, in the judgment of the Carnegie Mellon Human Relations Commission, the Presidential Executive Order directing the Department of Defense to follow a policy of, "Don't ask, don't tell, don't pursue," excludes openly gay, lesbian and bisexual students from receiving ROTC scholarships or serving in the military. Nevertheless, all ROTC classes at Carnegie Mellon University are available to all students.

Inquiries concerning application of these statements should be directed to the Provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-6684 or the Vice President for Campus Affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2057.

Carnegie Mellon University publishes an annual campus security report describing the university's security, alcohol and drug, and sexual assault policies and containing statistics about the number and type of crimes committed on the campus during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The security report is available through the World Wide Web at www.cmu.edu/police/. Obtain general information about Carnegie Mellon University by calling 412-268-2000.

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If we have high numbers of ill students, faculty and staff, high absenteeism and our ability to deliver services were affected, we might look at whether it would be prudent to suspend activities for some period of time until we can decrease the number of new cases. Unless the illness would change in severity, I think it would be unlikely that this would happen. That's why we're providing education about hygiene and isolation practices when a person is ill.

How likely is it that the H1N1 flu will become a much stronger disease this fall?

The fact that we had cases this summer and more cases now doesn't bode well for the fall in terms of expectations of a more severe flu season. Will we have more people ill with the flu, in light of the fact we don't have a vaccine yet? I would say that's likely. Will it be a disease of greater severity than it is now? That's up for speculation. Virologists at the CDC and WHO are following this very carefully to see if the virus changes in any way that would suggest that it is becoming a virus capable of creating more severe illness.

When will we most likely see it at its strongest?

The CDC and WHO anticipate that it will get worse as fall continues. Viruses tend to spread when temperatures cool and people are indoors more often. That's a typical pattern for seasonal influenza, and that would be the same pattern we would expect with H1N1.

So we might see people getting the seasonal flu at the same time people are contracting the H1N1 flu?

Yes. And what we hope to do to try to mitigate that from happening is to have people get seasonal flu vaccine early this fall, so they are at least protected from the seasonal variety. And then when we get H1N1 vaccine, which local health departments hope to have by November, we could start vaccinating some high risk members of the community for H1N1.

What are the symptoms of the H1N1?

They look a lot like the seasonal flu symptoms. A fever greater than 100 degrees F is the major symptom. Other

symptoms are a cough, headache, sore throat, runny nose, body aches and fatigue. With the H1N1 virus we're seeing a little more nausea, vomiting and diarrhea.

What should you do if you come down with a fever and flu-like symptoms?

If you start to feel ill with these symptoms you should start monitoring your temperature. If you develop a fever of 100 degrees F or greater, you should isolate yourself. Limit face-to-face contact with people by staying home from work, staying out of classes, and staying out of public venues and social activities until you are fever-free for 24 hours without the use of fever-reducing medication.

Should you take any medicines if you have a fever and other flu-like symptoms?

Absolutely. You can take the same medications that you would take to treat cold symptoms, such as acetaminophen (Tylenol), cough syrup, throat lozenges, and over-the-counter cold medication. I would caution people to make sure they are NOT taking acetaminophen AND also taking cold medications that have acetaminophen in them because of the potential toxicity of the drug when taken in high doses.

Take your temperature BEFORE you take fever-reducing medication and take your temperature again four hours after you take acetaminophen or Ibuprofen. Once you stop the medicine and your fever is gone for 24 hours then you can resume normal activities.

If H1N1 is similar to the seasonal flu, why should we be concerned?

What makes H1N1 different from the seasonal flu is that we don't have a vaccine for the H1N1 yet. People in our communities who are more vulnerable, people with asthma, diabetes or whose immune systems are suppressed, are at high risk for complications. In light of the fact that we don't have a vaccine to protect those high-risk populations, we are relying on social distancing techniques and cough and hand hygiene to slow the spread of illness.

What can people do to prevent getting the H1N1 flu?

Wash your hands with soap and water; cover your cough and sneeze into a tissue or into your sleeve; don't touch your mouth, nose or eyes after touching surfaces like door knobs and keyboards; get the proper amount of sleep; take care of yourself nutritionally; and get enough exercise. Do all the things that you normally do to keep yourself healthy. And if you know someone who is ill, make sure you keep six feet away from them.

**Call the H1N1
hotline at
H1N1
412-268-4161
with questions
or concerns.**

You mentioned an H1N1 vaccine may be available in November. Will it be distributed to the campus community?

We are hopeful that we will be a vaccine distribution site for our population. If that happens we will roll it out to the high-risk groups. The CDC defines the high-risk groups as being pregnant women; household contacts and caregivers for children under 6 months of age; children and young adults between the ages of 6 months and 24 years; healthcare providers and emergency personnel; and folks 25 to 64 who have an underlying medical condition.

If we do not get enough vaccine to cover all of those high-risk groups, then we'll move to vaccinating a subset of those groups. The subset would include pregnant women; household contacts and caregivers for children under 6 months of age; healthcare providers and emergency personnel who have direct patient care responsibilities; and children and young adults between the ages of 6 months and 24 years who have an underlying medical condition. That may change, but that's the current thinking of the CDC.

You're probably going to need two shots to complete the H1N1 vaccination. The second H1N1 shot would be given four weeks after the initial dose is received.

Would the distribution be similar to the seasonal flu clinics offered? If so, will there be a fee involved?

Yes. The vaccine will be free of charge. There may be an administrative fee, but we do not want cost to be a barrier for folks.

Will the seasonal flu vaccine be available to the campus community?

Yes. We hope to have our supplies and begin the rollout earlier this year. We'll be communicating the dates and times of the flu clinics soon.

Are there drugs that can be used to combat H1N1, such as Tamiflu and Relenza?

Tamiflu and Relenza are recommended for treating H1N1 in persons who have underlying illnesses such as asthma, diabetes, a

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Carnegie Symposium on Cognition

WILLIAM G. CHASE'S DAUGHTER FOLLOWS IN HIS FOOTSTEPS

UPCOMING: DAVID KLAHR TO BE HONORED

"From Child to Scientist: Mechanisms of Learning and Development"

The Fall 2009 Carnegie Symposium, Oct. 9-11, aims to connect leading researchers whose work bridging theory and practice advances the understanding of developing scientific and mathematical thinking and research regarding strategies for formal and informal education. The event will honor the lifetime contributions of David Klahr (TPR '68) on the occasion of his 70th birthday and 40th year at Carnegie Mellon. Klahr, the Walter van Dyke Bingham Professor of Cognitive Development and Education Sciences, has pioneered information processing research to strengthen the reciprocal contributions of cognitive development, scientific discovery, and reasoning and education.

Sponsors of the symposium include the Department of Psychology and Program in Interdisciplinary Education Research (PIER), the American Psychological Association and private donations. The event, which will be in Baker Hall, is free and open to the public.

■ Shilo Raube

When William G. Chase, a professor in the Psychology Department, died 25 years ago, he left behind a legacy of groundbreaking research in expertise and skill acquisition and a community that continues to be influenced by his work.

"Dr. Chase studied how people became experts and showed through experiments that good memory is an acquired skill — that average people can be trained to become experts," said Professor David Klahr, the Walter van Dyke Bingham Professor of Cognitive Development and Education Sciences and a former colleague of Chase. "It was a distinct contrast to traditional thinking and really shaped the way we think about acquiring mental skills today."

To honor Chase's impact, the Psychology Department dedicated the 36th Carnegie Symposium on Cognition this summer to his research.

"We put together an outstanding program that investigated expertise and its development. It featured 16 speakers whose lifetime work was influenced by Chase — including his daughter, Catherine Chase," said Klahr.

Catherine Chase was 5 years old when her father died at age 43, but her career is being shaped in part by his work.

"Both of my parents and stepfather are psychologists, so I grew up with it," she said. "It has shaped my interests, the types of questions I ask and how I view the world."

As a student at Stanford's School of Education, Chase uses experimental psychology methods to explore learning and motivation. The paper she presented at the Cognition Symposium examined expert motivational behaviors and how using technology can promote these behaviors in children.

"I find my father's work on expertise fascinating, and it has

helped me foster an interest in how to place children on the path towards expertise," Chase said. "Recently, I've found that putting children in the position of experts seems to encourage the adoption of expert motivational behaviors and ultimately leads to greater learning."

Being at Carnegie Mellon to recognize her father's accomplishments gave Chase the chance to learn more about his professional and personal life.

"Many of the symposium speakers were his graduate students, collaborators and friends," she said. "They told me stories — things I didn't know about him — some surprising, some heart-warming. I was so young when he died and only have memories of sitting on his knee and learning chess from him. It really helped me get to know my father in a different way. I just wish he was here now to advise me on my current line of research," she said.

G-20 "A Teachable Moment"

CONTINUED FROM PAGE ONE

of the countries that will be participating in the summit.

"The G-20 happening in Pittsburgh is a 'teachable moment,' for us," said Indira Nair, vice provost for education and professor of engineering and public policy. "The event offers a glimpse into the global economy and a focus on some nations to introduce students and community members to the G-20 conference."

The format of the campus event will be a series of speeches on G-20-related topics from professors representing the H. John Heinz III College, the College of Humanities and Social Sciences and the Tepper School of Business. Local government officials also will be part of the evening.

