

# thePIPER

CMU'S NEWS SOURCE FOR FACULTY & STAFF

2/14 ISSUE

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## Student Success

## New Programs Designed To Help Overcome Personal Challenges

■ Abby Simmons

Carnegie Mellon's academic rigor and reputation for hard work have served as both points of pride and sources of stress for the university community, particularly among students.

In the past year, campus conversations have taken place, and numerous initiatives have been launched.

"There has been exciting momentum and deep investment in where we can make meaningful change in campus culture," said Dean of Student Affairs Gina Casalegno.

Following several campus-wide

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## Sundance Celebration



CARNEGIE MELLON'S PRESENCE AT THE SUNDANCE FILM FESTIVAL CONTINUES TO GET BIGGER AND BETTER. THE UNIVERSITY'S PARTY ON THE OPENING NIGHT THIS YEAR DREW MORE THAN 800 GUESTS. READ MORE ON PAGE NINE.

## Sealed With Love



THIS YEAR'S EDITION OF THE LOVE STAMP FOR THE U.S. POSTAL SERVICE WAS DESIGNED BY Q. CASSETTI (A'79). SINCE 1973, THE POST OFFICE HAS PRODUCED A NEW LOVE STAMP ANNUALLY.

## Carnegie Science Awards

#### Former President, Faculty Member and Student Named Winners

■ Chriss Swaney and Jocelyn Duffy

This year's Carnegie Science Center honorees have always dreamed big.

And it's the leadership behind some of the biggest dreamers who are the biggest winners.

Carnegie Mellon President Emeritus Jared L. Cohon and University of Pittsburgh Chancellor Mark Nordenberg will receive the Carnegie Science Center's highest honor, the Chairman's Award, at the center's Awards for Excellence banquet on May 9.

Additionally, Jay Whitacre, professor of materials science and engineering and engineering and public policy, was named the recipient of the Advanced Materials Award; and Taylor Canady, a doctoral student in the Department of Chemistry, was named winner of the

University/Post-Secondary Student Award.

The Carnegie Science Center is honoring Cohon, University Professor of Civil and Environmental Engineering and Engineering and Public Policy, and Nordenberg for forging a strong collaboration between Carnegie Mellon and Pitt that helped the universities and Pittsburgh excel in science, entrepreneurship and academics.

According to the Science Center, joint programs, such as the Pittsburgh Supercomputing Center, the Quality of Life Technology Center, the Digital Greenhouse, the Pittsburgh Life Sciences Greenhouse and the Robotics Foundry have attracted billions of dollars in grants and sponsorships to the Pittsburgh region, drawn numerous talented academics and CONTINUED ON PAGE TWO

## Carnegie Science Center Names CMU Award Winners

CONTINUED FROM PAGE ONE

professionals to the area, and made Pittsburgh a hotbed for cutting-edge research.

Whitacre is being honored for developing a novel sodium-ion battery that can be made using low-cost materials and manufacturing techniques. The technology has resulted in a spinoff venture, Aquion Energy, which is anticipated to grow into a 300-person enterprise by 2015. Whitacre also received an honorable mention for the Start-Up Entrepreneur Award.

"This is a real honor, and it reflects the hard work of the outstanding team I've been working with to explore new materials and create these novel devices," Whitacre said.

Gregory Rohrer, head of CMU's Department of Materials Science and Engineering, echoed his sentiment.

"This is tremendous recognition for Whitacre as he continues to push the boundaries of materials research and improve daily life," Rohrer said.

When Canady took biology in high school, he found the class to be pretty boring — a lot of lectures and not a lot of fun. When he got to college at the University of New Mexico and saw his professors bring lecture material to life in the lab, he realized that science could be really exciting.

Canady has taken this a step further at CMU. As part of Carnegie Mellon's Center for Nucleic Acids Science and Technology's DNAZone outreach program, Canady helped to develop a handson kit that helps K-12 students learn



Jared L. Cohon

about DNA. He also conducts research on the synthesis of nucleic acid molecules that can be used to study mRNA translation in cells.

"Taylor is a great example of a student who has a great sense of responsibility. He knows the impact science can have on the community," said Chemistry Professor Catalina Achim, one of the coordinators of DNAZone.

With support from DNAZone, Canady and chemistry doctoral student Genoa Warner created the DNA kit, which includes a physical model for students to understand how chemicals form a DNA molecule.

"Creativity and innovation solve scientific problems. I want students to



Jay Whitacre

see that I'm not that different from them. I want to let them know that no matter what their circumstances may be, they can become scientists," Canady said. "Our culture perpetuates an image that its mostly Einstein-esque individuals who can solve hard physical or natural problems. This is simply not true."



Taylor Canady

Additional Carnegie Science Center winners this year include alumnus Ronald Bianchini (E'83,'86,'89), co-founder, president and CEO of Avere Systems, who was named the winner of the Information Technology Award. Entertainment Technology Center Professor Jesse Schell received an honorable mention Entrepre-

#### "CREATIVITY AND INNOVATION SOLVE SCIENTIFIC PROBLEMS."

-TAYLOR CANADY

Canady's kits are part of the Lending Library of Kits supported by DNAZone, which makes teaching materials available for Pittsburgh schools.

neur Award for Schell Games, and Associate Professor of Computer Science Luis Von Ahn received an honorable mention Entrepreneur Award for Duolingo.

# 2/14 Issue

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## Partners Hope Grant Adds Up to Math Success

■ Jocelyn Duffy

Thinking about math in terms of online shopping instead of theoretical number theory might tame adolescent fears of the discipline.

The subject can strike fear into some junior high and high school students yet create a devoted and fanatical following among others.

While there is no single answer for what causes such wildly different emotions, effective teaching and access to high-level math courses are thought to contribute to positive experiences with the subject.

Researchers from local universities, including Carnegie Mellon, and Pittsburgh Public Schools teachers are embarking on a new project to determine if changing content and instructional techniques can benefit students who have been historically marginalized by traditional mathematics education.

The National Science Foundation (NSF) has awarded an \$8 million grant under the NSF Math and Science Partnership program to the Pittsburgh Public Schools (PPS) and the Education Development Center, a Massachusettsbased nonprofit partnering with Carnegie Mellon, the University of Pittsburgh and Duquesne University.

John Mackey, a teaching professor, associate department head and director of undergraduate studies in the Department of Mathematical Sciences, is a co-principal investigator on the grant, which will bring together public school teachers from grades 6-12 with mathematicians from area universities to understand new ways to engage students

Mackey said they are excited to work on mathematics instruction with the educators.

"We will all get to learn new techniques and gain perspective on the teaching of mathematics," Mackey said. "We anticipate that lasting partnerships will be formed and that more students will be energized to pursue mathematics at the university level."

In June, Mackey and five Carnegie Mellon teaching-track faculty members will conduct a monthlong program in which PPS teachers and administrators

will learn concepts in math and collaboratively develop new ways of conveying these concepts to students, particularly those students from lowincome or underserved populations.

"There are a lot of mathematical problems that are easy to state, and everyone can at least get an additional degree of satisfaction from exploring them. When you go a little deeper, there are more open-ended problems that students can get involved and invested in solving, Mackey said. "For example, there are topics in elementary number theory that can be applied to practical applications like cryptography for sending your credit card information over a secure website. Kids might initially blanch at 'number theory,' but not online shopping."

Throughout the school year, the university faculty will visit the participating junior and senior high schools to observe math classes and visit with the students, teachers and administrators.

Public school teachers also can attend a monthly colloquia held at Carnegie Mellon, which began in January.

## Nobel Laureate Shares Scientific Approach to Education Reform

#### ■ Michael Yeomans

Carl Wieman says an effective teacher is a "cognitive coach" who challenges students to learn by doing.

So, he coached up the full crowd in Rangos Hall in the inaugural Simon Initiative Lecture in late January, sharing his tips and thoughts on using a scientific approach to education to improve scientific learning.

