



the PIPER

CMU'S NEWS SOURCE FOR FACULTY & STAFF

6/12 ISSUE

Carnegie Mellon University

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Out of Sight



PHOTO BY KEN ANDREYO

USING HIGH-POWERED TELESCOPES AND SPECIAL ECLIPSE GLASSES, ASTRONOMY ENTHUSIASTS, INCLUDING TYSON PRICE, A SENIOR IN PHYSICS AND AN ASTRONOMY CLUB MEMBER, GATHERED ON THE COLLEGE OF FINE ARTS LAWN ON TUESDAY, JUNE 5, TO TRY TO TRACK VENUS AS IT CROSSED THE FACE OF THE SUN. HOWEVER, THE OVERCAST PITTSBURGH SKIES DIDN'T COOPERATE AND MOST OF THE PLANET-SEEKERS WATCHED NASA'S LIVE FEED OF THE VENUS TRANSIT ON SIX LARGE SCREENS IN A NEW COMPUTER CLUSTER IN WEAN HALL. THE EVENT WAS ORGANIZED BY THE PHYSICS DEPARTMENT'S DIANE TURNSHEK, MICHELLE NTAMPAKA AND NICK BATTAGLIA. IF YOU MISSED THE ACTION, YOU'RE OUT OF LUCK. THE NEXT TRANSIT OF VENUS WON'T HAPPEN AGAIN UNTIL DEC. 11, 2117.

Three Earn CMU's Highest Faculty Distinction

■ Piper Staff

Three Carnegie Mellon professors, Nadine Aubry, Jaime Carbonell and Chris Hendrickson, have received the elite distinction of University Professor, the highest academic accolade a faculty member can achieve at Carnegie Mellon.

"Professors Aubry, Carbonell and Hendrickson represent the intellectual foundation on which this university is built. They are esteemed, award-winning scholars who are committed to advancing their fields through education, groundbreaking research and their impact on the world. They have earned this most distinguished honor through their academic pursuits and service to the university, and we are most fortunate and proud to have them as part of our community," said Provost and Executive Vice President Mark Kamlet.

CONTINUED ON PAGE NINE

Silicon Valley Campus Turns 10

■ Chriss Swaney

A decade of innovative research, academic excellence and entrepreneurial success stories took center stage at a June 9 event celebrating the creation of Carnegie Mellon's Silicon Valley Campus at Moffett Field in Mountain View, Calif.

The event included a technology showcase as well as remarks from CMU President Jared L. Cohon, CMU Provost Mark Kamlet, California State Assemblyman Paul Fong and others.

"Truly, this is the center of innovation of
CONTINUED ON PAGE ELEVEN

Green Giant

CMU Plays Key Role in Phipps' Center for Sustainable Landscapes

■ Heidi Opdyke

Like a good neighbor, Carnegie Mellon has been assisting the Phipps Conservatory & Botanical Gardens with hopes of creating the greenest building on Earth.

Carnegie Mellon faculty, students and alumni have been part of the planning and construction for the Center for Sustainable Landscapes (CSL). They will continue to work with the building as part of an ongoing research project.

The CSL is one of a handful of buildings designed to meet the Living Building Challenge of the International Living Future Institute and will surpass LEED Platinum certification by the U.S. Green Building Council. Phipps Execu-

tive Director Richard Piacentini called it one of the "greenest buildings in the world" and was doubly happy in being able to design and construct the building with companies from southwestern Pennsylvania.

"We wanted to be sure we built it in

the right way," he said during a recent media tour. "The building reflects the great talent we have in the region."

The 24,350-square-foot building, which perches over Panther Hollow, is expected to open to the public later this

CONTINUED ON PAGE EIGHT

Q&A: Don Carter on Reinventing Pittsburgh

■ Pam Wigley

Don Carter is a native Pittsburgher who has seen the city change. The David Lewis Director of Urban Design and Regional Engagement of the Remaking Cities Institute recently talked about some of these positive changes in a book chapter and presentation. The Piper recently caught up with Carter to learn more about healthy communities.

What constitutes a “healthy community” by today’s urban design standards?

Healthy communities are walkable, compact, mixed use, mixed income, served by transit, and close to nature (parks and trails). The irony is that we had those neighborhoods all along — our historic neighborhoods designed and built before World War II and before suburban sprawl.

What are some examples of great neighborhoods in our local area?

There are three projects in Pittsburgh designed by my firm, Urban Design Associates, that create walkable neighborhoods and healthy communities: Crawford Square (Hill District); Sumermet (Squirrel Hill); and Liberty Park (East Liberty). Other new developments by other firms include Washington’s Landing and a number of South Side waterfront projects. An historic neighborhood to visit is Chatham Village on Mt. Washington, a 1930s affordable housing project that is world-renowned. And of course, many of our older

neighborhoods qualify as very livable and healthy (Shadyside, Dormont, Aspinwall, Mexican War Streets, etc.).

You’ve recently written a book chapter. Tell us about that.

I wrote a chapter in a forthcoming book from the University of Illinois Press, “SynergiCity: Reinventing the Post-industrial City.” I was asked by the book editors to write the opening chapter, “The Future of the Post-Industrial City,” using the transformation of Pittsburgh from industrially based to technology-based as a case study.

You grew up in East Liberty and saw the decline of that once thriving neighborhood. What happened to cause that decline and how has it become a sought-after place to live again?

Good people with good intentions created the 1960s destruction of East Liberty. Urban redevelopment was the rage then across the country, based on urban design theories that were inappropriate, such as massive demolition, ring roads, and pedestrian malls. The three Pittsburgh neighborhoods that suffered the most were East Liberty, the Lower Hill District and central North Side. Fortunately some of the bones of East Liberty were left intact and new interventions, such as the East Side project and Liberty Park, have begun to revitalize the neighborhood after 40 years of decline.

How satisfying is it now to see the re-emergence of East Liberty?

It is very satisfying. I remember well the 1950s vibrant business district of Penn Avenue with six movie theaters, 22 shoe stores, four department stores, two hotels, restaurants and streetcars that could take you anywhere. The tree-filled neighborhoods were healthy, and housed families from all walks of life, ethnic backgrounds and incomes. Every student walked to school. All was not perfect, of course. There were social disparities and rough areas in some neighborhoods, but overall East Liberty thrived and was a healthy community.

Overall, do you think city planners and leaders in Pittsburgh have done the right thing historically to make the city a great place to live?

Big mistakes were made in the 1960s and 1970s, as I mentioned earlier. Since then, the mayors and city councils, and the City Planning Department and the Urban Redevelopment Authority have been healing some of those past wounds and supporting new developments, such as the South Side Works and the North Shore, which are examples of good urban planning.

What are we doing best now?

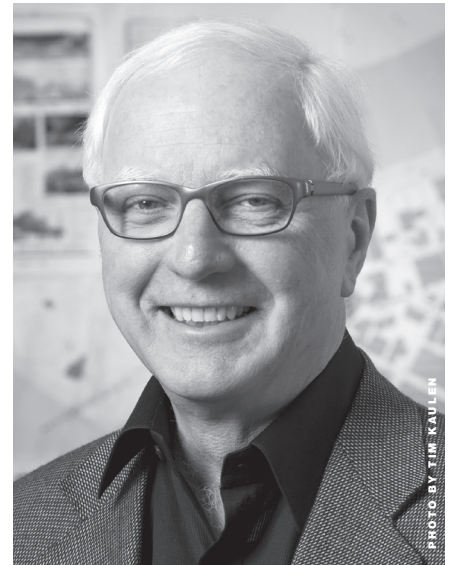
What would you like to take back and do over?

The city is now engaged in a multi-year comprehensive planning process that

will encompass all aspects of urban life, from parks to transportation to public art to housing to economic development to sustainable development. The involvement of the major Pittsburgh foundations has been critical to raising the bar on good design in the city. I would like to take back the bad moves of urban redevelopment of the 1960s and 1970s.

What do you envision for the future? A return to the city from the suburbs? Continued neighborhood revitalization in the city?

Pittsburgh is well situated for continued revitalization. The economy is diverse. The core of the region is healthy. The fragility of transit funding troubles me, but my hope is that cooler heads will prevail in the next few months to find a dedicated funding solution. The plight of the poor and minorities remains an issue, nationally and locally. On the bright side, unemployment is the lowest of any comparable U.S. region. The population is beginning to grow again, albeit slowly, but particularly in the key age cohort from 24 to 34. Pittsburgh will benefit from national migration trends, such as the “return-to-the-city” movement of baby boomers, empty nesters and young professionals. Pittsburgh has quality of life and amenities far in excess of other



DON CARTER

cities its size. Affordability of housing is an asset.

The “green” and sustainability movement is deeply embedded in Pittsburgh as we continue to restore and repurpose historic buildings, build new LEED certified buildings, develop infill housing in existing neighborhoods, upgrade our parks, and develop trails and bike lanes.

Lastly, I am optimistic that the Pittsburgh Promise college scholarship program will bring families back to the city and that our public school system will grow and improve, just as the pioneering Kalamazoo (Mich.) Promise accomplished in that city.

