



the PIPER

CMU'S NEWS SOURCE FOR FACULTY & STAFF

10/12 ISSUE

Carnegie Mellon University

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Energized

University Announces Innovative Scott Institute

■ Piper Staff

Carnegie Mellon is digging into one of the greatest challenges facing the world today.

Energy.

Granger Morgan, the director of the Wilton E. Scott Institute for Energy Innovation, outlined the work being done to establish the university as the “go to” place for energy-related research and education during a symposium that lauded the new initiative and described some of the current research at CMU.

“One of the things CMU is really good at is going out and identifying real-world problems and then fixing them,” said Morgan, the Thomas Lord Chair in Engineering.

The four key concerns plaguing the industry are a need for better energy efficiency; energy security; developing sources of energy that are clean, safe, affordable, secure and sustainable; and innovations in technology and organizations, regulations, economics and behaviors of people.

CONTINUED ON PAGE THREE



PHOTO BY TIM KAULEN

SCOTT SCHEIBLE, ASSISTANT DIRECTOR OF CAREER SERVICES AT THE HEINZ COLLEGE, WAS ONE OF THE MANY STAFF COUNCIL REPRESENTATIVES WHO SCOOPED ICE CREAM AT A RECENT SOCIAL FOR CMU STAFF. STAFF COUNCIL GENERAL BODY MEETINGS ARE OPEN TO ALL STAFF MEMBERS AND ARE HELD FROM NOON TO 1 P.M. ON THE THIRD THURSDAYS EACH MONTH. FOR MORE INFORMATION VISIT WWW.CMU.EDU/STAFF-COUNCIL.

Open Enrollment for Benefits Begins Oct. 29

■ Piper Staff

This year's open enrollment period for benefits begins Monday, Oct. 29 and runs through Monday, Nov. 12.

During the two-week period, Carnegie Mellon employees will be able to select their options for 2013 using the HR Connection website at www.cmu.edu/hr/hr_systems/hrconnection/index.html. Employees can choose plans for health, dental, vision, disability and life insurance as well as prescriptions, health care spending and dependent care spending accounts.

To help inform the university community about the options for 2013, Staff Council will host its annual Benefits Open Forum from noon to 1 p.m., Tuesday, Oct. 30 in Rangos 1, University Center. Director of Benefits Mary Oler

and her team will present an overview of the choices for 2013 and answer questions.

Information also will be available at the annual Benefits & Fitness Fair from 11 a.m. to 4 p.m., Wednesday, Nov. 7 in Rangos Ballroom, UC. Representatives from HR, benefits carriers and health organizations will be in attendance to answer questions. The fair also features wellness screenings, flu shots, raffle drawings and giveaways.

Mark Your Calendars

Benefits Open Forum: Noon – 1 p.m., Tuesday, Oct. 30, Rangos 1, UC

Benefits & Fitness Fair: 11 a.m. – 4 p.m., Wednesday, Nov. 7, Rangos, UC

Food Drive: Oct. 29 – Nov. 9

Take a Shot at Preventing the Flu

University Health Services is offering flu vaccine clinics for students, faculty, staff, spouses and partners. Human Resources will cover the cost for staff and faculty and the CMU student insurance plan will cover the vaccine cost for students on the plan. For spouses/partners and students on other plans, the cost is \$17 (payment by student account or check only; no cash, please).

The remaining vaccine clinic dates are:

Oct. 19: 9 a.m. - noon, University Center, Pake Room

Oct. 24: 9 a.m. - noon, Mellon Institute

Oct. 30: 3-6 p.m., Hamburg Hall

Nov. 7: 10 a.m. -3 p.m., University Center, Health and Benefits Fair

Nov. 15: 3-6 p.m., Tepper School of Business, Room 109

Please bring your CMU ID card.

Q&A: Heidemann Balances Interests in Business & Art

■ Heidi Opdyke

Kathryn Heidemann (HNZ'04) was recently named to Pittsburgh's 40 under 40 list. But for the director of the Master of Arts Management (MAM) Program, 25 is the number of interest.

With MAM celebrating its silver anniversary this year, Heidemann sat down with the Piper to discuss growing up abroad, the MAM Program and her passion for arts management.

What made you interested in the arts?

I was always interested in the arts, but I was always interested in the sciences.

I started taking dance when I was very little, and I picked it back up in high school. My mom made me take piano lessons starting when I was 8.

What really made me interested in the arts and culture was living in places where there were language barriers. My dad worked in the auto industry and we lived in Australia, Venezuela, Germany and Detroit. Because there was so much diversity in my schools, we often looked at the arts, culture, and local folklore to understand more about the communities where we were living.

In Venezuela, there were some Americans there, but there were also probably 30 other nationalities in my class. There was so much diversity that we all bonded in a lot of ways, and exposed each other to our respective cultures. Both food and art were essential "universal languages" that I loved to

explore, in particular.

I always loved to learn about where I was living. I think that's what fed my utopian view of the role of the arts as a tool for diplomacy and how we can create peace and change through these exchanges.

Did you ever consider being an artist?

I didn't want to be a practicing artist for my career. I love to still play bass guitar in bands and take dance classes, but I need to have that left brain/right brain balance and also love analyzing budgets and dissecting data.

When I found the field of arts management, I thought, "Perfect, I can have both."

How has MAM changed since you were a student in the program?

Ten years ago, it was fairly different. Back then there wasn't quite the diversity of the student body. Thirty-five percent of our students are now international, and we're seeing a lot more diversity of disciplines with students' backgrounds balanced between the performing and visual arts.

The curriculum has grown, with more electives and classes being introduced. Recently we added a new faculty member to the program, and there are lots of great synergies across the university.

The partnership between the College of Fine Arts (CFA) and the Heinz College has certainly strengthened. Dan Martin, the dean of CFA, was the MAM program director for 15 years and still serves as the faculty chair.

Now we also have some great international exchange programs and a double degree program with the University of Bologna in Italy.



KATHRYN HEIDEMANN

Where do you see the program going in the next 25 years?

The world has changed, and social media has changed. The field of arts management has responded as a result, and our program is at the forefront of developing the "new" best practice in the field. A patron now has multiple portals of entry to experience art now, and be engaged 24/7. It's not

merely about just going to a performance or through a museum anymore. It's my goal that we are always relevant and that we are ahead of the trends happening in the field. Through the faculty and the alumni, we are very keyed into what is happening.

MAM alumni serve as our "army" and our eyes and ears in the field. We do regular curriculum reviews with our advisory board. So I ask myself where I see the field going. I want to see us going there first because we're training the next generation of arts managers who need to be prepared for the field's evolution — or even better, be the ones inventing it.

How is arts management changing?

The field is continuing to blur the line of how people experience the arts.

We're seeing more people experiencing the arts without leaving their homes through mobile apps. They're attending screenings from remote locations, and they're engaging before, during and after an experience.

With Carnegie Mellon being at the center of innovation and technology we want to make sure we understand how that market works and help the arts organizations understand those synergies. My goal is to help students and alumni to think outside the box and bring the arts management field to a more sustainable place.

What brought you to Pittsburgh?

Grad school. I studied arts management and dance as an undergrad. I had never been here before, and I came for admitted students weekend and I fell in love with CMU and Pittsburgh. I really got a sense of a thriving cultural scene here, and it seemed like the perfect laboratory for school — it was small enough that it was accessible and large enough that there were plenty of opportunities.

I ended up staying and working for the Cultural Trust for eight years before working at Carnegie Mellon in the School of Music and then the MAM Program.

What makes Pittsburgh a cultural destination?

It has anything you could want. It has the big multimillion-dollar organizations such as the Cultural Trust, the opera, the symphony but also plenty of wonderful midsize arts organizations.

What I really love are the small owner-operated entrepreneurial arts organizations that have popped up. From quirky spaces in Braddock to the Penn Avenue Arts District and all of the arts organizations in Lawrenceville — they create a really diverse cultural landscape. Pittsburgh's affordability has really helped foster those cultural entrepreneurs. There's a lot of collaboration happening here.

