



## Carnegie Mellon

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## “Smart People” Invades Campus



PHOTOS BY ALAN GERBER

“SMART PEOPLE,” A MAJOR MOTION PICTURE STARRING DENNIS QUAID (INSET RIGHT) AS A CARNEGIE MELLON ENGLISH PROFESSOR, WAS FILMED ON CAMPUS DURING TWO WEEKS IN MID-NOVEMBER. ORIGINALLY SET AT GEORGETOWN UNIVERSITY, PRODUCERS OF THE FILM SCOUTED SEVERAL LOCATIONS BEFORE SETTLING ON CARNEGIE MELLON. “THIS UNIVERSITY FELT PARTICULARLY RIGHT. IT’S BEAUTIFUL WITHOUT DISTANCING ITSELF, WITHOUT BEING ELITIST. IT’S ACCESSIBLE,” SAID BRUNA PAPANDREA, PRESIDENT OF GROUNDSWELL PRODUCTIONS AND ONE OF THE PRODUCERS OF “SMART PEOPLE.” THE CAST AND CREW WERE SCHEDULED TO RETURN TO CAMPUS TO FILM IN THE MAGGIE MURPHY CAFÉ ON DEC. 5. “SMART PEOPLE” ALSO STARS SARAH JESSICA PARKER AND THOMAS HAYDEN CHURCH.

## Presidential Review Panel Formed

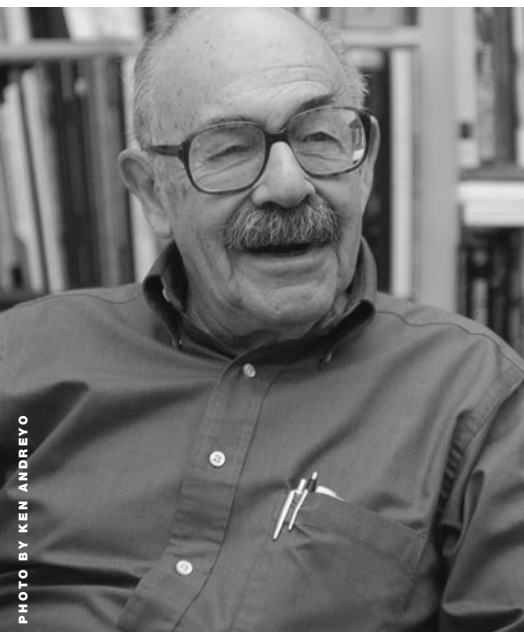
■ Bruce Gerson

As Carnegie Mellon President Jared L. Cohon nears the final year of his second five-year term as president, the Board of Trustees and Faculty Senate have created a Presidential Review Committee to evaluate his second term in office.

The 12-member committee includes six trustees and six senior faculty and is co-chaired by Emeritus Trustee Charles J. Queenan Jr. and Faculty Senate Chair and Professor of Civil and Environmental Engineering David Dzombak.

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## Blumstein Shapes World-Famous Career From Studying Crime



AL BLUMSTEIN, THE J. ERIK JONSSON UNIVERSITY PROFESSOR OF URBAN SYSTEMS AND OPERATIONS RESEARCH, WILL RECEIVE THE PRESTIGIOUS STOCKHOLM PRIZE IN CRIMINOLOGY IN JUNE.

■ Jenni King

Al Blumstein has worn many hats during his career. An engineer turned criminologist, he’s been a researcher, professor, author, dean of the Heinz School (formerly the School of Urban and Public Affairs), chair of national and state commissions, director of the National Consortium on Violence Research and chair of three important National Academy committees. An icon in the field of crime research, he’ll receive the Stockholm Prize in Criminology in June. He and his wife, Dolores, recently left their large house in Squirrel Hill after 36 years for a condo that’s a 10-minute walk from his office in Hamburg Hall. They have three daughters and four grandchildren.

The Piper sat down with Blumstein earlier this month to learn more about what makes the prolific criminologist tick.

### First, what is criminology and why is it important?

It’s the study of crime, its causes and perpetrators, and society’s response to crime through the criminal justice system — police, courts and corrections. For many years crime has been ranked as the nation’s most serious problem. Finding how to deal with crime effectively is a major national need, espe-

cially in the face of the intense ideology surrounding people’s policy preferences.