“Principles of Uncertainty”

Book Represents Kadane’s Legacy, Explains Bayesian Statistics

■ Shilo Rea

Joseph B. Kadane says statistics is an adventure in understanding how people make decisions and draw conclusions from data.

Throughout his career, Kadane, the Leonard J. Savage University Professor of Statistics and Social Sciences, Emeritus, used the Bayesian theory, both in its decision-theoretic foundations and in problems of elicitation and computation, to solve political science, law, physics, medicine and computer science problems. Kadane draws on his vast experiences in his new book, “Principles of Uncertainty,” as an effort to explain Bayesian statistics and math.

“This book addresses how to think about uncertainty,” Kadane wrote in the preface. “It is addressed to those who want to know ‘why.’ I have chosen a particular point of view, the subjective Bayesian view, because this approach has best survived the tumult of doing statistical applications and worrying about the meaning behind the calculations.”

Kadane starts each chapter with a poem or song verse that relates to the chapter. He did this to help lighten the topic. For example, the book begins with a quote from “Zooropa,” the

popular U2 song: “Don’t worry baby. It’s going to be alright. Uncertainty can be a guiding light.”

The first chapters introduce one new concept or assumption, and the rest of the book explores the consequences of each new assumption. Kadane organized the book this way to permit the use of “just-in-time mathematics,” or the introduction of mathematical ideas just before they are applied to advancing the main argument, which is about uncertainty.

Christian P. Robert, professor of statistics at Université Paris-Dauphine and head of the Stat Lab at the Center for Research in Economics and Statistics of the National Institute for Statistics and Economic Studies in Paris, called the book “a profound and mesmerizing book on the foundations and principles of subjectivist or behaviorist Bayesian analysis.”

He continued, “It represents the legacy he [Kadane] wants to leave for the future. And this is a legacy Jay can certainly be proud of! I highly recommend ‘Principles of Uncertainty’ for teaching as it can be used at so many different levels.”

For more information about Kadane’s “Principles of Uncertainty,” visit <http://uncertainty.stat.cmu.edu/>.



the PIPER

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Technology & Art Love Affair

Alumni Provide \$1 Million to the Frank-Ratchye STUDIO for Creative Inquiry

■ Pam Wigley

Alumni Edward H. Frank (CS'85) and his wife, Sarah G. Ratchye (A'83), personify a marriage between technology and the arts.

Frank, a graduate of the School of Computer Science, and Ratchye, an alumna of the College of Fine Arts, recently provided a \$1 million endowment to name the STUDIO for Creative Inquiry and establish the "Fund for Art at the Frontier," which in large part will be used to fund the creation of new works of art that push boundaries and inspire imagination.

The two announced the naming of the Frank-Ratchye STUDIO for Creative Inquiry, a studio dedicated to the collaboration of art, technology and other disciplines across the university, during a program in the College of Fine Arts' Alumni Concert Hall.

Indicative of Carnegie Mellon's dedication to pursuing innovation and inspiration, this endowment will encourage artistic interpretation and exploration among all educational programs at the university. Faculty, staff and students may apply after fall 2012 for project funding through the STUDIO regardless of background or major; applicants do not have to be affiliated with the College of Fine Arts to work within the STUDIO.

"Ed and Sarah embody a marriage of technology and the arts, literally and figuratively. They also understand and appreciate the interdisciplinary nature of Carnegie Mellon and its commitment to the arts with this gift that pushes arts frontiers," said Carnegie Mellon President Jared L. Cohon. "Their gift is generous and highly important at a time when arts education remains critical to the success of so many programs at CMU."

Innovative projects that push the limits of creativity and cross disciplines of study at Carnegie Mellon often were generated within the STUDIO for Creative Inquiry. Ratchye and Frank are passionate collectors and supporters of the arts, and they have a particular interest in electronic art and pop-surrealism. Through the Frank-Ratchye STUDIO for Creative Inquiry, they hope to support new forms of arts research that stretch the imaginations of both creators and audiences.

"Providing support that will encourage the creation of 'art at the frontier' is aligned with our perspective at the STUDIO because of our decades-long commitment to expanding the arts through new ideas, fields and ways of thinking," said Golan Levin, director of the STUDIO and the fund's administrator.

Levin is an award-winning artist whose work focuses on the design of systems for the creation, manipulation and performance of simultaneous image



CMU PRESIDENT JARED L. COHON, MAUREEN COHON, NAOMI FRANK, WHITTON FRANK, EDWARD H. FRANK, SARAH G. RATCHYE AND CMU BOARD OF TRUSTEES CHAIRMAN RAY LANE CELEBRATE THE NAMING OF THE FRANK-RATCHYE STUDIO FOR CREATIVE INQUIRY.

and sound. In early May, he received the Award of Distinction in the category of Hybrid Art at the 2012 Prix Ars Electronica for his work on The Free Universal Construction Kit. He has been director of the STUDIO since 2009 and is dedicated to helping his students, colleagues and visiting fellows see the possibilities inherent in developing provocative work that explores more than one area of study — particularly, the arts and technology.

Ratchye is an artist whose work has been exhibited in numerous one-person and juried shows and is in private collections in the United States and Australia.

She was a member of the board of trustees of the San Jose Museum of Art (SJMA) and was chair of the SJMA Collections Committee. In addition to Carnegie Mellon, she has earned degrees from Stanford University and the San Francisco Art Institute.

Frank is a University Life Trustee and chair of "Inspire Innovation: The Campaign for Carnegie Mellon University," which has already raised more than \$1.02 billion. He also is vice president of Macintosh Hardware Systems Engineering at Apple. Previously, he was corporate vice president for research and development at Broadcom Corporation.

He was also a co-founder of Epigram, a home networking company acquired by Broadcom in 1999, and he served as a distinguished engineer at Sun Microsystems. He holds more than 40 U.S. patents and was one of the entrepreneur founders of Carnegie Mellon in Silicon Valley, which is celebrating its 10th anniversary this year.

Ratchye and Frank are the parents of two daughters: Whitton, who received a Bachelor of Humanities and Arts degree from Carnegie Mellon and is an actress in Los Angeles; and Naomi, who is an artist and musician in New York City.

Bohman Receives Knaster Professorship

■ Jocelyn Duffy

Tom Bohman, professor and head of Carnegie Mellon's Department of Mathematical Sciences, has been named the Alexander M. Knaster (E'80) Professor in recognition of his leadership of the department.

"Tom has many qualities that make him an excellent teacher and scholar. His ability to work with others to achieve their highest potential will serve him well as he takes on the leadership of the Department of Mathematical Sciences," said Fred Gilman, dean of the Mellon College of Science.

Bohman joined the CMU faculty in 1998 as an assistant professor and became a full professor in 2009. His research focuses on combinatorics, a branch of mathematics concerning the study of finite structures.

Combinatorics has many applications in a variety of fields including

computer science, optimization and network science. He has published more than 40 papers in the scientific literature, has served as an associate editor for the Journal of Combinatorics and the SIAM Journal on Discrete Mathematics, and has served on the editorial board of Advances in Applied Mathematics.

Bohman earned his bachelor's degree in mathematics at the University of Dayton and his doctoral degree in applied mathematics from Rutgers University. He completed a post-doctoral appointment at the Mathematical Sciences Research Institute in Berkeley, and a National Science Foundation postdoctoral fellowship at the Massachusetts Institute of Technology.

CMU alumnus Alexander M. Knaster, a native of Moscow, is chairman and CEO of Pamplona

Capital Management, an investment management firm. Prior to founding Pamplona, Knaster served as CEO of Alfa Bank in Russia and as general director of Sidanco, Russia's seventh-largest oil company. He earned his bachelor's degree in electrical engineering and mathematics at Carnegie Mellon in 1980, and went on to earn a doctorate in economics from the Russian Academy of Science and an MBA from Harvard Business School.

Knaster, who established this professorship in 2006, continues to support Carnegie Mellon students and faculty. In 2010, Knaster, along with MCS alumnus Bruce McWilliams and his wife Astrid, created the Knaster-McWilliams Scholarship and Scholars Program to attract and support exceptional undergraduate students in mathematical sciences.

Wilson Advises Graduates To Live for the Moment

■ Heidi Opdyke

Patrick Wilson's (A'95) advice to this year's graduating class didn't focus on the future, but rather, their memories of today.

"All too often you forget the things you should remember and remember things that you should've forgotten. In a sea of milestones — huge life-altering events — sometimes it's the random details, the small moments that just pass in a flash that for some reason stick with you forever," Wilson said during his keynote address at Carnegie Mellon's 115th Commencement.

With that in mind, the School of Drama graduate told the students to laugh and live in the moment.

"The big stuff will happen whether you like it or not, whether you're ready, willing or able. What I want you to concentrate about is today," he said. "Today is not about a job that awaits you or where you will be going, where you will move, how you will struggle or why you will succeed. Today is you. Your friends. Your family. Don't worry about what will happen. Concentrate on what is happening. Try to do that a lot in life. Just be in the moment. Whether it's breaking a bottle, breaking a heart, getting hired or fired. Find humility in the hiring, and humor in the firing. They're just moments."