Carnegie Mellon is a part of why the G-20 is coming to Pittsburgh. The university embodies the transformation of Pittsburgh from an industrial town to an international center of knowledge and innovation, which was one of the reasons cited by President Obama for choosing the city for the summit. The university is a leader in new industry and job creation, and it has earned an international reputation as an economic engine, which has driven Pittsburgh's renaissance.

"The Group of 20 has been around for almost 10 years now, and it was created in the aftermath of the Asian financial crisis to be a body that would come together at a finance ministers level to talk about the global economy and think about ways to coordinate the global

economy," said David McCormick, distinguished service professor of public policy and management at the Heinz College, in a recent interview.

As undersecretary for international affairs in the U.S. Treasury Department from 2007 to 2009, McCormick oversaw policies affecting global financial markets and led the international response to the crisis. McCormick said in the last year, the G-20 has taken on a new role by coordinating to stem the global economic crisis and heads of state have become involved.

"The G-20 has now become, I think it's fair to say, more significant, more important than it's ever been in the past, and of course, the big question going forward is how successful it will be in responding to that crisis," he said.

Together, the G-20 member countries represent around 90 percent of the global gross national product, 80 percent of world trade and two-thirds of the world's population. The G-20's economic weight and broad membership gives it a high degree of legitimacy and influence over the management of the global economy and financial system.

The G-20 is made up of the finance ministers and central bank governors of 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom and the United States. The European Union is represented by the rotating Council presidency and the European Central Bank.

G-20 Event: Renewing Globalization and Economic Growth in a Post-Crisis World

In advance of the G-20 Summit in Pittsburgh, Carnegie Mellon will co-host a daylong conference examining the steps needed to revitalize economic growth, reaffirm political liberalization, and restore confidence in globalization in the aftermath of the economic crisis. The conference will also be co-hosted by the Atlantic Council of the United States and the U.S. Chamber of Commerce and will take place 8:30 a.m., Wednesday, Sept. 23 in a location to be announced. Through a series of moderated panels, senior government officials, policy experts, business leaders and Carnegie Mellon faculty will take a dynamic and unique look at the intersection of economic, political and social forces that will shape the world. A report on these issues has been prepared and will be distributed at the event. Kiron Skinner, associate professor of international relations and political science and director of the International Relations and Politics program, is leading these efforts for Carnegie Mellon. For more information, contact Inyoung Song, research and programming associate of the International Relations and Politics program, at isong@andrew.cmu.edu or 412-268-8715.



For more details about the panel and to hear interviews with campus experts on issues relating to the G-20, visit www.cmu.edu/g20. A full list of campus-related G-20 events are available there as well. Here's a sample:

G-20 Media Panel

11:30 a.m. -12:30 p.m., Monday, Sept. 21, Singleton Room
University Professor Pradeep K. Khosla, dean of the Carnegie Institute of Technology and founding director of Carnegie Mellon CyLab, and M. Granger Morgan, head of the Department of Engineering and Public Policy, will welcome journalists, including Newsweek/MSNBC Political Editor Howard Fineman and reporters from The Wall Street Journal and the Pittsburgh Post-Gazette to discuss how they plan to cover the upcoming G-20 summit.

Volunteerism, Giving Back Is Important to Alumni Faculty, Staff



PHOTO BY KEN ANDREYO

DEANNA MATTHEWS

■ Heidi Opdyke

While most of the university's thousands of alumni are scattered around the globe, many stay in Pittsburgh, and a select few never leave campus.

More than 800 alumni faculty and staff advance the university through their work with research and students. From behind the scenes, they contribute as employees and volunteers.

For Deanna Matthews (E '95, '01), a research engineer in the Department of Civil and Environmental Engineering (CEE), being a part of a committee dedicated

to the Faculty & Staff Annual Fund has led her to a greater understanding about how University Advancement works and why it's important to give.

"It's not just about sending out a letter, it's about getting out just the right message," Matthews said.

Matthews met her husband, H. Scott Matthews (E '92, TPR '96, '99), associate professor of CEE and engineering and public policy, while attending the university. Her life is tied to Carnegie Mellon. She researches environmental management, specifically using life cycle assessment as a tool for decision-making, teaches university courses, and is involved in other aspects such as working with the C-MITES program,

and being an active parent volunteer at the Cyert Center for Early Education.

Matthews is just one example of how alumni employees stay connected. She said her giving is directed toward the Graduate Programs Office because of her experience there.

"They helped me get through when I was in graduate school," Matthews said. "But whether it's targeting a scholarship fund in your department or the Undergraduate Research Office or another area of the university, it's important for people to find that place where the money can make a difference."

Matthews said the number of alumni on staff can affect the alumni

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Researchers Find Social Security Numbers Can Be Predicted

■ Byron Spice

The Heinz College's Alessandro Acquisti, associate professor of information technology and public policy, and Ralph Gross, a post-doctoral researcher, have found that an individual's date and state of birth are sufficient to guess the person's Social Security number with great accuracy.

The researchers tested their prediction method using records from the Social Security Administration's Death Master File of people who died between 1973 and 2003. They could identify in

a single attempt the first five digits for 44 percent of deceased individuals who were born after 1988 and for 7 percent of those born between 1973 and 1988.

"Given the inherent vulnerability of Social Security numbers, it is time to stop using them for verifying identities

and redirect our efforts toward implementing secure, privacy-preserving authentication methods," Acquisti said. Methods to consider include two-factor authentication, similar to the PIN number/card combinations used for bank accounts, and digital certificates.

The predictability of Social Security numbers is an unexpected consequence of seemingly unrelated policies and technological developments that,

in combination, make Social Security numbers obsolete for authentication purposes, according to Acquisti and Gross. Because many businesses use Social Security numbers as passwords or for other forms of authentication — a use not anticipated when Social Security

was devised in the 1930s — the predictability of the numbers increases the risk of identity theft. ID theft cost Americans almost \$50 billion in 2007 alone.

"Dramatically reducing the range of values wherein an individual's Social Security number is likely to fall makes identity theft easier," Gross said. A fraudster who knows just the first five digits of an individual's number might use a phishing email to trick the person into revealing the last four digits. Or, a fraudster could use networks of compromised computers, or "botnets," to repeatedly apply for credit cards in a person's name until hitting the correct nine-digit sequence.

Students Ioanis Alexander Biternas, Ihn Aee Choi, Jimin Lee and Dhruv Deepan Mohindra assisted Acquisti and Gross in the study.

A number of national and regional news agencies picked up on Acquisti's research. Here's a sampling of some of the places it ran:

- National Public Radio, July 6 "Study: Social Security Numbers May Be Hackable"
- *The New York Times*, July 7 "Weakness in Social Security Numbers Is Found"
- *The Washington Post*, July 7 "Researchers: Social Security Numbers Can Be Guessed"
- CNN, July 21 "Social Security number study raises fears"
- *The Wall Street Journal*, July 24 "Is Hiding Your Social Security Number Worth It?"



ONLINE: WATCH ACQUISTI TALK ABOUT THE STUDY AT WWW.YOUTUBE.COM/WATCH?V=-9HPYONGYG4.

Upcoming Events

Save the Date! Homecoming & Reunion Weekend 2009 Oct. 30-31

Highlights for this year include the Alumni Awards Ceremony & Reception on Friday and the All Campus Tailgate and many workshops, panels and lectures throughout the weekend featuring alumni, students, faculty and staff. For more details, visit www.cmu.edu/homecoming.

Miller Gallery Exhibition

"29 Chains to the Moon: Artists' Schemes for a Fantastic Future" Guest curated by Andrea Grover, the exhibition features artists who present radically optimistic proposals from seasteads and tree habitats to gift economies to envision a better future for humanity. Through Dec. 6

University Lecture Series

Douglas Boucher, Union of Concerned Scientists
"Global Warming: Doing what the planet needs in Washington, Copenhagen, Pittsburgh and tropical forests" 4:30 p.m., Thursday, Sept. 10 Porter 100, Gregg Hall

Andy Awards Ceremony

Carnegie Mellon will present its annual Andy Awards to individual staff members and/or teams whose outstanding dedication and performance have had a significant impact on the university. Noon, Friday, Sept. 11 McConomy Auditorium, University Center (UC)

University Lecture Series

A Humanities Center Lecture
Thomas Pogge, the Leitner Professor of Philosophy and International Affairs at Yale University
"World Poverty: Explanations and Responsibilities" 4:30 p.m., Monday, Sept. 14 Porter 100, Gregg Hall

Carnegie Mellon Philharmonic

New Director of Orchestral Studies Ronald Zollman leads the Carnegie Mellon Philharmonic in its inaugural concert of the 2009-2010 academic year. Tickets are \$5 for adults, \$4 for seniors and free for Carnegie Mellon students with ID. 8 p.m., Wednesday, Sept. 16 Carnegie Music Hall, Oakland

University Lecture Series

Joel Berg, executive director of the New York City Coalition Against Hunger and author of "All You Can Eat: How Hungry is America?"
"Why We Have Hunger in America and How We Can End It" 4:30 p.m., Thursday, Sept. 17 Porter 100, Gregg Hall

Gates and Hillman Centers Dedication

Bill Gates will be on campus to dedicate the Gates Center with a lecture and virtual ribbon cutting. 3 p.m. Tuesday, Sept. 22 Wiegand Gymnasium (see the cover story)

Drama Production

"The Grapes of Wrath" 8 p.m., Tuesday-Friday, and 2 and 8 p.m., Saturday, Oct. 1-10 Phillip Chosky Theatre

Staff Council's Third Annual Ice Cream Social

Noon-1 p.m., Monday, Oct. 5 Connan Room, University Center Open to all Carnegie Mellon staff with valid ID.