40 Under 40

Each year 40 people under the age of 40 are recognized as being committed to shaping the Pittsburgh region and making it a better place. This year there are seven people with CMU connections on the list:

- Nina Barbuto (A'06)
- Sonika Bhatnagar, (S'95)
- Julie Butcher Pezzino, (HNZ'09)
- Cory Cope, (A'03)
- Kathryn Heidemann, (HNZ'04) Staff
- James Isler, (TPR'06)
- Allison Sanders, (HNZ'04)

Online: 40under40pittsburgh.org



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Inquiries concerning the application of and compliance with this statement should be directed to the vice president for campus affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056.

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report is also available online at www.cmu.edu/police/annualreports.

Produced for Media Relations by The Communications Design and Photography Group, September 2012, 13-125.

Big Data

Yahoo! Inc. recently delivered 257 servers to the Pittsburgh campus. The donated computers, with Intel-based processors, will be used by researchers in several CMU departments and centers to investigate problems in security, privacy, and parallel processing of massive amounts of data. Yahoo! also donated 10 Cisco switches.



PHOTO BY TIM KAULEN

New Building To Inspire Collaboration

■ Piper Staff

While being a home for innovation, the Sherman and Joyce Bowie Scott Hall will be a marvel in itself.

Scott Hall, which will house the Wilton E. Scott Institute for Energy Innovation, the Department of Biomedical Engineering and nanotechnology efforts, will extend over Junction Hollow in what is now a service area south of Hamerschlag Hall. By connecting to and between all of the surrounding buildings, the new facility will be just steps from hundreds of CMU faculty, researchers and staff.

The roof of the Claire and John Bertucci wing of the building will extend Henry Hornbostel's classic Mall between Hamerschlag and Wean halls and the pedestrian walkways. The glassy facade of Scott Hall will frame views of the Carnegie museums. Future plans include a potential bridge spanning Junction Hollow to Craig Street, which could extend future connections and university growth.

"ALL OF THIS WILL CREATE AN ENVIRONMENT WHERE RESEARCHERS WILL BE MORE COMFORTABLE TO WORK MORE COLLABORATIVELY, BE MORE CREATIVE, AND HOPEFULLY INNOVATE MORE EFFECTIVELY."

— ISAAC CAMPBELL

Isaac Campbell is founding principal of Office 52, who is leading the building's design team. Campbell spoke during a Sept. 22 ceremonial ground-breaking for the building and said the exterior of the building will have iridescent glass that will reflect patterns from different angles and at times will reflect the transformative nature of the science taking place inside.

The interior of the building, including the Arthur C. Ruge Atrium where visitors will be greeted, will be filled with daylight and have a network of shared research facilities woven



ISAAC CAMPBELL (CENTER) SHOWS A MODEL OF CAMPUS TO SHERMAN SCOTT (E'66) (RIGHT) AND JOYCE BOWIE SCOTT (A'65).

together with a variety of public and social spaces.

"Inside the building, researchers will be working on some of the most challenging and pressing problems of our

time," Campbell said. "All of this will create an environment where researchers will be more comfortable to work more collaboratively, be more creative, and hopefully innovate more effectively."

University Announces Innovative Scott Institute CONTINUED FROM PAGE ONE

"Addressing these issues will require an interdisciplinary systems approach to research and development that focuses on the problems as they are; the education of a new generation of experts and leaders who understand energy problems and how they can be resolved; and a public that can participate in an informed way in ongoing public discourse about energy issues," Morgan said.

With the launch of the Scott Institute, the university has a way to seamlessly combine expertise in technology, policy, integrated systems and behavior and social science as they relate to improving energy efficiency and developing new, clean, affordable and sustainable energy sources.

It also will provide a "one stop" point of entry to learn about CMU's energy-related activities, and use its resources to coordinate and promote synergy among the wide array of energy-related research centers and individual faculty research efforts.

The Scott Institute will help to seed opportunities as they arise and provide contiguous space where people with diverse backgrounds can interact with others working on energy issues. The institute's home, the Sherman and Joyce Bowie Scott Hall, will be built near Hamerschlag Hall.

"Carnegie Mellon has now taken a big step toward achieving these four critical concerns," Morgan said.

The institute will be administered through the College of Engineering, but it will be a university-wide organization that reports to the provost and a group of deans. Additionally, there will be an external advisory board from industry

and an internal steering committee of faculty.

Grand Gifts

The Scott Institute was made possible by a lead gift from Sherman Scott (E'66), president and founder of Delmar Systems, which develops mooring systems for the offshore oil and gas industry, and his wife, Joyce Bowie Scott (A'65), a trustee of the university. The institute is named for Sherman's father, Wilton E. Scott.

"By bringing together experts from a range of disciplines, Carnegie Mellon is the perfect place to help meet the energy challenges of the future," Scott said. "Energy is a precious resource, and Carnegie Mellon's systems approach can create solutions that ensure we produce and use energy more efficiently."

Regional Partnership

At the symposium, Andy Gellman, associate director for the Scott Institute, discussed the university's continued leadership in the National Energy Technology Laboratory (NETL) Regional University Alliance (RUA). About 20 CMU faculty members from multiple departments and colleges participate in the NETL-RUA, researching areas such as air quality, carbon capture, carbon sequestration, energy storage, fuel cells, hydrogen separation and water.

The symposium concluded with four presentations selected by electronic audience voting:

- Baruch Fischhoff, the Howard Heinz University Professor, discussed how human behavior will affect the energy future.

- Ed Rubin, the Alumni Professor of Environmental Engineering and Science, discussed clean coal.
- Jeanne VanBriesen, director of the Center for Water Quality in Urban Environmental Systems, discussed water and shale gas development.
- Jay Whitacre, the Gerard G. Elia Career Development Professor, discussed low cost batteries.

The talks and much more information is available on the institute website at www.cmu.edu/energy.

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inspire
innovation.
THE CAMPAIGN FOR CARNEGIE MELLON UNIVERSITY

WE ARE MAKING A DIFFERENCE. CARNEGIE MELLON HAS CROSSED THE \$1 BILLION MILESTONE OF OUR INSPIRE INNOVATION CAMPAIGN. BUT WE ARE NOT DONE YET. THANKS IN PART TO THE SUPPORT OF THE CMU CAMPUS COMMUNITY, WE ARE EXPERIENCING THE AMAZING IMPACT THE CAMPAIGN HAS GENERATED ACROSS THE ENTIRE UNIVERSITY. VISIT CMU.EDU/CAMPAIGN FOR THE LATEST CAMPAIGN NEWS AND PROGRESS, OR TO MAKE YOUR GIFT TODAY. PROGRESS SINCE AUGUST 15, 2012: \$7,277,963.

Particle Physics

Large Hadron Collider Breakthroughs Excite CMU Physicists

■ Jocelyn Duffy

It was a stellar day for physicists when researchers at CERN's Large Hadron Collider (LHC) announced that they found a particle with behavior consistent with that of a Higgs boson.

First theorized about 50 years ago, the Higgs boson was considered to be the missing piece of the Standard Model of particle physics — the framework physicists use to explain and interpret all the matter and forces in the universe. It's thought to be the particle that gives mass to matter.

CMU Physics professors Tom Ferguson, Manfred Paulini, Jim Russ and Helmut Vogel work on the collider's Compact Muon Solenoid (CMS) project. When the announcement was made this summer, Ferguson, Russ and Vogel were at the CERN facility in Geneva, Switzerland, that houses the LHC and Paulini had just left the facility and returned to Pittsburgh.

"It would be an understatement to say it was the talk of the town. People lined up outside of the main auditorium hours in advance," Vogel said. "This was the biggest event at CERN, and certainly one of the biggest in particle physics since the discovery of W and Z bosons 30 years ago."

The CERN facility is touted as the world's largest particle physics laboratory, where some 10,000 visiting scientists and engineers representing 608 universities and 113 nationalities come to work on their research aimed at answering some of the most fundamental questions of physics.

