



Carnegie Mellon

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Satisfied With Your Job? Most Are, Survey Says

■ Bruce Gerson

Are you satisfied with your job? Do you find it interesting and challenging? Chances are, the answers are yes. So says a 2007 staff survey conducted by Human Resources and Institutional Research and Analysis (HR and IR&A).

Four out of every five people who responded to the survey expressed overall satisfaction with their job, said Ron Placone, director of Learning & Development for Human Resources.

"When you get an 80 percent affirmative response, that suggests that as an employer you're doing something well to engage folks. You're challenging them. There's reward and recognition. There's flexibility. There's respect," said Placone, who noted that many respondents submitted

CONTINUED ON PAGE SIX



IMAGE COURTESY OF MACK SCOGIN MERILL ELAM ARCHITECTS / EDGE STUDIO

Hillman Foundation Gift Funds SCS Complex Building

■ Piper Staff

With a generous gift of \$10 million, the Henry L. Hillman Foundation has provided funding for a research building in the new School of Computer Science Complex that will help Carnegie Mellon continue to be a source of innovative, groundbreaking developments

THIS BUILDING WILL SERVE AS A "FRONT DOOR" FOR THE SCHOOL OF COMPUTER SCIENCE WHEN THE COMPLEX IS COMPLETE.

in computer science.

The Hillman Center for Future-Generation Technologies, one of two structures in the 200,000-square-foot complex that also includes the Gates Center for Computer Science, will face Forbes Avenue, one of Pittsburgh's

main thoroughfares, and serve as the main entrance to the university's world-renowned School of Computer Science.

"This magnificent gift exemplifies Henry Hillman's personal
CONTINUED ON PAGE EIGHT

ETC Student's "Monsters" Come Out on Top in Art Wars



IMAGE COURTESY OF ALLISON THEUS

ENTERTAINMENT TECHNOLOGY CENTER GRADUATE STUDENT ALLISON THEUS' RENDERING OF A MONSTER THAT HAD CREEPT OUT FROM UNDER THE BED EARNED HER NATIONAL RECOGNITION RECENTLY. THEUS' "FACE" DRAWING, SHOWN HERE, WON THE "SOMETHING UNDER THE BED" ROUND OF THE ART WARS COMPETITION HELD AT THE GAME DEVELOPERS CONFERENCE IN SAN FRANCISCO. AS WINNER OF THE "SOMETHING UNDER THE BED" ROUND, THEUS ADVANCED TO THE FINALS, WHERE HER DRAWING "SPILLWAY," WHICH CONTAINED A GOTHIC-STYLE BLOB THAT HAD TENTACLES GROWING OUT OF ITS CENTER, PREVAILED.

THE EVENT FEATURED EIGHT ARTISTS IN SEVEN ROUNDS OF COMPETITION. IN EACH ROUND, PARTICIPANTS HAD 30 MINUTES TO CREATE A PIECE OF ART BASED ON A TOPIC GIVEN TO THEM BY THE JUDGE.



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PUBLISHER
Teresa Thomas

EDITOR
Bruce Gerson

MANAGING EDITOR
Kelli McElhinny

WRITERS
Joceyln Duffy
Abby Houck
Andrea James
Michael Schneider
Eric Sloss
Byron Spice
Chriss Swaney

DESIGNER
Melissa Stoebe
Communications Design Group

PHOTOGRAPHY
Ken Andreyo
Communications Design Group
Glenn Brookes
Annie O'Neill

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

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Obtain general information about Carnegie Mellon University by calling 412-268-2000.

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Randy Pausch's Book To Be Released April 10

■ Bruce Gerson

"The Last Lecture," a book co-authored by Computer Science Professor Randy Pausch and Wall Street Journal columnist Jeff Zaslow, a 1980 graduate of Carnegie Mellon, will be released by Hyperion Books on Thursday, April 10, and will be available at all major bookstores – including the Carnegie Mellon University bookstore. The book is also being licensed to publishers in nearly 20 countries to date.

The book is based on Pausch's Sept. 18, 2007, campus lecture titled "Really Achieving Your Childhood Dreams," which was the first "Journeys" installment in Carnegie Mellon's University Lecture Series this academic year. In his lecture, Pausch spoke about his terminal cancer and how he followed his dreams to achieve major success at Carnegie Mellon in computer science and enter-

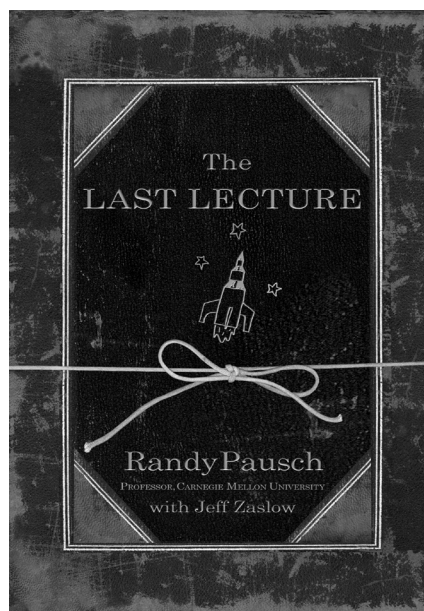


IMAGE COURTESY OF HYPERION

tainment technology. Pausch, who has won numerous awards, is the co-founder of Carnegie Mellon's Entertainment

Technology Center and the creator of "Alice," revolutionary software that teaches computer programming to students.

Following his lecture, which has been viewed by millions online (and can be viewed at <http://www.cmu.edu/multimedia/>), Pausch received national and international media attention. He appeared on "Good Morning America," "Oprah," CBS News and ABC News, to name a few major media appearances. The lecture also became a "featured video" on the YouTube homepage, becoming the first educational full-length lecture ever to achieve this notoriety.

On April 9, the day before the book is released, Pausch will be featured in a one-hour ABC-TV special with Diane Sawyer. He is also scheduled, along with Zaslow, to be featured in a "Good Morning America" segment on April 10.

Carnegie Mellon's Tradition of Art Conservation Research Endures Nearly Six Decades

■ Jocelyn Duffy

Founded in the Mellon Institute in 1950 as a contract laboratory for the National Gallery of Art in Washington, the Art Conservation Research Center (ACRC) is one of the oldest research centers at Carnegie Mellon. The center has evolved in a number of ways over the years, yet its core mission remains

the same — to help museums, libraries and archives care for important pieces of cultural property, including artwork in various mediums and historical books and papers.

The center had its beginning when Robert Feller was commissioned by the National Gallery to conduct research about how to care for the masterpieces housed there and how to determine authenticity of current and future acquisitions.

In 1976, the research project disengaged from the National Gallery,

350-year-old Rembrandt, a 40-year-old Barnett Newman and a piece of work being created by an up-and-coming artist today are very different.

"We don't want to intervene with the creative process. We don't want to proselytize. We want artists to continue to produce whatever they choose. But we want to inform artists of the consequences of their choices and help collectors know what is in store, and how we might best preserve the objects that are created," Whitmore asserted.

What is now called the Art

"MOST CONSERVATION SCIENTISTS FALL INTO THE PROFESSION; THERE ISN'T A TRAINING PROGRAM." — ACRC DIRECTOR PAUL WHITMORE

and became known as the Research Center on the Materials of the Artist and Conservator at Carnegie Mellon. Still under Feller's leadership, the program continued investigations into varnishes and color, and started to look into issues of paper degradation.

Feller retired in 1988, and chemist Paul Whitmore became director. Under Whitmore's guidance, the center's research now emphasizes problems of modern art and library materials.

"When I took over the center, I felt like very few programs were focusing on contemporary art," Whitmore said. "We have hundreds of years of experience with older works, but so much is unknown about the new and untraditional materials contemporary artists are using."

The center still aims to help artists and art collectors determine how long a piece of art may last and the best methods to care for that art. However, the challenges between preserving a

Conservation Research Center, located in the Pittsburgh Technology Center on Second Avenue, became part of the Mellon College of Science in 2007.

This winter, the center received word that their funding from the Andrew W. Mellon Foundation, a major sponsor of the center since its inception, had been renewed in the amount of \$3.87 million over five years.

Currently, the ACRC houses a staff of seven, along with two post-doctoral students and a number of undergraduate students. The current grant will allow the center to support a graduate student for the first time. By doing this, the center hopes to further the field of art conservation science by promoting the field within the academic community and training the next generation of conservation scientists.

"Most conservation scientists fall into the profession; there isn't a training program," said Whitmore, who fell into

CONTINUED ON PAGE TWELVE

"One Cold Hand" Founders Win Inaugural Smiley Award



PHOTO BY GLENN BROOKES

DONALD J. MCGILLEN, SENIOR MANAGER OF CAMPUS RELATIONS FOR YAHOO!, PRESENTED JENNIFER GOOCH, A GRADUATE STUDENT IN CARNEGIE MELLON'S SCHOOL OF ART, AND TURADG ALEAHMAD, A DOCTORAL STUDENT IN THE HUMAN COMPUTER INTERACTION INSTITUTE (HCII), WITH THE INAUGURAL SMILEY AWARD IN A CEREMONY LAST MONTH. GOOCH AND ALEAHMAD WERE HONORED FOR THEIR CREATION OF THE WEB SITE ONE COLD HAND, WHICH STRIVES TO HELP PEOPLE REUNITE WITH THEIR LOST GLOVES. COMPETITION FOR THE AWARD, WHICH IS NAMED IN HONOR OF THE SMILEY EMOTICON CREATED 25 YEARS AGO AT CARNEGIE MELLON, WAS OPEN TO ALL GRADUATE STUDENTS AND UNDERGRADUATES AT THE UNIVERSITY. FOR THEIR EFFORTS, GOOCH AND ALEAHMAD WILL SHARE THE \$500 FIRST PRIZE, AND THEIR NAMES WILL BE ENGRAVED ON A PLAQUE KEPT ON PERMANENT DISPLAY AT THE UNIVERSITY.