Inaugural John A. Pople Lectures in Theoretical and Computational Chemistry

4:30 p.m., Monday, Oct. 5 Mellon Institute Auditorium (see story on page 12)

University Lecture Series

A Humanities Center Lecture
James Ferguson, professor and chair of the Department of Anthropology at Stanford University
"Declarations of Dependence: Labor, Personhood, and Welfare in South Africa and Beyond" 4:30 p.m., Monday, Oct. 5 Porter 100, Gregg Hall

2009 International Festival

Presented by the Office of International Education
"What's Happening to Diplomacy?" Oct. 8-10 University Center
www.studentaffairs.cmu.edu/oie/newsandevents/internationalfestival/

The Fall 2009 Carnegie Symposium

"From Child to Scientist: Mechanisms of Learning and Development — A Festschrift in honor of the scientific and educational contributions of David Klahr" Oct. 9-11 Baker Hall (see story on page three)

For more events, visit <http://my.cmu.edu/site/events/>

School of Drama

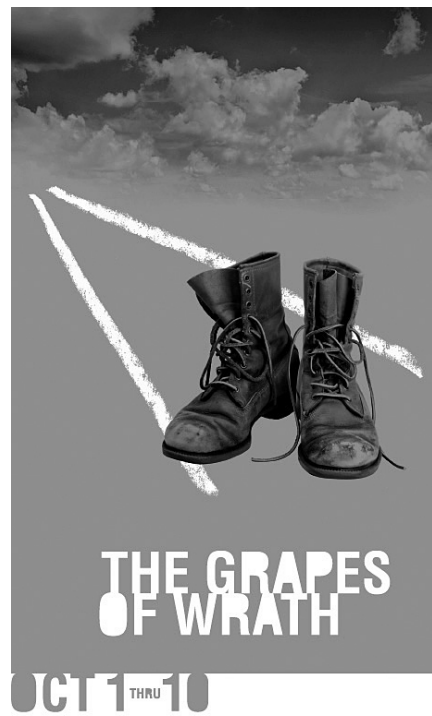
SEASON OPENS WITH "THE GRAPES OF WRATH"

■ Eric Sloss

The School of Drama's 2009-10 season features powerful works that examine a family of sharecroppers, a young man's climb up a corporate ladder and a woman who kills the ones she loves most.

The season, which features a six-play Subscriber Series and a five-play Director Series, includes "The Grapes of Wrath" by Frank Galati, adapted from John Steinbeck's novel; "How to Succeed in Business Without Really Trying," a musical by Frank Loesser; a new adaptation of "The Inspector General" by Nikolai Gogol; William Shakespeare's "Richard III"; Euripides' "Medea"; and "Thérèse Raquin" by Neal Bell, adapted from the novel by Emile Zola.

Subscriber Series



"The Grapes of Wrath"

directed by Barbara MacKenzie-Wood

Preview: Oct. 1; Opening: Oct. 2; Closing: Oct. 10. Philip Chosky Theater
John Steinbeck's Nobel Prize-winning novel, "The Grapes of Wrath," examines a family of sharecroppers that strives for the American dream in an environment that raises then shatters

their hopes, dreams and aspirations. Frank Galati's adaptation combines Steinbeck's powerful language with masterful theatrical invention. The Joad Family's noble search for a better life in a period of extreme economic distress has an inescapable resonance for today's audiences.

"How to Succeed in Business Without Really Trying"

directed by Daniel Goldstein

Preview: Nov. 12; Opening: Nov. 13; Closing: Nov. 21. Philip Chosky Theater
"How to Succeed in Business Without Really Trying" is a comical story of a young man's rapid journey to the top of the corporate ladder. With its roaring cynicism it is an absurd musical that critiques the business world by making light of its idiosyncrasies.

"The Inspector General"

directed by Jed Harris

Preview: Feb. 18; Opening: Feb. 19; Closing: Feb. 27. Philip Chosky Theater
Nikolai Gogol's "Inspector General" is a hilarious indictment of political corruption in 1836 provincial Russia. When a penniless drifter is mistaken for an inspector general, the townspeople,

innocent as a pack of wolves, inveigle him into a conspiracy of lies that in turn reveals a profound truth. Gogol's classic is especially apt in these times of financial immorality.

"Richard III"

directed by Matt Gray

Preview: April 15; Opening: April 16; Closing: April 24. Philip Chosky Theater
"Richard III," Shakespeare's Machiavellian tour-de-force, tells the story of a nobleman's bloody and narcissistic ascent to power and his infectious impact on the society that nurtured and destroyed him. Exploring the worlds of terror, mistrust, corruption and delusion, it effectively echoes some current political shenanigans.

"Medea"

directed by Max Montel

Opening: Dec. 2; Closing: Dec. 5. Helen Wayne Rauh Studio Theater
"Medea's" epic themes of passion, betrayal, and the dark and violent depths we reach when seeking revenge is an immortal cautionary tale. By killing the ones she loves most, Medea has inspired two millennia of artists and their audiences.

"Thérèse Raquin"

directed by Kate Pines

Opening: April 21; Closing: April 24.

Helen Wayne Rauh Studio Theater

"Thérèse Raquin" revels in the sumptuous world of forbidden passion, regret, hate and desperation. A woman drowning in the cynicism of 19th century Paris goes to horrific lengths to satisfy her twisted dreams and sexual compulsions. Based on the 1867 novel by Emile Zola, "Thérèse Raquin" explores the dark and animalistic roots of the human psyche.

Director Series

Tickets are free.

"Three Days of Rain" by Richard Greenberg: Oct. 28-30, John Wells Video Studio

"Burial At Thebes" by Seamus Heaney, a new translation of Sophocles' "Antigone." Nov. 11-13, Helen Wayne Rauh Studio Theater

"Dead Man's Cell Phone" by Sarah Ruhl: Feb. 10-12, Helen Wayne Rauh Studio Theater

"In The Blood" by Suzan-Lori Parks: Feb. 24-26, Helen Wayne Rauh Studio Theater

"Slow Dance On The Killing Ground" by William Hanely: March 17-19, Helen Wayne Rauh Studio Theater

All Subscription Series play performances take place at 8 p.m., Tuesday through Friday, and 2 and 8 p.m. on Saturdays. Call the box office at 412-268-2407 for package options, prices or to place a subscription order. Special discounts are available to all Carnegie Mellon alumni.

Dedication Set For Sept. 22

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The School of Computer Science moved into the 217,000-square-foot Gates and Hillman centers in August. The buildings house the Computer Science and Machine Learning departments and the Language Technologies Institute, as well as some Robotics Institute facilities and other SCS offices.

"The Gates and Hillman centers go beyond even our wildest expectations in terms of the office, classroom, and meeting spaces, and our ability to form connections between many parts of campus," said Randal E. Bryant, SCS dean.

"We hope this day of celebration will give the entire community a chance to appreciate this great addition to campus, as well as give us all a chance to reflect on the important education and research efforts that the buildings will make possible."

Following the ceremony in Wiegand Gym, SCS faculty will demonstrate and discuss their research with the public

from 4:30 to 6:30 p.m. in displays dispersed throughout the Gates and Hillman centers.

Earlier in the day, donors and other friends of the university will attend private ceremonies for named classrooms and other facilities in the new buildings, as well as a luncheon in the Gates Center. Former faculty member Rick Rashid, now Microsoft's senior vice president for research, will inaugurate the 250-seat Rashid Auditorium made possible by his \$2 million donation and by individuals' donation of named seats.

Invitations to the main ceremony in Wiegand Gym were mailed or emailed to donors, faculty, staff and students in

The Gates and Hillman centers were designed by Mack Scogin Merrill Elam Architects of Atlanta. The buildings include five main entrances on levels three through five, all of them tied together by a long, circular ramp called the Helix that forms the heart of the building. A fifth-floor footbridge to the Purnell Center for the Arts and a



WORKERS PUT THE FINISHING TOUCHES ON THE GATES CENTER.

memory of the late Randy Pausch later this year.

The building includes several green roofs, office windows that can be opened, an air exchange system to limit energy loss, windows that allow natural light into every office and a system for collecting rainwater and snowmelt — "gray water" — for use in flushing toilets. It is designed to achieve at least a silver certification in the Leadership in Energy and Environmental Design (LEED) rating system for sustainable buildings established by the U.S. Green Building Council.



FOR MORE ON THE GATES AND HILLMAN CENTERS, CHECK OUT THE PIPER+ AT WWW.CMU.EDU/NEWS/NEWS-NOTES/PIPER/INDEX.SHTML.

late August and early September and those wishing to attend were asked to RSVP. At least 500 seats were reserved for students. People planning to attend the ceremony should be prepared to provide an RSVP confirmation and photo identification.

fourth-floor enclosed bridge to Newell-Simon Hall further enhance access. The buildings thus will serve to connect areas of the campus long separated by distance or terrain.