"You need this many people to design, build and run the experiment. You need this many people to check the quality of the data and to reconstruct and analyze the data," Paulini said. "The LHC produces between 10 and 15 petabytes of data per year. It's in these really huge sets of data where we hope to find the answers to some of our biggest questions."

"To recreate in the lab, however briefly, conditions like those in the first fraction of a second after the big bang require facilities and equipment that can only be designed and built by large international collaborations," Vogel added.

While the Higgs boson has grabbed much of the attention, it only represents a portion of the research happening at the LHC.

"Finding the Higgs was a long-time milestone for the experiment. But this was not the reason the LHC was built," Ferguson said. "We know that the current Standard Model is incomplete. There are many extensions to the present standard model, most of which predict the existence of new particles. We don't know which theory is correct — if any

— so we don't know the mass or properties of the particles we are looking for. So the search continues."

The Mellon College of Science physicists are four of the many researchers working with the LHC who aren't searching for evidence of a Higgs boson. Early in the construction of the CMS experiment, CMU researchers under the leadership of Ferguson helped to construct the electronics for the CMS detector. Now they're using the data that comes from the LHC's high-energy particle collisions to try to find new particles, like yet-to-be identified quarks and supersymmetric particles.

"The opening of the new energy frontier at the Large Hadron Collider is an exciting time for particle physics," Russ said. "We're actively searching for new phenomena with the expectation that we will find evidence for a new class of particles."

Paulini and Russ are looking at data from the LHC to find something outside of the Standard Model that has eluded physicists for ages — a dark matter particle.

"We don't know what dark matter is. It doesn't interact with regular matter. It could be a new form of particle that possibly could be created at the LHC," Paulini said.

A good deal of this research relies on the theory of supersymmetry, which proposes that all particles have a counterpart that has the exact same mass and quantum number but differ in spin by one-half unit. During the LHC's high-energy collisions, new particles are created. As the particles decay it is thought that the last and lightest supersymmetric particle left could be a dark matter particle.

In their research, Vogel and Ferguson are trying to identify new types of quarks, the elementary particles that make up matter.

In addition to the scientific possibilities at the LHC, the CMU researchers also are excited about the educational opportunities. Currently three postdoctoral researchers, five graduate students and one undergraduate from CMU are working on projects with the LHC.

Historically, the skills the students learn on these large projects make them well prepared to address the challenges of applied science. Russ says that in the past 30 years, he's noticed that CMU students trained in high-energy particle physics are highly sought after by employers.

"In the process of operating such complex experiments we've created a whole generation of highly trained experts in various technologies who will be sought after not just in academia but in industry," Vogel said.

Cohon's Cèilidh Address Reflects on CMU's Values

■ Heidi Opdyke

Among the most interesting interdisciplinary stories that President Jared L. Cohon has seen at Carnegie Mellon is a student who double majored in biology and bassoon.

"She wasn't a biology major who took music appreciation. She was a bassoon major and all that that entails, practicing six hours a day," he said during his annual Cèilidh Weekend address. "And she was also a biology major, and that's what students are doing here. It creates a remarkable combination," he said.

He described many of the creative ways that Carnegie Mellon people approach subjects they are passionate about as he reflected on what he has seen at the university in the past 16 years. But, Cohon noted for the alumni in the audience, that as much as things change, some things stay the same.

"The same values that provided the organizing scaffold for the university

that you attended 50, 60 years ago, are the same values we celebrate today: hard work; a commitment to real-world problem solving and making a difference in the world; and collaboration and teamwork," he said.

Those traits are making things happen outside of Carnegie Mellon. He shared that the university has been working to help southwest Pennsylvania through its commitment to generating more spinoff companies. The university is now second in the country for the number of startups per research dollar.

"The impact on Pittsburgh has been fabulous," said Cohon who noted that university research also has affected the region — from its focus on energy to recent advances in life sciences.

Cohon spoke about training students to work in a global economy. Not only does CMU have a presence around the world with campuses and programs, but

CONTINUED ON PAGE TWELVE

A Curtain Call To Action



RORY O'MALLEY PERFORMS DURING THE "8" READING. ALSO PICTURED ARE SAWYER PIERCE (A'15); CAMERON KNIGHT, AN ASSISTANT PROFESSOR OF ACTING; AND NATALIE BAKER-SHIRER, AN ASSOCIATE PROFESSOR OF VOICE.

■ Piper Staff

Theater recently took the form of a call to action at Carnegie Mellon.

Alumnus Rory O'Malley (A'03) drove that curtain call to CMU last month when he and several colleagues from Broadway Impact, a grassroots organization of theater artists dedicated to supporting marriage equality, brought to campus a special reading of "8," a play chronicling the historic trial of Perry v. Schwarzenegger (now Perry v. Brown).

The case, filed by the American Foundation for Equal Rights, sought to overturn California's Proposition 8, a controversial ballot measure that stripped the state's gay and lesbian couples of the right to marry.

O'Malley, who was one of only 13 spectators allowed in the courtroom to witness the proceedings, said he hopes the play will inspire the CMU community to act.

"This is our duty and our calling as a generation," said O'Malley, who was nominated for a Tony Award for his role in "The Book of Mormon."

The reading, directed by John Wells Fellow Caleb Hammond (MFA'14), featured O'Malley and 19 School of Drama faculty and students. Faculty members included Barbara MacKenzie-Wood, Ingrid Sonnichsen, Natalie Baker-Shirer, Cameron Knight, Dick Block, Jed Harris and Randy Kovitz.

Following the reading, O'Malley, Broadway Impact Executive Director Jenny Kanelos and CMU LGBT resources coordinator Meg Evans led a discussion with the audience that focused on Broadway Impact and the ways individuals can support marriage equality.

Table Manners

Etiquette Dinner Promotes Decorum for Tepper First-year Students

■ Cristina Rouvalis

Ajit Bopalkar gingerly ate a few leaves of spinach with a fork in his left hand and a knife in his right. For the right-handed student at the Tepper School of Business, it wasn't the most natural way to dine on salad. But as he learned that evening, it was the most polite way.

Bopalkar, a freshman in business administration from Edison, N.J., was eager to absorb the fine points of formal dining during the Tepper School's Etiquette Dinner at the University Club in Pittsburgh.

Course by elegant course, he and some 75 other freshmen, in suits and business attire, learned the table manners needed to make a good impression during a job interview or formal business dinner.

The event is one of several opportunities for Carnegie Mellon students to polish their skills.

"It definitely was a very helpful guide," Bopalkar said. "I would use what I learned during an interview."

The students received their lesson over a meal of chicken marsala, gold brick salmon or vegetable napoleon. Under the ballroom's crystal chandeliers, they learned which of three forks to use for dessert (the horizontal one on top of the plate), whether to take their jackets off mid-meal (only if the host takes his off first) and how to eat soup (with small, outward strokes).

"Every little detail matters," said Rubab Jafry-O'Conner, associate director of the undergraduate business administration program.

Even napkin etiquette was examined in depth.

"First, you take the napkin and place it on your lap — not around your neck," said Milton Cofield, executive director of the undergraduate business administration program and teaching professor of business management.



PHOTO BY CHAD CROWELL (CHANDLER CROWELL PHOTOGRAPHY)

JOYCE SUN, WILLA LU, MATT ELCHIK AND OMAR EL-SADANY WERE AMONG THE MORE THAN 70 FRESHMEN WHO WERE COACHED ON THE FINER POINTS OF DECORUM DURING THE TEPPER SCHOOL'S ANNUAL ETIQUETTE DINNER.

As the "etiquette coach" for the evening, Cofield guided the students through the meal. When excusing themselves, he advised students to fold their napkins and place them on the table — not the seat.

As the waiters dished up bowls of minestrone soup, students were advised to wait until everyone was served before taking the first sip.

"You follow the lead of the host," he said.

Cofield warned students that the rules of etiquette vary by culture. For example, while slurping soup is usually looked upon as gauche in Europe and the United States, it might be considered polite in some Asian cultures.