He backed up his thoughts with evidence from the classroom, citing a few examples from 1,000 studies of undergraduate science courses.

In each study, more students benefited from effective teaching principles than from the standard classroom lecture. He said effective teaching principles include:

- Using motivational tactics;
- Connecting and building upon prior thinking and knowledge;
- Introducing only 5-7 new items at a time; and
- Designing strenuous practice activities followed by timely and specific feedback.

"We need all students, future scientists or not, to think like scientists do," he said.

The Simon Initiative was announced in November by CMU President Subra Suresh and is designed to accelerate the university's pioneering research into the science of learning.

"CMU has actually always been a leader in the science of learning and

the technology of that. And so I see big advantages just to the idea of bringing these things together in useful ways," Wieman said in an interview after the lecture.

Unconstrained by conventional thinking, Wieman champions a radical, evidence-based approach for improving learning outcomes. He has made it his life's mission to change the instructional paradigm for the STEM (science, technology, engineering and mathematics) fields. The winner of the 2001 Nobel Prize in Physics, he put his money where his mouth is by donating his prize money to establish the PhET Interactive Simulations project at the University of Colorado, which improves science education through the use of interactive online simulations.

Wieman offered three immediate takeaways in his lecture. He urged the educators and future educators to think about expertise and homework design; to limit the number of new concepts raised in traditional class lectures through connecting and consolidating topics; and to know there are benefits to interrupting lectures with questions that lead to student-to-student discussions. He said discussions engage students, reduces the demand on their "working memory" and helps to consolidate and organize knowledge.

Wieman's background makes him keenly qualified to join CMU's



Nobel Laureate Carl Wieman visited CMU to deliver the inaugural SIMON INITIATIVE LECTURE.



ONLINE: WATCH THE FULL LECTURE AT WWW.YOUTUBE.COM/WATCH?V=ABEPXFY7ELW

new Global Learning Council, which includes thought leaders from academia, industry and major foundations in the United States and around the world who share the mission of improving learning outcomes.

The group, convened by President Suresh, will help set standards, share best practices and advocate for new education delivery models developed through the science of learning.

While serving as director of the

National Science Foundation, President Suresh befriended Wieman, who in 2010 was appointed associate director of science for the White House Office of Science and Technology Policy. In that role, Wieman advocated for new methods of teaching science in the nation's high schools and universities.

He left Washington last summer for a joint appointment as professor of physics and of the graduate school of education at his alma mater, Stanford University.

## CMU Expands Presence at World Economic Forum

#### ■ Mike Yeomans

It was hard to miss Carnegie Mellon's presence at the 2014 annual meeting of the World Economic Forum in Davos, Switzerland, which took place in late January. CMU's contribution to the program was the most robust since it was first invited to participate in 2008. President Subra Suresh and CMU faculty moderated or led discussions on the future of education, advanced manufacturing, scientific research and robotics.

"There were a number of interactions that we had individually with presidents of other universities, heads of industry, alumni of CMU who have done very well as CEOs and pioneers in different technologies, people who have been very successful in different spheres of life," President Suresh said.

He said the forum provided "the opportunity to network, to connect with people, to get feedback, to get some new ideas on what we could do to engage both locally within the CMU campuses, but also globally — how to connect with others and to create new collaborations."

Tucked in the remote Swiss Alps, more than 2,500 participants, including more than 40 heads of state or government, attended the 44th World Economic



CMU PRESIDENT SUBRA SURESH

WWW.CMU.EDU/WORLD-ECONOMIC-FORUM/.

WATCH THE VIDEO: WWW.YOUTUBE.COM/WATCH?V=PKN3Spy9Dgs

CARNEGIE MELLON HAS PARTICIPATED IN THE WORLD ECONOMIC FORUM SINCE 2008.

Forum Annual Meeting. There also were approximately 20 CMU alumni, trustees and parents in attendance.

Faculty members who presented included Ken Koedinger, a professor of human computer interaction and psychology; Emma Brunskill, a professor of computer science; and Justine Cassell, the Charles M. Geschke Director of the Human-Computer Interaction Institute, co-director of The Simon Initiative and associate vice provost of Technology Strategy and Impact.



The faculty and Suresh presented CMU's work around The Simon Initiative. In addition, they hosted an informal reception about the global learning revolution and participated in several other panel discussions and forums.

The annual meeting at Davos brings

together global leaders in business, government and academia to network and help shape the world economic, political and scientific agenda. CMU is one of just 25 universities in the world invited to be a member of the forum's Global University Leadership Forum.

Davos-Klosters, 22-25 la

## Deep Freeze

#### **FMS Responds to Winter's Wrath**

#### ■ Kelly Solman

Old Man Winter has reared his ugly head in Pittsburgh, but Carnegie Mellon's Facilities Management Services (FMS) group has helped the university weather the storm

During the week of Jan. 4 alone, FMS responded to 46 weather-related events that caused significant damage and loss.

The incidents — mostly frozen pipes, some of which ruptured and created flooding — were the result of dangerously cold temperatures not seen in the area for 20 years.

"We had ruptures and breaks from plumbing pipes to sprinkler systems. If something had water in it, it turned solid that week," said Steve Guenther, who directs facilities management operations, including 250 university staff and outside contractors.

A dozen of the events were related to a door or window inadvertently being left open during a mild spell just prior to winter break.

"We are incredibly lucky that we have such a great campus police department who are our eyes and ears after hours," Guenther said. "The university police did an excellent job of letting us know if they heard or saw anything unusual."

Knowing the potential for cold winter weather to cause damage, FMS has personnel on call 24 hours a day, seven days a week. Because of the unusually

#### Old, New and In-Between

Guenther said what's unique about managing higher education facilities such as those at CMU is that the structures and their technology range from "brand new" to more than 100 years old.

"CMU has building systems that

he said. "With the size of a campus like CMU, we don't have the luxury of having a staff dedicated to each building. Every building is unique to Carnegie Mellon, and to be successful, it takes a service team that is really committed to the campus community and has lots of training."

#### FIX IT

FMS ENCOURAGES STUDENTS, FACULTY AND STAFF TO KEEP THEIR EYES OPEN FOR ANYTHING UNUSUAL, FROM DRIPPING WATER TO ODD MECHANICAL SOUNDS OR OPEN WINDOWS AND DOORS. REPORT CONCERNS TO FMS AT FIXIT@ANDREW.CMU.EDU.

cold temperatures that had been forecasted, additional staff and managers were on campus around the clock the first week of the year.

"We wanted to be sure we were in the best position possible to respond, and I'm so glad we made that decision," Guenther said. "We have a great team. We were able to get to problem areas, turn water off, get to the spaces and stop issues in their tracks. A lot of dollars are saved when we can get to issues in time." represent every era of technology," Guenther said. "We have the latest and greatest technology in buildings like the Gates and Hillman Center, and then we also have buildings that rely on the same technology that was in use back when the university was Carnegie Tech."

Guenther said that's a very different situation than having all of the systems of the same vintage.

"Our mechanics and our staff are pretty unique people. They have to be,"

#### **Help Wanted**

Guenther, whose team is in the process of hiring new personnel, said the No. 1 quality he looks for in candidates is service-mindedness.

"They need to interact well with everyone from the boiler room to the board room. They've got to want to be part of the broader campus experience," he said.

Qualified candidates also must have an interest in learning about the many systems in use across campus, Guenther said, noting that many FMS staff members have advanced, moving from hourly positions to key leadership roles.

"That's one of the great things about working here at CMU," he said. "There is so much opportunity. Just the range of the diversity of structures and systems on campus creates a great experience for people interested in servicing facilities."

## Faculty Named to Chairs

#### ■ Piper Staff

Roberta Klatzky has received the Charles J. Queenan Professorship of Psychology in recognition of her outstanding contributions in human perception and cognition research.