Grant Funds Research on Climate Change Solutions

■ Chriss Swaney

As extreme weather patterns disrupt lives everywhere, it is clear to Carnegie Mellon researchers that climate change is an immediate threat to our planet that must be addressed now.

With a \$1.85 million grant from the New York-based Doris Duke Charitable Foundation (DDCF), M. Granger Morgan will lead a team of investigators from the university, the University of Minnesota, the Vermont Law School and the Washington, D.C.-based energy law firm Van Ness Feldman to develop and promote a regulatory structure for the safe and economical capture, transport and deep geological sequestration of carbon dioxide (CO₂) in the United States.

Morgan and his colleagues note that CO₂ can be removed from coal or natural gas in a variety of ways before or after combustion. Once it is removed, it can be deposited deep underground in appropriate geological formations. Most of the technologies for doing this exist today at commercial scale but have not yet been combined for power plants.

The National Energy Technology Laboratory (NETL) in Pittsburgh and Morgantown, W.Va., is supporting much

of the research that is needed to make such processes commercially viable.

“Getting the technology right is important,” said Morgan, head of the Engineering and Public Policy Department (EPP). “But if the U.S. is going to put large quantities of CO₂ underground, we need to be sure it is done in a safe and effective way.”

Morgan and his colleagues argue that before any definitive regulations can be developed, the U.S. must first get experience with several commercial-scale facilities. For this reason, developing an adaptive, two-stage approach to regulation will be a key part of the new DDCF-supported project.

“This grant is further recognition of the great strength that Carnegie Mellon has built up in technically-focused energy policy work,” said Pradeep K. Khosla, dean of the College of Engineering.

The grant to Carnegie Mellon is part of a \$100 million Climate Change Initiative created by the DDCF to develop new energy technologies that can help society reduce greenhouse gas emissions and create a cleaner economy.

“By focusing these grants on how



PHOTO BY CHRIS SWANEY

M. GRANGER MORGAN, HEAD OF CARNEGIE MELLON'S ENGINEERING AND PUBLIC POLICY DEPARTMENT, RECENTLY RECEIVED A \$1.85 MILLION GRANT FROM THE DORIS DUKE CHARITABLE FOUNDATION TO FUND THE DEVELOPMENT OF A REGULATORY STRUCTURE FOR THE CAPTURE, TRANSPORT AND SEQUESTRATION OF CARBON DIOXIDE.

energy technology innovation occurs and how it can be improved through better policy, the aim is to ensure that tomorrow's clean energy technologies

emerge on an accelerated timeline,” said Andrew Bowman, director of the DDCF's Climate Change Initiative.

Qatari Student Enjoying the American University Experience

■ Abby Houck

Although Dana Hadan has been in the United States for just more than two months, she knows that she will return to Qatar in May as a more independent, self-reliant student.

“There is nothing compared to the American university experience,” she said.

Hadan, a business administration major, is one of several students from Carnegie Mellon in Qatar studying at the Pittsburgh campus this semester. Although she is a junior, upon arrival this semester, she faced the challenges similar to those of first-year students at U.S. colleges and universities.

For example, while on-campus housing options are available for students in Qatar's Education City, Hadan lives at home with her family. But, in Pittsburgh, Hadan is living in an apartment with a fellow Carnegie Mellon Qatar student from Egypt.

“It took some time to get used to doing my own laundry and cooking,” she said. Although living among many students in one building was a change, she said she enjoyed watching the Super Bowl with her neighbors.

Another difference on the Pittsburgh campus is the opportunity to interact with students and faculty from a variety of fields. Students from many different majors may take the same class here, but in Qatar, all students are either business administration or computer



PHOTO BY KELLI MCELHINNY

DANA HADAN, A JUNIOR BUSINESS ADMINISTRATION MAJOR, IS ONE OF SEVERAL STUDENTS FROM CARNEGIE MELLON IN QATAR STUDYING AT THE PITTSBURGH CAMPUS THIS SEMESTER.

science majors. Another difference is the smaller class size in Qatar, which Hadan said enables students to establish close relationships with professors and fellow students. “Carnegie Mellon Qatar is really like a family. You know everyone's name,” she said.

While there are several differences, Hadan said there are similarities between Carnegie Mellon in Pittsburgh and Qatar as well. She noted that Carnegie Mellon Qatar students take the same courses as students from the Pittsburgh campus, often with the same professors.

Carnegie Mellon Qatar students, like those in the United States, are heavily recruited by well-known international corporations like Shell and General Electric. Prior to studying abroad, Hadan completed an internship with Deloitte Consulting's human capital practice area in Qatar.

Like many Pittsburgh students, Hadan has been active in many of the 12 student organizations at Carnegie Mellon Qatar as well as several outreach efforts. She has served as vice president of the Student Government and has

been involved with NeoMotion, a student group that works to make positive change in the community through service. She also writes for the campus newsletter, All-Around, and is sending articles back to Qatar about her experiences in Pittsburgh. Outside of Carnegie Mellon Qatar, Hadan has worked with Reach Out to Asia, a nongovernmental organization that promotes progressive education, research and community welfare throughout the continent.

By the time she returns to Qatar in May, Hadan hopes to have made a positive impact on individuals who may have misperceptions about people from Middle Eastern countries. “Some people think that we're closed-minded. Conservative does not mean backward,” she said. For example, Hadan explained that many people think that Qataris are not willing to discuss homosexuality. “It's a reality, and we're not avoiding it,” she said.

Hadan often excitedly calls home to tell her parents about the new experiences she is having in the United States. In February, she also received a call from New York Times reporter Tamar Lewin, who wrote a series on U.S. universities opening branch campuses in the Middle East. Hadan and Carnegie Mellon Qatar Dean Charles Thorpe answered questions from individuals from around the world on the New York Times' blog. To read this series, visit Carnegie Mellon's news clips Web site at <http://www.cmu.edu/news/clips/2008/February/february-15.shtml>.

Q&A With Judith Hallinen: Helping Carnegie Mellon Be a “Good Neighbor”

■ Kelli McElhinny

Outreach to K-12 students, as well as their teachers, is a major component of Carnegie Mellon’s impact on the Pittsburgh region. Assistant Vice Provost for Educational Outreach Judith Hallinen, who is in her 24th year at Carnegie Mellon, is also director of the Leonard Gelfand Center for Service Learning and Outreach. The Gelfand Center recently sponsored the first Carnegie Mellon in the Community event to showcase educational outreach efforts by students, faculty and staff.

What does the Gelfand Center do?

Two years ago, alumnus Mark Gelfand (MCS 1973) endowed what was then the Center for School Outreach and named it in honor of his Uncle Leonard.

We work to help faculty connect their courses to the community, if they’re looking for schools, organizations or other groups. Another role that we play is connecting students to service learning activities. Every incoming student gets a small gift from the center reminding them to think about the ways they can share their talents and skills with the community. I also field dozens of phone calls from people in the community looking for services for children.

Regional impact is one of the areas of the strategic plan, and another thing I’m trying to do is characterize all the ways that Carnegie Mellon is involved in educational activities in the community. If anybody takes a look at our Web site and sees that their project isn’t included, I would love to know or hear about any activities that aren’t there.

What kind of service activities can people take part in through the Gelfand Center?

The Gelfand Center focuses more on educational outreach initiatives, not necessarily neighborhood cleanups and such. The Student Life Office does a wonderful job of fielding those types of requests from the community.

One example project is the Charles Drew Science Fair that was held here in the Rangos Ballroom during spring break in mid-March. It was the 16th year that it’s been held here. It draws primarily urban students who come and share their posters, reports and activities from science fair projects. That’s an example of something that happens once a year. Other projects are ongoing and provide services to children throughout the school year or in the summer.

The Gelfand Center recently hosted the inaugural Carnegie Mellon in the Community Event. How did you decide to put together such an event?

People who have been involved in Carnegie Mellon initiatives are aware of certain ways that the university has touched them. But they’re not aware

of the scope of our work, the breadth of ways that we are involved in the community. Or, if they haven’t personally been involved, they may not be aware of all that we do. I would say, “Why don’t these people know?” and then I decided that it’s our responsibility to tell them. So, one goal of this event is the awareness for the community to look at all that we do in Pittsburgh. This is the start, hopefully, of an annual event.

Why are these kinds of outreach activities so important at Carnegie Mellon?

In many cases, it’s the right thing to do. We are neighbors in this community. We have a lot of expertise. We have facilities and knowledge that can really do something to change the world in which we sit.

Many times people talk about the university, and they talk about economic impact – that we bring companies here, etc. Well, if we’re hoping to bring new companies here, develop and grow companies, we want them to see the best Pittsburgh has to offer because they’re thinking about hiring a workforce that’s going to live in the city. We all live in the city, too, so it behooves us to take care of the city that we live in.

How do students and faculty benefit from doing service learning and outreach work?

Learning information in the classroom is good, but in many cases, seeing how that knowledge, that skill or that talent can be used to better some aspect of life for someone or to advance the work of a non-profit organization adds a different kind of excitement for the learning.

Also, we have so many students who come from all over the country and all over the world. They don’t know Pittsburgh and the region. We try to get the students involved in activities and get them to know Pittsburgh.