Danica Chan, a sophomore and emcee of the etiquette dinner, asked Cofield what students should do if they

are served something they don't like.

"If you are in a restaurant, just leave it alone," Cofield said, adding that while it's okay to ask the waiter for a substitution, make sure not to cause a distraction. In a private home, he advised guests to try everything so as not to offend the host.

Cofield urged students to resist ordering the most expensive entree on the menu.

"You are not there for the food," he reminded them. "You are there for another business purpose."

He also pointed out that etiquette extends beyond the table.

"We want to introduce you to the whole concept that a proper kind of behavior is very important for people to have any kind of success," he said. He urged students to address their instruc-

tors as "doctor" or "professor," rather than by first names.

Dean Robert Dammon quipped that there was a lot of pressure on the dean to have good etiquette during the annual etiquette dinner. He reminded students that good manners reflect "how you conduct yourself and how you treat people in life."

Sean Park, a sophomore business administration major, helped organize the event with Chan. He said he learned a lot because he had missed last year's dinner.

"When I walked in, I wasn't sure why there were three forks and two spoons," he said. "Now I know. It's a great learning experience."

Cristina Rouvalis is a freelance writer based in Pittsburgh.

RUDMAN'S RULES

These Top 10 Dos and Don'ts come from Joseph Rudman, scientific project administrator in the Physics Department and adjunct English professor. Rudman, who earned his Doctor of Arts in English from CMU, has hosted hundreds of etiquette dinners for Student Affairs.

DO

- Be on time.
- Be clean, neat and properly dressed.
- Smile and look your conversation partner in the eye.
- Conduct yourself as an actor on the stage.
- Speak in complete sentences with no verbal noise (e.g. like, ahm).
- Sit up straight (not stiff) and close to the table — both feet on the floor.
- Be careful — prevention is the key to spillage.
- In general, use utensils from the outside in.
- Always err on the side of conservatism.
- Take small bites of food into your mouth.

DO NOT

- Talk with food in your mouth.
- Drink with food in your mouth.
- Have any utensil in your hand unless conveying food to your mouth.
- Bring phones or any other electronic device to the table.
- Use hand gestures.
- Blow on your soup, slurp your soup or drink.
- Put your elbows or forearms on the table.
- Forget to say please and thank you — to your tablemates and the waitstaff.
- Lick your fingers or touch your food.
- Start eating until your tablemates are all served.

Congratulations to the Andy Award Nominees!

In addition to the Andy Awards on Oct. 16, Staff Council awarded 573 staff members with certificates for their years of service. During the ceremony, President Jared L. Cohon and Provost Mark S. Kamlet presented 33 staff members with framed certificates recognizing their 30, 35 and 45 years of service. Noel Nuhfer, director of

electron microscopy and material characterization for Materials Science & Engineering, was honored for 45 years of service to CMU. Another 540 staff members will receive their certificates for their 5, 10, 15, 20 and 25 years of service.

Innovation



THE EXCHANGE TEAM (FROM LEFT TO RIGHT; 1ST ROW): JOSEPH KERN (CMU'04), GARY DIPIAZZA, DAVE McMURTRIE, SHLOMO BALASS, GARRETT KING (HNZ'11) (2ND ROW): LINETTE VOYTOVICH, DOT FOOTE, GEORGE CANN, ATTILA CSOKAI (HNZ'09), SUSAN ALEXANDER, CHUCK BARTEL (HNZ'95), WILL ZICKEFOOSE (HNZ'11), DAVID RIEL (HNZ'11), GRETCHEN BECK (HSS'84), CRAIG MIRON, DAVID BAISLEY AND CHRIS NOLIN (MCS'85). MISSING: JOSH BYERS, TOM DUGAS, ALEX LANG, KYAT MAK, PATTY RIETHER, SARA SCIULLI, KEVIN WESTLING AND LISA ZIRNGIBL



BRENDA GRAHAM
ADMINISTRATIVE COMPUTING



ED MCAFOOSE
HEINZ COLLEGE

LEFT: THE S3 TEAM (FROM LEFT TO RIGHT; 1ST ROW): LISA KRIEG, LISA SALSGIVER, VIDYA KRISHNASWAMY, DARLEEN LABARBERA (2ND ROW): KAREN GIANNANGELI, JEN WAHLUND, BRIAN HILL, TOM VRANA, AND JOHN PAPICHAK (CIT'84, HNZ'90). MISSING: PARVIS DOUSTI, ENROLLMENT SERVICES AND COMPUTING SERVICES



THE SCHOOL OF COMPUTER SCIENCE (SCS) FACULTY REVIEW TEAM (FROM LEFT TO RIGHT): DALE SHANEFELT AND MICHAEL NIKITHSER



THE ITUNES U COURSE TEAM (FROM LEFT TO RIGHT; 1ST ROW): CARRIE CHISHOLM, DAN JENKINS AND STEPHEN M. CHABASSOL (2ND ROW): AMANDA BERNEBURG, JOHN PRZYBORSKI (CS'14) AND BRIAN PARKER

Commitment to Students



GRETCHEN HUNTER
HEINZ COLLEGE



MAXINE LEFFARD
CIVIL & ENVIRONMENTAL
ENGINEERING



THE MARKETING & MEDIA RELATIONS TEAM (FROM LEFT TO RIGHT; 1ST ROW): VICTORIA BUSHMIRE, CARRIE CHISHOLM AND HEIDI OPDYKE (2ND ROW): ABBY SIMMONS, ROBERT MENDELSON, LARA STEINER AND JENNIFER BOYER. MISSING: D. MURRY EVANS, CHRISS SWANEY, AND KATE WALTER (HNZ'11)

University Citizenship



SONYA BELL
UNIVERSITY POLICE



LYNNE LALONE
TEPPER SCHOOL
OF BUSINESS



THE HEINZ COLLEGE TEAM (FROM LEFT TO RIGHT): BARBARA L. PACELLA, DIANA P. BASTO (HNZ'11), ALLISON J. FRANKOSKI (IM'96) AND ROBERTA M. SERBIN (HNZ'13)

Culture



CHRISTINA COWAN
INSTITUTE FOR
COMPLEX ENGINEERED
SYSTEMS



CHRIS HERTZ
MECHANICAL ENGINEERING



NANCY MONDA
MODERN LANGUAGES



KAREN OLACK
SCHOOL OF COMPUTER
SCIENCE

Community Contribution



THE CULINART CATERING TEAM (FROM LEFT TO RIGHT): ERIN ROSE, PAM WILSON, KATIE GENSAMER, KATRINA DICOSIMO-STURGES, CHEF ALDO RAMIREZ, JOHN REPASI, JAIMIE GENSAMER AND WALTER BROWN



REENIE KIRBY
ELECTRICAL & COMPUTER
ENGINEERING



THE MECHANICAL ENGINEERING TEAM (FROM LEFT TO RIGHT): JOHN FULMER, JIM DILLINGER AND EDWARD R. WOJCIECHOWSKI, JR.