Klatzky, who joined the Carnegie Mellon faculty in 1993, investigates perception, spatial thinking and action from the perspective of multiple modalities, sensory and symbolic, in real and virtual environments. Her research has been instrumental to the development of image-guided surgery, navigation aids for the blind and neural rehabilitation.

"Carnegie Mellon has been a leader in the cognitive sciences for nearly 65 years, and Roberta Klatzky is one of the reasons we continue to be at the forefront," said John Lehoczky, Dietrich College dean. "It's fitting that she is honored for her tremendous impact as a scientist and educator with a chair in Charles Queenan's name — a longtime supporter of CMU and our innovation in research."

**In related news,** two professors in the School of Computer Science, Aarti Singh and Siddhartha Srinivasa, have been awarded endowed chairs reserved for faculty members who show exceptional promise.

Singh, an assistant professor in the

Machine Learning Department who joined the CMU faculty in 2009, will hold the A. Nico Habermann Chair of Computer Science. Singh's research focuses on how to extract meaningful information from datasets that are both massive in size and plagued by noise, missing values and inconsistencies, while balancing computational efficiency and optimal accuracy.

She is a recipient of a National Science Foundation CAREER Award and is lead investigator for an NSF Big Data grant.

Srinivasa, an associate professor in the Robotics Institute who joined the faculty in 2005 after earning his master's degree and Ph.D. in robotics at CMU. will hold a Finmeccanica Chair in Computer Science. He founded the Personal Robotics Lab, where he and his research team are developing the fundamental building blocks of perception, navigation, manipulation and interaction to enable robots to perform challenging manipulation tasks with and around people. The Home Exploring Robot Butler, HERB, is a two-armed, mobile robot that serves as a testbed for these technologies and methods.

In addition, he is a principal investigator and manipulation lead of the CMU Tartan Rescue Team, which is developing a robot that can respond to disasters.

## Project GreenLight

### **IS Students Light Up With Energy Idea**

#### ■ Shilo Rea

Raise your hand if — at home, work or school — you typically find yourself in a room with a window and the lights on.

Since most artificial lights are designed to light a room on their own, it's not exactly energy efficient at the times when natural light is available.

To solve this problem — and save energy and money — four Information Systems students developed GreenLight. GreenLight is a wireless, green energy lighting system that is unlike any commercial product available.

"When we were brainstorming projects to work on, we knew that we wanted to do something useful," said Mike Ferraco, a senior in the Dietrich College of Humanities and Social Sciences' Information Systems Program. Ferraco worked on the project for the past two years with classmates Dillon Grove, Nathan Hahn and Jon Miller.

They created two separate hardware components and a Web application that work together as a system to calculate the total amount of light a room is receiving. The system then automatically adjusts the artificial light accordingly.

"A sensor sits on a desk and reads the lighting in a room and sends the total light calculation to another sensor," explained Grove. This sensor then either dims or brightens the artificial lights.

GreenLight's main advantage over any of the few applications on the market is that it's wireless and can work off of any existing WiFi network.

Larry Heimann, teaching professor of information systems who advised the students, is excited about the project's potential.

The student group presented their project during President Suresh's inauguration celebration and at the annual Information Systems Senior Project Fair.

"A lot of people who saw it are really interested. We are looking to pilot it further on campus — which is a perfect fit because Carnegie Mellon is committed to environmental sustainability, and this is an environmental friendly solution made by CMU students."

The project's Web application makes it simple to track energy use and savings. It also computes the energy savings into dollar savings. Based on tests so far, Heimann estimates that installing and using GreenLight will pay for itself in one year.

"GreenLight is a nice combination of hardware and software being used to solve a problem. I think there could be a startup in the students' future," Heimann said.

## Scholarly Athletes

#### **CMU Fall Teams See More 4.0 GPAs Than Ever Before**

■ Dan Mohler

Seventy Carnegie Mellon studentathletes scored in a big way this past fall. But among their record-times, touchdowns, aces and goals, was an achievement that was even more impressive — a 4.0 grade-point average.

Josh Centor, interim director of Athletics, calls the accomplishment remarkable.

"They continue to prove that student-athletes can achieve whatever they set their mind to at Carnegie Mellon. Their excellence is extraordinary," Centor said. He said the combination of academics and athletics at CMU is excellent.

"The athletic experience complements the groundbreaking work being done across disciplines within the classrooms and laboratories of the university," he said. "Our students are able to prioritize their academic pursuits at Carnegie Mellon, without compromising their collective athletic ambition."

A member of the University Athletic Association, CMU has 17 intercollegiate teams. Like all Division III schools, athletic scholarships are prohibited, so students compete for the joy of the game.

"I love being a part of a team, I love to compete, and I love to win. In return I get camaraderie, the ability to compete and a few great memories," said Matt Sarett, a midfielder on the soccer team and student in the Integrated Master's/Bachelor's Program for Electrical and Computer Engineering.

Sarett, one of two varsity athletes graduating this spring with a 4.0 cumulative GPA, chose CMU because of the strength of the soccer program and the College of Engineering.

"CMU's engineering program has a very strong reputation, and I wanted to be a part of it," he said.

"There is a great balance between sports and academics at CMU because we can be academically successful but compete at a high level," Sarett said. "Playing soccer in college with my teammates and friends is really special as well because we have a great support system."

Head Men's
Soccer Coach Arron
Lujan said a new
program started by
Chris Madden, a
senior in business
administration, pairs
freshmen with upper
classmen mentors
in the same fields
of study to ease the
transition into college.

"The team has been terrific over the past few years, and the outcome is directly related to the philosophy and identity of the team and the individual

player," Lujan said. "Students have the freedom to miss team practices without repercussions. The team knows to keep in mind what the mission is — and that's to get an education before playing soccer."

The team has made the second round of the NCAA tournament four times in the last six years. This past season the Tartans ranked 18th in the nation with an overall record of 12-3-3. The team is 74-25-8 in the last six years under Lujan.

Of the 430 current student-athletes, 86 are seniors expected to graduate or continue their education at CMU.

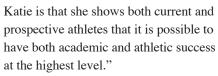
The other senior graduating with a cumulative 4.0 GPA is Katie Cecil, an All-American tennis player majoring in biological sciences.

"My performance on and off the court is directly related to the balance between academics and sports and the full support of professors and the coaching staff," she said.

Head Tennis Coach Andrew Girard said, "One of the best things about



KATIE CECIL



Cecil was an All-American in singles play in 2012 and was named National Player to Watch for 2013 by the Intercollegiate Tennis Association (ITA). She was named to the CoSIDA (College Sports Information Directors of America) Academic All-America first team, received the ITA National Arthur Ashe Jr. Award for Leadership and Sportsmanship, and earned the NCAA Elite 89 Award. Cecil completed 2013 with a 16-8 record in singles and a 15-10 slate in doubles.

Academic All-American Ryan Jok, a defensive end for the football team, is a senior majoring in business administration and statistics. He said he committed to CMU for its high-caliber opportunities.

"CMU is well-known for its academics. I knew the direction that I wanted to go, and it included football as well as finance," Jok said. "Coming to



MATT SARETT

CMU was an easy decision."

Jok backed up his prestigious academic record with 113 total tackles and seven career sacks on the gridiron.

"You do well in the classroom before you do well on the football field because it's what Coach [Rich] Lackner emphasizes," Jok said. "It's because of his emphasis on balancing schoolwork and football that I — as well as my teammates — achieve greater success in the classroom, on the field and in the community."

Carnegie Mellon ranks first in Division III football and non-scholarship institutions with a total of 45 Academic All-Americans. The program ranks eighth overall in the NCAA.

"We've created a culture of high expectations for our players, and players have created a culture in the locker room to be great as a player and great as a student," said Lackner (DC'79), CMU's longtime head football coach. "Students expect excellence in themselves so it's important for us [the coaching staff] to encourage them to be great."