### Your research is across the board. How would you explain your main focus to the layperson?

Probably my main focus has been on studying criminal careers: Who commits crime, when do they start, how often do

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# the PIPER

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

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

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## Porter Puts Best Foot Forward on "20/20"

■ Susie Cribbs

You could say Michelle Porter found herself on ABC-TV's "20/20" earlier this month because she was trying to put her best foot forward.

Literally.

"My sister and I always talk about getting plastic surgery. I would only get it on my feet, because I hate my feet. They had a doctor on '20/20' that does all this crazy stuff with your feet. That was maybe in July and I went on the Internet for that reason, to look up and read about the segment further," said Porter, manager of Parking and Transportation Services.

While she was on the Web site, she saw a sidebar article about working mothers and, being one herself, filled out a survey about how she balances her work and home life. Then she emailed the doctor.

A few days later she got a call from a "20/20" producer who couldn't have cared less about her feet — but instead wanted to profile Porter for an upcoming segment on working mothers.

Porter's initial reaction was disbelief. "I said, 'Did only three people fill out this survey? Why are you calling me?' I was just so surprised."

After some follow-up questions about her life and children — Porter has two: daughter Michaela (7) and son DJ (11) — the producer asked her how she'd feel about letting a "20/20" camera crew follow her at work and home for a few days. Since it was summer, the producer told Porter they'd wait until school started and be back in touch.



PARKING AND TRANSPORTATION SERVICES MANAGER MICHELLE PORTER WAS FEATURED ON A "20/20" SEGMENT ON WORKING MOTHERS EARLIER THIS MONTH.

Weeks went by and Porter forgot about "20/20."

Then late last month, she got the call. Not only would a television crew come to Pittsburgh to film her for the show, but ABC would fly her to New York City for a discussion with two other working

mostly business-as-usual. She does admit that Michaela liked talking to the camera and had fun telling her friends that she was going to be on TV and might even show up to school in a limo.

Porter, though, said it was easy to be herself on camera.

**"THE ONLY THING I WOULD LIKE TO COME OF THIS IS THAT THERE HAS TO BE SOME BETTER POLICIES IN PLACE FOR WORKING MOTHERS, OR WORKING PARENTS IN GENERAL. I WOULD LIKE TO BE AN ADVOCATE FOR WORKING MOTHERS."**

— MICHELLE PORTER

## Hats Off to the Tartans



THE TARTANS TURNED IN A STELLAR PERFORMANCE THIS FALL, POSTING A PERFECT 10-0 REGULAR-SEASON RECORD, WINNING THE UNIVERSITY ATHLETIC ASSOCIATION (UAA) CHAMPIONSHIP AND EARNING A BERTH TO THE NCAA DIVISION III PLAYOFFS. IN POST-SEASON PLAY THE TARTANS DEFEATED MILLSAPS COLLEGE (MISS.) 21-0 TO SET A SCHOOL RECORD WITH 11 WINS IN A SEASON. BUT THE TARTANS' RUN ENDED THE FOLLOWING WEEK WITH THEIR FIRST LOSS OF THE YEAR AT WESLEY COLLEGE (DEL.), THE TOP-RANKED TEAM IN THE REGION.

TWENTY-SIX PLAYERS WERE RECOGNIZED BY THE UAA FOR THEIR TALENTS, INCLUDING JUNIOR FULLBACK TRAVIS SIVEK, WHO WAS NAMED THE LEAGUE'S OFFENSIVE PLAYER-OF-THE-YEAR. SIVEK BECAME THE TARTANS' ALL-TIME LEADING RUSHER DURING THE SEASON WITH 3,067 CAREER YARDS. HE LED THE TEAM WITH 1,326 YARDS AND 14 TDs THIS YEAR. JUNIOR HALF-BACK ROBERT GIMSON ALSO RAN FOR MORE THAN 1,000 YARDS (1,059) GIVING THE TEAM ITS FIRST TANDEM 1,000-YARD RUSHERS IN SCHOOL HISTORY. DEFENSIVELY, SENIOR AARON LEWIS LED THE NATIONALLY RANKED DEFENSIVE UNIT WITH 89 TACKLES AND FIVE INTERCEPTIONS. FOR MORE ON LEWIS, SEE A PROFILE OF THE ACADEMIC ALL-AMERICAN ON PAGE 5.

mothers and "20/20" co-anchor Elizabeth Vargas.