WARREN "CHUCK"
WHITTAKER, ROBOTICS
INSTITUTE

Dedication



JUDY ABRAMS
CYERT CENTER FOR
EARLY EDUCATION



LEENA ARORA (HNZ'10)
SOFTWARE ENGINEER-
ING INSTITUTE



ANITA CONNELLY
MATERIALS SCIENCE
& ENGINEERING



LISA DICKTER, CAREER
& PROFESSIONAL
DEVELOPMENT CENTER



BARBARA DORNEY
CENTER FOR THE NEURAL
BASIS OF COGNITION



BILL GALL
COMPUTER STORE



CYNTHIA LAMB
UNIVERSITY PRESS



RICH LYONS, COPY
CENTERS (POSTHUMOUS
NOMINATION)



ED MORRIS
SOFTWARE
ENGINEERING INSTITUTE



TIM SAGER
CHEMISTRY



JONATHAN SEWALL
HUMAN-COMPUTER
INTERACTION INSTITUTE



SUSAN TATE HISER
UNIVERSITY
ADVANCEMENT



THE INFORMATION SECURITY OFFICE (ISO) TEAM (FROM LEFT TO RIGHT; 1ST ROW): CHRIS RIES, VLAD GRIGORESCU AND THEODORE PHAM (CIT'99, CIT'01) (2ND ROW): ALICIA POWERS, WIAM YOUNES (HNZ'02), YASSEEN BOURNE (HNZ'13), JOHN LERCHEY, DOUG MARKIEWICZ, MARY ANN BLAIR AND ALLISON MACFARLAN



THE ART STORE TEAM (FROM LEFT TO RIGHT): AMY DALY (CFA'89), PERRY A. BECK AND KATHERINE DEN UYL



MARILYN WALGORA
COMPUTER SCIENCE



THE NYC TEPPER SCHOOL OF BUSINESS TEAM (FROM LEFT TO RIGHT; 1ST ROW): SONDI PROPSTEIN (GSIA'78) (2ND ROW): DIFFY PALJEVIC, SABRINA DZAFEROVIC AND DAVID RANKINE



THE SPONSORED PROJECTS ACCOUNTING TEAM (FROM LEFT TO RIGHT; 1ST ROW): AUTUMN DEPALMA, SHARON MCCANN AND TERI MCCORT, (2ND ROW): AUDREY PORTIS, DAN SOZA, ERIC SEIFERT, DAVID THOMAS, RYAN ZELEZNIK AND JANET NOVELLI



GUY WINN
ENROLLMENT SERVICES

Trio of Programs Bring Alumni Back for Silver Anniversaries

■ Piper Staff

Twenty-five years is a milestone, and at CMU at least three programs are hitting it this year.

ROTC

CMU's Naval Reserve Officer Training Corps (NROTC) program produces well-trained and educated officers for the U.S. Navy. And some of these future officers receive scholarship funding that make a CMU education attainable.

During Cèilidh Weekend alumni and current students celebrated the 25-year-old partnership with the Navy.

Nicholas Allen (E'15) wants to serve on a submarine and study nuclear power. And he is grateful to be one of CMU's 25 annual NROTC scholarship recipients.

"I feel proud to be in the Naval ROTC program at CMU. This scholarship is one of the best things that has ever happened to me," Allen said.

Allen, who also is on the university's football team, chose CMU because it met the criteria he wanted in a college. And he found its location appealing, too.

"Carnegie Mellon is one of the best engineering schools in the world. It has a Division III football program. And it has a Naval ROTC unit," he explained. "Also, Pittsburgh is the perfect city, and Carnegie Mellon just felt right."

Commissioned in December 1987, the CMU Naval ROTC unit is one of 71 units across the nation. It is led by a staff of six active-duty U.S. Navy and Marine Corps personnel.



COMMANDER MICHAEL SAVAGEAUX OF THE USS PITTSBURGH TOSSES THE COIN AT THE BEGINNING OF CARNEGIE MELLON'S GAME AGAINST DENISON UNIVERSITY. THE TARTANS DEFEATED THE BIG RED 41-21.

PHOTO BY TIM KAULEN

The mission of Naval ROTC is to develop the highest ideals of duty, honor and loyalty.

It's goal is to commission U.S. Navy and Marine Corps officers who readily assume the highest responsibilities of command, citizenship and government.

Allen is just one example of the caliber of student involved in the Naval ROTC program.

The unit's midshipmen are some of the most active and motivated students on campus, holding positions of lead-

ership in many campus organizations including fraternities and sororities, clubs and varsity sports.

The unit competes in nearly every intramural sport offered and sends teams to compete against other ROTC units in drill, sports and track and field.

During Cèilidh Weekend the NROTC participated in the coin toss for the football game and hosted a reception. As part of the celebration, the commanding officer of the nuclear submarine USS Pittsburgh delivered a talk to the midshipmen.

decorative arts at the Carnegie Museum of Art; Michael Scott (DC'04, '05), children's book author and creator of an iPad version of his picture book "Be a Buddy, Not a Bully"; Regina Anderson (DC'05), senior associate at Independent Sector in Washington, D.C.; David Pass (DC'09), Ph.D. candidate at Brandeis University; and Luke Niebler (DC'11), an English instructor at the Community College of Allegheny County.

Master of Arts Management

The Master of Arts Management (MAM) Program celebrated its quarter century with a symposium during Cèilidh Weekend.

Offered through a joint partnership between CMU's H. John Heinz III College's School of Public Policy & Management and its College of Fine Arts, the MAM Program is designed to create innovative leaders in the visual and performing arts. The program combines rigorous finance, marketing, technology and fundraising coursework with practical experience to prepare graduates to excel in public, private or nonprofit arts environments.

The MAM program boasts more than 600 graduates who work for some of the most prestigious arts institutions in the United States and beyond, including the Guggenheim Museum, The Kennedy Center for the Performing Arts, the Carnegie Museum of Art, The Metropolitan Opera, the Smithsonian, the National Endowment for the Arts, the Edinburgh Festival (UK) and the Mori Art Museum (Japan). Many MAM alumni also have enjoyed successful roles at organizations such as Google, eBay and Amazon, among others.

Literary and Cultural Studies Program

The Literary and Cultural Studies Program in the Department of English has worked to understand what messages in the media and literature mean in a cultural context.

The program, which offers master's and doctoral degrees, celebrated its 25th anniversary with two days of events at the end of September.

"Since it was founded, our Literary & Cultural Studies Program, which combines scholarly interpretation of novels, plays, films and music with the study of the wider social conditions in which art gets produced and interpreted, has contributed in a vital way to the Carnegie Mellon vision of interdisciplinary collaboration around critical issues of society," said Chris Neuwirth, head of the Department of English.

The graduates have entered a variety of fields. An alumni panel discussed how they use the ideas of cultural studies in their everyday work lives. Panelists included Carl Davenport (DC'07), former federal government consultant and current manager at BNY Mellon; Rachel Delphia (DC'03), assistant curator of

Caring for Kuzak

■ Chriss Swaney

Carnegie Mellon's Society of Automotive Engineering (SAE) Race Team rededicated its formula-one-style race car to honor injured Clairton Police Officer James Kuzak Jr., who was shot three times responding to a home invasion last year. The CMU students also created a "Thank You" plaque for Kuzak, who donated automotive tools for maintenance of the race car.

The event, "Driving Dedicated: Honoring Sacrifice," was to raise awareness for the veteran officer still recovering from his injuries and for his support of the SAE race team.



ADAM BRECHER, A SENIOR IN MECHANICAL ENGINEERING AND HEAD OF THE SAE RACE TEAM, WATCHES AS JAMES KUZAK JR. ADDS HIS NAME TO THE GROUP'S RACE CAR.

PHOTO BY KEN ANDREYO

Kamlet Discusses Education on World Stage

■ Heidi Opdyke

The future of education is not going to have a one-size-fits-all solution. In fact, there is the potential for an explosion of opportunity.

A panel of experts, including Mark Kamlet, provost and executive vice president of Carnegie Mellon, discussed what some of those changes might be at the World Economic Forum's "Annual Meeting of New Champions" in Tianjin, China.

Kamlet touched on Carnegie Mellon's groundbreaking research into online learning and how university spinoff Carnegie Learning and CMU's Open Learning Initiative combine cognitive psychology, artificial intelligence and machine learning. But, he said, it goes beyond simply posting online lectures.

The future of learning will not be a "sage on a stage" but rather a more one-on-one approach.

"It's going to be much more personalized, much more adapted to the individual students," Kamlet said during a panel discussion. "But it's going to require a very different way of thinking about how a teacher optimally functions." The question becomes how to move into that framework without too much disruption.

The panelists discussed how a menu of innovations can provide different resources to educators in a variety of situations, in which solutions can be tailored to specific needs. Not everything can be done online, Kamlet said.