For faculty, the idea of interacting with schools or community groups or in other ways getting the community engaged helps them. Their work is immediately transferred to society, which is one of our missions – creating new knowledge and transferring it to society.

Do you get the sense that students and others on campus have an entrepreneurial attitude about community service?

I learn all the time about new initiatives that get started by students or students who work to strengthen efforts that were already there. I think it really does say something about Carnegie Mellon students that we have a huge population of students that are really thinking about becoming engaged and wanting to get involved in the community. The Gelfand Center can help to facilitate the creation of new projects with community partners.



PHOTO BY KEN ANDREYO

JUDITH HALLINEN IS DIRECTOR OF THE LEONARD GELFAND CENTER FOR SERVICE LEARNING AND OUTREACH, WHICH RECENTLY ORGANIZED THE INAUGURAL CARNEGIE MELLON IN THE COMMUNITY EVENT THAT SHOWCASED SERVICE BY FACULTY, STAFF AND STUDENTS.

How do you work with educators in the community?

We conduct a number of teacher professional development activities. If you can reach one high school teacher and educate him or her well, he or she may reach 125 to 150 students every year so that you can really make an impact and students can start to consider careers, knowledge and ideas that are definitely not included in their textbooks because they’re brand new.

We have offered multiple on-campus research experiences for teachers who actually spend five or six weeks in the summer working in a lab. If you think about many teachers who went to school with the idea that they would become a teacher, they never really got to work in the research area. Can we expect them to really accurately help children understand what that is? Not necessarily, unless they experience it themselves.

What are some specific examples of how Carnegie Mellon’s outreach efforts have made an impact on the region’s students and educators?

We had a group [of teachers] that interacted with scientists focused on robotics and computer science in a three-week summer opportunity. We provided the awareness, the knowledge and the information that allows that teacher to become a better teacher who can now in

the classroom say, “Well, when I was at Carnegie Mellon in the summer, I saw a robot do this or I learned about a project where they’re doing this or that.”

Or, for example, Leonard Kisslinger in the Department of Physics, has a project called the Physics Concepts Outreach Program. Carnegie Mellon students teach physics concepts and they encourage children to ask questions that could be the basis of a science fair project.

At the Pennsylvania Junior Academy of Science, a local student who worked with Leonard’s group won and is going to the state competition. It was all her work and her ideas, and she just needed a little encouragement to develop the idea into a project.

How does Carnegie Mellon get involved in the community at our campuses outside of Pittsburgh?

Carnegie Mellon’s involvement in the community isn’t just here in the city of Pittsburgh but at our other campuses, also. In Qatar, the outreach activities that are going on are just amazing. They’re having overwhelming response from people there. Just a week and a half ago, they had a CS4Qatar event to teach high school students about computer science, and they could take 120 students. They had almost 400 apply.

I think we are a good neighbor wherever we are.

PSC Program Brings Science to Life in High School Classrooms

■ Michael Schneider

High school biology teacher Marian Opest appreciates the value of using video in her classroom.

"It's one thing to read about it, and it's another thing entirely to see it happening," Opest said. The videos that Opest incorporates into her lesson plans at Penn Hills High School in suburban Pittsburgh are part of Computational Modules In Science Teaching (CMIST), an innovative science-learning program for high-school students developed by a team at the Pittsburgh Supercomputing Center (PSC).

"The idea is to hook future scientists on science before they enter a university," said Pallavi Ishwad, education outreach specialist for the National Resource for Biomedical Supercomputing (NRBSC), PSC's biomedical program. "CMIST addresses the challenge of science learning for the video-gamed, TV-nation, multi-tasking population of students."

Ishwad, a former high-school biology teacher, NRBSC director Joel Stiles, multimedia designer Jenda Domaracki and visualization specialist Jacob Czech created CMIST as a learning tool for the majority of high-school students, not just the self-motivated few. The hook CMIST dangles before students is appealing content — in an easily usable packaged form. In contrast to many other teaching tools, CMIST modules are produced with highly realistic

modeling and simulation software that is developed and used in research at PSC.

"Producing high-quality animations from the simulations is a team effort," Stiles said, "much like producing a short Hollywood film." Czech, who has an undergraduate background in neuroscience, does much of the day-to-day work. The resulting materials are not only scientifically accurate but also dynamic and visually appealing.

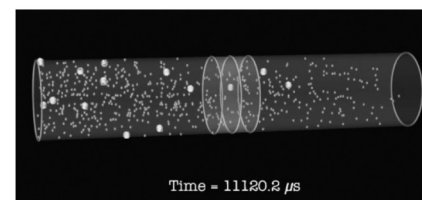
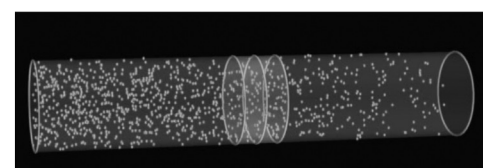
The pilot module, "Molecular Transport in Cells," was produced with software called MCell and DreAMM. Co-authored by Stiles and used in many research centers around the world, the module presents important principles of osmosis and diffusion with 3-D examples. The CMIST materials extrapolate from and bring life to classic textbook pictures. They are distributed as ready-to-use DVDs that include complete lecture slides, animations, a lesson plan aligned to national and state standards, and worksheets with answer keys. CMIST modules can be used "out of the box" and "dropped into" high-school biology, chemistry, physics, computer science or math classes.

Funded in large part by the National Institutes of Health, the CMIST team presented the program to regional high-school science teachers in half-day workshops this summer. Nearly 50 teachers participated, including some undergraduate science teachers, and gave enthusiastically positive feedback. The pilot module is now in classroom

Experiment for Fick's First Law: Principles of Diffusion and Molecular Flux



In this example, molecules within the cylinder move realistically in random directions in three dimensions. However, the experiment is set up so net movements occur only in one direction. Thus we can directly compare the simulation to a prediction from Fick's 1st Law.



Play movie:

Apple QuickTime (MOV)
Windows Media Player (AVI)

© National Resource for Biomedical Supercomputing

ONE OF 30 SLIDES FROM THE CMIST MODULE "MOLECULAR TRANSPORT IN CELLS" EXPLAINS FICK'S FIRST LAW. THE CMIST PROGRAM IS DESIGNED TO HELP HIGH SCHOOL STUDENTS MASTER SCIENTIFIC CONCEPTS.

use, and teachers have reported excellent results. A physics teacher whose students were inspired by CMIST's material on diffusion even created a classroom experiment to further investigate the topic.

"The PSC workshops are phenomenal," said Opest, who incorporated CMIST materials on diffusion and osmosis into her classes this year. The topic of concentration is often difficult for students to grasp, she noted, but after viewing a CMIST animated video from a simulation that shows molecules

dispersing, her students gained an appreciably better grasp of the concept.

Teachers will continue to provide feedback on usability, impact and possible new subject material. The PSC has also presented CMIST to teachers and administrators at a variety of state and national meetings, and is now introducing Web-based distribution of the prototype module, while also planning additional modules on enzyme reactions, metabolism, synaptic physiology, meteorology, geophysics and astronomy.

Bringing A New Meaning to "Touch Screen"



PHOTO BY KEN ANDREYO

WTAE-TV REPORTER ASHLEY DiPARLO LOOKS ON AS SCHOOL OF COMPUTER SCIENCE ADMINISTRATIVE ASSOCIATE CLEAH SCHLUETER MANIPULATES OBJECTS ON A COMPUTER SCREEN USING A HAPTIC INTERFACE DEVELOPED BY ROBOTICS INSTITUTE RESEARCH PROFESSOR RALPH HOLLIS. THE HAPTIC INTERFACE DRAWS ON MAGNETIC LEVITATION AND A SINGLE MOVING PART TO GIVE USERS A HIGHLY REALISTIC EXPERIENCE THAT ALLOWS USERS TO VIRTUALLY "FEEL" THE OBJECTS ON THE SCREEN.

You're a Good Man, Charlie Batch



PHOTO COURTESY OF SPORTS INFORMATION

A CROWD OF CARNEGIE MELLON FACULTY, STUDENTS AND STAFF WAS ON HAND TO HEAR PITTSBURGH STEELERS BACK-UP QUARTERBACK CHARLIE BATCH SPEAK AT SKIBO GYMNASIUM LAST MONTH. BATCH, SHOWN ABOVE WITH DIRECTOR OF ATHLETICS SUSAN BASSETT, DISCUSSED A VARIETY OF TOPICS RANGING FROM FOOTBALL'S INFLUENCE ON HIS LIFE AND THE IMPORTANCE OF COMPLETING HIS EDUCATION, TO HIS PHILANTHROPIC WORK. PROJECTS FUNDED THROUGH THE HOMESTEAD NATIVE'S BEST OF THE BATCH FOUNDATION ARE WELL-KNOWN THROUGHOUT HIS HOMETOWN, AND BATCH RECENTLY LAUNCHED A COMMERCIAL VENTURE THAT WILL REDEVELOP A HOMESTEAD BAKERY SITE INTO A MULTI-USE DEVELOPMENT FEATURING LOFT APARTMENTS ALONG WITH RETAIL AND OFFICE SPACE.

School of Drama Applicants Face Rigorous Audition Process



PHOTOS BY ERIC SLOSS

ANXIOUS STUDENTS — ALONG WITH THEIR EQUALLY ANXIOUS PARENTS — LINED THE HALLWAYS OF THE RIPLEY-GRIER STUDIOS IN MANHATTAN AS THEY WAITED TO BE CALLED IN FOR THEIR AUDITIONS.