### LOCKER ROOM TO BE DEDICATED IN HONOR OF DAVE MALONEY

■ Piper Staff

During halftime of the men's basketball game at noon, Sunday, Feb. 16 against the University of Rochester, the Tartans will dedicate its locker room in Skibo Gym in honor of former head coach Dave Maloney.

Alumni Buddy Hobart (DC'81) and Paul Hamerly (TPR'77, '79) led the fundraising effort, which also will name a future space in Phase 3 of the athletics facility's development plans. Maloney's wife, Roberta, will be present for the halftime dedication ceremony.

Maloney, who passed away in September 2012, was head coach of the Tartans from 1975 to 1983 and compiled an 87-84 overall record. He then became the alumni relations director and director of development at Carnegie Mellon until 1993.

During his tenure, he coached the program's single-season leaders in points, assists and field-goal percentage, along with

two 1,000-point scorers.

The 1976-77 team won its first-ever Presidents' Athletic Conference (PAC) Championship with a 13-1 conference mark and an 18-6 overall slate. With the PAC title in hand, the team became the first in program history to advance to the NCAA tournament.

The team still holds the school record for most consecutive wins with 12 during its championship run.

## New Programs Designed To Help Students Overcome Challenges

CONTINUED FROM PAGE ONE

events to better explore and understand the campus perspective, Student Government, the Office of the Vice Provost for Education and the Division of Student Affairs issued a request for proposals to identify creative ways to engage students, faculty, staff and alumni in addressing stress, building resilience and investing in personal wellness. The Enhancing Campus Culture (ECC) Fund provided \$15,000 in seed funding for four proposals last March.

Here's a look at how these initiatives are coming to life.

#### thrive@CMU

Juniors Soniya Shah (DC'15) and Vivek Nair (E'15) partnered with Angie Lusk, assistant director of Student Life and housefellow for Boss and McGill houses; Amy Burkert, vice provost for education; Heather Workinger, an academic adviser; and other faculty amd staff members, to pilot thrive@CMU, a six-week mini-course designed to help first-year students learn about the personal, academic and co-curricular opportunities and challenges they may encounter during their time at CMU.

The pass-fail elective met in the fall for 50 minutes a week and was capped at 15 students. Students completed self-assessments and wrote reflections on the previous session's topic before each class. Students delivered 2-4 minute "TED-like" talks on what they personally took from the class material in lieu of a final exam.

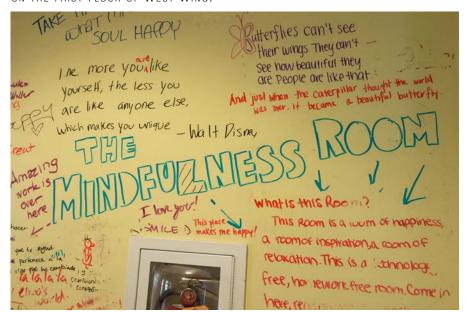
"I was simply blown away by the depth and amount of reflection these first-year students had put into internalizing what it meant to be a CMU student and what steps they could take to make the most of their time here," Nair said.

A number of faculty and staff facilitated course segments. They were:

- Burkert and Casalegno provided an overview of resources available to students as they transitioned to university life;
- Kunal Ghosh, teaching professor of physics, led a discussion on setting goals and integrating academic and campus involvement;
- Nico Slate, associate professor of history, shared thoughts pursuing passions and becoming "architects of change";
- Helen Wang, director of first-year student life, helped students explore ways to build and sustain relationships;
- Mary Suresh, CMU's first lady and former director of public health for Wellesley, Mass., shared her expertise on personal wellness and holistic health; and
- Kurt Kumler, director of Counseling and Psychology Services (CAPS),



Angela Ng (S'16), Helen Wang, Sean Archie (E'15) and Angie Lusk (L-r) hang out in the new Mindfulness Room on the first floor of West Wing.



The Mindfulness Room walls are filled with messages from visitors.

"CAMPUS SPOKE, AND WE HEARD YOU. IF YOU HAVE AN IDEA, SPEAK UP. THERE IS A PATHWAY TO CREATE IT."

- GINA CASALEGNO, DEAN OF STUDENT AFFAIRS

addressed stress management strategies.

Overall feedback from course participants has been positive, and instructors are identifying changes to the curriculum based on student input. Another section of thrive@CMU will be offered during the Mini-4 session, which begins March 17.

"We're hoping to identify the scalability of the course as we consider how many sections we can offer for the 2014-2015 academic year. We don't believe this is something that would be mandatory for first-year students, but we would like to be able to offer it to all students interested in participating," Lusk said.

#### **Project Smile**

Angela Ng (S'16) was a straight-A student in high school, but she found herself

struggling during the fall of her freshman year. No matter how long or hard she studied, she felt she wasn't getting ahead — and she saw many of her peers in the same position.

"I love random acts of kindness," she said. "Putting a smile on someone else's face puts a smile on mine."

Using her own money, she launched Project Smile by making midnight visits to Hunt Library armed with candy for fellow students.

Wang, her housefellow, and friends like Sean Archie (E'15) encouraged her to apply for financial support through the ECC Fund.

Other morale-boosting efforts by Project Smile members have launched this year, including Temporary Tattoo Tuesdays, bubble-blowing parties and chocolate "gratitude grams."

#### The Mindfulness Room

Ng also is the mastermind behind the Mindfulness Room, which celebrated its grand opening Jan. 30.

Located in the former first-floor TV lounge in West Wing, the room is open 24/7 to the entire campus community. The only rules: No homework, no meetings and no technology.

Ng's original plan was to transform the room with \$3,000 from the ECC Fund. However, Wang and Lusk encouraged her to engage others in the project. As Housing Services, Facilities Management Services, Academic Affairs, Student Affairs and Student Senate joined the conversation, funding increased to more than \$22,000.

"We want this to be an evolving space. We want to see change each semester, so that every class and every community has an opportunity to contribute," Lusk said.

Ng and friends built room dividers out of 2x4s and attached floating metal planters filled with plants. The entryway walls, covered in dry-erasable paint, are filled with messages from visitors. The room also features a waterfall wall, yoga mats, meditation pillows, a hanging egg seat and donated books.

A shelf holds two handmade albums that capture students' reflections on what they love about CMU, descriptions of times they failed and words of wisdom.

"I want students to know that it's OK to ask for help. We're all here to look out for each other," Ng said.

In the future, yoga and other wellness programs will be offered in the space.

"We've also talked about adding Legos, Play-Doh and crayons, so if meditation is not your thing, maybe there is something else that gets you away from the chaos of your day," Lusk said.

Continued on page twelve

## Senior Releases CD, Stress

■ Heidi Opdyke

Hip-hop has been a lifeline for Kai

A senior in the Tepper School of Business, Roberts took time off from school for treatment of extreme anxiety. Music helped him heal.

Hoping to help other college students suffering from stress, he released "Carnegie Café," an album that depicts his CMU experience.

"I feel like it's important to share my story so that others can learn from what I've gone through," Roberts said. "From my experience, I learned that the biggest factor in the healing process for a mental health disorder is awareness. The idea of understanding what is happening, understanding that it is a normal bodily process and that there are others going through the exact same thing is invaluable to recovery."

As a high school student, Roberts participated in the Arts Greenhouse, a hip-hop educational outreach program of the Center for the Arts in Society. Throughout college he has worked with the program as an assistant instructor.

Amos Levy (A'07), the lead artist/ mentor with the Arts Greenhouse, has known Roberts since he was in high school. He called Carnegie Café a creative and honest album that showcases Roberts' talent. "Kai did an incredible job of translating his struggles into art. This is music that listeners are going to be able to connect with on an emotional level, but it's also catchy and easy to listen to," Levy said. "As a teacher, mentor and friend of Kai's, I'm very proud of what he has achieved with this project."