"I think what one finds is that the best approach is typically blended," said Kamlet who noted that the future of



CMU PROVOST AND EXECUTIVE VICE PRESIDENT MARK KAMLET, CENTER, DISCUSSED THE FUTURE OF EDUCATION AT A RECENT WORLD ECONOMIC FORUM EVENT.

education will include "a bunch of different approaches."

Gordon Brown, former prime minister of the United Kingdom, was on the panel and praised CMU.

"It's a great pleasure to be speaking alongside great thought leaders for the universities of the future, from Singapore, from Carnegie Mellon in the states, from India," Brown said. He said that providing lifelong education and training is paramount for the health of the economy.

CMU had a presence in additional conference events:

Golan Levin, director of the Frank-Ratchye STUDIO for Creative Inquiry and associate professor of electronic time-based art, was on a panel session called "Smart Art;"

Jeannette Wing, the President's Professor of Computer Science and head of the Computer Science

Department, was on a panel session called "From Big Data to Big Decisions;"

And **Emma Brunskill**, assistant professor of computer science, was on a panel about "Imagineering Our Future."

The university also hosted an IdeasLab called "Computing and Technology: A Springboard for the Human Mind with Carnegie Mellon University" in which Jesse Schell, assistant professor of entertainment technology, discussed "The curiosity gap: how 21st century geniuses are made. Brunskill discussed "Optimizing online education," Levin discussed "Radically local: personal fabrication and future economies," and Wing discussed "Computational thinking: it's for everyone."

Videos from some of the sessions are available online at www.weforum.org/events/annual-meeting-new-champions-2012.



GOLAN LEVIN, DIRECTOR OF THE FRANK-RATCHEYE STUDIO FOR CREATIVE INQUIRY, DISCUSSES "SMART ART" AT A WORLD ECONOMIC FORUM EVENT.

Wynn Studies Evolution of Citizen Science

■ Shilo Rea

Amateur scientists have long helped researchers collect data. That relationship keeps changing thanks to crowdsourcing.

"The Internet is becoming a game changer in citizen science," said James Wynn, an associate professor of English who is working on a book about citizen science.

Wynn is looking at the ethical issues raised by citizen science in his new book, which will focus on how citizens and scientists engage with each other.

"The extent to which scientists might exploit citizens and exploit the idea that citizens are participants in science has not been fully explored yet," he said.

Wynn teaches courses on the rhetoric of science, rhetoric and public policy and rhetoric and the public sphere. He credits the university and the Dietrich College for creating an interdisciplinary

atmosphere, in which an English professor can research science and mathematics.

"I can work with engineers, nuclear engineers, nuclear physicists and people studying risk and risk management," he said. "It's a place where there are truly cross-disciplinary projects."

A recent Carnegie Mellon citizen scientist project out of the CREATE Lab is the Nearby Nature GigaBlitz. The global effort works to reveal extraordinary biodiversity of the ordinary settings where people live, learn and work.

A famous example of citizen science is the National Audubon Society's Christmas Bird Count, which has happened for more than 100 years. Over the holidays, they asked local residents to count birds in specific areas and used the data to determine bird populations and migration patterns.

Wynn, who has an interest in public policy and nuclear power, looked at the

Fukushima Daiichi Nuclear Power Plant disaster from 2011 and how the Internet is making it possible to provide nearby residents with comprehensive readings of radiation levels.

"After the Fukushima accident, this group called Safecast said that they were not satisfied with how the government had been reporting data on radiation," he said. "They went out, did their own measurements and created a website to put the information on."

Computers are allowing citizens to do science for themselves in a way that has never happened before, he said. It is changing the gathering and visualization of risk information by allowing for more detail.

"Safecast is a perfect example — they're doing their own data gathering and data representation," Wynn said. "I'm also interested in how this changes argument. When citizens begin to gather

their own data and broadcast it, it creates new problems."

When Safecast first started collecting and sharing radiation information, they had to defend their practices, he said. Once they became more educated through fieldwork and designed new Geiger counters so that radiation measurements could be downloaded directly to the Internet, they began to challenge the government's practices. The government, in turn, has to defend their position and reinforce their authority and credibility.

This will be Wynn's second book. "Evolution by Numbers: The Origins of Mathematical Argument in Biology" was released earlier this year.

For more information on Wynn's citizen science work, watch this video: <http://youtu.be/xkYq3Mveeck>.

Securing the Cloud

ISO Focuses on Safe Practices in October

■ Melanie Linn Gutowski

“The cloud” is a hot topic lately, but what does it mean, exactly? How do cloud computing services keep documents, photos and other data safe? Can university data be stored using these types of services?

These are questions the Information Security Office (ISO) aims to answer during its annual October observance of National Cybersecurity Awareness Month.

“Cloud computing is a current trend both in business and personal computing; whether it’s apps, storage or computing power, there are many options available in the cloud,” said Mary Ann Blair, director of Information Security. “We want to help people to use these services effectively and within the framework of university policies and guidelines.”

Vice Provost for Computing Services and CIO Steve Huth emphasizes the “teamwork” aspect of cloud computing.

“Security in the cloud only works when both the service providers and those using the service keep security in mind,” he says. “Security is everyone’s responsibility; that’s why things like National Cybersecurity Awareness Month are important.”

In addition to presentations on various cloud computing projects and the publication of recommended security practices for cloud computing, this

year’s National Cybersecurity Awareness Month events include instruction on using the Identity Finder tool to secure your computer and Security 101, a general overview of safe computing practices.

“We want to enable everyone in the campus community to get their academic, administrative and research work done and done securely,” Blair said.

For more information on National Cybersecurity Awareness Month, visit www.cmu.edu/iso/aware/ncsam/.

Melanie Linn Gutowski is a documentation specialist for Computing Services.

Storage Service Now Available

Box Cloud Storage, a new file storage option from Computing Services, is now available for free to all university affiliates. With the service, users can access up to 50 GB of files from any Web-enabled device, share files with classmates or colleagues or use collaboration tools to edit as a group. CMU Box accounts can be created by visiting www.cmu.edu/computing/box/. Box is the newest of a number of file storage options offered to university affiliates. For a complete listing, visit www.cmu.edu/computing/accounts/afs-storage/storage/.

Harvard Lures McCullough To Lead Research Enterprise

■ Piper Staff

Carnegie Mellon faculty and administrators are well known and highly sought after for their knowledge, expertise and collaborative problem-solving skills. The latest example is Rick McCullough.

Following a national search, Harvard University selected McCullough as its next vice provost for research. Harvard Provost Alan Garber said McCullough will work “... to remove barriers to collaboration wherever they are found ...”

McCullough joins Harvard after more than two decades at Carnegie Mellon as a faculty member in the Chemistry Department, department head, dean of the Mellon College of Science (MCS) and vice president for research.

Carnegie Mellon President Jared L. Cohon called McCullough “an instrumental part of the Carnegie Mellon community for 22 years,” praising him for leading MCS to record enrollment and increasing college-wide research initiatives as dean. Cohon commended McCullough for advancing CMU’s entrepreneurial culture and for his essential role in launching Greenlighting Startups.

Cohon said Provost and Executive Vice President Mark S. Kamlet, Vice President and General Counsel Mary Jo Dively and Chief Financial Officer Deb Moon will oversee McCullough’s portfolio of responsibilities until a successor is named.

Young Named Interim OSP Director

Provost and Executive Vice President Mark S. Kamlet has announced that Lynn Young will serve as interim director of the Office of Sponsored Programs (OSP) while a search is conducted for a successor to Susan Burkett, who retired as associate vice president for research in June.

Young joined the OSP as a contracts officer in 1998 and was promoted to contracts manager in 2002. In an email to faculty and staff, Kamlet said Young “has been a mainstay of our operations” and

thanked her for her willingness to serve in this role.

Kamlet also announced that Patty Clark, an attorney with years of experience in contracts, was hired as a contracts officer in September to fill one of two existing vacancies in the OSP. He said efforts to fill the second vacancy are in progress.

A committee of faculty and staff is being formed to seek a new OSP director. Carnegie Mellon has hired the firm of Isaacson Miller to assist in the search.