■ Eric Sloss

Demanding the loftiest of academic achievements, getting in to Carnegie Mellon is no easy task for high school seniors.

For the students seeking admission to the College of Fine Arts, there is an added hurdle. Not only must a student have the academic chops to enter the college, he or she must audition before a faculty member or submit a portfolio. The quality of that 10-minute audition — which has been rehearsed in front of a mirror for months in an effort to perfect every twitch of the lip — could be the make-or-break factor for the student.

During the months of January, February and March, faculty and staff from the College of Fine Arts disperse around the world, working to find the most talented students by listening to hundreds of auditions, watching performances or flipping through the pages of a high school student's portfolio.

On one dreary day this February, in the heart of New York City, aspiring high school students auditioned for admission into the School of Drama. The students, with their parents, lined the skinny hallways of the Ripley-Grier Studios on 8th Avenue in Manhattan. With Broadway looming just a few blocks away and their minds full of fantasies about singing lead roles, many kids buried their noses in musical scores or scripts. Many of the parents, mostly mothers, sat quietly looking just as anxious.

The auditions began at 9 a.m., but many of the hopefuls arrived much earlier. For the last seven years, Barbara MacKenzie-Wood, associate professor of acting, has orchestrated these auditions. She and her colleagues, Gary Kline, associate professor of musical theater, and Don Wadsworth, professor of voice and speech, review more than 1,000 hopefuls in three months for just 28 spots — 16 acting and 12 musical theatre students. James Caton, associate professor of dance, was there as well, assessing those students who might have premier dancing skills to accompany their acting or singing.

Amidst a great deal of chatter and activity in the hallway, the students waited to take their turns. Jennifer Chapman, senior academic coordinator, was the P.T. Barnum of this circus of chaos. She and Gina Kuhn, assistant business manager for the School of Drama, signed in students, organized paperwork and took photos of all the candidates to accompany their audition material.

At 9 a.m. sharp, the kids were herded into a large room with a covered piano, metal chairs and mirrored walls. When MacKenzie-Wood entered the rehearsal room, the anxious students' tempo slowed. "On behalf of our faculty, staff and all of our students back in Pittsburgh, we give you a warm welcome and we are delighted you are considering Carnegie Mellon as one of your choices for college," MacKenzie-Wood said, as the eyes of the auditioning students widened. She, Wadsworth and Kline outlined the schedule for the day, and then the auditions began.

Students shuffled in and out of the room. The routine was established quickly. Chapman and Kuhn passed paperwork to the auditioning faculty member, introductions were made and then the doors closed. Some parents slowly followed their child, sneaking peaks through the curtains of windows that separated the room from the hallway.

Ever the ringmaster, Chapman kept watch outside the room in which MacKenzie-Wood was auditioning a student and shouted to Kuhn, "You want to keep an eye on Gary and I'll keep an eye on Don and Barbara? That's the best way to keep the kids rolling." That morning session alone, they moved 40 or 50 kids in and out of auditions. They did the same for the afternoon session, and repeated the routine the next two days to complete the New York City auditions.

In a corner near one of the rehearsal rooms, Jessica Bare and her family sat quietly. They made the trip to New York City from Pensacola, Fla., for the chance to audition for the school. Bare flipped through a binder of sheet music resting on the lap of her father, who was slouched in a wicker chair, contemplat-



BARBARA MACKENZIE-WOOD, ASSOCIATE PROFESSOR OF ACTING, ADDRESSED THE STUDENTS BEFORE THE AUDITIONS BEGAN TO LET THEM KNOW WHAT TO EXPECT DURING THE PROCESS.

ing the long day ahead of them. The Bares heard about Carnegie Mellon through family friends, Laura and Sarah Mixon, who happen to be School of Drama students. Suddenly, Chapman calls out, "Jessica Bare — you're up next."

Bare, tall and sharply dressed in a black and white dress, stood quickly, clutching her binder of music with her left hand and trying to slow her heart rate so that she could sing. People scattered out of her way, and Chapman escorted Bare to meet Professor Kline.

Meanwhile, Emily Epstein from West Bronxville, N.Y., sat cross-legged in the hallway along the wall. Petite,

with shoulder length, brown, curly hair, Epstein read the lyrics to "Always True to You" from *Kiss Me Kate* from a musical score in her black binder, singing the tune softly while she waited for her tryout.

By 10:15, nearly a dozen students had moved through the rehearsal rooms. Chapman and Kuhn continued fielding questions from eager parents and escorting kids through the hallways. They performed this shuffle as if they had rehearsed just as much as the auditioning students. Chapman called Epstein's name, knowing there were 982 more "Epsteins" left to audition on this recruitment tour and four more cities to go.

Survey Reveals Job Satisfaction

CONTINUED FROM PAGE ONE

favorable comments about the university.

"We received a large number of comments about the diversity of Carnegie Mellon and how wonderful the people are here. People appreciate the kind of diverse community we are and the diversity of thought on campus," Placone added.

All 2,752 full-time staff were invited to participate in the confidential, online survey and 1,481 responded for a response rate of 53.8 percent. On a scale of one to five, with one representing "strongly disagree" and five representing "strongly agree," the average response to the statement "I find my job satisfying," was 4.03.

The survey also measured staff satisfaction with office culture, including their relationships with co-workers and managers. Placone said results indicated that people generally perceived their work environment to be friendly and welcoming.

While the survey results were mostly positive, there were some areas that didn't rate as highly, such as compensation and the performance management practices of supervisors.

"There are many reasons why we have chosen to work at Carnegie Mellon. But, the salary has to be competitive or

those other aspects of employee engagement may not matter," Placone said. "You have to be competitive, and I think by and large, we are."

Placone, Lola Mason, manager of organizational development for Human Resources, and other HR representatives plan to focus on improving performance management through customized training sessions and HR's Learning & Development curriculum. The L&D program set an all-time attendance record in 2007 with more than 3,000 participants.

"Management and Leadership, Leadership Styles, the Foundation of Management and Influencing Skills are very popular classes. Lola's work on the science of positive psychology has been very popular. A lot of what we do is state-of-the-art," Placone said.

HR and IR&A will use this survey as a baseline for future surveys every three years.

"The demand for talent is only going to increase, and you want to make sure as an employer that you're doing everything you can to keep your folks engaged, and that you're doing the right things for them," Placone said.

Students Look to the Past To Chart Thistle's Future

■ Abby Houck

When Robert Kaminski became editor-in-chief of Thistle, Carnegie Mellon's yearbook, many of his friends looked at him in surprise and asked, "Do we have a yearbook?"

Thistle, established in 1906, may be one of Carnegie Mellon's oldest student-run publications, but its popularity has declined over the past several decades. Thistle's staff for the 2007-2008 academic year is dedicated to promoting the yearbook as a must-have student keepsake and valuable record of university history.

"We have a determined group of students who have set a new vision for Thistle," said Taylor Grabowsky, student activities coordinator and yearbook advisor.

Thistle plans to bring back the classic design of earlier yearbooks, featuring a balance of photographs, white space and descriptions of events, people and places around campus. The all-color publication will highlight major campus events, Greek life, student organizations, intercollegiate athletics, club and intra-

mural sports, senior portraits, faculty and administrators.

"We wanted to make Thistle more of a historical piece, but we're not going for a dated look," said Kaminski, a senior policy and management major.

He also explained that the yearbook will include innovative, high-quality photography. For example, Thistle plans

"WE HAVE A DETERMINED GROUP OF STUDENTS WHO HAVE SET A NEW VISION FOR THISTLE." — TAYLOR GRABOWSKY, STUDENT ACTIVITIES COORDINATOR AND YEARBOOK ADVISOR

to feature deans in environmental portraits that highlight the fields in which they work.

According to University/Heinz Archivist Jennie Benford, Thistle played an important role in documenting the early history of Carnegie Technical Schools, now Carnegie Mellon. Thistles from 1906 to about 1945 were rich in detail and included student names and nicknames, student organizations, and descriptions of parties and athletic events. After this period, the yearbook started losing its historical value and, by

the late 1960s, the majority of images in Thistle were unlabeled or not put into context.

Approximately 15 students currently belong to Thistle's staff, and membership is growing each week. Many staff members worked on their high school yearbooks or have contributed to other campus publications. Others have no

previous experience with yearbook design but are learning from their peers and Thistle's archives.

Collaboration also is a key ingredient in producing a high-quality yearbook.

"With more than 200 student organizations, a strong academic environment, a successful Division III athletic program and an active Greek community, it would be easy to miss something," said Jessica Len, Thistle's business manager and a junior business administration major. "Our relatively small staff adds an extra level of difficulty when we

try to photograph, lay out and write copy for every campus event. To help us with this, collaboration with other organizations like The Tartan and student organizations themselves has taken some of the load off of our shoulders."

Individuals interested in perusing old copies of Thistle can check out yearbooks located in Hunt Library's stacks. The University Archives, open from 9 a.m. to 5 p.m. Monday through Friday, has a complete set of yearbooks dating back to 1906 that can be viewed but cannot be checked out.

This year, Thistle also began to make copies of yearbooks from 1990 to 2006 available for purchase through a partnership with the University Store. Over Homecoming weekend, several alumni purchased old yearbooks, and Thistle welcomed former yearbook staff at a reception in the University Center.

Ordering information for the 2007-2008 edition of Thistle is available at www.thethistle.org. Thistle plans to complete its final pages of layout following Commencement in May, and copies of the yearbook will be mailed in mid-August.