"I couldn't believe it," she said. "I was very nervous that whole week. I was afraid of saying the wrong thing, answering questions wrong or screaming at my kids."

Camera crews hit campus in late October and spent the last few hours of an average Thursday videotaping Porter on the job. Then the real work began: picking DJ and Michaela up from their after-school program and getting them to their evening activities.

"The rush home is very stressful because my son plays football, my daughter cheers and she also dances. So they [the crew] went with me from Carnegie Mellon to the after-school program, and from the after-school program to the field," she said. "My daughter practiced cheerleading for an hour and then we rushed from the field down to the school for her to dance, and then back up to the field to pick up my son, and then home. We usually get home every evening around 8."

Despite the extra stranger in the car — not to mention the equipment he had with him — Porter says that things were

"I know what I have to do every day and I couldn't let that distract me," she said. "It was weird in a sense, but it worked out. I wasn't any different on camera than I am sitting here. I was just myself, that's all."

Porter's dedication to being herself even extended to her wardrobe and condition of her house. While other people might buy elaborate new clothes or overhaul their homes if they were slated to be on national television, Porter kept her preparations to a minimum: a new shirt and just some basic housecleaning.

"My son always says that I'm 'persnickety' because I'm very neat. But for me — I'm a single mom, I'm divorced — it's very stressful trying to work full time and juggle the kids. But I think I manage it well because I'm very organized at home. We have a place for everything. So I really didn't do too much preparation. I did clean my house, but my house is really clean because we're never home. It's an organized routine. ... I think that's the key to managing it all."

Managing it all is probably what set her apart from other working moms who might have filled out that initial survey

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## ASK ANDREW

Dear Andrew,

**I heard that there's some sort of "clean" lab on campus that people have to dress in jumpsuits and boots to enter. If this is true, what kind of laboratory is it? Why the jumpsuits? J.K., University Advancement**

Carnegie Mellon's nanofabrication facility is home-sweet-home for a handful of technology startups and university researchers working on development of data storage materials, microelectrical mechanical structures and semiconductor components. In addition to the lab, the facility sports a 4,000-square-foot cleanroom located in the basement of Hamerschlag Hall. The cleanroom requires a dust-free environment, so users must suit-up in jumpsuits and boots. The collaborative lab is operated by the Electrical and Computer Engineering Department and has had a huge economic impact on the Pittsburgh region.

Dear Andrew,

**I read somewhere that the columns of the Mellon Institute are each one big chunk of limestone. Is this right? A.P., MCS**

According to Tim Palucka, who is compiling a history of Mellon Institute, each column was a monolith — a single, 60-ton piece of rock that was 36.5 feet long and six feet in diameter. The columns were cut and ground to shape near Bedford, Ind., and transported by train to Pittsburgh, with one column per flatbed railcar. In Pittsburgh the columns were transferred to flatbed trucks and driven through the streets of Oakland. Manhole covers along the route had to be reinforced to withstand the weight of the columns passing over them. The first column was lifted by a crane and set into place at the corner of Bellefield Street and Fifth Avenue. Columns were installed at a rate of three per day initially, then four per day once the workers got the hang of it. The last of the 62 columns was installed in the rear of the building near Dithridge Street by the end of 1932.

Have a question for Andrew? Email it to [cribbs@andrew.cmu.edu](mailto:cribbs@andrew.cmu.edu).

## TV Viewers Like It Live, Unless It's the Lottery or Pro Wrestling

■ Geof Becker

Knowing that you don't know, as opposed to knowing that you know what you don't know, is more attractive to TV viewers, according to a study by a Tepper School of Business professor. For broadcasters, it's knowing the difference between a fair game, a fixed fight and a deliberate outcome. Got it?

Said another way, a live broadcast of a show in which you don't know the outcome — such as a sporting event, or unscripted game or talk show — is more interesting for its process and outcome than a taped performance aired at a later date. But if the show is deemed pre-ordained, like professional wrestling, viewers are indifferent to taped or live performances. As for the lottery, since the process is well understood and the outcome all-important, outcome is what viewers want to see — live or taped is immaterial.