The footbridge between the Gates and Purnell centers will be dedicated in

A Look at the Class of 2013

TWINS FIND SIMILAR REASONS TO CHOOSE CARNEGIE MELLON

■ Abby Houck



PHOTO BY HEIDI OPDYKE
DUSTIN AND KARL HELLSTERN AND PRIYANKA AND NEHA NANDAKUMAR ARE A FEW OF THE NEW FACES ON CAMPUS THIS FALL.

Don't be alarmed if you start seeing double this fall. At least two sets of twins make up the Class of 2013, a group of more than 1,400 students that arrived on campus Aug. 16.

These students stand out in a crowd not only for their similar physical features, but also for their shared record of academic success. Fraternal twins Priyanka and Neha Nandakumar were the top two students in their graduating class at New Fairfield High School in Connecticut, while identical twins

Dustin and Karl Hellstern served as co-valedictorians at Annapolis High School in Maryland.

Fellow first-year students also enter Carnegie Mellon with outstanding academic records. The students ranked, on average, in the top 8 percent of their senior classes. The average SAT scores for the Class of 2013 were 720 in math and 670 each in critical reading and writing.

When the Nandakumar twins embarked on their college search, they hadn't intended to enroll in the same university. Neha visited the College of Engineering during her junior year of high school and shared her impressions of Carnegie Mellon with her sister.

"I was looking for a place where students cooperate rather than compete," Neha said.

The sisters are no strangers to collaboration. As members of the New Fairfield Youth Commission, they designed and implemented a community campaign to educate residents about recycling, reducing energy use and conserving water. More than 675 households in their hometown have signed the Youth Commission's green pledge.

Following her sister's recommendation, Priyanka researched the Biological Sciences program at the Mellon College

of Science. "I was attracted to the program because of its reputation and use of technology," she said.

With different majors, the sisters will be taking significantly fewer classes together than they did in high school. However, they are living under the same roof. "We're both living in Mudge House, but we specifically requested different roommates," Priyanka said.

The Hellsterns' initial college search for computer science programs included many of the same institutions, but Dustin and Karl had not expected to choose the same one. But, they both applied for early-decision status at Carnegie Mellon.

"I was impressed not only by the cutting-edge research that was taking place at the university, but also by the vitality and energy of Pittsburgh," Dustin said. "Most of all, I was impressed by the degree to which Carnegie Mellon seemed to bridge science with the arts, as I found myself excitedly thinking about the different projects I could undertake."

Dustin and Karl are looking forward to learning and living more independently in college. The twins shared nearly every course and teacher in their high school's International Baccalaureate Program. Even though they will be

taking a few of the same courses this year, many are not with the same professor.

The most significant change for Dustin and Karl will be living in two different housing communities.

"What I look forward to most about my first year at Carnegie Mellon, and also what I'm most apprehensive about, is living basically an entire year alone and apart from my twin brother," Karl said. "We chose not to room together, as we've been 'rooming together' our whole lives, and thought it would be nice to try something new."

For all four students, their siblings' decision to attend Carnegie Mellon affirmed their own perceptions about the quality of education they expect to receive.

"They say great minds think alike," Karl said.

The Class of 2013 represents:

- 25 countries
- 41 states
- 1,426 students
- 816 men
- 610 women
- 15% Pennsylvania residents
- 14% international students

August 2009

From Community Colleges to Carnegie Mellon, Transfer Students Share Their Journeys

■ Abby Houck

Competition for a spot in Carnegie Mellon's first-year class continues to increase, as just 27 percent of first-year applicants received admission offers in 2009. Transferring to Carnegie Mellon is even more challenging, with only a few applicants accepted annually.

This year's transfer student acceptance rate was less than 10 percent. Not only are transfer admissions based on a student's qualifications, but there must also be an open space in the specific academic program to which the student applies.

Two women are among 31 transfer students who beat the odds. Their paths to Carnegie Mellon are nontraditional, and their accomplishments are exceptional.

Ebony Hardin, 24, of East Stroudsburg, Pa., has been acting since she was 9 years old. In high school, the onset of epilepsy delayed her academic progress until doctors could identify the right medication to control her seizures.

With this challenge behind her, Hardin became a star academic and on-stage performer at Northampton Community College. In January 2009, Hardin was one of approximately 1,000 students who auditioned for the School of Drama's acting program, landing one of only 16 open spots.

Hardin auditioned at several acting programs across the country and noted that she experienced more interaction with School of Drama faculty than at any other institution. "I really en-

joyed working with Professor Barbara MacKenzie-Wood during my audition," she said.

Hailing from Overland Park, Kan., Mackenzie Evan Smith, 25, took five years off between high school and college to complete three personal goals: live in a foreign country, sail across the Atlantic Ocean and hike the Appalachian Trail.

Smith worked in the Swiss Alps at Our Chalet, a center for the World Association of Girl Guides and Girl Scouts. She then sailed across the Atlantic on the *Tenacious*, a ship owned by Jubilee Sailing Trust, a nonprofit that provides individuals of all physical abilities a chance to become crewmembers. "After working in the galley, I became a bosun's mate, which means I assisted the crew member responsible for the ship's sails and rigging," she said.

She accomplished her final goal by hiking solo from Georgia to Maine in six months.

Smith transferred to Carnegie Mellon from Johnson County Community College, where she appreciated the personal attention and small class sizes.

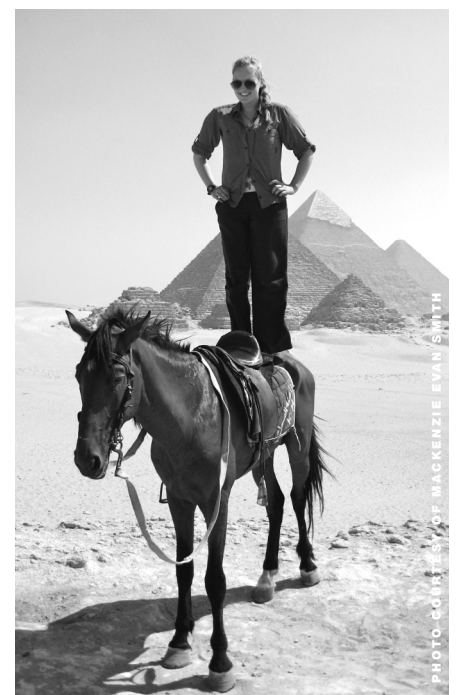


PHOTO COURTESY OF MACKENZIE EVAN SMITH
MACKENZIE SMITH

Carnegie Mellon shares these attributes. "Whenever I called the Admissions Office, a real person always answered the phone," she said.

Smith spent this past summer studying in the Middle East. She plans to major in creative writing and continue to study Arabic as a College of Humanities and Social Sciences student. After graduating from Carnegie Mellon, she hopes to publish her reflections on achieving two new goals — serve in the Peace Corps and sail solo around the world.

QATAR CAMPUS WELCOMES 100

Carnegie Mellon University in Qatar welcomed its largest class of students to date with 100 new students. Thirty-two of the new students are Qatari nationals and 25 other nationalities are represented. The Business Administration program enrolled 25 women and 21 men. Computer Science took in 11 women and 20 men, while Information Systems enrolled 19 women and four men.

Students Bring Enlightening Software to Light of Life

■ Shilo Raube

In six weeks, six visiting students from Historically Black Colleges and Universities (HBCU) met, formed a project team, collaborated with a client and developed a functioning, flexible and much-needed mentoring software system. If that seems like a lot in a short time period, it is.

The project that the students worked on was for Light of Life Rescue Mission — a non-profit organization in Pittsburgh that provides food, shelter and recovery programs. Light of Life needed a software system to manage their mentoring program — from the initial application through the interview



FOR MORE INFORMATION ABOUT THE PROJECT, VISIT PAWN.HSS.CMU.EDU/~LIGHTOFLIFE/.



PHOTO BY KEN ANDREYO

KIMBERLY SMITH OF HAMPTON UNIVERSITY, JERIA QUESENBERRY, AN INFORMATION SYSTEMS ASSISTANT TEACHING PROFESSOR, AND DENZEL GENT OF OAKWOOD UNIVERSITY WORK ON A SOFTWARE PROJECT FOR LIGHT OF LIFE RESCUE MISSION. SMITH AND GENT WERE TWO OF THE SIX STUDENTS WHO PARTICIPATED IN THE INFORMATION SYSTEMS (IS) APPLICATIONS IN THE COMMUNITY SUMMER PROGRAM.

“We did more than we thought we could in a short time,” said Kimberly Smith, project manager and a computer information systems major from Hampton University. “We wanted to give our best to the client.”

The end result? “Fabulous,” said Brenda Mucci, Light of Life after-

care mentoring manager. “I’m beyond impressed with the application, and it’s going to greatly improve our mentoring capabilities.”

The summer program is underwritten by a grant from the Andrew W. Mellon Foundation.

For the sixth straight summer, students participated in the Information Systems (IS) Applications in the Community Summer Program and completed a project designed to give them a hands-on learning experience. In addition to mastering technical concepts, the students were taught project management, leadership and teamwork skills.

“You can take six technically competent individuals, but if they don’t work together, it will be a disaster,” said Jeria Quesenberry, an IS assistant teaching professor. “We taught them to work as a cohesive team.”

process, follow-ups and approvals.

“Light of Life was looking for an off-the-shelf software solution, but they were too expensive,” said Larry Heimann, an IS assistant teaching professor. “Having the students build it gave them what they thought they needed, plus more because they were able to customize it to fit their current and potential future requirements. It created an opportunity for the students to work for real-world clients with real-world implications.”