On one of the sunniest days in the past few years for commencement, he said that Carnegie Mellon is the "best acting school in the country." Wilson also delivered the keynote for the School of Drama diploma ceremony.

"I am honored. I am humbled.



PHOTOS BY KEN ANDREVO

IN HIS SPEECH, KEYNOTE SPEAKER PATRICK WILSON (A'95) SAID, "THERE IS NO OTHER SCHOOL IN THE COUNTRY LIKE CARNEGIE MELLON UNIVERSITY."

I'm scared as hell to be here. Honored because there is no other school in the country like Carnegie Mellon University. No other school that is continually and profoundly changing the world with its breakthroughs in science, technology and art. Humbled because I'm in the midst of masters in engineering, architecture, mathematics, literature. Computer analysis, fine arts, bagpiping, buggy building," he said.

Wilson is a widely talented and successful performer. His work as a stage, film and television actor, as well as a singer-songwriter, has brought him critical acclaim, as well as numerous awards and nominations.

Wilson was most recently seen alongside actress Charlize Theron in Paramount Pictures' "Young Adult" and also starred in the CBS drama "A Gifted Man." He received Emmy and Golden Globe nominations for Best Supporting Actor for his work on the HBO miniseries "Angels in America." Wilson has appeared in numerous feature films including "Little Children," starring opposite Kate Winslet, "The Ledge" and "The A Team."

He described drinking scotch with Harrison Ford on the set of "Morning Glory," and moments from "Watchmen."

"I remember the first time I put on my Night Owl costume on the set of

"Watchmen," he said. "It wasn't painted yet, and I really looked like Batman. I laughed at myself in the mirror. I looked ridiculous, and I loved it."

He is currently at work filming "The Conjuring," scheduled for release in 2013.

A trustee of the university since 2009, Wilson serves on its Education Affairs and Enrollment Committee. He and his wife, actress Dagmara Dominczyk (A'98), have deep roots at Carnegie Mellon and have remained generously supportive and active with the university in many ways, including their participation in student workshops.

He described meeting her when



FACULTY MARSHAL MARK STEHLIK LEADS THE PLATFORM GROUP WITH THE AID OF THE CARNEGIE MACE. STEHLIK WON THE ROBERT E. DOHERTY AWARD FOR SUSTAINED CONTRIBUTIONS TO EXCELLENCE IN EDUCATION EARLIER THIS YEAR.



TOP: A GRADUATE CHEERS AS HER COLLEGE IS ASKED TO STAND. ABOVE: THE ICONIC FENCE IS A POPULAR BACKDROP FOR COMMENCEMENT DAY PHOTOGRAPHS. RIGHT: RENÉE FLEMING (FROM LEFT), TEMPLE GRANDIN AND RUTH GRUBER WERE AMONG THIS YEAR'S HONORARY DEGREE RECIPIENTS, WHICH ALSO INCLUDED DANIEL KAHNEMAN AND RICHARD P. SIMMONS.

she was a freshman and he was a senior, and then proposing to her several years later. It was a moment he will always remember.

"I got down on one knee in the stoop of that freshman's Brooklyn apartment and asked her to marry me. She looked at me, and she said, 'No! I'm wearing sweatpants.'"

The couple has been married seven years.

"We all have a lifetime of memories that shape our existence. No matter how young or old we are, they all carry the same weight. My life, like yours, is just a collection of small moments in an ocean of larger experiences. It's the odds and ends, the bits and pieces that we take away."

COMMENCEMENT ON YOUTUBE



Watch Patrick Wilson's address, student speaker Caroline Kessler's remarks and

President Jared L. Cohon's charge to the graduates on Carnegie Mellon's YouTube channel at www.youtube.com/playlist?list=PL531DA16D9914330E&feature=plcp.

A Younger Class



SHARON CARVER, DIRECTOR OF CARNEGIE MELLON'S CHILDREN'S SCHOOL, PREPARES TO HAND HARRISON SALVI HIS DIPLOMA FOR GRADUATING FROM KINDERGARTEN. HARRISON IS THE SON OF KATIE SALVI (A'96).

PHOTO BY TIM KAULEN

Intel International Science Fair Comes to Pittsburgh, CMU

■ Heidi Opdyke

The pipeline for new students can begin pretty early.

Carnegie Mellon got a head start with some of the best and brightest high school students at the Intel International Science and Engineering Fair, the largest pre-college science competition in the world, where more than 1,500 budding scientists and engineers from around the world displayed their research at the David Lawrence Convention center downtown. They competed for more than \$3 million in awards.

“There were so many opportunities for Carnegie Mellon to be involved, and I think we really took advantage of all of them,” said Judy Hallinen, assistant vice provost for educational outreach and director of the Leonard Gelfand Center for Service Learning and Outreach. Hallinen was chair of the Pittsburgh Local Arrangements Committee, which included Terry Jacobsen, assistant director of the Hunt Institute for Botanical Documentation.

“Carnegie Mellon was involved in every aspect where we could be involved. It was great to see how people from across campus took the time to share their expertise during a very busy week during the academic year,” Hallinen said.

Dan Siewiorek, acting director of the Quality of Life Technologies Center (QoLT), was one of 45 judges from Carnegie Mellon. Siewiorek has served as a judge for the regional competition for the past 40 years and for the international competition in 1989, the last time Pittsburgh hosted the event. For him, the annual event is a family affair. Both of his daughters went to the international in separate years.

“Competition was really fierce. It’s amazing to see what the students do and see their out-of-the-box thinking and how creative they are,” said Siewiorek, who chaired the computer science division with a partner. He said many of this year’s projects were practical solutions, such as the best in the category, which looked at Google-like searches on tweets



JONATHAN MALEN, AN ASSISTANT PROFESSOR OF MECHANICAL ENGINEERING, SERVED AS A JUDGE AND LED A RESEARCH LAB TOUR FOR MIDDLE SCHOOL STUDENTS FROM SEVERAL COUNTRIES. BROADCOM SPONSORED THEIR TRIPS TO PITTSBURGH AS A WAY TO PROMOTE INTEREST IN THE FAIR WHEN THEY ARE OLDER.

and short messages. “With some of these ideas you could go off and start a company.”

Siewiorek said one of the Pittsburgh competitors will be an intern at the QoLT this summer, but he hopes she’s not the only one with sights set on CMU.

“These are fabulous students, and you’d really like to get them to be students here,” he said.

Three “Climate and Energy Decision Making Awards” were sponsored by the Leonard Gelfand Center for Service Learning and Outreach. The awards recognized students for proposing technologies, strategies and approaches in the area of sustainable energy systems. Arne Joi Nipales and Jacquelin Rivers of Barboquicari High School in Sell, Ariz., received \$2,500 for their project on a solar heater for rural unheated homes off the grid. Assiya Hussainova from the Specialized School for Gifted Children in Daryn, Karagandy, Kazakhstan, received \$1,500 for her project, in which she designed and created small wind-power engines for low-speed winds based on Magnus Effect. Wayne Walter Vigil Jr. of Grants High School

in Grants, N.M., received \$1,000 for his project on electric algae proliferation. Research scientist Iris Grossmann and graduate students Frauke Hoss and Paul van der Boor of CMU’s Climate and Energy Decision Making Center selected the winners.

“I found that the projects were even more exciting than I had expected. I was especially intrigued and inspired to see how motivated these students were to contribute to their communities,” Grossmann said.

In addition to the nearly four dozen faculty and staff who served as judges about a dozen students worked as interpreters and assisted with educational outreach activities.

Deborah Lange, executive director of the Steinbrenner Institute for Environmental Education and Research, said the students were really impressive. “It makes me feel good that there are kids that are going to represent our profession well and they’re going to carry on, but also that they are kids, and they have a sense of wonderment in the world.”

In the environmental management category Lange said she saw ways to

desalinate and purify drinking water, to remediate oil spills using kudzu and to make paper out of grass, weeds and dandelions. Some of the students had support from institutions such as the National Institutes of Health, the Smithsonian or research universities, while others were working in basements or school laboratories.

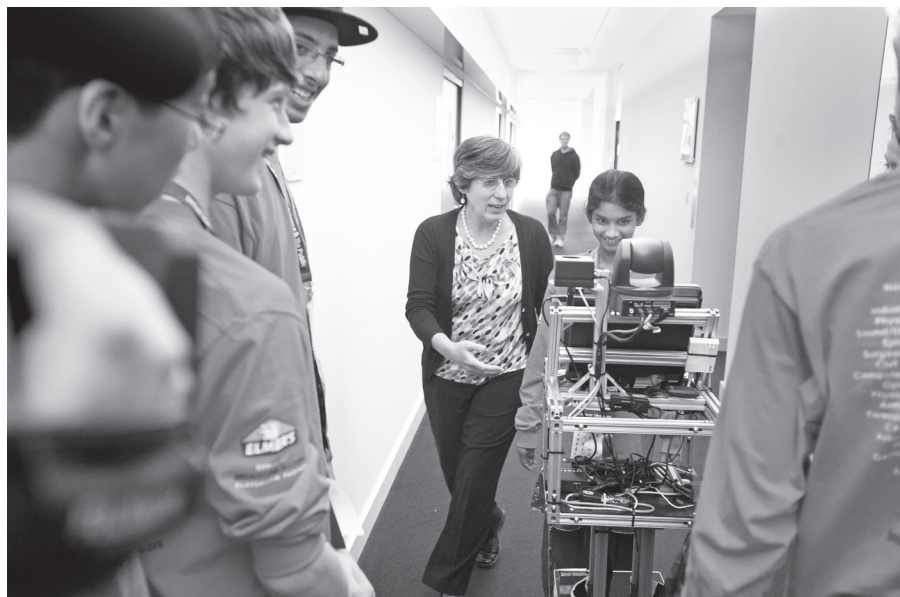
“Some of them had to be more resourceful in obtaining their data; I found those projects to be most clever,” she said.