"The appeal of live broadcasts lies in the fact that viewers know that the event has not been decided beforehand, and how it unfolds is decided as it happens. It is this perception of indeterminacy that makes live broadcasts more appealing than tape-delayed broadcasts," says Tepper School Assistant Professor of Market-

In one study, 246 university students in Singapore were asked about their preference for watching a fictitious reality TV dating show, both live and tape-delayed, as well as in scripted and unscripted versions. Participants were 12 percent more likely to watch the unscripted, live show, than the tape-delayed program. No differences were found between live and taped-delayed broadcasts when the show was scripted.

The researchers also measured responses of 80 students in Germany to two types of programming: a European soccer match and a lottery drawing for which the participants owned a ticket. Half of the students were told they would be viewing both events live, while the other half viewed a tape-delayed broadcast without knowing the outcome.

Participants were 14 percent more likely to watch the live soccer match. However, participants were not more likely to watch the lottery drawing when it was shown live. The reason, Vosgerau says, is that sporting events are watched for outcome, and most importantly for process — or how the game unfolds. In contrast, lottery drawings are watched

**"THE APPEAL OF LIVE BROADCASTS LIES IN THE FACT THAT VIEWERS KNOW THAT THE EVENT HAS NOT BEEN DECIDED BEFOREHAND, AND HOW IT UNFOLDS IS DECIDED AS IT HAPPENS." — JOACHIM VOSGERAU**

ing Joachim Vosgerau, who led the study along with colleagues at INSEAD, one of the world's leading graduate business schools. "If the process of a live-broadcast event is perceived to be unscripted or indeterminate, the program is significantly more appealing to the viewer than if the process is perceived to be predetermined or scripted."

Vosgerau's study, which appeared in the *Journal of Consumer Research*, measured how student audiences in Germany and Singapore reacted to live and tape-delayed versions of several programs.

only for outcome and broadcasting them live doesn't enhance their appeal.

The study's findings indicate that certain types of unscripted broadcast fare, such as game shows, talk shows and reality TV, could attract bigger audiences by going live. But when viewers perceive processes as predetermined — such as those in partially or fully scripted sitcoms, dramas or professional wrestling — the shows would not likely experience any benefit from being shown live.

Got it? Good.

## Cool Hand Luke



PHOTO BY KEN ANDREYO

PITTSBURGH MAYOR LUKE RAVENSTAHL PAID A VISIT TO CARNEGIE MELLON LATE LAST MONTH. WHILE ON CAMPUS, HE MET WITH UNIVERSITY OFFICIALS FOR AN OVERVIEW OF THE GATES COMPLEX FOR COMPUTER SCIENCE AND VIEWED DEMONSTRATIONS OF EXCITING TECHNOLOGIES UNDER DEVELOPMENT AT THE UNIVERSITY. HE'S SHOWN ABOVE AT A MEET-AND-GREET WITH STUDENTS.

## People Movers May Pave Way to Land of Opportunity

■ Bruce Gerson

With more than 25 not-for-profit organizations, many commercial ventures, seven residential neighborhoods, three historic districts and a workforce of more than 40,000, Oakland is bursting at the seams. Add in growth and new jobs generated by more than \$900 million in research funding being brought in annually by Carnegie Mellon and the University of Pittsburgh alone, and space is getting tighter and tighter.

Carnegie Mellon is also feeling the crunch. Two years ago, many University Advancement staffers moved to office space at 6 PPG Place downtown and Computing Services recently relocated many staff to new digs on Craig Street.

But breathing room may not be that far away, says the Allegheny Conference on Community Development's Oakland Investment Committee (OIC), which is working closely with the Oakland Task Force, an organization representing neighborhood groups, Oakland institutions and the public sector. They have identified the Pittsburgh Technology Center (PTC) site along Second Avenue and riverfront property on the South Side — across the Monongahela River from the PTC — as the land of opportunity, where approximately 3.5 million square feet of brownfields await.

At an October town meeting to discuss the future of the Carnegie Mellon campus, University Vice President Michael Murphy also acknowledged Second Avenue as a possible site for expansion.

"The key to economic development in the region is to take advantage of the research dollars coming to Oakland. We need space to expand," said Maureen

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# Our Genetic Cousins Join the Genome Club

■ Amy Pavlak

What Korean delicacy has eyes and ears on its feet, can be found in the labs of the Mellon Institute and could ultimately help fight bone disease and injuries in humans? Sea urchins, of course.