Upcoming Events

Special Events

Spring Carnival, April 17-19

Workshop: "Food and Farming Based Entrepreneurship: The Next Generation of Business in Pittsburgh"

Master of Ceremonies: Michael Kravjovic, president, Fay-Penn Economic Development Council
1 - 5 p.m., April 30
Singleton Room, Roberts Hall
RSVP by April 11 to 412-268-1125

Lectures

School of Art Lectures

Lectures are at 5 p.m., in the Kresge Theater, College of Fine Arts

Tuesday, April 1

Heather Kelley, the Kraus Visiting Professor in the School of Art, is a game designer and multimedia artist working in game media since 1994. She is co-founder of the Kokoromi experimental game collective.

Tuesday, April 8

Swoon is a Brooklyn-based street artist who creates life-sized portraits of people she meets, using woodcut block prints and paper cutouts.

For more: http://news.art.cfa.cmu.edu/?page_id=21

University Lecture Series

"There is no Such Thing as Environmental Ethics"

P. Aarne Vesilind, Professor Emeritus, Bucknell University
4:30 p.m., March 20
Adamson Wing, 136A Baker Hall

"Newly Appreciated Roles of Efflux Transporters in Environmental Pollution and Environmental Policy"

David Epel, professor of biological and marine sciences, Stanford University

4:30 p.m., March 24
Adamson Wing, 136A Baker Hall

"The Myths of Innovation"
Scott Berkun, author of "The Myths of Innovation"

4:30 p.m., March 27
Adamson Wing, 136A Baker Hall

"Oh, Local Economy, How Green Does Your Garden Grow: Assessing Community Capacity and Aligning Local Instigations"

Kenneth Warren of the Lakewood Public Library System, Cleveland
5 p.m., March 27
McConomy Auditorium, University Center
Post-Lecture Breakfast with Kenneth Warren

9 a.m. - 10:30 a.m., March 28
Rangos 2, University Center
Tickets required, RSVP by March 21 to 412-268-1125

"Making It Up As I (We) Went Along"
Elizabeth W. Jones, professor and head of the Biological Sciences Department, Carnegie Mellon
4:30 p.m., March 31
Adamson Wing, 136A Baker Hall
This lecture is a ULS "Journeys" installment in which faculty talk about their lifelong journeys.

"The Averaged American: Surveys, Citizens, and the Making of a Mass Public"
Sarah E. Igo, professor of history, University of Pennsylvania
Sponsored by the Humanities Scholars Program, the Science and Humanities Scholars Program, and the Department of Statistics
4:30 p.m., April 3
Adamson Wing, Baker Hall 136A

"Benchmarking the Real Pittsburgh"
John G. Craig Jr., former editor, Pittsburgh Post-Gazette, and Paul O'Neill, former Secretary of the Treasury and former CEO, Alcoa
4:30 p.m., April 7

Adamson Wing, Baker Hall 136A
Sponsored by the Distinguished Lecture Series in Environmental Science, Technology and Policy

"Sustainable Industry in a Changing Society"
John B. Carberry, professor of environmental technology, E.I. DuPont Sigma Xi Distinguished Lecturer
4:30 p.m., April 8
Rangos 1, University Center

"Transforming the Culture of Aging in America"
Barry Barkan, founder of the Living Oaks Institute
4:30 p.m., April 9
Location: TBA

"Israel at 60: Midlife Crisis or Entering its Golden Years?"
Dr. Yossi Olmert, journalist and top Middle East scholar
4:30 p.m., April 10
Adamson Wing, Baker Hall 1361
Co-sponsored by the Hillel Jewish University Center of Pittsburgh

"Living the Pursuit of a Sustainable Civilization"
Terry Collins, professor of chemistry, Carnegie Mellon
4:30 p.m., April 14
Adamson Wing, Baker Hall 136A
This lecture is a ULS "Journeys"

installment in which faculty talk about their lifelong journeys.

"Role of Engineers in Poverty Reduction: Challenges and Opportunities"
Bernard Amadei, professor, University of Colorado
Sponsored by the Distinguished Lecture Series in Environmental Science, Technology and Policy
4:30 p.m., April 15
Adamson Wing, Baker Hall 136A

"Health and Security in a Changing World"
Peggy Hamburg of the Global Health and Security Initiative/Nuclear Threat Initiative
4:30 p.m., April 22
Adamson Wing, Baker Hall 136A

"Local Living Economies: Green, Fair and Fun"
Judy Wicks of The White Dog Café, Philadelphia
5 p.m., April 29
Connan Room, University Center

Additional Lectures

"Feminist Theatre Criticism and the Popular: The Case of Wendy Wasserstein"
Jill Dolan, Zachary T. Scott Family Chair in Drama, University of Texas at Austin

4:30 p.m., April 3
Giant Eagle Auditorium, Baker Hall

Learning and Development Classes

Book Discussion: "Can We Talk About Race?"

Presenter Gloriana St. Clair, dean of University Libraries, will facilitate discussion about Beverly Tatum's book. Tatum is president of Spelman College.
Noon-1:30 p.m., March 26
Rangos 3, University Center

"Do Your Leadership Skills Measure Up?"

Presenter: Lola Mason, manager of organizational development
9 a.m.-Noon, March 27
McKenna/Peter/Wright Room, UC

"Gender Differences in Workplace Communication"

Presenter: Lola Mason, manager of organizational development
9 a.m.-Noon, April 10
McKenna/Peter/Wright Room, UC

"Write it Right Workshop"

Presenter: Hank Walshak
9 a.m.-Noon, April 22
Rangos 3, UC

To register and for more L&D classes visit <https://acis.as.cmu.edu/gale2/servlet/HRLearn2>



and lifelong interest in science and technology,” said Carnegie Mellon President Jared L. Cohon. “Some of the most important and forward-looking research at the university — and in the world — is going to take place in this building. I cannot think of a better way for the university to be partnering with the Henry L. Hillman Foundation at this moment in our history than in enabling critical new breakthroughs in computer science.”

“We are very fortunate to have an institution like Carnegie Mellon University, with its record of world-changing advancements in computer science, artificial intelligence and robotics and the many talented minds it attracts to Pittsburgh,” Henry Hillman said. “Research and technology developed at Carnegie Mellon that at one time seemed like science fiction have created essential everyday tools for business, medicine and countless other applications that we now almost take for granted. Our hope is that the Center for Future-Generation Technologies will seed new efforts to continue and accelerate this cycle of innovation and progress.”

The Hillman Center for Future-Generation Technologies will be a

place where research groups working on some of computer science’s most challenging projects can come together in flexible teams and find answers to difficult questions. One example of such work is the area of programmable matter being developed by computer scientists Seth Goldstein and Todd Mowry. In the future, it may be possible to produce tiny robots — mere microns in size — that are able to assemble and reassemble on demand. Such bold research initiatives, focused on long-term, interdisciplinary challenges, will be the focus of the Hillman Center.

“Having world-class facilities for the School of Computer Science will help us continue to attract top students and faculty who will create the kinds of research results that have put us on the map as global innovators,” said Randal E. Bryant, dean of the School of Computer Science. “With more space to collaborate and interact, we can carry through on a research agenda that will lead to big breakthroughs in the future.”

The dream of a complex that would unite the east and west halves of the campus started to become reality in 2004 with the \$20 million gift from the Bill and Melinda Gates Foundation for the Gates Center for Computer Science.



PHOTO BY ANNIE O'NEILL

PITTSBURGH INDUSTRIALIST AND PHILANTHROPIST HENRY HILLMAN (LEFT) AND HIS WIFE, ELSIE, MET MICROSOFT FOUNDER BILL GATES DURING HIS VISIT TO CAMPUS LAST MONTH. THE HENRY L. HILLMAN FOUNDATION DONATED \$10 MILLION TOWARD THE NEW SCHOOL OF COMPUTER SCIENCE COMPLEX, A PROJECT WHICH BEGAN WITH A \$20 MILLION GIFT FROM THE BILL AND MELINDA GATES FOUNDATION.

Construction of the School of Computer Science Complex began in 2007. Both of its buildings are expected to open by summer 2009. The cost of the SCS Complex is \$98 million.

The architect is Mack Scogin Merrill Elam Architects, an award-winning firm based in Atlanta, Ga., that has extensive experience creating buildings

for academic institutions. The School of Computer Science Complex buildings will be constructed using Leadership in Energy and Environmental Design (LEED) Certification standards from the U.S. Green Building Council. These standards focus on energy efficiency, sustainability and use of green design principles for building projects.

Gates Visit Draws Enthusiastic “Rock Star”– Style Response



PHOTO BY ANNIE O'NEILL

FOLLOWING GATES’ SPEECH, CARNEGIE MELLON PRESIDENT JARED COHON COMMENTED ON THE SIMILARITIES BETWEEN GATES AND ANDREW CARNEGIE, PARTICULARLY THEIR DEDICATION TO PHILANTHROPIC EFFORTS AFTER BUILDING A SIGNIFICANT AMOUNT OF WEALTH IN THE CUTTING-EDGE TECHNOLOGY OF THEIR ERAS. AS AN EXPRESSION OF GRATITUDE FOR GATES’ GENEROSITY TO THE UNIVERSITY, COHON PRESENTED HIM WITH A DESK CHAIR THAT WAS ORIGINALLY OWNED BY CARNEGIE.

RIGHT: EACH STUDENT WHO ATTENDED GATES’ SPEECH RECEIVED A COMMEMORATIVE T-SHIRT DESIGNED BY STUDENTS FROM THE SCHOOL OF COMPUTER SCIENCE.