Jonathan Malen, an assistant professor of mechanical engineering, served as a judge at the fair. He said some of the projects were unbelievable.

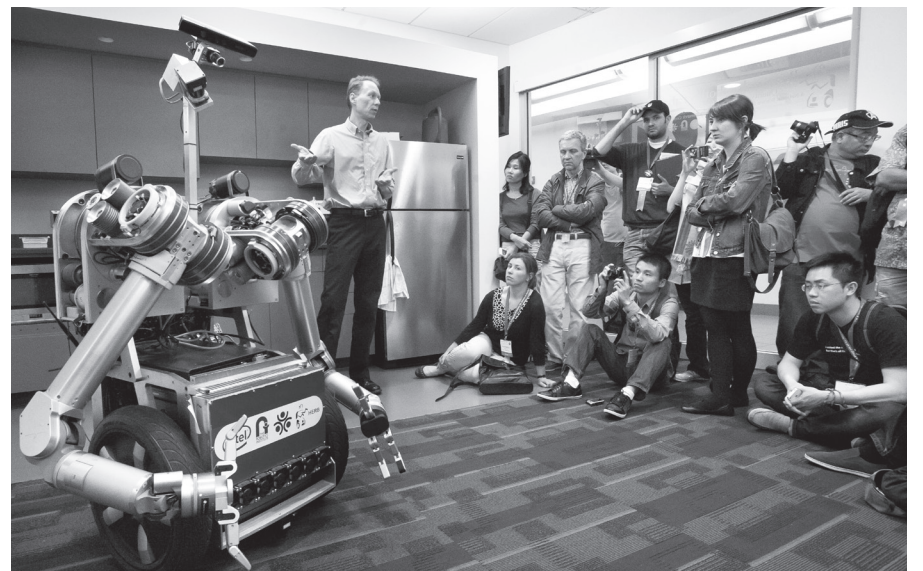
“It made me sort of question where I was at their age,” he said. “I’m very impressed, and I hope that involvement with Carnegie Mellon and having this fair in Pittsburgh somehow brings this talented group of students to Carnegie Mellon as undergraduates and graduates. I think our participation in the event actually helps.”

Malen also provided a research lab tour for middle school students from around the world who were in town to see the event. He was just one of the faculty members from departments such as Mathematical Sciences, Physics, Mechanical Engineering, Materials Science and Engineering, the QoLT, and the CORAL (Cooperate, Observe, Reason and Learn) robotics lab who showcased groundbreaking research and cutting-edge technology as part of tours for high school competitors and international journalists in town for the competition.

More than 60 journalists who were in town to cover the event were invited by Intel to see Intel/CMU research projects on campus. The projects included the Home Exploring Robot Butler (HERB), developed jointly by Intel and the QoLT; Immersive Shopping, which allows shoppers to not only return to a store but share their experience with family, friends and on social networking websites; and the Data Center Observatory, which is an experiment in cloud computing that started before the term “cloud computing” was coined.



MANUELA VELOSO DISCUSSES COBOT WITH MIDDLE SCHOOL STUDENTS. VELOSO WAS ONE OF MANY FACULTY WHO SPENT TIME VOLUNTEERING DURING THE FAIR.



MICHAEL VANDE WEGHE, A SENIOR RESEARCH ENGINEER AT THE ROBOTICS INSTITUTE, SHOWS THE HOME EXPLORING ROBOT BUTLER (HERB) TO A GROUP OF INTERNATIONAL JOURNALISTS IN TOWN FOR THE SCIENCE FAIR.

Students Gain Medical Experience in Honduras

■ Amy Pavlak

College students taking trips to the Caribbean is nothing unusual. But instead of packing suntan lotion and bathing suits, Carnegie Mellon students took 19 suitcases full of medical supplies and medications to treat allergies, colds and parasite infections to treat hundreds of patients.

During this alternative spring break, orchestrated by the Carnegie Mellon chapter of Global Medical Brigades (GMB), students conducted a three-day mobile clinic in Pajarillos, an under-resourced community in rural Honduras. All told, the 19 students — most of whom are pre-med — saw nearly 600 patients.

“Working with Global Medical Brigades has taught me so much about what makes a good doctor beyond knowing the science behind diseases,” said Wendy Li, a senior biological sciences major and co-president of the CMU chapter of GMB. “You work so hard at CMU learning the science. Going to Honduras and interacting with patients reminds you of why you are working so hard. It’s very rewarding.”

The CMU students worked alongside four physicians, one dentist, and one pharmacist at the mobile

clinic, which they set up in a church and nearby buildings. Patients made their way through the mobile clinics’ various stations, starting with triage, where students took vitals and logged patient symptoms. Patients then saw the doctor while students had the opportunity to observe.

“The doctors really went out of their way to teach us their thought processes in diagnosing the patients. They were amazing,” said Justine Record, a 2012 biological sciences graduate and former co-president of the CMU GMB.

Patients finished their visit to the mobile clinic with a trip to the pharmacy staffed by students and a pharmacist. There also was a dentist on hand to perform cleanings, treat cavities and extract teeth if needed. The CMU students gave every patient a toothbrush, toothpaste and dental floss — in addition to vitamins and an anti-parasitic pill — that they had collected back home mainly through donations from local hospitals and their fellow CMU students.

The CMU brigaders also raised \$60,000 worth of medications from organizations, such as Brother’s Brother and hospitals in the Pittsburgh area. They secured donations of other supplies from Global Links, Allegheny General Hospital, the University of



MASANARI KATO (E’12) PLAYS WITH A CHILD DURING A MOBILE CLINIC IN PAJARILLOS, HONDURAS.

Pittsburgh Medical Center and Quality Inn, which gave them soaps and shampoos. As part of their efforts, students even stood outside of the local Rite Aid and asked people to donate items such as vitamins and over-the-counter medicines. The students also raised funds to cover their travel expenses and to hire two Honduran doctors and a pharmacist to join them on site.

“We worked as a cohesive unit to do a lot of fundraising events,” said Hiro Nakagawa, a junior chemical engineer-

ing major and next year’s CMU GMB vice president. “I was really amazed by the teamwork that was involved in this process. We definitely got to know each other well, even before the trip.”

The 2012 trip marked the CMU chapter’s third trip to Honduras. The organization’s visibility on campus has definitely risen, according to Record.

“We started recruiting for the trip in September,” Record said. “Sixty people applied, so we had to do interviews because there are only a certain number of spots.”

Library Transformation Continues

■ Cindy Carroll

The University Libraries are entering yet another phase of transformation under the leadership of Dean of Libraries Gloriana St. Clair. This summer, major renovations to the first floor of Hunt Library will further define the future of CMU libraries as vibrant collaborative learning environments for students.

“Our student and faculty advisers worked with Campus Design & Facility Development and Lami/Grubb Architects to create a flexible new first floor plan for Hunt Library, within which we are implementing a new service and functionality to support and engage students in new ways,” St. Clair said. “We think students will be delighted when they walk in the door this fall.”

Only the circulation desk, the Maggie Murph Café, and the Emma Sharp Reading Alcove will look familiar to returning students and faculty in the fall. The majority of the public area will be renovated, creating new spaces for students to study and work individually or together. Renovations are being funded by the libraries with additional support from Provost and Executive Vice President Mark Kamlet.

The collaborative learning environment will be anchored by a new Global Communications Center. The center will combine library reference and one-on-one consultation with communication skills instruction, group work and

presentation practice (and technology to support all of these activities) — addressing student and faculty needs to learn and teach effectively in a global and interconnected world.

“From the point of view of reference services, we are excited about the opportunity to partner with the center that is being created on the first floor of Hunt Library. Hunt reference provides outreach and research consultation for the humanities, social sciences and business. Working with the Global Communications Center gives us a new venue for these services. It’s a good match for us and will be beneficial for students,” said Head of Hunt Reference Jean Alexander.

Two faculty members have been hired in the Dietrich College’s English Department to direct the communications center. Director Joanna Wolfe comes from the University of Louisville where she has been a professor of English. Associate Director Diana Awad Scrocco recently received her Ph.D. from Kent State University, where she served as assistant director of the Writing Center.

“The joint reference/communications center meets several student needs with practicality and innovation — very CMU,” St. Clair said. “One of the libraries’ strategic priorities is to foster scholarly communication in all disciplines, including multiple platforms and approaches for local and global projects.