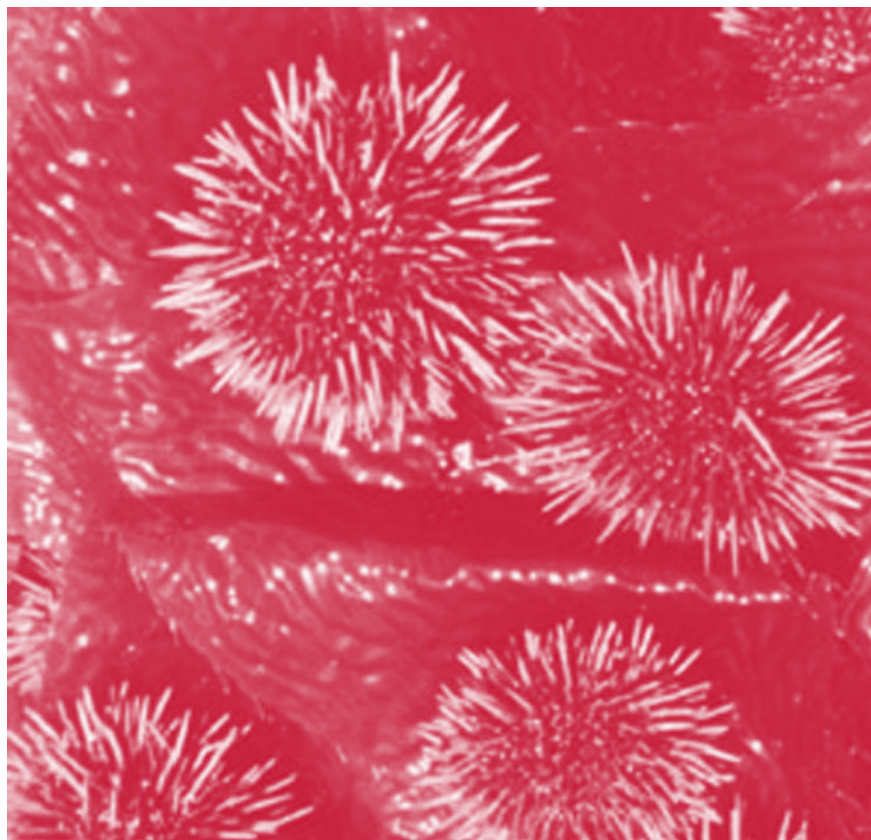
Dozens of these spiny, ocean-dwelling creatures make their home in the laboratory of Professor Chuck Etensohn, and they are the latest animals to have their genome decoded and analyzed.

“Having the sea urchin genome is almost an epiphany. I can see the genes, and it’s very exciting,” said Etensohn, professor of biological sciences at the Mellon College of Science and a member of the Sea Urchin Genome Sequencing Consortium. He has been studying the sea urchin as a model of development for more than 25 years and the results of his research appeared in the Nov. 10 issue of *Science*.

Although sea urchins look nothing like humans and other vertebrates, we all share a common ancestor that lived more than 540 million years ago. Because of this shared family tree, sea urchin embryos develop in similar ways to human embryos, which is one reason they have been studied extensively for more than 150 years as a model system of embryonic development.

“With the full catalogue of genes, methods for manipulating their expression, and the many other experimental virtues of sea urchins, the possibilities are now almost limitless in terms of what we can do to study mechanisms of embryonic development using this system,” said Etensohn, one of the principal investigators who helped establish the Sea Urchin Genome Sequencing project.

“By comparing sea urchin genes to



DOZENS OF THESE SPINY SEA URCHINS — OUR GENETIC COUSINS — LIVE IN PROFESSOR CHUCK ETTENSOHN’S LAB AT THE MELLON COLLEGE OF SCIENCE.

human genes, we can understand at a genetic level what makes humans (and other chordates) unique,” he added.

Like humans, the sea urchin has genes that encode proteins responsible for defending against bacteria and viruses,

Yet the sea urchin doesn’t have eyes or ears, at least as we know them. Instead, these sensory proteins are localized to an appendage known as the tube foot.