Levy said that Roberts has been an invaluable role model at Arts Greenhouse for teens looking for a way to balance their goals as a student with their aspirations as musicians.

Roberts started in college as an engineering student but turned to business administration.

"I discovered my love for marketing through my music endeavors," he said. "Looking back it was a very good decision."

After graduation, he plans to pursue a career in the entertainment industry or attend graduate school.

Roberts used poetry to record his thoughts and frustrations.

"I thought of it as my personal responsibility to connect with the plight of all students through the Carnegie Café project," Roberts said. "I just want to show people that there is light at the end of the tunnel and that they are not alone."

The album is available for streaming and free download at: http://kairobertsmusic.bandcamp.com/.

## CAPS Expands Support Services

■ Abby Simmons

Many of the investments Counseling and Psychological Services (CAPS) has made to expand services were in the planning stages when campus-wide conversations about stress and mental health began last winter.

"The conversations reinforced the need for particular initiatives and helped us calibrate our priorities," CAPS
Director Kurt Kumler said. "They also raised community awareness of mental health issues on our campus, which has been invaluable. We're seeing more students, faculty and staff getting involved in the mission shared by CAPS and UHS (University Health Services), prioritizing the health and wellness of our community members."

Kumler said in the fall counselors saw a significant increase of student appointments.

The department has hired two new therapists, including one full-time clinician and one doctoral-level psychotherapy trainee. Plans are underway to add another doctoral-level training position for the 2014-2015 academic year.

"CMU's staffing levels are above the national average when it comes to full-time clinical staff appointments. We have approximately one full-time therapist for every 1,300 students, while the national average for university counsel-

#### **CAPS CONTACTS**

Online: www.cmu.edu/counseling/ By phone: 412-268-2922

ing centers is one full-time therapist for every 1,600 students," Kumler said.

At the same time, CAPS enhanced after-hours support. Previously, on-call services were reserved for life-threatening emergencies

Starting in the fall semester, the service was expanded to offer immediate support for any distressed students who call CAPS between 5 p.m. and 8:30 a.m., regardless of the nature of the crisis.

CAPS has hosted "drop-in" groups for students for the past two semesters as a way to provide support during a time when students report higher levels of stress. A staff member facilitates discussion among students, giving them an opportunity to share concerns, connect with and support peers. The groups also discuss coping strategies. "Surviving @ College" drop-in groups are currently being offered from 6:30 to 7:30 p.m. on Mondays and 5 to 6 p.m. on Wednesdays at CAPS.

CAPS also is collaborating with UHS to strengthen its impact. Staff Therapist Viviana Ferrer-Medina is working with UHS' Paula Martin, CONTINUED ON PAGE TWELVE

## The Inaugural Year Continues – Celebrate "Healthy Campus"



## Velless Vesseles

FRIDAY, FEBRUARY 21, 2014 UNIVERSITY CENTER

The entire campus community and their families are invited to participate in an interactive health and wellness event.

All-Day Activities
Beginning at 11 a.m.

"Healthy Campus" Symposium 12:30 - 1:45 p.m.

More information and full schedule: www.cmu.edu/healthy-campus

CROSSING BOUNDARIES TRANSFORMING LIVES

This event is part of the year-long celebration of the inauguration of Carnegie Mellon University's ninth president, Dr. Subra Suresh.

Carnegie Mellon University
Healthy Campus

## On With The Show

### **Drama Celebrates Centennial With "The Wild Party"**

#### ■ Piper Staff

As the School of Drama pays tribute to its first 100 years, it is looking to the future to celebrate the next century of innovation and talent in arts and entertainment.

"This is a remarkable achievement in American theatrical and cultural history," said Peter Cooke, head of the School of Drama.

On Saturday, Feb. 22, the School of Drama will have a Centennial Dinner in the CFA Great Hall followed by a performance of "The Wild Party," directed by Matthew Gardiner (A'06), associate artistic director of Signature Theater in Virginia.

Afterward, the school will celebrate with its own wild party in the lobby of the Purnell Center. It is open to current students, faculty, staff and alumni of the School of Drama, as well as season subscribers and attendees of the Centennial Dinner.

Similar celebrations will take place on March 10 at Steiner Studios at the Brooklyn Navy Yard in New York City and on May 8 at Universal Studios in Los Angeles. Money raised by the celebrations will go toward a new opportunity, the Richard E. Rauh Centennial Fellowship Fund, to support graduate students in the School of Drama. Rauh, an actor himself, is a longtime supporter of the School of Drama and the Pittsburgh arts community. He serves as an adjunct faculty member in the Heinz College,



focusing on films of the 20th century.

This endowed fellowship program is essential to the success of the school, Cooke said, because the ability to attract and retain graduate students is critical to the school's overall reputation.

"We continue to thrive because of support from our amazing alumni from across the country and around the world," Cooke said.

The oldest degree-granting conservatory training program in the United States, the School of Drama through its centennial celebrations is recognizing

contributions alumni, faculty and staff have made to the entertainment industry.

And it's just getting better. For the past two years, the school has ranked fourth in the world by The Hollywood Reporter. In 2013, CMU alumni stole the spotlight at the 67th Annual Tony Awards, winning eight awards across six categories, with several alumni presenting or performing during the event.

Two alumni, one honorary degree recipient and one current faculty member also won 2013 Emmy Awards for their work. The Emmy Awards recognize excellence in television in the categories of acting, writing, producing, art direction, costumes and lighting. Awardees were:

- Outstanding Supporting Actor in a Miniseries or Movie: James Cromwell (A'64), "American Horror Story: Asylum;"
- Outstanding Art Direction for Variety or Nonfiction Programming: Eugene Lee (A'62), "Saturday Night Live" with host Justin Timberlake/ host Martin Short/host Ben Affleck (Presented on Sept. 15);

- Outstanding Art Direction for Variety or Nonfiction Programming: CMU's new associate professor of costume design, Suttirat Anne Larlarb, and her co-producers from NBC Universal, LLC, Mark Tildesley, Production Designer, and Danny Boyle, Art Director, London 2012 Olympic Games Opening Ceremony; and
- Outstanding Lighting Design/Lighting Direction For a Variety Special: Robert A. Dickinson (A'05), for "The 55th Annual Grammy Awards."

Overall 11 alumni were nominated for 2013 Emmy Awards.

"To all former staff, faculty and students, the current cohort, our fabulous alumni and clans, and all those coming to study or work on campus in the next 100 years, I salute, thank, welcome and congratulate you," Cooke said. "The level of accomplishment across all disciplines offered by the school in its storied history could not be higher, nor more widely felt and acknowledged across the world arts community, and for that, we in the school thank each and every participant in its 100-year journey."

## Broadway Bash



FROM LEFT, CHERRY JONES (A'78), DIANE LANE, COLLEGE OF FINE ARTS DEAN DAN MARTIN AND SCHOOL OF DRAMA HEAD PETER COOKE CELEBRATE AT A PARTY AT THE FRIARS' CLUB AFTER JONES WAS INDUCTED INTO THE THEATER HALL OF FAME ON JAN. 27 IN NEW YORK CITY. FELLOW CMU ALUMNUS ZACHARY QUINTO (A'99) INTRODUCED JONES EARLIER IN THE EVENING AT THE GERSHWIN THEATRE. THE TWO STAR IN THE BROADWAY PRODUCTION OF "THE GLASS MENAGERIE."

JONES HAS RECEIVED NEARLY A DOZEN AWARDS, INCLUDING TWO TONY AWARDS FOR HER ACTING EXPERTISE.