BELOW: STUDENTS BEGAN LINING UP WELL IN ADVANCE OF THE SPEECH’S 2:30 P.M. ADMISSION TIME AND CROWDED THE HALLS AROUND THE RANGOS BALLROOM BEFORE THE ROOM’S DOORS OPENED. MORE THAN 700 FACULTY, STUDENTS AND STAFF SAW THE LECTURE IN RANGOS, WHILE MCCONOMY AUDITORIUM HELD AN OVERFLOW CROWD OF ABOUT 400 ADDITIONAL PEOPLE WHO VIEWED A SIMULCAST OF THE TALK.



PHOTO BY ANNIE O'NEILL



PHOTO BY GLENN BROOKES

Three-Minute Drill with Bill Gates Proves Valuable for Small Group of Graduate Students

■ Byron Spice

Preparation paid off for three graduate students who got precious face time with Bill Gates during his campus visit last month. The encounters were brief, but the Microsoft founder managed to keep each of them on their toes the whole time.

Meeting with Gates in the University Center's Wright Room shortly after his arrival on campus, Andreas Krause, Betty Cheng and G. Ayorkor Mills-Tetty each had just three minutes to tell him about their research projects. All three found themselves peppered with questions.

"He was getting into quite a lot of detail," said Krause, a graduate student in computer science who told Gates about his work with his advisor, Carlos Guestrin, on how to optimize sensing. Their approach applies broadly to sensing, whether it's determining which blogs to peruse for the latest news or where to place sensors to detect contamination in a water system.

Gates chatted with Krause about Microsoft's work on aggregating

news – "We don't do pipes," he said – but delved deeper in his discussion with Cheng, a graduate student in the Language Technologies Institute (LTI). She is working with LTI Director Jaime Carbonell on methods for analyzing the genetic makeup of HIV strains in patients so that the level of resistance to AIDS drugs can be predicted.

The research, which uses computational linguistic techniques to understand the "language" of proteins, is a step toward developing a computer-based method that could make personalized medicine affordable for more AIDS patients. Having had success in predicting resistance to single drugs, Cheng noted they are extending the research to predict resistance when multiple drugs are used.

Some of the information they are now exploring, she said, comes from AIDS vaccine research and, in particular, efforts to predict the locations of epitopes – parts of the retrovirus that could trigger the immune system. Gates was concerned, however, that this might not be useful because AIDS vaccine research, a focus of the Bill and Melinda

Gates Foundation, has been so unsuccessful to date.

"There's some thinking we're looking at this in the wrong way," Gates said of the vaccine research. But Cheng thinks this epitope information could be useful nonetheless; the mutations associated with drug resistance that interest her should be outside the epitope regions that vaccine developers try to target.

One question from Gates left G. Ayorkor Mills-Tetty, a doctoral student in robotics, momentarily confused. She had been telling him about TechBridgeWorld, a program in the School of Computer Science that seeks to empower developing nations and communities by introducing new technologies.

"What's the innovation used by most poor people today?" Gates asked. Mills-Tetty hesitated, a puzzled look on her face. Did he mean the most widely used of all technologies? "No, no, just the technologies developed in this program," he added.

"Oh," she said, with a smile and a look of relief on her face. "I thought this was maybe a trick question." That made the answer simple enough – probably a

Braille-writing tutor that was so popular with teachers at a school for the blind in India that they didn't want to return the prototype.

But for a four-year-old program, perhaps it's not best to judge based on which technologies have been adopted. "It's really about research prototypes at this point," she explained. So how do you measure TechBridgeWorld's success? Gates wondered. "You measure not only in terms of what technology has been developed, but to what extent there has been empowerment," she answered.

The students were impressed by their encounter, though it would be harder to say what Gates might have carried from the meeting. But he did mention "the thing called TechBridge here" as he spoke later to more than 700 people jammed into Rangos Hall about the need to address the technological needs of the "bottom two billion" people. And he seemed to echo Mills-Tetty as he spoke of what makes these projects special. "Sometimes they're not cool because of the technology," he said. "They're really only cool because of the impact."



INTERNATIONAL DISPATCHES

Syrian Ambassador Visits Campus



PHOTO BY KEN ANDREYO

IMAD MOUSTAPHA, SYRIAN AMBASSADOR TO THE UNITED STATES, GAVE A TALK TITLED "U.S., SYRIA AND THE NEW OLD MIDDLE EAST: CONFRONTATION OR COOPERATION?" LAST MONTH AT CARNEGIE MELLON. THE EVENT WAS CO-SPONSORED BY THE ARAB STUDENT ORGANIZATION.

Carnegie Mellon in Qatar Students Get Taste of "The Apprentice"

With 300 riyals of seed money (about US \$82) and 20 white T-shirts, five teams of students at Carnegie Mellon in Qatar recently devised strategies to turn the greatest profit in just 48 hours in an event based on the popular reality show, "The Apprentice."

The seven-member teams were allowed to use the money and shirts in any way they could to return a profit, while abiding by the show's rules and regulations. Members of the team that raised the most money got to split the total earnings, which at the end of the two-day contest was an impressive 14565 riyals (about \$4,000). Members of the second place team took home Nokia cell phones courtesy of Ettisal, a member of Al-Sulaiman Group and authorized distributor of Nokia products.

The event was a hit with the students who participated.

"Those two days were the most intense two days of my university life so far, but I loved every minute of it," said Zeyad Al Mudhaf, a freshman business major. "That was the first time that I got to apply the skills I learned in business classes to real-life situations."

The event was organized by students in the Carnegie Mellon Business Association.

Heinz School Australia Director To Attend Trade Mission in India

Tim Zak, executive director of Heinz School Australia, will be accompanying the Hon. Mike Rann, premier of South Australia, on his South Australian Trade Mission to India this month. Zak will travel to Delhi, Chennai and Mumbai to attend open seminars on living, working and studying in South Australia.

"I am particularly excited about accompanying the Premier to India, where Carnegie Mellon is already widely recognized by students and organizations," Zak said. "This is a great

opportunity to meet with alumni, corporate partners and prospective students and expand our relationships in the region."

Bill Brown Ride in Qatar Raises Money for Scholarship Fund

Seventy-six cyclists and nearly 20 volunteers turned out bright and early at the Doha Golf Club earlier this month to take part in the inaugural Bill Brown Ride. The ride was held in celebration of Bill Brown, a beloved Carnegie Mellon biology professor who died last year. In addition to serving as a visiting professor of biological sciences, Brown was named as a special assistant to Chuck Thorpe, dean of Carnegie Mellon Qatar, shortly before he died.

Cyclists had the option of riding a 16-mile loop to Lusail; a 28.5-mile loop to Simaisma; or a 42-mile loop to Al Khor. One-third of the cyclists completed the full Al Khor loop, which is the course Brown rode almost every weekend when he was in Doha.

After the ride concluded, riders, volunteers and several members of the Carnegie Mellon Qatar community enjoyed a relaxing BBQ lunch at the golf course.

"This was a great combination of fun, friendship and good exercise for a good cause," said Thorpe. "Bill's favorite bicycle ride was the MS 150, which is a ride to raise money for charity. The fact that we can remember him and at the same time raise money for scholarships is exactly the kind of thing he spent his own life doing. The ride was the type of event Bill would have loved."

The ride served as a fundraiser for the Bill Brown Scholarship Fund. While donations are still coming in, as of early March the total money raised was 13023 riyals (US \$3,567).



Groups Offer Support, Socializing Opportunities to Women

■ Kelli McElhinny

Women in the Carnegie Mellon community who are seeking resources for professional and personal development have a number of options at their disposal. From formal mentoring partnerships to networking and social opportunities across the university as well as within professional specialty areas, Carnegie Mellon's female faculty, staff and students can choose from any number of groups on campus.

One of those groups, the Women Supporting Women mentoring program, pairs experienced female staff members who are willing to share their expertise with women in earlier stages of their careers. The women are partnered based on shared interests and goals, which are determined, in part, by their responses to a questionnaire sent to all of Carnegie Mellon's female staff each December. Women Supporting Women is in its 12th year on campus, which it kicked off with a reception for participants last month at Whitfield Hall.

Although most duos meet for two or three lunches, there are no defined requirements for participation in the program. The general expectation is for the relationship to continue for the duration of the spring semester, but some pairs meet only once, while others get together frequently, and some even continue to meet over the course of many years.

Every effort is made to match women from different departments, so that participants not only can feel free to speak candidly, but also so that they may benefit from a different perspective within the university.

"It's an opportunity to have a

sounding board who has no stake in your career, someone who can be, relatively speaking, an objective partner and confidante," said Barbara Smith, associate vice president of Human Resources, who coordinates the program.

The program, which involves nearly 20 pairs this year, is a successful one as judged by participant response.

"Many, if not most, of the mentors are repeat customers. They come back again. They want to continue to do it, which I view as an endorsement," Smith said.

Another women's organization on campus is the Carnegie Mellon Women's Association (CMWA), which has been in existence since 1916, when wives of engineering faculty began gathering on Wednesday afternoons. They saw the need to open the group to all female faculty as well as faculty members' wives. Today, all women associated with the university's faculty and staff, including retirees and wives of retired faculty, are invited to join the CMWA.

The CMWA generally offers at least one activity, such as a tour of a campus location, wine tasting or a woman-focused educational program, per month during the academic year and closes out the spring semester with an annual barbeque in June. Most of the activities, with the exception of special events, are free to members.

"The activities highlight some of the really interesting and fun things happening on campus," said Paula Martin, the CMWA's acting president, "because many times, we can get very caught up in our own corner of the community."