NEWS BRIEFS

Sciannameo Named CFA Associate Dean



Franco Sciannameo, director and associate teaching professor of the BXA Intercollege Degree Programs, has been named associate dean for Interdisciplinary Initiatives in the College of Fine

Arts (CFA). In addition to serving as associate dean, Sciannameo will continue to teach interdisciplinary courses in music, cinema and culture, and seminars dedicated to the works of Italo Calvino, Jorge Luis Borges and Umberto Eco.

“Franco has a distinguished history at Carnegie Mellon as a College of Fine Arts Distinguished Scholar in Multidisciplinary Studies,” CFA Dean Dan Martin said. “His experience with and understanding of the synergies among various areas of study will be of great benefit to CFA going forward.”

In his role within CFA, Sciannameo said he hopes to “aggressively foster an interdisciplinary curriculum” that will address the relationship between arts, culture, society and politics.

“Such a curriculum,” he said, “will promote active engagement with the world of ideas, stressing the role of the learner in

actively shaping his/her own education and future career.”

CMU Named a Military Friendly School

Carnegie Mellon has been named to G.I. Jobs magazine’s Military Friendly Schools list for 2013. The list honors the top 15 percent of schools that are doing the most to embrace America’s military students and ensure their success on campus. The list is compiled from more than 12,000 VA-approved schools nationwide. See the list at www.militaryfriendlyschools.com/

SEI Leases Office Space at Bakery Square

Carnegie Mellon’s Software Engineering Institute (SEI) recently signed a lease for about 38,000 square feet in Bakery Square.

The SEI joins Google, the UPMC Technology Development Center, the University of Pittsburgh Department of Rehabilitation Science & Technology and the VA Human Engineering Research Laboratories in the LEED Platinum office building.

Paul Nielsen, director and chief executive officer of the SEI, said in a press release that the additional space is part of preparations for anticipated growth in the SEI’s software engineering and cybersecurity programs. In addition to its main office near CMU’s Pittsburgh campus, the SEI has offices in Arlington, Va., Los Angeles and Frankfurt, Germany.

CMU Speeding Pace of Autism Research

The Cognitive Neuroscience Lab is helping to advance autism research by participating in the Autism Imaging Data Exchange, a program in which more than 1,100 autism and control datasets from a group of 16 international research labs have just been released.

“This is a phenomenal collaboration that will allow researchers unprecedented access to a massive dataset, collected under careful conditions from a very large sample of individuals with autism, all of whom have been carefully characterized in terms of their behavioral profile,” said Marlene Behrmann, professor of psychology and director of the Cognitive Neuroscience Lab.

Behrmann wrote a blog post, “Connecting Autistic Behavior to Brain Function,” for the Huffington Post on her recent research that found that autistic adults have unreliable neural responses. The study, which was published as the cover story of the Sept. 20 issue of *Neuron*, connects, for the first time, autistic behavior to brain functions, offering a new area of research for scientists to focus on in order to develop better measures for diagnosing those on the Autism Spectrum Disorder and designing more effective treatments.

Feinberg Awarded \$2.25M by NIH

Adam W. Feinberg, an assistant professor in CMU’s departments of Biomedical Engineering and Materials Science and Engineering, was awarded a five-year, \$2.25 million National Institutes of Health Director’s New Innovator Award to continue developing new biomaterials and cardiac tissue engineering strategies to help repair the human heart following injury and disease.



“I am extremely excited about this award because it will allow me to continue pursuing leading edge research designed to help regenerate and repair heart muscle and improve wound healing in a variety of biomedical arenas,” Feinberg said.

Website Can Estimate Your Real Estate Taxes

A new website created by Professor Robert Strauss will allow Allegheny County, Pa., taxpayers to estimate their 2013 and 2014 real estate tax payments within 2 to 3 percent. This will take most of the uncertainty out of determining tax costs as a result of the county’s court-ordered tax reassessments.

The website, www.propertytaxestimator.net/, estimates tax payments for every taxable property — more than 550,000 —

CMU Lights Up Primetime; Grad Joins Mid-season Lineup

■ Kelly Solman

Fresh from his Broadway stint in the Tony Award-winning “The Book of Mormon,” Carnegie Mellon alumnus Josh Gad (A’03) is taking his talent to primetime in “1600 Penn,” a new mid-season comedy series premiering on NBC.

The Gilchrights are just the average American family dealing with all the everyday issues, like a grown kid who’s forced to move back home, teenagers who are smarter than their teachers and a stepmom desperately trying to win over the kids. They’re loving, fun and a little crazy. In other words, just like everyone else - with one exception: they live in the White House.

There’s never a dull moment in the Gilchrist White House. Gad plays the First Son, one of the administration’s biggest liabilities but also the glue that holds this family together.

Gad is just one of the stars from CMU’s School of Drama who are lighting up primetime TV this fall. Check out:

- Matt Bomer (A’00), *White Collar*, USA Network. (Former classmate Pablo Schreiber (A’00) joins him for an episode.)
- Christian Borle (A’95), “SMASH,” NBC
- Ted Danson (A’72), “CSI,” CBS
- Cote de Pablo (A’00), “NCIS,” CBS
- Demetrius Grosse (A’05), “Justified,” FX
- Ian Harding (A’09), “Pretty Little Liars,” ABC

- Megan Hilty (A’04), “SMASH,” NBC
- Gabriel Macht (A’94), “Suits,” USA Network
- Joe Manganiello (A’04), *True Blood*, HBO
- Michael McMillian (A’02), “True Blood,” HBO
- Katy Mixon (A’03), “Mike and Molly,” CBS
- Leslie Odom, Jr. (A’03), “SMASH,” NBC
- Aaron Staton (A’04), “Mad Men,” AMC
- Tamara Tunie (A’81), “Law and Order: SUV,” NBC

And keep an eye on the credits. CMU has stars behind the scenes as well, from set designers to producers, writers and directors.

Check your local listings for dates and times.

Alumni Win Emmys

Two CMU alumni won Emmy Awards this year.

Alana Lorraine Billingsley (A’04) and Brian J. Stonestreet (A’88) both won for Outstanding Art Direction for Variety or Nonfiction Programming for their work on The 54th Annual Grammy Awards.

Among this year’s talented nominees were five more alumni from the School of Drama:

- Edward Castro, III (A’76, A’77) — Outstanding Costumes For A Series, *Once Upon A Time*, *Hat Trick*
- Eugene Lee (A’62) — Outstanding Art Direction For Variety Or Nonfiction Programming, *Saturday Night Live*
- Edward L. Rubin (A’82) — Outstanding Art Direction for a Miniseries or Movie, *American Horror Story*, *Open House (Part 7)*
- John S. Shaffner (A’76) — Outstanding Art Direction for a Multi-Camera Series, *Mike & Molly*, *Goin’ Fishin’*, *Valentine’s Piggyback*, *The Wedding*
- Mark Worthington (A’91) — Outstanding Art Direction for a Miniseries or Movie, *American Horror Story*, *Open House (Part 7)*

To date, CMU alumni have received 94 Emmy Awards and numerous nominations.



TELEVISION PRODUCTION DESIGNERS JOE STEWART (A’77) AND JOHN SHAFFNER (A’76) WON A JOINT ALUMNI DISTINGUISHED ACHIEVEMENT AWARD THIS YEAR AND DELIVERED A LECTURE CALLED “TELEVISION BY DESIGN” DURING CEILIDH WEEKEND. SHAFFNER WAS NOMINATED THIS YEAR FOR AN EMMY.

PHOTO BY GLENN BROOKES

in Allegheny County, said Strauss, a professor of economics and public policy at the Heinz College. Anybody can enter a property’s street address, school district and municipality to see what the 2012, 2013 and 2014 county, municipal and school real estate taxes will be. They also can review tables that show each of the 130 revenue neutral municipal millages and 46 revenue neutral school district millages.