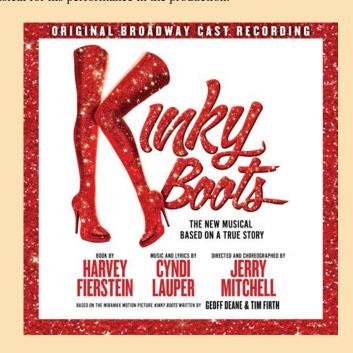
## Grammy Wins Have CMU Ties

#### ■ Piper Staff

"Winter Morning Walks," a classical music album based on the book published by Carnegie Mellon University Press, won three Grammy awards in January.

The album, composed by Maria Schneider, was based on the 2001 poetry book by Pulitzer Prize winner and former U.S. Poet Laureate Ted Kooser. The album won for Best Contemporary Classical Composition, Best Classical Vocal Solo Album and Best Engineered Album, Classical.

Also at the Grammys, "Kinky Boots," featuring Billy Porter, a 1991 graduate of the School of Drama, and the cast of the Broadway smash, won a Grammy Award for Best Musical Theater Album. This past June, Porter won a Tony Award for Best Performance in a Leading Role in a Musical for his performance in the production.



## Sundance Celebration

#### **CMU Students, Fellows Immerse Themselves in Star-Studded Studies**

■ Piper Staff

While some students started the year attending class, others were attending the Sundance Film Festival. But that doesn't mean their learning stopped.

As part of the second-year curriculum of CMU's Master of Entertainment Industry Management (MEIM) program 19 students attended the festival in Utah to watch movies and learn from the best in the industry.

Producers, executives and filmmakers met with the MEIM students during a series of breakfast seminars coordinated exclusively for the students. This year's guests included David Dinerstein, past president of Paramount Classics. Dinerstein is now head of marketing efforts for Annapurna Pictures, the production company whose films "American Hustle" and "Her" earned Academy Award nominees for Best Picture.

In addition to other speakers, students met with alumni including Samantha Fabin (HNZ'13) from Millennium Entertainment, Director/Producer Tommy Oliver (TPR'08), and Lakshmi Iyengar (HNZ'09), an executive at Universal Acquisitions.

During the festival, Divya Joseph (HNZ'14) interned for Sunshine Sachs, a public relations firm whose clients include Leonardo DiCaprio, Ben Affleck and the Hollywood Foreign Press Association. Sunshine Sachs also

represents Canon Cameras, a Sundance sponsor that hosted a party for cinematographers.

"This experience of working at Canon Craft Services during the festival showed me a unique side of the festival," Joseph said. "The main lesson I learned through working at Sundance is that all networking situations are opportunities to meet new people, and you never know when or how a connection you make will be beneficial in shaping your career."

Dian Song (HNZ'14) saw a gap in festival coverage in the Chinese media.

"I've seen Chinese media doing a lot of coverage on Cannes/Venice/ Berlin/Toronto, but Sundance is still quite unknown to most Chinese people," Dian said.

He pitched his idea of covering the event to an editor at the Chinese website iFeng.com., who loved the idea and provided a pass for press and public screenings and access to official venues.

Two students aided with a movie premiere by dressing up like Nazi Zombies to help out Roxanne Benjamin (HNZ'08).

"When I was offered the chance to dress up like a Nazi Zombie for the premiere of 'Dead Snow 2: Red vs. Dead,' my first thought was 'This is going to be absolutely hilarious,'" said Katie O'Leary. "I was right. Kris [Elder]



LI, MANJI, CHARNETSKY AND TAYLOR GRABOWSKI CHECK OUT THE ARTIST SERVICES WORKSHOP AT SUNDANCE.

and I met with the producers prior to the start of the film. ... We donned our costumes and for the next 30 minutes we scared people in the parking lot of the theater with our frightening appearances. Luckily I speak German and was able to frighten people with that, too."

The university has served as an Institute Sponsor for seven years. The Carnegie Mellon party on the opening night of the festival, was a huge success with more than 800 guests. It was thrown in conjunction with the festival's New Frontier program, which fosters artists experimenting at the intesection

of film, art, media, live performance, music and technology.

#### Film Premieres

In addition, two fellows from the Frank-Ratchye STUDIO for Creative Inquiry hosted a viewing of their documentary, "Clouds."

James George and Jonathan Minard's 3-D cinematic technology piece was produced by Golan Levin, director of the STUDIO, and was born at the STUDIO's Art&Code Conference. It focuses on the global community of new-media artist-technologists.

## Social Media

## **CMU Alumni Account Celebrates First Year on Chinese Microblog**

■ Heidi Opdyke

Facebook. Twitter. YouTube. LinkedIn. Pinterest. Weibo?

With more than 500 million users, Sina Weibo is one of the world's largest social media networks.

While most Carnegie Mellon social media accounts are in English, this Alumni Association account on the microblogging service is in Chinese and recently celebrated its first anniversary.

Students and alumni are using the platform to spread CMU's reputation with a broader audience than ever before

Yue Ma, a graduate student in the Architecture-Engineering-Construction Management program, said his mother even follows him on Weibo.

"It's one of the most popular sites in China," Ma said.

Ma is president of CMU's Chinese Students and Scholars Association (CMU-CSSA), one of the largest student organizations on campus. He helped to create the Alumni Association Weibo account, http://e.weibo.com/



cmualumni, which launched at the beginning of Chinese Lunar Year 2013.

The account was initially the idea of Wenjuan Jiang (HNZ'11), assistant director of international Alumni Relations, with the aid of student volunteers Duo Ding, Pengxuan Chen, Ma, Bosheng An, Yibin Lin and Haoran Liu. Now run by Jiang and student interns, the account is used to post news, events, stories, and photos related to CMU alumni and students.

Sang Xu (E'17) said the CMU Alumni Association writers have a sense of humor and interact well with followers. He said the website also is useful for networking.

"Weibo can be more powerful by making connections with alumni who are well known in their profession," he said.

One such alumnus is Kai Fu Lee (CS'88), who has more than 51 million followers. Lee was the founding

president of Google China, founder of Microsoft Research Asia and is now an angel investor.

"At first, it was his popularity that drew me to him," Ma said. "Later on, I found his posts were really helpful. He always encourages young people to be creative, innovative and brave."

Jie Zhao, a Ph.D. student in building performance and diagnostics, said the site has a huge impact in China as a grassroots media. Zhao also uses it to keep in touch with CMU connections.

More international students come to CMU from China than any other country. Ma cited a number of reasons for the attraction including well-known alumni such as CMU's first Ph.D. student, Mao Yisheng, Lee and John Forbes Nash, Jr., and the university's reputation for drama, business, public policy, engineering and computer science.

He also said the quality of life outside the classroom was important.

"Students care about the life here in CMU other than just studying," Ma said.

## **Imaginations**

#### **CMU Team Wins Top Honors in Disney Competition**

■ Susie Cribbs

Carnegie Mellon students used their imaginations to create an intercontinental experience truly worthy of Disneyland.

Their idea earned them the top prize in Walt Disney Imagineering's "Imaginations" competition. For this year's competition, teams were tasked with selecting a large, densely populated urban environment and designing an experience for the enjoyment of its residents and visitors.

The CMU team created a crosscultural experience a person couldn't encounter in his or her lifetime. They



CARNEGIE MELLON STUDENTS (FROM LEFT) CHRISTINA BRANT, ANGELINE CHEN, JOHN BRIEGER AND MATTHEW HO EARNED FIRST PLACE IN THE 2014 IMAGINATIONS DESIGN COMPETITION.

pushed that notion to its limit with an experience that involved antipodes — two locations across the world from each other. In this case, Bangkok and Lima, Peru.

Their award-winning project, aptly titled "Antipode," takes the form of a two-week cultural-exchange festival unfolding simultaneously in Thailand and Peru. They used the idea of magical whispering trees as portals between the cities.

Matthew Ho, a fifth-year senior in architecture, had long dreamed of entering the competition and planted the seed for the idea with friend Christina Brant, a fellow fifth-year senior in architecture and human-computer interaction. The pair recruited friends John Brieger, a senior in computer science, and Angeline Chen, a junior majoring in communication design.