CONTINUED ON PAGE ELEVEN

Engineering the Climate



PRADEEP KHOSLA, DEAN OF THE COLLEGE OF ENGINEERING (CIT), LISTENS AS TIMOTHY PERSONS, CHIEF SCIENTIST OF THE APPLIED RESEARCH AND METHODS GROUP OF THE U.S. GOVERNMENT ACCOUNTABILITY OFFICE, MAKES A POINT DURING THE MOST RECENT INSTALLMENT OF CIT’S WASHINGTON SPEAKER SERIES. KHOSLA SERVED AS MODERATOR FOR A PANEL ON “THE SCIENCE & UNCERTAINTY OF ENGINEERING THE CLIMATE: THE NEED FOR A STRATEGIC RESEARCH AND GOVERNANCE PLAN.” ALONG WITH PERSONS, PANELISTS INCLUDED STEVEN HAMBURG, CHIEF SCIENTIST FOR THE ENVIRONMENTAL DEFENSE FUND; GRANGER MORGAN, PROFESSOR AND HEAD OF CMU’S DEPARTMENT OF ENGINEERING AND PUBLIC POLICY; AND JOHN STEINBRUNER, DIRECTOR OF THE CENTER FOR INTERNATIONAL & SECURITY STUDIES AT MARYLAND. DAVID KEITH, A PROFESSOR OF PUBLIC POLICY AT HARVARD UNIVERSITY, WAS A GUEST SPEAKER. DURING THE EVENT, THE D.C. ALUMNI CHAPTER PRESENTED KHOSLA WITH AN AWARD IN HONOR OF HIS CONTRIBUTIONS TO CMU. KHOSLA WILL BE LEAVING CMU THIS SUMMER TO BECOME CHANCELLOR OF THE UNIVERSITY OF CALIFORNIA, SAN DIEGO.



PHOTO BY TIM KAULEN

PHIPPS EXECUTIVE DIRECTOR RICHARD PIACENTINI AND SCHOOL OF ARCHITECTURE HEAD STEVE LEE STAND ON THE GREEN ROOF OF THE NEW CENTER FOR SUSTAINABLE LANDSCAPES. BEHIND THEM IS THE TROPICAL RAINFOREST.

summer and will be used for education programs and office space. The structure will produce all of its own energy through solar panels, a wind turbine and 14 geothermal wells. It also will manage and treat storm and sanitary water.

Piacentini said that Carnegie Mellon “not only played a central role in the building and design process, but will help us going forward.”

“When we were building some of the other buildings here at Phipps, the CMU people were so enthusiastic and gave us some great ideas,” Piacentini said. “They were natural partners for this project and, collectively, they have been

a great sounding board for ideas. This isn’t the end of our relationship; we look forward to continuing our work together.”

Carnegie Mellon’s Center for Building Performance and Diagnostics was a part of the process dating back to the design of the Tropical Rainforest, said Steve Lee, head of the School of Architecture.

“Too often, university faculty and students are not out in the field and don’t have the opportunity to work with great organizations that are doing innovative things” Lee said. “With Phipps and its proximity to our campus, we’re fortunate

to have the opportunity to work closely on projects like this that make a difference.”

The school assisted with the initial planning and architect selection, and many of the faculty members played a key role in the design brainstorming sessions to discuss different options. Faculty included Khee Poh Lam, Vivian Loftness, Azizan Aziz and Christine Mondor. In 2009, Loftness’ fourth-year studio had students designing concepts for the building.

“Creating a building with such high performance can only happen with great leadership and vision at the top committed to an integrated delivery process involving all the stakeholders. Richard is the one with the courage, vision and drive to make this happen,” Lee said.

Mondor (A’93), a principal at evolveEA, said that Piacentini contacted her firm in 2007 to collaborate on the project statement and assemble the project team. evolveEA, a design firm that focuses on environment and architecture, is currently managing the LEED and Living Building Challenge certifications.

“The Living Building Challenge certification requires a year of performance data to demonstrate that the building is ‘net zero energy’ and ‘net zero water.’ We were one of the first team members for the project and will be one of the last remaining,” she said.

Mondor teaches courses such as design studio, site engineering and human factors in architecture.

“Our undergraduate students have used Phipps as an example of the Living Building to inform their own design work,” she said. “In addition, the Center for Sustainable Landscapes will be home to a research center advocating for sustainable landscape issues in our region. I anticipate our students will continue to see Phipps as a resource.”

Doctoral students are working on the project as part of their research. CMU and the University of Pittsburgh received a \$2 million grant from the National Science Foundation Emerging Frontiers in Research and Innovation. Professors Lam and Lee are co-principal investigators for the CMU team.

As part of the design, sensors will be mounted throughout the facility to gauge the building performance. Now in its second year, the goal of the project is to quantify the environmental impacts of buildings and aid in decision-making.

Lam has been working with the modeling for the project.

“Carnegie Mellon has always been about doing things that are applied to real world problems,” Lam said. “Ultimately we want to make sure that this is used and can have a measurable impact. That’s always been a hallmark of Carnegie Mellon education.”

Experimental Art **Ali Momeni Transitioned from Musician to Sculptor**

■ Tiffany Benson

Artist Ali Momeni does not chisel stone nor weld metal. But his unique work shares many of the same inspirations as other artists: nature, science, travel and music.

The interdisciplinary artist joined CMU this spring, and his journey to get here took a winding road.

His parents emigrated from Iran when he was 12, and Momeni grew up outside of Philadelphia before entering college as a pre-med student.

“Being pre-med was kind of a recipe that I think a lot of the students at CMU can relate to. It was basically a classic first-generation immigrant [path].”

At Swarthmore College he double majored in physics and music. The music won out, and Momeni earned a Ph.D. in music composition, improvisation and performance with computers from University of California, Berkeley.

His interest in sound art proved to be his gateway into visual art. What started as building musical instruments as part of his work grew into building musical sculptures — some the size of a building — no longer intended for the stage.

“It went more in the direction of sculpture and installation and from that I found myself in the contemporary art world as opposed to contemporary music,” Momeni said.



PHOTO COURTESY OF ALI MOMENI

ARTIST ALI MOMENI SCULPTS WITH GADGETRY AND DIGITAL FABRICATION IN MIND.

Music to Sculpture

After a stint in Paris, Momeni joined the University of Minnesota’s Department of Art to help develop a new program called “Collaborative Arts.” There, he was an assistant professor in Experimental and Media Arts before finding his way back to Pennsylvania.

He was attracted to CMU and his studio in Doherty Hall because of the school’s strengths in technology, robotics and digital fabrication.

“The department here was prepared to make a leap in what they considered sculpture. My three colleagues in the sculpture area here are more traditional sculptors; they work with metals and clay

and environmental art, so they were ready to bring someone in who is going to bring this kind of gadgetry to the sculpture area and also work with the digital fabrication scene,” Momeni said.

Momeni’s first two courses worked in both areas. “Digital Fabrication for the Arts” introduced a diverse mix of students to fabrication techniques using computer

and numerically controlled machines not commonly found in art classes.

Momeni also taught “The Animated Theater,” a class in which students studied miniatures and worked with small-scale electronics, motors, servers and actuators to create a tiny theater activated by movement and light. Momeni showed students how to work with micro-controllers and create a large-scale choreographed environment.

Bees and Bugs

When he is not teaching, Momeni has many personal projects, a number of which focus on nature.

His next work will study the in-

teraction between robots and animals by placing a bee-like robot into a colonized hive to observe how it communicates with the bees. The project is called “If lions could speak we wouldn’t understand them,” after the famous Wittgenstein quote.

Momeni said it explores “a really interesting area where you’re communicating in a language that you don’t really understand yourself but the response tells you what the language means.”

He also hopes to bring a project to the U.S. that he’s created with materials illegal in the country: leaf cutter ants. After creating a unique foraging area for the ants, Momeni allows them to make poetic choices about what they eat, such as rose petals versus an old world atlas.

This fall Momeni will teach classes on soft sculpture and building hybrid instruments. He also wants to continue to work with students and faculty from other disciplines.

“[There is] an open invitation to anyone who is interested in the arts, has their heart or skills somewhere else but sees the connection in some way. That’s the area I function in,” Momeni said.

Aubry and Hendrickson are faculty members in the College of Engineering. Aubry is the Raymond J. Lane Distinguished Professor and head of the Mechanical Engineering Department. Hendrickson is the Duquesne Light Company Professor of Engineering in the Civil and Environmental Engineering Department. He also is co-director of the Green Design Institute.

"These accolades are well deserved for two outstanding academic leaders and innovative researchers dedicated to pushing the boundaries of knowledge both here at CMU and globally," said College of Engineering Dean Pradeep K. Khosla, the Philip and Marsha Dowd University Professor. Khosla was recently named chancellor at University of California, San Diego, effective Aug. 1.

Carbonell is the Allen Newell Professor of Computer Science and director of the Language Technologies Institute in the School of Computer Science.