The group's \$5 annual membership fee funds the general activities of



KIMBERLEE EBERLEE, LISA KRIEG AND CAROL LEE (L TO R) WERE AMONG NEARLY 20 ATTENDEES AT LAST MONTH'S LAUNCH OF THE 12TH YEAR OF CARNEGIE MELLON'S WOMEN SUPPORTING WOMEN PROGRAM. LEE SERVES AS THE BOARD CHAIR FOR THE PROGRAM, WHICH WAS INTRODUCED TO GIVE CARNEGIE MELLON'S FEMALE STAFF MEMBERS THE OPPORTUNITY TO PARTICIPATE IN MENTORING RELATIONSHIPS.

the group, with any additional donations going directly to the scholarship that the group awards to three graduating women at its annual spring tea, which will be held on April 17 this year.

The university president's wife has historically served as the CMWA's honorary president. In that role, Maureen Cohon has shown a great deal of enthusiasm for another of the group's traditions — the annual member reception held at the President's residence.

Although they are the most inclusive across disciplines, the Women Supporting Women program and the Carnegie Mellon Women's Association are far from the only women's groups on campus. A number of other organizations target women within the context of some specialty, such as Women@SCS and the

Mellon College of Science's Women in Science. Furthermore, a number of national women's organizations, such as the Society of Women Engineers, have chapters on campus as well.

An abundance of student-centric organizations focus on women's needs, too. The many offerings include Student Affairs' Women's Leadership Program, which, according to its Web site, is "designed to empower and inspire undergraduate and graduate women in campus leadership roles." Another initiative, Strong Women, Strong Girls, goes beyond supporting women on campus by reaching out to the community, specifically to at-risk girls in third through fifth grades who participate in one-on-one mentoring relationships with students in the program.

NEWS BRIEFS

Kanade Wins Bower Award

Takeo Kanade, the U.A. and Helen Whitaker University Professor of Computer Science and Robotics, is the 2008 recipient of the \$250,000 Bower Award and Prize for Achievement in Science from the historic Franklin Institute in Philadelphia.

The Franklin Institute has honored the top men and women in science, technology and engineering for nearly two centuries. The list of Franklin Institute laureates includes Alexander Graham Bell, Thomas Edison, Albert Einstein and Stephen Hawking.

IEEE Honors Reddy's Accomplishments

In honor of his pioneering work in speech recognition, computer science and robotics, Raj Reddy, Carnegie Mellon's Mozah Bint Nasser University Professor of Computer Science and Robotics, has been awarded the IEEE's James L. Flanagan Speech and Audio Processing Award "for leadership and pioneering contributions to speech recognition, natural language understanding, and machine intelligence."

Reddy will receive a bronze medal, certificate and honorarium at the IEEE's annual

international conference on acoustics, speech and signal processing, March 31-April 4 in Las Vegas.

Eddy Named Warner Professor of Statistics

Statistics Professor William F. Eddy has received Carnegie Mellon's first John C. Warner Professorship of Statistics. Since joining Carnegie Mellon in 1976, Eddy has worked in a variety of disciplines, with research covering theoretical probability, statistics and applied problems. His current research focuses on the data generated by functional Magnetic Resonance Imaging (fMRI), a technique used by cognitive neuroscientists to chart brain activity.

In addition to his faculty post in the university's Statistics Department, Eddy holds appointments in the Machine Learning Department, the Department of Biological Sciences, the Center for the Neural Basis of Cognition and the Center for Cognitive Brain Imaging.

The professorship is named after John C. Warner, who served as Carnegie Mellon's president from 1950-1965. As president, Warner oversaw the rapid growth of industrial administration programs, and the construction of Hunt Library, Scaife Hall and the Graduate School of Industrial Administration (GSIA) building.

Tuition Rates Announced for 2008-2009 School Year

At its Feb. 22 meeting, Carnegie Mellon's Board of Trustees approved a tiered tuition increase for incoming and current undergraduate students for the 2008 fall semester. Tuition for entering undergraduate students will be \$39,150, a 6 percent increase over last year. Current students will see a tuition increase of 4 percent. For students who entered Carnegie Mellon in 2003, 2004 or 2005, tuition will be \$35,780. Tuition for students who came to Carnegie Mellon in 2006 will be \$37,000. For students who entered the university in 2007, tuition will be \$38,430.

In 2008, room costs for all students will increase 4.1 percent to \$5,860 and board will increase 4.1 percent to \$4,160.

"The increase will help us to maintain quality and provide a positive experience that allows students to lay the foundation for future success, both professionally and personally," said Vice President for Enrollment William Elliott.

CIT Student Service Gets National Recognition

The College of Engineering was named to the President's Higher Education Community Service Honor Roll for its participation in the

U.S. Marine Corps' "Toys for Tots" national campaign. CIT students delivered more than three dozen barrels of toys via classic cars to Marine Corps personnel last December.

The Community Service Honor Roll is the highest federal recognition a school can achieve for its commitment to service-learning and civic engagement. Honorees for the award were chosen based on a series of selection factors including scope and innovativeness of service projects and percentage of student involvement. Overall, 528 schools were recognized.

Tepper Cited by Financial Times

In its global rankings of full-time MBA programs released earlier this year, the Financial Times ranked the Tepper School of Business 48th. Tepper came in 23rd among U.S. schools. Tepper also ranked in the top 10 of several special categories, including: Best in Industry (first); Best in IT (first); Best in Statistics (second); and Best in e-Business (third).

In compiling the rankings, the Financial Times collected data from business school alumni — via an online questionnaire sent to more than 23,500 graduates of the Class of 2004 — and the business schools themselves.

Dzombak Elected to Prestigious National Academy of Engineering

■ Chriss Swaney

It's an elite group of innovative pioneers who see the world as a living lab. They work long hours to solve the most vexing science and engineering problems to improve the way we live and work. They are trailblazers, inventors and educators.

They are engineers like Carnegie Mellon's David A. Dzombak, who was recently elected to the prestigious National Academy of Engineering (NAE), the highest professional distinction an engineer can achieve.

"Dave has been a leader in fostering multidisciplinary research and educating tomorrow's leaders," said Pradeep K. Khosla, dean of the College of Engineering and a 2006 NAE inductee. "This outstanding recognition is a tribute to the pioneering and innovative leadership Dave brings to this college."

Dzombak, the Walter J. Blenko Sr. Professor of Civil and Environmental Engineering, received this prestigious recognition for novel development of models used in evaluating chemical behavior in water quality engineering and environmental remediation.

For more than two decades, Dzombak has conducted leading research in the areas of water and wastewater treatment, abandoned mine drainage remediation and watershed restoration.

"I am truly honored and deeply humbled to be included with such an accomplished group of engineers," said Dzombak, who is a faculty director of the university's Steinbrenner Institute for Environmental Education and Research (SEER). "I will do my best to use



PHOTO BY KEN ANDREYO

DAVID DZOMBAK, THE WALTER J. BLENKO SR. PROFESSOR OF CIVIL AND ENVIRONMENTAL ENGINEERING, WAS RECENTLY ELECTED TO THE NATIONAL ACADEMY OF ENGINEERING — ONE OF THE HIGHEST HONORS IN THE ENGINEERING PROFESSION.

my participation in the NAE to serve the nation and to advance engineering."

"Dave is not only a model scholar at Carnegie Mellon, but he is also a leading researcher in the important areas of aquatic chemistry, water and wastewater treatment, abandoned mine drainage remediation, river and watershed restoration and hazardous waste site remediation. This latest accolade is well deserved," said James H. Garrett Jr., professor and head of the Department of Civil and Environmental Engineering.

Membership in the NAE honors individuals who have made important contributions to engineering theory and practice and who have demonstrated unusual accomplishments in pioneering new and developing fields of technology. This year, Dzombak joins 2,227 NAE members and 194 foreign associ-

ates in an award process that began in 1964.

The NAE shares responsibility with the National Academy of Sciences to advise the federal government on questions of policy in science and technology. Dzombak is scheduled to attend a gala celebration Oct. 5 at The National Academies building in Washington.

Dzombak has contributed to the expertise and professional service at the local, state and national levels. He currently serves as chair of the Environmental Protection Agency (EPA) Science Advisory Board's Environmental Engineering Committee and as a member of the EPA National Advisory Council For Environmental Policy and Technology's Environmental Technology Subcommittee. He chairs the National Research Council's Committee on the Mississippi River and Clean Water Act. Dzombak is also an associate editor of the journal *Environmental Science and Technology*.

Throughout his career, Dzombak has received numerous awards. Some of those accolades include the Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers, the Harrison Prescott Eddy Medal from the Water Environment Federation and a National Science Foundation Presidential Young Investigator Award.

Dzombak earned his Ph.D. in civil and environmental engineering from the Massachusetts Institute of Technology (MIT) in 1986. He received his bachelor's and master's degrees in civil and environmental engineering from Carnegie Mellon.

AUBRY NAMED AAAS FELLOW

Carnegie Mellon's Nadine Aubry has been awarded the distinction of fellow by the American Association for the Advancement of Science (AAAS).

Aubry, head of the Department of Mechanical Engineering, was named a fellow for her outstanding contributions to the field of fluid dynamics, particularly turbulence and micro flows, and as a leader in mechanical engineering education.

"I am deeply honored by this recognition, and I plan to build on the innovative environment that comes with such an award," said Aubry, who was awarded her AAAS official certificate and rosette pin at the organization's annual meeting last month in Boston.