The students collaborated to create a backstory and characters, and submitted a presentation to Disney Imagineering in November with original images and photomontages of their proposed experience.

Named one of six finalist teams in December, the quartet earned an

all-expense-paid trip to Walt Disney Imagineering in Glendale, Calif., to present their work to Imagineers. They also went behind the scenes to see what makes Walt Disney Imagineering — and Disneyland — tick.

"We've been socializing with Imagineers, learning what they do and seeing projects. It's been awesome," Brant said. "It's been interesting to see the collaborative process and how things work."

Started in 1992, Imaginations challenges teams of university students to showcase their skills and talents by designing a Disney-related project. It also serves as a platform for Walt Disney Imagineering to scout the next generation of creative and innovative thinkers for possible internships with the company.

This is the third consecutive year that a CMU team has placed in one of the top three spots.

"Antipode" won based on the same criteria Disney Imagineers use to judge their own projects. The winning formula was based on the team's ability to collaborate across different disciplines and backgrounds, master their individual

#### News Briefs

#### President Publishes Research, Named to PSO Board

Carnegie Mellon President Subra Suresh and his research colleagues at MIT and Nanyang Technology Institute in Singapore have developed a new model for studying how the human immune system fights malarial infection.

The researchers created a strain of mice with an immune system that mimics many features of the human immune system and can be infected with the most common form of the malaria parasite. The research team's discovery could greatly accelerate the understanding of malaria and advance the development of new drugs and vaccines to combat infection. The research was published online in the Proceedings of the National Academy of Sciences (PNAS)

In addition, President Suresh has joined the Pittsburgh Symphony Orchestra's Board of Trustees as an ex-officio member.

For more than 116 years, the Pittsburgh Symphony Orchestra (PSO) has been an essential part of Pittsburgh's cultural landscape. Known for its artistic excellence and critically acclaimed as one of the world's greatest orchestras, the PSO is credited with a rich history of the world's finest conductors and musicians, and a strong commitment to the Pittsburgh region and its citizens.

## Cassell Named Associate Vice Provost

Justine Cassell, the Charles M. Geschke Director of the Human-Computer Interaction Institute and co-director of The Simon Initiative, has taken on additional responsibilities as associate vice provost of Technology Strategy and Impact.

In an email to faculty in the School of Computer Science, Provost Mark Kamlet said Cassell's duties as associate vice provost will include strategy and outreach efforts related to the Global Learning Council as well as university-wide efforts that fall broadly within the area of human-computer interaction.

The Global Learning Council, chaired by President Subra Suresh, is a component of The Simon Initiative. The GLC is a distinguished group of thought leaders from across the globe who are committed to the use of science and technology to enhance learning. Read more about The Simon Initiative and the GLC at www.cmu.edu/simon/.

## Speed and Time Affect Recharging Costs

Electric vehicles may offer a path to a more sustainable transportation future, but they also might drive up electricity prices if they are charged during times of peak electricity demand.

In a new study, Carnegie Mellon researchers found that optimally varying the charging speed of plug-in electric vehicles can cut the cost of generating electricity to charge those vehicles in half.

"Controlled charging can shift loads later in the night when cheaper power plants are again available," said Paulina Jaramillo, an assistant professor of engineering and public policy (EPP). "Controlled charging could also help to manage fluctuations from renewable energy sources like wind and solar power, which change their output as the wind changes and as clouds pass by."

Jeremy Michalek, an associate professor of mechanical engineering and EPP, said allowing grid operators to control electric vehicle charging speed could reduce costs further.

"We see additional savings up to \$70 per vehicle each year or even higher for systems that expect new power plant construction and systems with a lot of wind power," he said.

## QoLT Partners With Henry Ford Health System

The Quality of Life Technology (QoLT) Center, a National Science Foundation Engineering Research Center jointly run by Carnegie Mellon and the University of Pittsburgh, has partnered with Henry Ford Innovations, a unit of the Henry Ford Health System, to develop digital health care solutions to improve patient outcomes and transitional care.

"Henry Ford is one of the nation's most progressive health systems," said Jim Osborn, executive director of the QoLT Center. "Their administration and clinicians recognize the imperative and the opportunity to improve health care efficiency and quality through technology. Together we will pioneer solutions that could benefit thousands of people."

QoLT is an emerging engineering discipline focused on research in assistive robotics and other human-computer systems that can support people in everyday living. Examples include personal robots that serve people at home, and computerized coaches for rehabilitation and support in daily functional tasks.

A portion of funding from the partnership is earmarked for a yearlong, three-phase project course under the direction of QoLT Center Director Daniel P. Siewiorek and Asim Smailagic. The project will employ a team of advanced graduate students with expertise in fields ranging from computer science, machine learning, rehabilitation science and assistive technology.

## Verstynen Receives CAREER Award

Timothy Verstynen has received a Faculty Early Career Development (CAREER) Award from the National Science Foundation for his project "Action Binding During Long-term Sequential Skill Learning: Computational and Neural Mechanisms."

Verstynen, assistant professor of psychology and a member of the Center for the Neural Basis of Cognition, will use the five-year, \$507,836 award to study how the brain learns complex sequential skills, similar to learning to play a melody on the piano.

He will do this by using a combination of computational modeling, behavioral analysis and neuroimaging to look at how the sequences of concepts — such as reading notes on a sheet of music — are learned differently than sequences of actions — such as hand movements on the keys.



 $\mathsf{CMU}$ 's winning Imaginations project focused on a festival taking place in Bangkok and  $\mathsf{Lima}$ ,  $\mathsf{Peru}$ , connected by magical trees.

skills, create an engaging guest experience, tell a story, understand the local and tourist market in the chosen location, and understand and have a passion for the Disney brand and Walt Disney Imagineering.

In addition to earning a \$3,000 cash prize (and \$1,000 for the university), the students gained practical knowledge of design and multidisciplinary collaboration during their process.

"I learned how to work with people from different backgrounds and skill sets, and how those can be melded into an overall proposal or product," Brant said. "When people have diverse backgrounds and experiences, you have different opinions and ways of viewing things. And I think that really challenges and pushes the project further."

For more on the Imaginations competition, visit https://disneyimaginations.com/.

## Instant Replay

#### Super Bowl Serves as Testbed for Mobile App

■ Piper Staff

Associate Professor of Electrical and Computer Engineering Priya Narasimhan, founder of YinzCam, and engineering students tested multi-camera instant replays to smartphones at the Super Bowl on Sunday, Feb. 2.

YinzCam, which creates mobile sports apps that allow fans to stay in touch with their favorite teams 24/7 by providing them with real-time stats,

multimedia, streaming radio, social media and more, has seen more than 7 million downloads of their products.

The company's mobile-video technology is also being deployed within sports venues throughout the country to allow fans to watch instant replays and live cameras (including the NFL RedZone channel) on their smartphones, tablets or touchscreen computers.



An iPad shows an instant replay from the Super Bowl. Priya Narasimhan and students attended the event in East Rutherford, N.J., to test the technology.

He will then look at how those types of learning are represented in the brain. Verstynen's findings will be used to optimize training programs for skilled learning across many domains, including educational environments and clinical rehabilitation centers.

## 2013-2014 Carnegie Mellon Factbook Now Online

The 2013-2014 Carnegie Mellon University Factbook is now online at http://www.cmu. edu/ira/factbook/facts2014.html. Each section is provided in a separate PDF, which is led by a linked Table of Contents and an introduction.

The introductions to each section include definitions necessary for accurate interpretation of the information. Questions? Contact Janel Sutkus at jsutkus@cmu.edu.

## Tutoring Program Earns Excellence Award

Carnegie Mellon's Academic Development Tutoring Program has received the 2014 National Tutoring Association's Excellence Award at the University Level.