"Jaime Carbonell thoroughly embodies our claim that 'big bets lead to big breakthroughs,' reflecting a tradition for computer science at CMU to pursue research ideas that carry a high risk, but with the potential of creating transformational technology," said Randal E. Bryant, dean of the School of Computer Science. "Jaime's biggest bet has been in automated language translation, a topic once thought impossible but now is available in usable, if not perfect form, from Microsoft and Google, thanks to a large extent on work by Jaime and his colleagues."

Nadine Aubry



A member of the National Academy of Engineering, Aubry is internationally known for her pioneering work in the field of fluid dynamics,

specifically on reduced models of turbulence, and for her contributions to the field of microfluids, which plays a crucial role in the advancement of both large and miniature aerospace vehicles.

Aubry was recently selected as a fellow in the American Institute of Aeronautics and Astronautics (AIAA), joining the ranks of 186 fellows among more than 35,000 AIAA members worldwide.

Aubry's interdisciplinary research and close ties to industry have helped her garner other important awards, including the National Science Foundation's Presidential Young Investigator Award and the Ralph R. Teeter Educational Award from the Society of Automotive Engineers. She was elected a fellow of the American Physical Society, the American Society of Mechanical Engineers and the American Association for the Advancement of Science.

She earned her bachelor's degree from the National Polytechnic Institute of Grenoble, France, and a master's degree from the Scientific and Medical University, also in Grenoble. She received her Ph.D. from Cornell University.

Jaime G. Carbonell

Carbonell is a widely recognized authority in the fields of machine translation, natural language processing and machine learning. He has invented a number of well-known algorithms and methods, including Proactive Machine Learning and Maximal Marginal Relevance for information retrieval. His work has spawned or contributed to a number of commercial enterprises, including Carnegie Speech, Carnegie Group and Dynamix Technologies.

His research also includes Computational Proteomics and Biolinguistics,

which adapts the computational tools developed for analyzing language to understand the biological information encoded in protein structures, and leads to understanding protein-protein interactions and molecular signaling processes.

Carbonell created the university's Ph.D. program in language technologies, and is co-creator of the Universal Library and its Million Book Project. He founded CMU's Center for Machine Translation in 1986 and led its transformation in 1996 into the Language Technologies Institute, one of seven departments within the School of Computer Science.

He earned bachelor's degrees in mathematics and physics at the Massachusetts Institute of Technology and his master's degree and Ph.D. in computer science at Yale University. He has authored more than 300 research papers.



Chris Hendrickson

A member of the National Academy of Engineering, Hendrickson's research, teaching and consulting are in the areas of engineering planning and management, including design for the environment, project management, transportation systems, finance and computer applications. Some of his latest research endeavors involve life-cycle assessment



methods, assessment of alternative construction materials, economic and environmental implications of e-commerce and infrastructure for alternative fuels. He was recently appointed to the executive committee of the Transportation Research Board (TRB), which provides expert advice on national transportation policy and leadership in transportation innovation.

Hendrickson, former head of CMU's Civil and Environmental Engineering Department, is a distinguished member of the American Society of Civil Engineering, a fellow of the American Association for the Advancement of Science, and an emeritus member of the TRB standing committee on the application of emerging technologies to design and construction.

He has co-authored several textbooks, two monographs and numerous articles. He is editor-in-chief of the American Society of Civil Engineers' Journal of Transportation Engineering.

Hendrickson earned bachelor's and master's degrees from Stanford University, a master's degree from Oxford University and his Ph.D. from the Massachusetts Institute of Technology.

CMU Employee Picnic at Kennywood is July 7

Carnegie Mellon's Annual Employee Picnic at Kennywood Park, sponsored by Staff Council, will be Saturday, July 7.

Pavilions 8 and 9 will be reserved for CMU employees and their families all day. A children's (ages 0-8) prize give-away will be held at 4 p.m. in Pavilion 8, followed by an adult raffle and ice cream distribution. You must be present with your CMU ID to claim a prize. Each employee will get one raffle ticket.

Employees can purchase one ticket (\$37.99 value) for \$10 (valid only on July 7) and four additional tickets for \$15 each. Additional tickets (limit 5) can be purchased for \$20 each. Tickets must be purchased with cash only and employees must present their own CMU ID.

The following are dates, times and locations for the ticket sales:

June 26	11:30 a.m. – 1 p.m.	University Center
June 27	11:30 a.m. – 1 p.m.	University Center
June 28	11:30 a.m. – 1 p.m.	Mellon Institute
July 2	11:30 a.m. – 1 p.m.	University Center
July 3	11:30 a.m. – 1 p.m.	University Center
July 6	11:30 a.m. – 1 p.m.	University Center

Staff Council also is offering discounted tickets to Sandcastle (\$19) and Idlewild (\$22.99) parks. Sandcastle and Idlewild tickets can be purchased by contacting Barbara Price at bp0a@andrew.cmu.edu.

Help spread the word by downloading and printing the Kennywood flyer on the Staff Council website, www.cmu.edu/staff-council/. Look for the flyer link in the red box featuring upcoming events.

Carnegie Mellon University

COMMUNICATION SYMPOSIUM



Developing a Transnational Education: Teaching Across Cultures and Languages

**MONDAY THROUGH WEDNESDAY
JUNE 25-27, 2012
POSNER CENTER BOARD ROOM**

The overall goal of the symposium is to build an intellectual community that aims to develop effective approaches to help students acquire the professional and technical English communication skills that they need to function effectively in the emerging global knowledge economy.

To register, contact Emily Mohn at emohn@cmu.edu. For more information visit <http://tinyurl.com/CommSymposium>.

MOST SESSIONS OPEN TO ALL CMU FACULTY AND STAFF.

Sponsored by Carnegie Mellon Qatar and the Department of English

STAFF COUNCIL DIVISIONAL REPS ELECTED

Twenty-nine staff members were recently elected by their peers to represent their divisions as members of Staff Council for the 2012-2014 term. The representatives and their divisions are:

Office of the President, Office of the Provost, Faculty Senate, Hunt Institute: *Virginia White*

Vice Provost for Computing Services, Office of the Chief Technology Officer: *Christine Ferguson and Sarah Suiter*

Vice Provost for Education: *Donora Craighead and Jessica Owens*

University Advancement: *Stacie McAllister and Julie Buffington*

Finance: *Sean McCool and Joshua Conklin*

Research, Associate Vice President for Research and Academic Administration: *Open*

Campus Affairs, Admissions: *Patricia Stragar and John Papinchak*

General Counsel: *Camille Manley*

Carnegie Institute of Technology, Center for Technology Transfer and Enterprise Creation: *Rachael Swetnam and Shannon Lown*

Mellon College of Science: *Lillian T. Crawford and Tatyana Aleynikov*

School of Computer Science: *Sylvia Berry and Nicole Stenger*

College of Fine Arts: *Kenneth Chu and Fran Flaherty*

Dietrich College: *Ellen Conser and Eileen Simeone*

Tepper School, Center for International Politics and Innovation: *Peter Siegel and Janet Kaercher*

Heinz College: *Lanae Meyer and Scott Scheible*

Software Engineering Institute: *Aaron Detwiler and David Reinhoehl*

University Libraries: *Kim Sestilli*

Staff Council Officers for 2012-13 are *Jeffrey Harris* (Chair), *John Lanyon* (Vice Chair), *Cathy O'Domes* (Secretary) and *Kaycee Palko* (Treasurer.)

Sigma Tau Delta

CMU Launches Chapter of International English Honor Society

■ Shilo Rea

Sigma Tau Delta, the prestigious International English Honor Society, has come to Carnegie Mellon, and 50 outstanding students from the Department of English have been named founding members of CMU's Omega Tau Chapter.

"With the high quality of students we get in the English Department, it is wonderful to have an opportunity to recognize that excellence through Sigma Tau Delta," said Jim Daniels, the Thomas Stockham Baker Professor of English and Sigma Tau Delta faculty adviser.

"As members, students will have the opportunity to present papers and read their creative work at regional and national conferences, and also to get published in Sigma Tau Delta's national journals. In addition, at the local level, we hope that our Carnegie Mellon chapter will contribute to a stronger sense of community across the various undergraduate majors in the English Department."

Sigma Tau Delta was founded in 1924 at Dakota Wesleyan University and has more than 800 active chapters throughout the U.S., Europe, Middle East and Caribbean. The central purpose



MATT FINLAY RECEIVES HIS NEW SIGMA TAU DELTA PIN FROM JIM DANIELS. FINLAY IS THE ENGLISH HONOR SOCIETY'S VICE PRESIDENT.

of the society is to "confer distinction upon students of the English language and literature in undergraduate, graduate and professional studies." Sigma Tau Delta also recognizes the accomplishments of professional writers who have contributed to the fields of language and literature.

Meela Dudley, a junior with a double major in professional writing and creative writing and a minor in global systems and management, was elected chapter president.

"We are so excited to see Sigma Tau Delta come to life and have the oppor-

tunity to initiate and honor our fellow English majors," she said. "Being able to commend our hard-working peers on their academic excellence is an incredible feeling. This organization offers its members multiple scholarships and potential job opportunities, and as a member I myself cannot wait to utilize all that Sigma Tau Delta has to offer."

Additional officers for 2012 are Matt Finlay, vice president; Hannah Dellabella, secretary; and Nina Mohan, treasurer.