For the students, it was a once in a lifetime experience.

Making Global Connections Through Service: Carnegie Mellon Qatar Students Build Community Kitchen in Thailand

■ Andrea L. Zrimsek

After final exams, most students would welcome a break. But this summer 15 Carnegie Mellon University in Qatar students excitedly packed their backpacks for a week of physical construction work in Thailand’s jungles. These students were selected from a competitive pool of applicants to participate in the annual service abroad opportunity offered

by the Division of Student Affairs.

The students worked in a small rural hill tribe village in the Pang Mapa district of Northern Thailand located four hours outside of Chiang Mai. Students were set on the ambitious task of constructing a four-walled kitchen and dining area for the village community. The project is a new feature for the hill

tribe people. It will be used for the entire village to cook and host communal events such as funerals and weddings.

Prior to their departure, the students organized a fundraiser and raised \$2,000 to purchase the tools and construction materials.

In Thailand, the students worked on every detail alongside the local people,

from the planning to manually mixing cement and moving hundreds of cinderblocks to the construction site.

“I have never expected life in Thailand to be so simple and relaxed; our trip to Thailand was the best 10 days of my life. I will never forget the people there, the group I went with, the adventure and the heavy labor that we did,” said Mohammed Fahad Kamal, a business administration major. “Helping the community in Thailand was an extremely rewarding experience for me. If I were to pick a country rather than Qatar to live in, it would absolutely be Thailand.”

The students recall working against the clock as the team raced to get piles of sand and rock under shelter before the heavy rains came. They formed an assembly line; pushing each other to move the materials as fast as possible.

On the final day, the women of the village displayed their gratitude to the team through traditional gestures of decorating the students with fragrant jasmine flower garland.

“We could tell how genuine and grateful they were to have had us there helping them build the community kitchen. I am never going to forget my experience in Thailand. This service trip was truly unforgettable,” said Rifki Bahri, a business administration major.

Service learning is an important component to the philosophy of student affairs as the university works to develop students who are engaged in and contribute back to their communities.

“Witnessing the impact of this experience on our students and seeing the gratitude of the villagers was immensely gratifying for me,” said Melissa Deschamps, director of international education at Carnegie Mellon Qatar. “Community service in an international setting allows students to not only help others, but it gives them the chance to experience a different culture and get a glimpse of how others live.”



PHOTO COURTESY OF CARNEGIE MELLON UNIVERSITY IN QATAR

RIFKI BAHRI (TPR '11) AT LEFT, A RESIDENT OF A RURAL THAI HILL TRIBE, CENTER, AND SARA ABBAS (TPR '12) AT RIGHT WORK ON THE FLOOR OF A NEW COMMUNITY KITCHEN IN THAILAND’S PANG MAPA DISTRICT.

INTERNS WORK TO ASSIST TANZANIAN CHILDREN

■ Kara Zamanski

Six Carnegie Mellon students and recent alumni spent the summer working on a unique internship that took many of them all the way to Dar es Salaam, Tanzania.

As the first participants in iSTEP — innovative Student Technology ExPerience — five interns journeyed to Tanzania, while one supported the team from Pittsburgh. The team conducted technology-based research projects to help developing communities and laid important groundwork for future research.

“Seldom does one get an internship experience that allows students to conduct research and find their own solutions to problems that positively impact developing communities in the world,” said Rotimi Abimbola (HS ’09), who called the experience enlightening and powerful.

“The iSTEP 2009 internship has shown me the importance of people and communities,” said Hatem Alismail, a 2009 computer science graduate of Carnegie Mellon in Qatar. “Regardless of how wonderful and powerful a technological solution is, community involvement is most important.”

Launched by Carnegie Mellon’s TechBridgeWorld research group, iSTEP provides the interns with the opportunity to add real-world research experience to their resumes.

“TechBridgeWorld’s iSTEP program redefines what an internship should be,” Alismail said. “The unique and novel



HATEM ALISMAIL (CS ’09), CENTER, DEMONSTRATES THE LITERACY MOBILE PHONE GAME TO MLIMANI PRIMARY SCHOOL TEACHERS.

projects present interesting challenges that require innovation, flexibility and adaptability to unexpected situations.”

This summer, the interns used the knowledge and skills they acquired in the classroom to creatively solve problems in an unfamiliar setting. During a podcast interview available at cmu.edu/itunes, several of the students described

everything was in disarray. But Beatrice Dias, a graduate student in engineering and public policy, described the teachers as being upbeat and excited about the interns’ projects because the teachers were involved in creating the technology.

“We had a buy-in and ownership with partners on the ground,” she said.

Working closely with local partners



ONLINE: WWW.TECHBRIDGEWORLD.ORG
[HTTP://ISTEPTANZANIA.WORDPRESS.COM/](http://ISTEPTANZANIA.WORDPRESS.COM/)

some of the problems the communities faced. For example, one school had holes in the walls, no electricity and

in the communities, the team of interns contributed their technical expertise to invent new tools and customize exist-

ing technology. Their three projects and solutions included creating a mobile phone-based literacy game for students at the Mlimani Primary School; working with the Institute of Social Work and the Department of Social Welfare to develop an information exchange protocol for social workers to report and receive information about AIDS orphans and vulnerable children using text messaging on mobile phones; and enhancing and evaluating a low-cost Braille Writing Tutor with teachers and visually-impaired students at the Uhuru Mchanganyiko Primary School.

The program provides interns from the university’s Pittsburgh and Doha campuses with the opportunity to tackle important world problems with the added benefit of witnessing firsthand the difference their work is making.

Anthony Velázquez (CS ’10) said the iSTEP internship was a way for him to use his computer science skills on real-world applications to make a positive impact.

“With projects such as this and many others happening at Carnegie Mellon, I hope that awareness for issues can bring more attention and more opportunities in the future,” concluded Velázquez.

Following their work in Tanzania, the interns plan to co-author papers about their project work and submit them for publication to upcoming conferences.

Media Digs Into Carnegie Mellon’s Environmental Research

■ Chriss Swaney

The Steinbrenner Institute for Environmental Education and Research (SEER) hosted five top journalists at its fifth annual environmental media fellowship program. The journalists were Tim Wheeler, environmental reporter with The Baltimore Sun; David Ledford, executive editor of Gannett’s The News Journal in New Castle, Del.; Margaret Kriz, environmental correspondent for the National Journal; Lindsay France, a producer and reporter for ABC Seattle/Tacoma; and Hanneke Brooymans, an environmental reporter for the Edmonton Journal in Alberta, Canada.

“The fellowship enables leading environmental science, technology and policy journalists to broaden and deepen their knowledge of environmental issues, and provides a unique opportunity for Carnegie Mellon faculty to share their research findings with and learn from an outstanding group of professional communicators,” said David A. Dzombak, faculty director for SEER and the Walter J. Blenko Sr. Professor of Environmental Engineering.

University researchers met with the journalists to discuss green design, air and water quality, risk management and alternative energy issues. Dzombak and SEER Executive Director Deb Lange accompanied the journalists as they visited former brownfield sites, participated in a boat cruise highlighting riverfront transformation and saw the city’s LEED-rated convention center.



STEINBRENNER MEDIA FELLOWS LINDSAY FRANCE, MARGARET KRIZ, TIM WHEELER, DAVID LEDFORD AND HANNEKE BROOYMANS, AND CARNEGIE MELLON’S DEB LANGE AND DAVE DZOMBAK TOURED PITTSBURGH’S THREE RIVERS ON THE RIVERQUEST EXPLORER.

Silicon Valley Celebrates 7th Graduation

■ Chriss Swaney

Carnegie Mellon's Silicon Valley campus hosted Hitachi Ltd.'s Elizabeth (Liz) King at its seventh annual graduation ceremony in August at Moffett Field, Calif.

King, vice president and general manager of Hitachi Ltd., encouraged the 50 new software engineering and software management graduates to be open and entrepreneurial.

"People need to realize that anything is possible in Silicon Valley where the drive for innovation is ubiquitous," said King, an executive with mechanical engineering and MBA degrees. "It's all about attitude, focus and relevance in today's competitive marketplace."

She added that Silicon Valley is the perfect venue to launch, and in some cases, re-launch careers because of the valley's world-class portfolio of experts in technology startups and product development.

Alok Rishi received a master's degree in software management, and he plans to start his own company this fall.

"I was overwhelmed by the expertise and helpfulness of my instructors who hooked me up with venture capitalists and business contacts," said Rishi, who spent 20 years at Sun Microsystems before heading back to school. "I want to innovate as an entrepreneur, and my two years at the Silicon Valley campus has given me just the right toolkit for success," he said.

And that drive for success by the class of 2009 is in step with the latest news that the economy is improving. The U.S. economy came out of its tailspin in the second quarter and may be poised to resume growing as business investment cutbacks moderate, according to the U.S. Commerce Department.

"We're going to see continued growth in mobile systems, including notebook computers, mobile phones, higher-performance networks, wireless sensors and specialized devices, and we will need innovative leaders like our recent graduates to continue pushing the research envelop for both consumers and industry," said Martin Griss, director of the Silicon Valley campus.

This year's class included 22 students majoring in software management and 28 in software engineering from the United States, Saudi Arabia, Taiwan, India, China, Russia, Mexico and Canada.