Decoding the sea urchin genome also revealed something that really

**“HAVING THE SEA URCHIN GENOME IS ALMOST AN EPIPHANY.**

**I CAN SEE THE GENES, AND IT’S VERY EXCITING.” — CHUCK ETTENSOHN**

sensing the environment and building a skeleton. Unlike humans, sea urchins go about these tasks in a completely different way. For instance, the sea urchin has genes for sensory proteins that are involved in vision and hearing in humans.

caught Etensohn’s attention. In the sea urchin embryo, specialized cells produce proteins that mix with mineral crystals to form the emerging skeleton, just as in humans. This process, called biomineralization, has been Etensohn’s

research focus for many years. Now, the genome has revealed that many of these proteins in sea urchins, especially those that control late stages of the process, are completely different from humans.

How do sea urchins and humans build their skeletons using these different building blocks? Etensohn is working on the answer.

As part of the Sea Urchin Genome Sequencing Consortium, the Etensohn lab created a comprehensive catalogue of all the genes that are actually used by the embryonic cells responsible for building the skeleton, including when and where the genes are expressed in the embryo. Having this level of genetic detail is already advancing Etensohn’s research. Presently, he is “knocking out” biomineralization genes to prevent them from making the proteins that comprise the skeleton. Using this technique, he can look at the embryonic skeleton to see how it’s been perturbed by certain genetic knockouts.

“The embryonic phase of development takes place very quickly (in only two days),” explains Etensohn. “And the embryo is beautifully clear, so we can actually watch this amazing embryonic skeleton form.”

Etensohn says this work could ultimately help researchers piece together the intricate process by which the sea urchin skeleton is formed and lead them toward more information about how we build our skeletons. Understanding how natural systems build skeletons can also help us mimic that process in the design of materials to treat human bone disease and injury.

## NEWS BRIEFS

### Construction Zone

Phase II of the Doherty Hall Renovation project, which will produce new labs for the Chemical Engineering Department, is well under way. The \$27.3 million initiative will include 178,000 square feet of interior renovations and a 16,000-square-foot addition on the building’s north wing. The glass-enclosed addition, shown below, will house a new ventilation system, mechanical room, elevators and fire stairwells to support the new labs. The necessary demolition work has been completed, as

has the reshoring of the hillside and foundation along the north side of the building. The “Cartwright” staircase that connected the West Campus to the Cut was taken down but will be reinstalled. Construction of a new loading facility, which will have a green roof, is in progress and the framework for the new addition will commence in a few weeks. Steel erection is slated for this winter and the project is expected to be completed in 2008.



The School of Computer Science Complex is on schedule, on budget and has received unanimous approval from Pittsburgh’s City Planning Commission. Work to relocate and run new utility lines for the buildings is in

progress, as is mass excavation and the shoring of existing facilities. Pouring the concrete foundations for the structures is scheduled to begin in December and steel erection is slated to begin this summer. The SCS Complex is scheduled to be completed by spring 2009. For updates, visit the project blog at <http://gatescenter.blog.cs.cmu.edu/>.

### Tartans Head to Japan for “Battle of the Brains”

A team of computer science students will head to Japan next March to represent the School of Computer Science in the world finals of the 31st ACM International Collegiate Programming Contest. Sophomores Young Sub Bae and Nate Bauernfeind and freshman Lawrence Tan, competing as the Tartans, earned their trip to Japan and the so-called “Battle of the Brains” by placing second among 116 teams from 64 schools during a regional competition at the University of Cincinnati earlier this month. The competition requires students to use their programming skills to solve complex, real-world problems within a grueling five-hour period.

### Heinz Endowments Funding Targets Computer Science, Green Chemistry

Carnegie Mellon recently received more than \$1 million in grants from The Heinz Endowments to support the next generation of computing, robotics education and green chemistry programs at the university. The foundation awarded \$400,000 to the School of Computer Science to launch Project Olympus, a new initiative designed to bring the university’s researchers together with innovators at major technology companies in the Pittsburgh area. The Heinz Endowments gave a total of \$600,000 to the Robotics Institute’s National Robotics Engineering Consortium for its Robotics Corridor Project, which sponsors several programs for middle school, two-year community college and four-year university students. The foundation also awarded \$500,000 to green chemistry initiatives in the Mellon College of Science.



A RENDERING OF DOHERTY HALL ONCE PHASE II OF ITS RENOVATION PROJECT IS COMPLETE.