For more information, visit www.english.org/sigmatd/.

NEWS BRIEFS

Athletics To Host Summer Sports Camps

The Department of Athletics will be hosting soccer, basketball, swimming and fitness camps for kids this summer. For information, go to www.cmu.edu/athletics/department/camp-clinic.html

Andy Award Nominations Due July 10

Nominations for the 2012 Andy Awards are due July 10. The Andy Awards, named for Andrew Carnegie and Andrew Mellon, are a tribute to the spirit of teamwork and dedication embodied by the staff at Carnegie Mellon. Individual staff members and teams of colleagues whose work has had a significant impact on the university are recognized for their outstanding performance and commitment to excellence through the Andy Awards program. Awards are given in six categories: Dedication, Commitment to Students, Innovation, Culture, University Citizenship and Community Contributions. For more information and for nomination and statement of support forms visit www.cmu.edu/andyawards/nomination/index.html.

CMWA Names Leadership Team

The Carnegie Mellon Women's Association recently announced its leadership team for 2012-2013:

- Maureen Cohon, honorary president
- Pattye Stragar, president
- Pat Schaller, treasurer
- Krista Campbell, co-vice president, programs
- Alexa Hansen, co-vice president, programs
- Sherra Moors, vice president of on-campus membership
- Virginia Schatz, vice president of off-campus membership
- Emily Half, website administrator

Summer activities for the CMWA include a Networking Brown Bag Lunch series, which is open to members and non-members. The lunches will be noon to 1 p.m. on Friday, June 29, and Tuesday, July 24, at the Danforth Lounge, University Center. Water and dessert will be provided. Send RSVPs to Krista Campbell at kcampbell@cmu.edu.

The CMWA Book Club, Knit & Crochet Club and Cooking Club will continue to meet over the summer. Complete schedules for both clubs are available online at www.cmu.edu/cmwa/Clubs/index.html.

Membership is open to all women associated with the university including faculty, administrators, trustees, and staff, or wives/partners and friends of faculty, administrators, trustees and staff.

Dues are \$10 for a yearly membership (July 1 - June 30), and all dues and designated gifts go directly toward CMWA's Annual Scholarship Awards fund. To become a member complete the membership form at www.cmu.edu/cmwa/Images/cmwamemberform.pdf.

Professors Tapped for Turing Conferences

A series of Alan Turing events are taking place this year in honor of what would have been the 100th birthday of one of the most influential computer scientists of all time.

Edmund M. Clarke, the FORE Systems University Professor of Computer Science and professor of electrical and computer engineering, and Manuela Veloso, the Herbert A. Simon Professor in Computer Science and Robotics, have been invited to give talks at The Alan Turing Centenary Conference, June 22-24, hosted by the University of Manchester in Manchester, England.

Clarke, who won the 2007 Turing Award — the highest honor in computer

science — will present a lecture titled "Model Checking and the Curse of Dimensionality." Veloso, who this summer will become president of the Association for the Advancement of Artificial Intelligence, will discuss "Symbiotic Autonomy: Robots, Humans and the Web."

Lenore Blum, professor of computer science, is an invited speaker at the Turing Centenary Conference, Computability in Europe 2012 (CIE 2012) at the University of Cambridge, June 18-23. Blum will present her talk, "Alan Turing and the Other Theory of Computation," on June 22, the eve of what would have been Turing's 100th birthday.

Brunskill Named Microsoft Research Faculty Fellow

Emma Brunskill, assistant professor of computer science, is one of seven recipients this year of a prestigious Microsoft Research Faculty Fellowship, which recognizes pioneering young academic researchers working in key areas of computer science. Brunskill's research area is artificial intelligence and her particular emphasis is on decision making under uncertainty — making a series of decisions without knowing the exact outcome of each decision. This is relevant to many applications, including health care and robotics, though much of her work to date has focused on education.

the world,” Cohon said.

A beacon of technological achievement and a hub for developing creative software management leaders and entrepreneurial startups, CMU’s Silicon Valley campus has quadrupled in size since its inception in 2002 and helped launch more than a dozen startups.

“We are celebrating not just our academic achievements, but our important role as a change agent in the dynamic ecosystem of Silicon Valley,” said Martin Griss, director of CMU’s Silicon Valley campus. “We are excited to achieve the envisioned balance and synergy between innovative education, research and entrepreneurship.”

More than 600 CMU Silicon Valley alumni credit career success to novel teaching, helping them to try out new ideas, shed them quickly if they don’t catch on and move to the next new idea. That problem-solving DNA so intrinsic to the CMU culture is supported by the Silicon Valley entrepreneurship program, which is closely tied to the university’s Greenlighting Startups initiative. An engine for accelerating enterprise and job creation, Greenlighting Startups builds upon the university’s impressive record of turning campus research into new businesses.

“I had been involved with many startups before coming to CMU’s Silicon Valley campus, but it was my classroom experiences and support from CMU faculty that gave me the confidence to start my own successful company along with other CMU alums,” said Manoj Rajshekar, who recently launched a startup, EngageClick, focused on building a platform for engagement. Rajshekar is a 2011 graduate of the

CMU’s software management program at the Silicon Valley campus.

Bertrand A. Damiba, a Google product manager, praised the Silicon Valley programs for valuable “hands-on learning” and a commitment to helping students develop crucial business and marketing skills. “It is learning by doing and plenty of teamwork that makes the program so great,” said Damiba, a 2008 graduate in software management.

CMU’s Silicon Valley campus offers part-time and full-time master’s degree programs in software engineering, software management, information networking, and electrical and computer engineering, as well as a Ph.D. program in electrical and computer engineering.

“Our anniversary celebration highlighted many of those programs and research spanning our novel work from solar panels and sustainability to mobile computing,” said Steven Rosenberg, associate director of CMU’s Silicon Valley campus.

Abe Ishihara, a research faculty member at CMU Silicon Valley, showcased a new monitoring and diagnostic system developed to enhance energy harvesting for residential and commercial scale solar arrays. “Solar panels can help decrease the cost of energy but only if properly maintained and operating at peak performance,” he said. “Left unchecked, failure modes can significantly impact the return on investment and owners need to know about it.”

Jason Lohn, an associate research professor at CMU Silicon Valley, displayed some of his work involving the tracking and development of more resilient antennas in mobile systems like cellphones.



PHOTO BY GENE X HWANG/ORANGE PHOTOGRAPHY

MOUNTAIN VIEW, CALIF., MAYOR MIKE KASPERZAK PRESENTS CMU PRESIDENT JARED L. COHON WITH A RESOLUTION CELEBRATING THE SILICON VALLEY CAMPUS. KASPERZAK SAID HE IS PROUD TO CALL MOUNTAIN VIEW A “UNIVERSITY TOWN.”

Renovations Under Way in Hunt Library

CONTINUED FROM PAGE SEVEN

Developing strong communication skills benefits the individual, the university and, ultimately, research and scholarly communication.

“I predict that the lounge areas and informal group study space along the Frew Street side of the library will become first floor ‘destinations’ for students, just as the café and Emma Sharp Alcove continue to be. With two new technology-enabled rooms that can be reserved for group studies after hours and on weekends, the whole first floor will really belong to students,” St. Clair added.

Hunt Library’s first floor project is the first of several strategic renovations planned by the University Libraries. The basement of Hunt Library, Sorrells Engineering & Science Library and the Mellon Institute Library are slated to undergo similar student-focused transformations specific to each site in coming years.

The library’s print reference collection will be unavailable during construction. Reference librarians are available to assist users and for consultation at the Hunt Library circulation desk. Reference service also continues through phone, email and chat. Hunt first floor reference personnel have moved during construction to temporary offices elsewhere in Hunt, in Baker and in Wean, but their email addresses and phone numbers are unchanged.

Progress on the construction will be posted on the libraries’ website as milestones are reached.

Mandelbaum Awarded Department of Energy Grant

Carnegie Mellon physicist Rachel Mandelbaum was awarded a five-year, \$750,000 grant from the U.S. Department of Energy (DOE) to study the elusive dark matter and dark energy that make up the majority of the universe. Mandelbaum, an assistant professor of physics and a member of the Bruce and Astrid McWilliams Center for Cosmology, is one of 68 researchers nationwide to receive funding from the DOE’s Early Career Research Program this year.

Shaindlin Authors Chapter on Global Alumni Relations

Andrew Shaindlin, associate vice president for Alumni Relations and Annual Giving, has authored a chapter in the recently published “Handbook on the Internationalization of European Higher Education.” Shaindlin’s chapter is titled “Challenges in Global Alumni Relations.”

SEI Names AJ Award Winners

The Software Engineering Institute (SEI) recently presented its AJ Staff Awards, named in honor of University Professor Emeritus

Angel Jordan, a founding father and former acting director of the SEI.