Carnegie Mellon Silicon Valley, established in 2002, offers full-time and part-time master's degree programs in software engineering, software management, networking, security and mobility, and engineering and technology innovation management. Last fall, the campus launched an associated bi-coastal electrical and computer engineering Ph.D. program focused on mobility, security and networking.

Phi Beta Kappa

COMPUTER SCIENCE GRADUATE IS FIRST INDUCTEE FROM CARNEGIE MELLON QATAR

■ Andrea L. Zrimsek

Hend Gedawy (CS '09) is the first Carnegie Mellon University in Qatar student to gain membership into Phi Beta Kappa, the oldest and most recognized academic honorary society in America. Gedawy earned the honor through her strong overall academic record in computer science and the high quality of her research work.

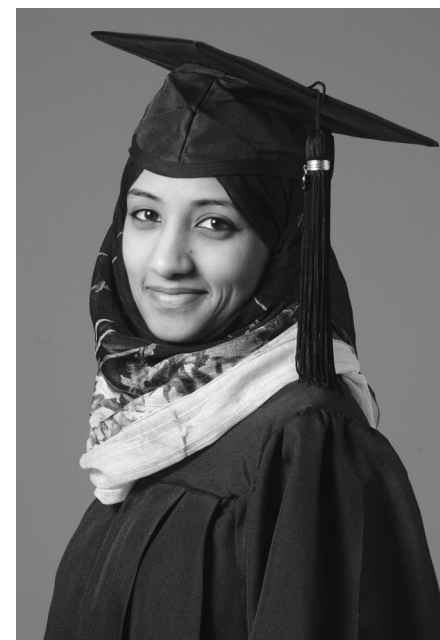
"Hend is a leader and an exceptional student because of her thirst for knowledge, her academic prowess, her determination and her positive influence on many other students," said John Robertson, assistant dean for academic affairs.

Among her many accomplishments are her ongoing senior honors thesis "Dynamic Path Planning and Traffic Signal Coordination for Emergency

Vehicle Routing" and her significance as a role model for many other students, especially as a woman in computer science.

Phi Beta Kappa accepts only students demonstrating excellence and integrity in the pursuit of a degree in the arts and sciences. Traditionally, membership has been limited to students in the top 10 percent of their graduating classes. Many notable figures have been initiated into Phi Beta Kappa including leaders in the American Revolution and 17 U.S. presidents.

In addition, nearly 100 members of Carnegie Mellon's faculty are members of Phi Beta Kappa, as well as more than 700 alumni including John Nash, Nobel Prize winner and subject of the book and film "A Beautiful Mind."



HEND GEDAWY

PHOTO COURTESY OF CARNEGIE MELLON UNIVERSITY IN QATAR

CHAPTER TO HOLD INITIATION CEREMONY, UPDATE ROSTER

Carnegie Mellon's chapter of Phi Beta Kappa, Upsilon of Pennsylvania, will induct seniors who have been selected for early initiation at 5 p.m. on Tuesday, Sept. 29, in the College of Fine Arts' Kresge Theater. A reception will immediately follow in the Great Hall.

All Carnegie Mellon faculty, staff and students who have been elected to the Phi Beta Kappa Society — at Carnegie Mellon or elsewhere — are invited to submit their information to be included on the Upsilon of Pennsylvania roster. Send the following information to Chapter Secretary Joseph Devine at jd0x@andrew.cmu.edu: name, email address, position/job title, Carnegie Mellon department, the college or university where you were elected to Phi Beta Kappa, the title of that institution's Phi Beta Kappa chapter and the year of your election.

Giving Back

CONTINUED FROM PAGE FOUR

giving rate to the university.

"It's enough people if you do the math, that it has an impact on our overall numbers for alumni giving," she said.

The university offers payroll deduction to all employees who wish to give back. Letters will be sent out later this fall with details.

Through giving, staff and faculty demonstrate their personal interest in maintaining the university's excellence, said Carole Panno, senior associate director of annual giving.

"By investing in Carnegie Mellon with a gift of any size, you are underwriting the continued strength and vitality of our students, faculty and programs," Panno said. "You are also participating in the philanthropic spirit on which this institution was founded more than 100 years ago. The size of your gift is not nearly as important as the act of giving itself."

To make a gift to Carnegie Mellon or for more information about volunteering with the Faculty & Staff Annual Fund Committee, contact Panno at cp1g@andrew.cmu.edu.

piper TRIVIA

Congratulations to June trivia winners Kristin Sullivan, Nanc Janda, Jan Harkes and Diana Dewey Emanuele for knowing that Rice Krispies, Twinkies and the beer can were three things that Google CEO Eric Schmidt said were invented during a recession in his commencement keynote address.

For this month's Piper Trivia question, name the Internal Communications Twitter account. The Piper staff will give away a T-shirt to the first four people who follow the account and send us an @reply on Twitter including the words "September Trivia." The winners' names will be published in the following issue. Previous winners are ineligible.

Barkin Discusses H1N1

CONTINUED FROM PAGE TWO

compromised immune system and other chronic respiratory illness. The CDC guidelines state that clinicians should not treat everyone with Tamiflu or Relenza because we have limited supplies, and we could end up having viral resistance if the drugs are used indiscriminately.

Should people be alarmed?

At this point in time, people should not be alarmed, but they should be smart and take care of themselves. If students become ill they should call the H1N1 hotline at 412-268-4161, where they will be directed to Student Health Services for instructions. They should call that number first before coming to our office because you don't want to expose those who are in the waiting room for other problems to H1N1.

Faculty and staff who become ill should call their health care provider. We're asking faculty and staff to notify Student Health Services as well at 412-268-8220 so we can continue to monitor the situation and understand how the campus is being affected.

In Case You Missed It ...

Kamlet's Term as Provost Extended



President Jared L. Cohon announced that Mark S. Kamlet has agreed to a two-year extension of his term as provost of the university. Kamlet started the last year of his second five-year term on July 1. With this extension, his current term will end on June 30, 2012, coinciding with the end of Cohon's current term as president. In recognition of the key leadership role that Kamlet plays, his title also has been changed to executive vice president and provost.

"Mark is a superb provost, who has been involved in every success that Carnegie Mellon has enjoyed over the last nine years. Mark is an extremely important member of

the administration, and I couldn't be more pleased — for myself, as well as the university — that he has agreed to this extension," Cohon wrote in an email to the university community.

Carnegie Mellon Names First Dean of Heinz College

Ramayya Krishnan, the W. W. Cooper and Ruth F. Cooper Professor of Management Science and Information Systems, was named the first dean of the H. John Heinz III College. Krishnan has been interim dean of the college since August 2008. A member of the faculty since 1988, Krishnan has served in a number of leadership roles and was the founding faculty member of the Masters of Information Systems Management Program.

"Ramayya Krishnan has held a deep commitment to Carnegie Mellon and the Heinz College for more than 20 years," said Mark S. Kamlet, executive vice president and provost. "His strong vision, boundless energy and collaborative nature position him to lead the new Heinz College to even greater heights."

Krishnan's research investigates societal and business problems at the interface of technology, management and the policy aspects of Internet-enabled systems. His work has been published widely in the areas of risk management in business process design and information security, social network analysis, and the design of policies that take into account the competing needs of promoting data access and privacy protection.



Lane Named Board of Trustees Chairman

Raymond J. Lane, a managing partner of Kleiner Perkins Caufield & Byers, has been appointed chairman of Carnegie Mellon's Board of Trustees and its Executive Committee. Lane succeeds David Shapira, president and CEO of Giant Eagle Inc., who will remain a member of the board's Executive and Compensation committees as a life trustee.



"I thank David for his vision, leadership and inspiration. He's been an outstanding chairman of the board," said President Jared L. Cohon. "I'm confident Ray will be an excellent successor. He's been a devoted, enthusiastic friend of this university for many years and I look forward to working with Ray in his new leadership role."

Lane and his wife, Stephanie, have established the Ray and Stephanie Lane Center for Computational Biology at Carnegie Mellon to develop computational methods to improve cancer detection, diagnosis and treatment. The Lanes also have endowed a distinguished professorship in mechanical engineering in memory of Ray's father, a graduate of Carnegie Mellon. Nadine Aubry, head of the Mechanical Engineering Department, received the professorship earlier this year.

Khosla Reappointed as College of Engineering Dean

Pradeep K. Khosla, the Philip and Marsha Dowd Professor of Electrical and Computer Engineering and founding director of Carnegie Mellon CyLab, has been appointed to a second five-year term as dean of the Carnegie Institute of Technology (CIT).

A Carnegie Mellon alumnus and member of the CIT faculty since 1986, Khosla has invested enormous energy in the success of Carnegie Mellon and its engineering college, and has demonstrated his leadership in research and education initiatives both within the university and internationally. Under his leadership, U.S. News & World Report most recently ranked CIT sixth in its national graduate engineering program rankings and seventh in its undergraduate rankings. The London Times Higher Education Supplement also ranked CIT sixth in the world in 2008.



NEWS BRIEFS

EPP Researchers Recommend Regulations for Safe CO₂ Capture, Sequestration



M. Granger Morgan, head of the Department of Engineering and Public Policy, led a research team that concluded that carbon capture and sequestration (CCS) technology, which captures

carbon dioxide from power plants and safely disposes of it deep underground, will not meet its full potential in the United States without new federal regulations that create a uniform regulatory environment. A set of four policy briefs, available at www.CCSReg.org, describe needed changes to federal law and agency rules to overcome regulatory and legal barriers to large-scale deployment of carbon sequestration.