The award honors CMU for its quality of service to students as recognized by peers, community leaders and school administrators. CMU's program, under Director Linda Hooper and Program Coordinator John Lanyon, will be presented with the award at the NTA 21st Annual Conference Awards Luncheon April 7 in Tampa, Fla.

#### Fienberg Named To National Standards Institute

Stephen Fienberg, the Maurice Faulk University Professor of Statistics and Social Sciences, has been named to the U.S. Department of Justice and the U.S. Department of Commerce's National Institute of Standards and Technology's newly created National Commission on Forensic Science.

The commission is part of a new initiative to strengthen and enhance the practice of forensic science and is made up of 30 members who were chosen from a pool of 300 forensic service practitioners, academic researchers, prosecutors and defense attorneys.

Fienberg will be the commission's only statistician. The members will create guidelines concerning the intersections between forensic science and the criminal justice system and develop policy recommendations for the U.S. attorney general, including uniform codes for professional responsibility and requirements for formal training and certification.

#### Safe Driving Classes Scheduled

Environmental Health & Safety has scheduled two free Safe Driving classes this semester that, depending on your insurance company, may result in lowering your insurance premiums.

University protocol requires that anyone whose job requires them to drive a vehicle on behalf of the university take this class once every three years. The class also is recommended for those who aren't required to drive as part of their job but who may drive on occasion.

Classes will be held from 8:30 - 11 a.m. on the following days:

- Tuesday, March 11
- Tuesday, April 8

To register, go to www.cmu.edu/ehs/ training/index.html and click on the Defensive Driving link.

#### **Nagin Named AAPSS Fellow**

The American Academy of Political and Social Science (AAPSS) has named Daniel S. Nagin a 2014 fellow for his efforts to improve society through research and influence over public policy. Nagin will be honored at an AAPSS ceremony on May 8 in Washington, D.C.

Nagin, the Teresa and H. John Heinz III
University Professor of Public Policy and Statistics, associate dean of faculty at the Heinz
College and an alumnus of the university, was cited for his work in using statistical methods to analyze criminal and antisocial behavior over the course of individuals' lives. He developed a statistical methodology that has made clear that the developmental origins of criminal and violent behavior can be traced to very early in life.

Nagin was awarded the Stockholm Prize in Criminology in October for his research showing that imprisoning offenders generally fails to reduce repeat offenses and may even exacerbate relative to community corrections options. His work helped to support the first decline in four decades in the U.S. incarceration rate.

## Work To Improve 3-D Printing

For the next 18 months, Carnegie Mellon researchers will work with industry to develop methods to make the three-dimensional printing technology for fabricating metal components a higher volume manufacturing process.

With a \$1.9 million grant from America Makes, the National Additive Manufacturing Institute in Youngstown, Ohio, CMU Mechanical Engineering Professor Jack Beuth will lead a research team in developing tools to improve powder-bed additive manufacturing processes, better known as 3-D printing. The technology allows the building of highly complex components that cannot be fabricated by traditional processes, while decreasing the cost of products, including jet engine parts and medical implants.

Beuth and CMU team members Fred Higgs, professor of mechanical engineering, and Anthony Rollett, professor of materials science and engineering, and Ola Harrysson of North Carolina State University, have been working to control and understand metal microstructure and mechanical properties of oducts made by two kinds of additive mar facturing processes. His team is investigating the EOS Laser Sintering process and the Arcam Electron Beam Melting process. Both are powder-based additive manufacturing processes that directly build metal components from metal powders. At present, these two additive manufacturing processes are the most successful at automatically fabricating any 3-D shape of metals.

## Build<sub>18</sub>

#### **Festival Provides Students Creative Outlet**

#### ■ Chriss Swaney

Engineering students provided creative solutions to everyday issues during their sixth annual Build 18 engineering fair.

"Build18 is a great and unique opportunity to complement our studies with the application of real-life skills. That includes what we learn in electrical and computer engineering (ECE) to create a cool product in a short time, within a budget in a team environment ... with the equipment available," said Michael Ryan, an ECE senior and Build18 leader.

This year, some ideas showcased included a mail-delivery blimp, an electronic tug-of-war game and a TV screen that duplicates a Formula One racetrack.

"There is simply no limit to what the students develop over this fast and furious week of imagination and creativity," said Pronoy Biswas, an ECE senior and event co-director.

The festival evolved out of ECE students' desires to expand classroom concepts into a fast-paced, abbreviated challenge to create innovative products under strict deadlines and limited funding, as is the case for most entrepreneurial startups.

"We wanted to get out of our comfort zones and really see what it's like to compete in the marketplace," Ryan said.

Susan Farrington, head of ECE alumni and employer relations and a founding Build18 adviser, praised the students for their organizational skills and enthusiasm.

"Our students have very demanding schedules and for them to take time to develop the Build18 concept and orchestrate this event annually is both amazing and a testament to the quality of our engineering programs and this university," she said.



BUILD 18 IS AN ANNUAL FESTIVAL DESIGNED TO ALLOW
STUDENTS TO TINKER ON SELF-PROPOSED PROJECTS TO
PROMOTE THE FUN AND PLAYELL ASPECTS OF ENGINEERING.



BEN WASSERMAN TRIES OUT THE WIKIPEDIA WATCH, CREATED BY PRONOY BISWAS AND ELI MURPHY-TROTZKY. THE WRIST-MOUNTED DEVICE BLENDED A QUIRKY MIX OF OLD AND NEW TECHNOLOGY BY USING AN ANTIQUATED MORSE CODE SWITCH AND MATERIAL FROM WIKIPEDIA'S TEXT-ONLY WEBSITE.



FOR THEIR AUTONOMOUS TRACKING DRONE PROJECT BENJAMIN SHIH AND RENTARO MATSUKATA USED A QUADCOPTOR AND AERIAL VIDEO TO TRACK MOVING OBJECTS ON THE GROUND.



MEG RICHARDS AND ANDREW BROCK WORK ON THEIR PROJECT,
THE ZEPHYR NOTIFICATION SERVICE, WHICH IS DESIGNED TO SEND
PAPER MESSAGES TO PEOPLE. ADDITIONAL TEAM MEMBERS ON THE
PROJECT WERE AMELIE BONDE AND BEN WASSERMAN.

## New Programs Continued from page six

## Mental Health First-Aid Training

The final proposal funded through the ECC Fund was a pilot mental health first-aid training course with a select group of staff and students in the fall. Mercy Behavioral Health staff helped to design and deliver the training, which aims to increase awareness of mental health issues and reduce stigma.

Participants will learn how to recognize when someone is in serious mental distress and how to help individuals connect with the resources they need. University Health Services and CAPS are assessing feedback from the first cohort of trainees, and an

announcement about future training opportunities will be made this semester. The eight-hour course will be open to all faculty, staff and students.

The ECC Fund is just one initiative among many that the Division of Student Affairs, Office of the Vice Provost for Education and Student Government have implemented to improve campus culture. Casalegno, Burkert and student leaders welcome ongoing input and suggestions.

"Campus spoke, and we heard you," Casalegno said. "If you have an idea, speak up. There is a pathway to create it."

## CAPS Expands Support Services

Continued from page seven

director of health promotions programs. Together, they are training 12 students who serve as Peer Health Advocates to implement more programs related to mental health and stress management.

In addition, CAPS and UHS have worked with Institutional Research and Analysis to launch CMU's Healthy U survey for students. Results will be used to inform existing and future health and wellness initiatives.

As part of its ongoing assessment efforts, CAPS will conduct a satisfaction survey later this spring. The department also is expanding information on its website, cmu.edu/counseling, to provide more information about therapy and mental health issues.

As conversations about campus culture continue, Kumler encourages the CMU community to consider stress and culture in a broader context.

"We are all called to reflect on 'What does stress mean?' Our culture at large has been changing. Look at the ways in which we view our time, utilize technology and approach relationships," Kumler said. "Building resilience is key to overcoming stressful situations."