Nominations Now Open for Education Awards

Nominations are now being accepted for the Doherty Award, the Ryan Award, the Academic Advising Award and the Gelfand Award, which will be presented on April 30, 2013.

The Robert E. Doherty Award for Sustained Contributions to Excellence in Education is given to a member of the university community who has made substantial and sustained contributions to excellence in education.

The William H. and Frances S. Ryan Award for Meritorious Teaching is given annually to a full-time faculty member who has demonstrated unusual devotion and effectiveness in teaching undergraduate or graduate students.

The Academic Advising Award recognizes members of the university community who have achieved excellence in providing undergraduate academic advising.

The Gelfand Award is given annually to a member of the university community who has combined sustained, effective community service with academic coursework and a deliberate process of student reflection to enhance the learning experience, teach social responsibility, and improve some aspect of life in the community.

The nomination deadline is Nov. 5. For more information about the awards and nomination process, go to www.cmu.edu/celebration-of-education/.

Campus Affairs Announces New Appointments

Lorrie Safar has been named Director of Staffing & Development and Elizabeth Ann (Beth) Whiteman has been promoted to Director of Accreditation and Strategic Initiatives for Campus Affairs.

“Lorrie has guided many of our joint professional development opportunities, while serving as a critical and valued collaborator with legal affairs, human resources, finance and others in and outside of the campus,” said Vice President for Campus Affairs Michael Murphy.

“The vision that we all share for the university and for our students is founded upon our most treasured values, and Lorrie’s commitment to ensuring our success through recruitment, training and professional best practice is critical to those ends. I am very pleased to recognize Lorrie’s profound contributions and to formalize her important

leadership role with this appointment.”

Murphy said Whiteman orchestrated the university’s 2008 Middle States re-accreditation review “with precisely the right vision and bearing, explicitly using the accreditation platform to assist individuals throughout the campus in refining strategic plans, better articulating outcomes and metrics, and adding transparency and clarity to our administrative and academic initiatives on many levels.” Murphy added that Whiteman has been recognized on a regional and national level “for her expertise and commitment to the highest ideals of our profession.” Whiteman joined CMU in 2006.

Toys for Tots Kicks Off Nov. 16

The College of Engineering’s (CIT) Toys for Tots Drive, co-sponsored by the CIT First-year Experience team and University Police, will begin at noon, Friday, Nov. 16 in the Singleton Room of Roberts Engineering Hall. All donated toys must be unwrapped and new.

This year, the kickoff includes bagpipers, singing barber shop quartets and a visit from the grandson of famed Virginia O’Hanlon — the inspiration behind one of the most famous lines in U.S. journalism, “Yes Virginia, there is a Santa Claus.”

CMU Awarded Grant To Preserve Executable Content

The Institute of Museum and Library Services has awarded a two-year, \$497,756 grant

to Carnegie Mellon computer scientists and library personnel, led by University Libraries’ Dean Gloriana St. Clair, to develop Olive, the first archiving system for the preservation for executable content.

The Olive concept came from the research teams of Mahadev Satyanarayanan (Satya) from Carnegie Mellon and Vasanth (Vas) Bala of IBM Research, who explored applying virtual machine technology invented by IBM in the late 1960s to current problems of software configuration and distribution in cloud computing. That research led to the realization that a global archive of curated VM images that could be shared, searched, extended and executed via the Internet would be a powerful catalyst for collaboration across space and time.

Support CMU’s United Way Campaign

Carnegie Mellon’s 2012 United Way Campaign is under way and will continue through Dec. 21. Help make this year a success by going to www.cmu.edu/hr/unitedway to donate.

Last year the university community raised more than \$180,000 for United Way and the health and human service organizations United Way supports in our region.

To join the campaign effort or to share a story about involvement with a United Way agency, contact Megan Worbs at mworbs@andrew.cmu.edu.

Smart Signals

Pilot Study on Traffic Lights Reduces Pollution, Traffic Clogs

■ Ken Walters

Traffic is moving much easier in the East Liberty neighborhood of Pittsburgh and the air is a bit cleaner, thanks to a Carnegie Mellon pilot study on traffic signal controls.

The Scalable Urban TRAFFIC Control (SURTRAC) is the latest project to be released by CMU's Traffic21 research initiative.

Stephen Smith, director of the Intelligent Coordination and Logistics Laboratory (ICLL) of the Robotics Institute, attacked the tough problem of daily congested road networks in urban centers. Combining concepts from the fields of artificial

intelligence and traffic theory, his team developed technology to allow traffic signals to communicate with one another and collaboratively adapt to actual traffic conditions in real time.

For the last nine months, the technology has been used in a network of nine lights and has successfully enabled traffic signals to quickly react to changing conditions, reducing traffic congestion and the resulting extra vehicle emissions.

"The reductions of 40 percent in vehicle wait time, nearly 26 percent in travel time and 21 percent in projected vehicle emissions realized in this pilot are remarkable," said CMU President Jared L.

Cohon. "I'm proud of CMU's team, which developed this first-in-the-world technology, and am equally proud of the partnership approach typical of Pittsburgh that made this pilot possible."

The next step will be to expand the pilot to demonstrate the technology on a bigger scale in East Liberty. Eventually the technology may be deployed in other Pittsburgh neighborhoods.

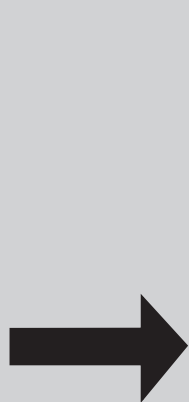
Traffic21 was launched in 2009 with funding from the Henry L. Hillman Foundation. Grants to Traffic21 from The Heinz Endowments' Breathe Project and from the Richard King Mellon Foundation provided the funding for the pilot.

Here's how the system works:



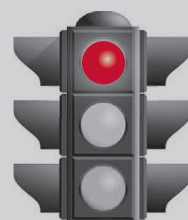
1. Current traffic conditions are extracted from video camera streams.

2. System computes traffic flow schedule that optimizes flow at intersection and sends commands to the controller.

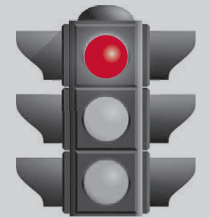


CMU SURTRAC System

Controller



Controller



3. Schedule is communicated to neighboring traffic signals to indicate what is coming.

4. Scheduling cycle is repeated every few seconds.

Cohon Reflects on CMU's Values

CONTINUED FROM PAGE FOUR

a diverse international student population benefits everyone on campus.

"We see this as a positive thing. Not only for those [international] students but also U.S. students. They interact in meaningful ways with students from different places. Why do we care about this so much? ... The day they walk out of here, wherever they work, whatever they are doing they're going to be part of a global economy that's totally connected. And if they're not comfortable working across cultures, not comfortable being in other countries, then they're not going to be successful."

Cohon said current and future challenges and opportunities for the university include the cost of education and online learning. Over the past 30 years, the cost of private education has gone up by a factor of six, compared to a cost of living that has increased two and a half times.

The model education uses hasn't changed much since Socrates — the so called "sage on a stage." "You can get more students in the room, but there's a limit to that and there's a loss in quality when the class gets too big," he said.

"As expensive as Carnegie Mellon is, it's worth it. It's absolutely worth it. I have no doubt or qualification in saying that to you and I have the data to prove it. They even rank us on that."

According to SmartMoney.com's Sept. 25, 2012, rankings that studied the returns on investment for education, Carnegie Mellon ranked second among private universities and 21st overall.

Cohon said the university is working on addressing the expense of education not only at Carnegie Mellon but for all educational institutions by improving online learning resources.

Cohon also addressed his own future plans. After the presidential transition on June 30, 2013, he will be taking up his faculty position in the College of Engineering and will be teaching in the Civil and Environmental Engineering and the Engineering and Public Policy departments.

"I have more trepidation in going back to the faculty than I had in becoming president. The standards are high. I don't want to be deadwood, I really want to make a contribution. The departments are wonderful and they've been very welcoming to the idea of my coming back to teach."

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