James Ivers (Research, Technology, and System Solutions [RTSS] Program), Richard Nolan (CERT Program), and Ipek Ozkaya (RTSS Program) received Director’s Office Awards for Excellence. Daniel Plakosh (CERT Program) was presented with the AJ Award for Create. The Bursatec Team of Felix Bachmann (RTSS Program), John Klein (RTSS Program), James McHale (Software Engineering Process Management Program), Gabriel Moreno (RTSS Program), and Robert Nord (RTSS Program) received the AJ Award for Apply. Winning the AJ Award for Amplify was Lisa Masciantonio (Program Development and Transition Division). The AJ Award for Contribute went to Grace Lewis (RTSS Program).

Marsteller Elected By Peers

Head of Science Libraries Matt Marsteller has been elected to a three-year term, beginning this July, as vice chair-chair elect of the Association of College and Research Libraries’ (ACRL) Science & Technology Section (STS). The ACRL/STS provides a national forum for 1,400 librarians in scientific and technical subject fields.

Jai Pausch Authors New Book

Jai Pausch (S’88), wife of the late Randy Pausch, has authored a new book titled “Dream New Dreams: Reimagining My Life After Loss,” which gives a look at her life through Randy’s diagnosis, treatment and death.

“I first started writing it for me. For that person who had started off in this process of being a caretaker. Starting on this journey and looking back and thinking what I know now that I could pass on to her,” she told ABC News.

For more on the book and a video interview with her, go to <http://abcnews.go.com/US/jai-pausch-lessons-lecture/story?id=16351226#.T7Oq5r-HYcB>.

Adults Needed for Cancer Prevention Study

The American Cancer Society is looking for at least 300,000 adults in the U.S. who want to make a direct impact in the fight against cancer. The Cancer Prevention Study-3 will pave the way for the next generation of cancer research. Enrollment is being made possible in partnership with West Penn Allegheny Health System, where interested and eligible participants can enroll in this

lifesaving study. If you’re willing to make a 20-30 year commitment to the study, you’re between 30 and 65, and you have never been diagnosed with cancer, you may qualify. To enroll, visit www.cancer.org/GPS3 or call 1-888-604-5888.

Wildflower Exhibit Wraps Up June 29

The Hunt Institute will have its open house June 24-25. During its annual open house, the Hunt Institute will offer talks, tours and opportunities to meet one-on-one with staff to ask questions and see items in the collections. A schedule of events is available online at <http://huntbot.andrew.cmu.edu/HIBD/>.

“Native Pennsylvania, A Wildflower Walk,” a collaborative exhibition between the institute and the Botany Department at the Carnegie Museum of Natural History, wraps up June 29.

The institute on the fifth floor of the Hunt Library is open to the public free of charge. Its hours are Monday-Friday, 9 a.m.-noon and 1-5 p.m.; Sunday, 1-4 p.m.

For more information, contact the Hunt Institute at 412-268-2434.

Edible Art

School of Art Partners with Local Groups To Create Garden in Wilkinsburg

■ Pam Wigley

Residents in the Borough of Wilkinsburg will soon get to experience art in a novel way — by eating it.

A new ecological art project in the Hay Recreation Area and on a lot on Rebecca Avenue will use fruit trees, berries and perennial edibles as the basis for a sustainable food source and a community engagement garden.

The School of Art, the Fruit Tree Planting Foundation (FTPF), Pittsburgh Permaculture and the Second United Presbyterian Church of Wilkinsburg are the four partners on the project. They started planting in May and will have another planting day Aug. 26. Volunteers are welcomed.

Bob Bingham, professor and associate head of the School of Art, and Lazae LaSpina, a Wilkinsburg resident and non-traditional CMU art student, created the eco-art project that combines the elements of artistic design and function as they apply to living things. Carnegie Mellon is providing the art form and the partners are providing nature's components and volunteer support.

LaSpina said she found her true calling in the art world since returning to western Pennsylvania after a stint out west. Wanting to become more involved in her newly adopted borough, LaSpina worked with neighbors to create a proposal for a living amphitheater. When she needed advice, she asked Bingham, an expert in eco-art who studied in the late '70s at the University of California, San Diego with Newton and Helen Harrison. The Harrisons are often considered to be the founders of the eco-art movement.

LaSpina and Bingham soon realized they had similar goals about how com-

munity-based art projects can go beyond cosmetic results to become something much more valuable — a food source.

"These contextual practice projects serve as catalysts to start conversations among people about ways to not only improve the landscape of their neighborhood, but also have a productive fruit and vegetable harvest," Bingham said.

LaSpina and Bingham were hoping to find a new project for her neighborhood when the garden opportunity presented itself in the form of Cem Akin, executive director of the FTPF. Akin, a Carnegie Mellon alumnus who grew up in Squirrel Hill, had just returned from San Francisco and was looking for a local project.

"It seemed that all the elements were in place for a successful planting," Akin said. "Our goal is to provide communities with fruit tree orchards that will increase access to healthy foods and, in the process, clean the surrounding air, soil and water — creating critical green spaces that all residents value."

The Community Engagement Gardens will see the development of three different types of permaculture gardens on two urban lots: organic gardening for local food production and stormwater management; an orchard forest garden and bioswale rain garden; and a community grazing garden.

Pittsburgh Permaculture focuses on designing community-based projects that "develop human settlements and agriculture systems by modeling them on natural ecosystems," according to Juliette Jones, designer of the orchard forest garden. The Second United Presbyterian Church will be able to offer the fresh organic harvest of this garden through its We Care food pantry.



CEM AKIN, EXECUTIVE DIRECTOR OF THE FRUIT TREE PLANTING FOUNDATION, DEMONSTRATES HOW TO PLANT A TREE AT A RECENT WORKDAY AT THE HAY RECREATION AREA IN WILKINSBURG.

Inspired by Fritz Haeg's Edible Estates (Haeg is also a Carnegie Mellon alumnus) and Mindy Schwartz's Garden Dreams Urban Farm & Nursery in Wilkinsburg, LaSpina designed the community-grazing garden with Danielle Parnes, a Carnegie Mellon industrial design student. With a special interest in regenerative eco-design, Parnes said she is drawn to projects that bring land, people and communities together. She also will lend her talents to the design of the main lot's rain garden, which will help sink stormwater runoff and allow plants to naturally receive the amount of water needed to thrive.

Bingham will serve as overall adviser on the implementation of all three gardens. Consultants for the project include New York artist Betsy Damon and the Nine Mile Run Watershed Association, an organization Bingham helped launch

in 2001. Damon is director of Keepers of the Waters, an organization dedicated to "inspire and promote projects that combine art, science and community involvement to restore, preserve and remediate water sources."

The result of everyone's contributions will certainly be aesthetically pleasing, LaSpina said, but it's the other benefits that bring true satisfaction to her work.

Witnessing the cooperative efforts among all groups involved, together with the backing of Wilkinsburg Borough, has been a reward in itself, she said. "There are individuals who have been doing amazing urban farming and community development work in Wilkinsburg long before I arrived," LaSpina said. "I am proud to be part of that legacy, and I hope others will be inspired to come play with us."

Marine Hopes To Send Families to Disney World

■ Heidi Opdyke

For years, Marine Lt. Col. Stephen R. Beck, executive officer of Carnegie Mellon's Naval ROTC program, has been an advocate for families of fallen soldiers.

Beck is retiring July 1 from the Marine Corps and will be leaving the ROTC unit, but not Pittsburgh. He has big plans here.

In 2004, Betty Welke, mother of the late Marine Lance Cpl. Joe Welke, asked him if there was something she could do to help other families.

"I'm not used to saying 'no' to Gold Star mothers," Beck said, referring to a term given to mothers and widows of military personnel who die during war.

So in response, he founded the Remembering the Brave Foundation dedicated to preserving the memories of

service men and women and honoring their families in their time of enormous loss. (Read more about Beck's work at www.cmu.edu/piper/stories/2011/november/veterans-vision.html.)

"Their stories deserve to be told. If we don't listen, these stories of heroism will be lost to future generations," Beck said.

The group shares the stories in several ways. An annual ceremony allows families to meet with service members from the Army, Navy, Air Force and Marines, who served with the fallen soldiers. They listen to detailed stories of their loved ones' final moments, and the families are presented with the medals and citations due. These black-tie ceremonies rely on donations and have occurred in Colorado,

Washington, D.C., and California.

The group is planning a ceremony in Pittsburgh in 2013. Until then, he has his hands full organizing Remembering the Brave — Legacies of Valor Children's Ceremony in Orlando on "Make a Difference Day," Oct. 27. Currently the nonprofit is sponsoring a trip to Florida for 25 widows, a widower and about 60 children.

"My hope that while there we can get them to Disney World," Beck said. "We're budgeting \$2,800 per family into the plan for this incredible weekend, and active service members will present the children with fully mounted sets of medals representing their parent's service to this nation," said Beck, who is making the plaques himself over the summer. Each will have an image of

the child's parent on the plaque with a special quote from the parent to the child, and the parent's medals mounted above the image.

Meanwhile, the Remembering the Brave Hall of Heroes continues to develop, and more people are raising money for more 10- by 8-foot displays that include the fallen hero's name, face and deeds.

"I anticipate having four to five more built this summer," Beck said, "and I've been offered land on which to build the Remembering the Brave Hall of Heroes Museum, so if that comes through it will be a very exciting few years ahead."

For more information visit <http://rememberingthebrave.org/>.