Morgan and his colleagues believe that without a safe and cost-effective way to use CCS, as part of a broader strategy for CO₂ emissions control, there is no way the country will be able to achieve the reductions in future CO₂ emissions that Congress and the Obama administration are now proposing.

H&SS Professors Awarded Guggenheim Fellowships

The John Simon Guggenheim Memorial Foundation has named Mariana Achugar and Terrance Hayes as 2009 Guggenheim Fellows. The annual awards support the research of

those who "add to the educational, literary, artistic and scientific power of this country."

"Professors Achugar and Hayes join a prestigious group of Guggenheim Fellows, and to have their accomplishments and ideas acknowledged this way is a significant honor," said John Lehoczyk, dean of the College of Humanities and Social Sciences (H&SS).



Achugar, an associate professor of Spanish and second language acquisition skills in the Modern Languages Department, will use the yearlong fellowship to explore what

Uruguayan teenagers know about the military dictatorship and how they learn about it by following nine high school students.

Creative Writing Professor Hayes will complete a new collection of poetry that he is developing based on the Japanese presentation format Pecha Kucha, in which each speaker has six minutes and 40 seconds to narrate 20 images.

DARPA Names Gabriel Deputy Director

The Defense Advanced Research Projects Agency (DARPA) recently named Distinguished



Service Professor of Robotics Kaigham (Ken) Gabriel as its new deputy director. Gabriel previously served as professor of electrical and computer engineering and robotics at Carnegie Mellon. He co-founded Akustica in 2001 on Pittsburgh's South Side and is recognized worldwide as the architect of the MEMS (microelectromechanical systems) industry.

Gellman Receives \$2 Million Energy Grant

Chemical Engineering Department Head Andrew J. Gellman will use a \$2 million research grant from the Department of Energy to continue developing atomically and molecularly structured surfaces that will have an enormous impact on the efficiency of catalysts used to create products for the specialty chemical and petroleum industries. The work has significant implications for biofuel production and



the pharmaceutical industry. "We are developing surfaces and chemical reactions that will help a variety of industry sectors control chemical processes to select the best products from a myriad of alternatives," said Gellman, who is director of a new energy consortium created to develop cleaner, more efficient use of fossil fuels. He said that in chemical reactions, a chemical reactant is often converted into many different products, in spite of the fact that only one is desired or useful; thus creating significant waste.

PLCB Awards Student Health Services \$5,694

Student Health Services (SHS) received a \$5,694 grant as part of the Pennsylvania Liquor Control Board (PLCB) initiative to support funding aimed at preventing underage and dangerous drinking. SHS will use the money for a campaign that highlights social norms associated with drinking. SHS hopes to correct misperceptions regarding student drinking and promote healthy, protective behaviors.

Peers Honor Lowry, VanBriesen



Associate Professor of Civil and Environmental Engineering Greg Lowry has been named the 2009 recipient of the Malcolm Pirnie/AEESP Frontier in Research Award, which recognizes an environmental

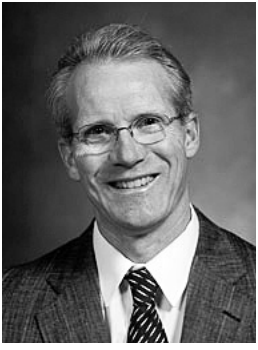
engineering or science professor who has advanced the field through recognized research leadership and pioneering efforts in a new and innovative research area. Lowry was recognized on July 28 at the 2009 Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference in Iowa City, Iowa. Associate Professor of Civil and Environmental Engineer-



School of Computer Science Dean Bryant Reappointed

Randal E. Bryant, University Professor of Computer Science, has been appointed to a second five-year term as dean of the School of Computer Science (SCS).

Since Bryant became dean in 2004, the school has established the world's first Machine Learning Department, launched the National Science Foundation-sponsored Quality of Life Technology Center with the University of Pittsburgh, and conceived and constructed the Gates and Hillman centers, the new home for SCS.



A faculty member since 1984, Bryant is co-author of a best-selling textbook, "Computer Systems: A Programmer's Perspective," that is used by more than 130 schools worldwide, with translations in Chinese and Russian.

Martin Griss To Head Silicon Valley Campus

Martin L. Griss is the new director of Carnegie Mellon's Silicon Valley campus. He succeeds James Morris, founding director of Carnegie Mellon Silicon Valley and former dean of the School of Computer Science. Previously, Griss was the associate dean of research at Carnegie Mellon Silicon Valley and co-director of Carnegie Mellon CyLab's Mobility Research Center.

Pradeep K. Khosla, founding director of CyLab and dean of the College of Engineering, said Griss' background, his extensive research and education experience, and his global skills in developing programs for software reuse make him a perfect choice to lead the campus. With nearly 40 years of academic and industrial research experience, Griss is world-renowned for his work in software reuse and software agents, which is now focused on context-aware, mobile companions for the globetrotting professional and the "SmartSpaces" sensor-enabled environment for home-based, elder-care projects.



Software Engineering Institute CEO Reappointed



Paul D. Nielsen has been appointed to a second five-year term to lead the Software Engineering Institute (SEI) as director and CEO.

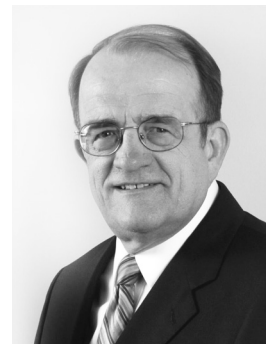
"Paul Nielsen's vision and leadership have served the SEI and Carnegie Mellon University well over the past five years, and we're very pleased to announce his reappointment," said Mark Kamlet, executive vice president and provost. "Paul has been instrumental in expanding the SEI's impact in both the commercial and government software engineering communities. Through his steady leadership, the SEI remains a premier institution for developing best practices in software engineering and computer security."

Nielsen joined the SEI in 2004 after a 32-year career in the U.S. Air Force, where he retired as a major general. He has overseen the development and expansion of the CMMI Product Suite, the establishment of SEI offices in Qatar, and research initiatives in ultra-large-scale systems, computer security and software architecture.

Wilburn To Lead Heinz College in Washington, D.C.

Robert C. Wilburn has joined the Heinz College in Washington, D.C., as a distinguished service professor and director. In this new role, Wilburn will help build on the college's early success in the U.S. capital and strengthen connections with external constituencies, including policy leaders, congressional delegations, government agencies and other organizations. The D.C. office was established in 2008.

Wilburn most recently served as president and CEO of the Gettysburg Foundation. He was president and CEO of the Carnegie Institute in Pittsburgh from 1984 to 1992.



ing Jeanne VanBriesen also was recognized at the conference with the McGraw-Hill/AEESP Award for Outstanding Teaching in Environmental Engineering & Science, which honors a faculty member who has made substantive contributions directly through class-oriented teaching.

Guestrin Wins Presidential Early Career Award



Carlos Guestrin, the Finmeccanica Assistant Professor of Computer Science and Machine Learning, has won a Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on scientists and engineers beginning their careers. He was nominated by the Department of Defense, which recognized him last year with the Office of Naval Research's Young Investigator Award.

Guestrin's long-term research interest is developing efficient algorithms and methods for designing, analyzing and controlling complex real-world systems. A painter, Guestrin also explores the intersection of computer science and art. Last semester, he and Visiting Art Professor Osman Khan co-taught "New Media Installation: Art That Learns," an interdisciplinary class in which students created interactive installations that incorporated the learning ability of computers.

The PECASE program recognizes 100 scientists and engineers who show exceptional potential for leadership at the frontiers of knowledge.

Architecture Program Receives NEA Grant

The School of Architecture's K-12 community outreach program, Architecture Explorations, has received a \$15,000 grant from the National Endowment for the Arts (NEA) to support its Architecture Building Communities program. The program consists of two intergenerational design events in which local students propose urban green space projects and incorporate them into a master plan for the Larimer neighborhood of Pittsburgh.

Under the direction of program director Kelly Lyons, Architecture Explorations aims to provide students with an introduction to the field of architecture through hands-on design projects. Since Lyons joined the School of Architecture in 2003, the school's K-12 outreach has grown from one Saturday program to a collection of eight programs, many offered in partnership with other regional organizations. Through these self-funded programs, more than 1,500 students have the opportunity to learn about architecture each year.

Women's Association Invites New Members

The Carnegie Mellon Women's Association (CMWA) is accepting new and returning members for the current fiscal year. Membership is open to all women associated with the university, including faculty, administrators,

trustees and staff or wives/partners and friends of faculty, administrators, trustees and staff. Yearly dues start at \$10 and go directly to the scholarships awarded to graduating seniors each spring. Learn more about the CMWA, which was founded in 1921, and download the membership form at www.cmu.edu/cmwa/Membership/index.html.

Kaulen Named Artist Of the Year

Tim Kaulen, a photographer with the university's Communications Design group, has been named the Pittsburgh Center for the Arts 2009 Artist of the Year. Kaulen uses reclaimed steel for larger-than-life art. Watch his sculptures come together in this Pittsburgh Post-Gazette video at <http://bit.ly/Kaulen>.