This year, Aubry joins the ranks of more than 400 members who have been honored for their scientifically and socially distinguished efforts to advance science.

Aubry's interdisciplinary research and close partnerships with industry have landed her several awards, including the National Science Foundation's Presidential Young Investigator Award. She is also chair of the U.S. National Committee on Theoretical and Applied Mechanics.

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

■ Chriss Swaney

Carnegie Mellon Pioneer Dies at Age 81

John ("Jack") Reinecke Thorne, the David T. and Lindsay J. Morgenthaler Emeritus Professor of Entrepreneurship at the Tepper School of Business, died Feb. 13 while vacationing in the Cayman Islands with his wife, Helen. He was 81.

A successful entrepreneur himself, Thorne, who graduated in 1952 from the Graduate School of Industrial Administration as a member of its first class of business students, began one of the world's first university-level courses in entrepreneurship in 1972 at Carnegie Mellon, where he later was the founding director of the Donald H. Jones Center for Entrepreneurship in 1990. He taught at the business school through 2005.

A memorial service will be held at 11 a.m., Saturday, March 29 at the Powdermill Nature Reserve in Rector, Pa.

Blanton Heads Chip Design Center

Electrical and Computer Engineering (ECE) Professor Ronald D. (Shawn) Blanton has been named head of the prestigious Center For Silicon System Implementation (CSSI), which focuses on all aspects of chip design. He succeeds ECE Professor Larry Pileggi, who served

as CSSI director since 2000.

In 2006, Blanton won the Emerald Award for outstanding leadership in recruiting and mentoring minorities for advanced degrees in science and technology. The Emerald Awards, sponsored by Science Spectrum Magazine, are the premier awards for African Americans, Hispanics, Asian Americans and Native Americans working in the research sciences.

New Programming Language Developed for Robots

Carnegie Mellon's Robotics Academy, an outreach program that uses robots as teaching tools in support of science and mathematics, has developed ROBOTC, a new programming environment for educational robots at the high school and college levels. Its industry-leading features enable the beginning student to successfully design and program sophisticated robots in hours, rather than the weeks of instruction typical of other systems.

"Students interested in robotics migrate to a new robot platform every year or two as they progress from middle school through college," said Robin Shoop, director of the Robotics Academy. "Prior to ROBOTC, each time the robot 'brain' changed, the student needed to learn a completely different programming solution. ROBOTC, with its cross-platform ca-

pabilities, eliminates the re-learning as students migrate to different and more sophisticated 'brains.'"

Statistics Professor Earns H&SS Teaching Award

The College of Humanities and Social Sciences has named Associate Teaching Professor of Statistics Oded Meyer the winner of its 2007-2008 Elliott Dunlap Smith Award, which is presented annually to one of the college's regular faculty members in recognition of excellence in undergraduate teaching.

Meyer, who first joined the department in 1999 as a visiting lecturer, teaches the department's introductory undergraduate sequence along with graduate-level courses in the computational finance program. He also serves as the department's director of undergraduate studies.

The award is named for Elliott Dunlap Smith, who served as provost of the Carnegie Institute of Technology from 1946 to 1959.

Support Carnegie Mellon Through the Annual Fund

While everyone may contribute to the Faculty & Staff Annual Fund for their own personal reasons, one thing is certain: annual gifts provide critical funding for departments and programs,

support campus initiatives, and help to ensure that Carnegie Mellon students continue to receive an outstanding education.

For Bob Rosenstein, the Software Engineering Institute (SEI) and the Heinz School are foremost in his mind when he makes his contribution.

"As a 1998 graduate of the Heinz School, I want to contribute to the school's ongoing success. And as a member of the SEI, I want to ensure that future professionals in software engineering, computer security, and process improvement are as well-educated as possible," said Rosenstein, a member of the Faculty & Staff Annual Fund Committee.

"As a Carnegie Mellon employee, I recognize that each of us can help in our own small way to continue the growth and impact of the university," he added.

If you haven't already done so, you can participate in the 2007-08 fund drive if you make a gift by June 30. Contributions can be made by check and can be sent via campus mail to the Office of Annual Giving. You can also make your gift online at <http://annualgiving.ua.cmu.edu/FacultyStaff>. There, you can access a printable payroll deduction form or choose to contribute by credit card.

For questions regarding the Annual Fund, please contact Carole Panno in the Office of Annual Giving at 412-268-1617 or cp1g@andrew.cmu.edu.

LECTURE SPOTLIGHT: Physicist To Discuss History of Dark Matter in Buhl Lecture

■ Jocelyn Duffy

Ninety-five percent of the universe is made of things that we know nearly nothing about — dark matter and dark energy. They are crucial to the growth of the universe and the formation of structure in it. But they cannot be seen, and the evidence of their existence comes from the gravitational pull dark matter exerts and the accelerating expansion of the universe that dark energy creates.

Evidence of dark matter was first found in the 1930s, but it took almost 50 years for most astronomers to become convinced that most of the mass holding together galaxies and clusters of galaxies is invisible. It took nearly another 20 years for the standard cosmology model to be accepted, with the “double dark” combination of cold dark matter — particles of matter different from the matter that makes up planets, stars, and even us — and dark energy.

One of the developers of the cold dark matter theory, Joel Primack, will present Carnegie Mellon’s annual Buhl Lecture at 4:30 p.m., April 22 in the Mellon Institute Auditorium. His talk, “A Brief History of Dark Matter,” will include

astronomical videos that will give attendees a window into the evolution of the universe.

“The challenge now is to understand the underlying physics of the particles that make up dark matter and the nature of dark energy,” Primack said.

Primack is a professor of physics at the University of California at Santa Cruz. He is a fellow of the American Physical Society (APS) and the American Association for the Advancement of Science (AAAS). He has recently chaired the APS Forum on Physics and Society, as well as the AAAS Committee of Science, Ethics and Religion. Primack served on the recent “Beyond Einstein” study of the National Academy of Sciences.

The Buhl Lecture is sponsored by Carnegie Mellon’s Department of Physics. The lecture is funded under the auspices of the Buhl Professorship in Theoretical Physics, which was established at Carnegie Mellon in 1961 by The Buhl Foundation. The lecture is free and open to the public.



PHOTO COURTESY OF JOEL PRIMACK

PHYSICIST JOEL PRIMACK, ONE OF THE DEVELOPERS OF THE COLD DARK MATTER THEORY, WILL PRESENT THIS YEAR’S BUHL LECTURE ON APRIL 22. HIS TALK IS TITLED “A BRIEF HISTORY OF DARK MATTER.”

Athletic Department Sponsors Presentation For Graduating Student-Athletes

■ Andrea James

For many student-athletes, harsh reality sets in when their playing days are over and they’re no longer the big man or woman on campus.

To help its graduating seniors make the transition to the “real world,” the Athletic Department hosted a dinner and discussion called “After the Cheering Stops,” in which the conversation focused on post-graduate financial lessons and what to expect after their athletic careers come to an end. The event was part of the department’s Excellence Forum for Staff Professional Development and Student-Athlete Education.

Fifty-five senior student-athletes attended the dinner to hear first-hand

advice from two alumni guest speakers, Amy Buxbaum (H&SS ’92) and Roger Roble (TPR ’86).

Buxbaum, the school record-holder with 933 career rebounds, was an all-conference performer on the women’s basketball team. She is the Director of Athletics at Chatham University after serving as head women’s basketball coach at Juniata College for five years.

After graduating from Carnegie Mellon, Buxbaum earned her law degree in 1995 from the University of Pennsylvania and practiced law for two years. She cited her passion for athletics as one of the reasons for her career change.

Roble, an Academic All-America

wide receiver on the Tartans football team, graduated with an MBA in 1986. Today, he is president of his own investment firm called Roble, Belko & Company, which he founded in 2000. His investing career spans 20 years and includes stints at CS First Boston in New York and A.G. Edward’s in Chicago.

Roble discussed topics concerning future investment and expressed appreciation for his time at Carnegie Mellon and how his experiences both in the classroom and on the football field have positively influenced him. He answered student questions about finances and budget planning and offered counsel on what investments they should make.

Art Conservation Continues at Carnegie Mellon

CONTINUED FROM PAGE TWO

the field as a college student when he attended a chemistry lecture describing research aimed at helping the Getty Museum in Los Angeles. “I was captivated by how you can use scientific smarts to answer art questions.”

After getting his doctoral degree in physical chemistry, Whitmore searched for an opportunity that would allow him to pursue the field of art conservation science. While a postdoctoral fellow in the Chemistry Department at Caltech, he serendipitously learned that an environmental engineering professor at that university was looking for a person to study the effects of air pollution on art materials. He was hired for that job, and thus began his career in conservation science. At the conclusion of that project, he joined the Conservation Department at the Fogg Museum at Harvard University, the first conservation center established in the U.S.

Whitmore notes that the field is still hard to get into, as training programs and jobs are few and far between. He hopes that Carnegie Mellon’s program, as well as other programs around the country, can start working in partnership with government and museums to better preserve art and promote art conservation. The center hopes to seek federal funding for their projects in order to foster such a relationship.



PHOTO COURTESY OF SPORTS INFORMATION

FIFTY-FIVE SENIOR ATHLETES FROM CARNEGIE MELLON HAD THE OPPORTUNITY TO LEARN ABOUT POST-COLLEGE LIFE AND FINANCIAL RESPONSIBILITY AT A DINNER LAST MONTH THAT WAS PART OF THE EXCELLENCE FORUM FOR STAFF PROFESSIONAL DEVELOPMENT AND STUDENT-ATHLETE EDUCATION.