Alumnus, Professor Named Outstanding Young Investigator



Jeremy J. Michalek, an assistant professor in the Mechanical Engineering and Engineering and Public Policy departments, received the Design Automation Outstanding Young Investigator Award at the 2009 American Society of Mechanical Engineers International Design Engineering Technical Conference. The award recognizes an outstanding young investigator making contributions in the area of design automation, evaluation and integration.

Michalek (CIT '99) works to understand engineering design in its larger socio-economic context. Some of his latest research involves a new study suggesting that some plug-in hybrid vehicles could help drivers save money while addressing global warming and oil dependency issues.

EPA Honors Matyjaszewski For Green Chemistry



Krzysztof Matyjaszewski, the J.C. Warner Professor of the Natural Sciences and University Professor, received the 2009 Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency at the Carnegie Institution of Washington. The EPA's Presidential Green Chemistry Challenge promotes research and development of less-hazardous alternatives to existing technologies in an effort to reduce or eliminate waste in industrial production.

Matyjaszewski, who joins Thomas Lord Professor of Chemistry Terry Collins as recipients of the award, was recognized in the academic category for the development of an environmentally low-impact form of Atom Transfer Radical Polymerization (ATRP), a widely used method for preparation of functional polymers. The scientific and industrial communities have largely accepted ATRP as an important way to produce polymers.

CONTINUED ON PAGE TWELVE

LECTURE SPOTLIGHT: UNIVERSITY TO RECEIVE NOBEL MEDAL

CO-WINNER, FORMER STUDENT WILL PRESENT THE INAUGURAL JOHN A. POPLER LECTURES IN THEORETICAL AND COMPUTATIONAL CHEMISTRY

■ Jocelyn Duffy

The children of John A. Pople, the former J.C. Warner Professor of the Natural Sciences, have generously donated their father's medal, which he received for winning the 1998 Nobel Prize in Chemistry. The medal will be presented to the university at the Inaugural John A. Pople Lectures in Theoretical and Computational Chemistry at 4:30 p.m., Monday, Oct. 5 in the Mellon Institute Auditorium.

"The Nobel Medal is a symbol of excellence, ingenuity and innovation — three words that I would associate with John Pople and his work," said Hyung J. Kim, professor and head of the Department of Chemistry. "Pople's work transformed how chemists model molecules, allowing us to understand increasingly complex systems. Carnegie Mellon will proudly display his Nobel Medal, which recognizes this groundbreaking work."

The Department of Chemistry established the biennial lecture series, which will bring leaders in the field of

computational chemistry to campus, to honor Pople's contributions to science. Pople received the Nobel Prize for developing computational methods that made possible the first principle study of molecules, their properties and interactions in chemical reactions. Pople's seminal work was completed while working at the Carnegie Institute of Technology and Mellon Institute, and later at Carnegie Mellon, beginning in 1964. His commitment to the university was so strong that even after moving to Chicago in 1986 to be closer to family and receiving an adjunct faculty appointment at Northwestern University, Pople continued his research and educational activities at Carnegie Mellon until his retirement in 1993.

Two men with close ties to Pople, Walter Kohn and Mark Gordon, will present the lectures. Kohn, emeritus and research professor of physics at the University of California, Santa Barbara, earned the 1998 Nobel Prize in Chemis-

WHO: WALTER KOHN AND MARK GORDON

WHAT: INAUGURAL JOHN A. POPLER LECTURES IN THEORETICAL AND COMPUTATIONAL CHEMISTRY

WHEN: 4:30 P.M., MONDAY, OCT. 5

WHERE: MELLON INSTITUTE AUDITORIUM

try along with Pople. Kohn, who was a faculty member at the Carnegie Institute from 1950 to 1960, was recognized for developing the density-functional theory, which simplified the mathematics needed to describe the bonding of atoms, making it possible to study large molecules. In the 1990s, Pople incorporated this theory into his computational analysis; a pairing that allowed for study of even more complex molecules than previously possible. While Pople and Kohn never worked together, the Nobel committee singled out the two as the most prominent figures in the creation of quantum computational chemistry, a field of study that revolutionized the

whole of chemistry by allowing scientists to identify the inner structure of matter.

Gordon is the Frances M. Craig Distinguished Professor of Chemistry at Iowa State University and director of the Ames Laboratory Applied Mathematical Science program. Gordon received his Ph.D. from the Carnegie Institute of Technology in 1967 under Pople's guidance. Gordon's research interests are very broadly based in electronic structure theory and related fields, with applications including surface design and design of new materials.

The lectures and medal presentation are open to the public.

NEWS BRIEFS CONTINUED FROM PAGE ELEVEN

Professors Earn Prestigious HP Innovation Research Awards



Greg Ganger, a professor of electrical and computer engineering and director of the Parallel Data Lab, and Noah Smith, an assistant professor of language technologies and machine learning, are among 60 recipi-

ents worldwide to receive 2009 HP Innovation Research Awards. The awards encourage open collaboration with HP Labs for mutually beneficial, high-impact research.

Ganger, who received an HP Innovation Lab Award in 2008, will lead a research initiative in collaboration with HP Labs focused on data storage infrastructure issues, based on his winning proposal "Toward Scalable Self-Storage." Smith received his award for research into the use of probabilistic models to analyze political blogs, which involves Ph.D. student Tae Yano and William Cohen, associate professor of machine learning.

Team Finds Cells Are Like Computational Systems

An international team led by Ziv Bar-Joseph, an assistant professor of computer science and machine learning, finds that gene regulatory networks in cell nuclei are similar to cloud computing networks. The similarity is that each system keeps working despite the failure

of individual components, whether they are master genes or computer processors. The findings, reported in the online journal *Molecular Systems Biology*, help explain not only the robustness of cells, but some seemingly incongruent experimental results that have puzzled biologists.

"Similarities in the sequences of certain master genes allow them to back up each other to a degree we hadn't appreciated," said Bar-Joseph, a member of the Ray and Stephanie Lane Center for Computational Biology.

"We now have reason to think of cells as robust computational devices, employing redundancy in the same way that enables large computing systems, such as Amazon, to keep operating despite the fact that servers routinely fail," said Anthony Gitter, a graduate student in the Computer Science Department and lead author of the article.

Cohon Named Vice Chair Of DHS Task Force

Carnegie Mellon President Jared L. Cohon, a member of the Department of Homeland Security's Advisory Council, has been named vice chair of its Sustainability and Efficiency Task Force. The task force is an experienced group of 14 energy and environmental experts who will advise Homeland Security Secretary Janet Napolitano on ways to bolster national security by maximizing resource efficiency. The task force — comprised of experts from academia, business, government and architecture — will look for ways to incorporate sustainable practices into DHS operations in order to enhance national security and generate cost savings.

Lydia Thomas, a current trustee and former president and CEO of Noblis, Inc., will chair the task force. Cohon and Sunil Paul, founder of Spring Ventures, will serve as vice chairs.

International Education Names New Director

Following a national search, Carnegie Mellon has named Linda Gentile director of its Office of International Education. Gentile, who has served as interim director for the last several months, succeeds Lisa Krieg, who became director of Enrollment Services last semester. Gentile has worked in the Office of International Education as a foreign student and scholar advisor since 2003. Prior to joining Carnegie Mellon, she worked in the Office of International Education at the University of Pittsburgh, where she served as associate director from 2001 to 2003. Gentile is active in NAFSA, the Association of International Educators, and received the NAFSA Region VIII Award for Outstanding Contribution to International Education in 2007.

Heinz Studies When It's Safe To Hire Someone With a Criminal Record

Heinz College researchers have created a model for providing empirical evidence on when an ex-convict has been "clean" long enough to be considered "redeemed" for employment purposes.

"In the past, employers had no way of knowing when it might be safe to look past a criminal record," said Alfred Blumstein, co-author of the study and the J. Erik Jonsson University Professor of Urban Systems and Operations Research at the Heinz College. "Hiring an ex-offender was a totally arbitrary decision. We believe our model can change that and help provide employers with data in making such decisions. Or it can be used by state criminal-record repositories in deciding when a prior arrest is too 'stale' to warrant distributing." Blumstein's co-author is Kiminori

Nakamura, a Ph.D. student at the Heinz College.

The study, which appeared in *Criminology*, estimates that after five years of staying clean an individual with a criminal record is of no greater risk of committing another crime than other individuals of the same age. The research comes at a time when President Barack Obama's crime agenda includes breaking down employment barriers for people who have a prior criminal record, but who have stayed clean since their earlier offense.

Tepper Study Shows Effects of Executive Pay on Firm Value

Eliminating incentive-based components of executive pay packages — such as bonuses, stocks and options — could cut the value of U.S. firms by half over a period of just eight years. According to the Tepper School study, curbing those incentives would give executives less reason to be mindful of shareholder interests, particularly in larger firms that are more difficult to manage.

For example, the research predicts that financial returns in the aerospace industry would fall by almost 9 percent per year if the chief executive officers in each firm were paid a fixed wage. At the heart of these findings is the concept of moral hazard, in which an executive insulated from risk through a fixed wage may behave differently than one who was fully exposed to the risk associated with the management of the firm. The study was published in the *American Economic Review* and is co-authored by Professor of Economics and Strategy Robert Miller and Assistant Professor of Economics George-Levi Gayle.