# Aaron Lewis' Impact Transcends the Gridiron

## NEXT BIG HIT MAY BE THE "ACADEMIC HEISMAN TROPHY"

■ Adam Lazarus

Four years ago Aaron Lewis arrived at Carnegie Mellon as a typical college freshman. He'll leave as one of the most decorated football players the university has ever seen.

But of all the accolades the senior defensive back from Englewood, Ohio, has received for his play on the gridiron, his most prestigious prize may be yet to come. Lewis is one of 17 finalists nationwide for the National Football Foundation and College Football Hall of Fame's Draddy Award. Named in honor of Vincent DePaul Draddy, a former Manhattan College quarterback and successful businessman, this "academic Heisman Trophy" honors those who excel both on the football field and in the classroom.

The Draddy Award will be presented — along with a 25-pound bronze trophy — Dec. 5 at the Waldorf-Astoria Hotel in New York City. Although all collegiate varsity football players are eligible for the award, Lewis is one of only two NCAA Division III players in the country to be named a finalist.

awesome because you do not get recognized for academics without the football aspect, too. It's a combination that I've worked hard at my whole life and take a lot of pride in."

This is not the first prominent recognition of Lewis' career at Carnegie Mellon. Beyond his 3.93 cumulative grade point average, he is a member of the Phi Kappa Phi national honor society and was named first-team All-American by the College Sports Information Directors of America and ESPN The Magazine in 2005.

Lewis' resume off the field and out of the classroom is equally impressive. He belongs to the Student-Athlete Advisory Committee, serves as assistant treasurer for the Beta Theta Pi fraternity and volunteers as a youth advisor for a local synagogue and with the Pittsburgh chapter of Big Brothers Big Sisters.

"The semester I had with my 'little brother' was very rewarding," said the 6-foot, 210-pounder. "It's satisfying to see that you can have that much impact on somebody."

And he's had plenty of impact be-



TARTAN DEFENSIVE BACK AARON LEWIS IS ONE OF 17 FINALISTS NATIONWIDE FOR THE DRADDY AWARD, THE "ACADEMIC HEISMAN TROPHY" THAT HONORS PLAYERS WHO EXCEL BOTH ON THE FOOTBALL FIELD AND IN THE CLASSROOM.

for a touchdown — 89 tackles and three forced fumbles. He anchored a suffocating defense that allowed just 7.5 points per game and helped lead the Tartans to the UAA Championship, a perfect 10-0 regular season record and a trip to the NCAA Division III playoffs.

"You always hope for seasons like this," said Lewis, who most likely concluded his football career when the final seconds ticked off the clock this season. "It's great for me as well as our senior class. I think we've all put a lot of time and dedication into the program. Just to see the results pay off is very rewarding."

While Lewis hopes to add the enormous Draddy Trophy to his already

crowded mantelpiece, he knows that it's the intangibles that will stay with him many years after football.

"The relationships are probably one of the most valuable things you'll take. There are a lot of moments that impact you," Lewis said. "Obviously there are games that aren't as memorable as others. But I think if you ask a lot of athletes in 20 years, there are still plays they remember and games they remember. The guys that were there with you are the people you remember from those events. You remember the relationships and the feeling of playing on those Saturdays, that rush you get coming out there and making a big play or winning a big game."

And they'll remember Aaron Lewis.

**"IT'S AN INCREDIBLE HONOR TO BE UP FOR THIS AWARD. ... IT'S A COMBINATION THAT I'VE WORKED HARD AT MY WHOLE LIFE AND TAKE A LOT OF PRIDE IN." — AARON LEWIS**

"It's an incredible honor to be up for this award," said Lewis, a finance major who plans to work for Merrill Lynch after graduation. "To be on the same list as [University of Florida quarterback] Chris Leak and [Penn State University linebacker] Paul Posluszny is

tween the sidelines. The football co-captain and annual first-team all-conference selection entered the 2006 campaign with high expectations as he was voted a preseason All-American. He lived up to those expectations with a conference-leading five interceptions — one

## MLK Celebration Set for Jan. 15

Carnegie Mellon will honor the life and work of Dr. Martin Luther King Jr. with a series of afternoon activities on Monday, Jan. 15. The day's events will begin at noon with a choral

tribute to King and the Community Collage, during which students and staff will celebrate the late civil rights leader through song, verse and personal interpretation. At 12:30 p.m., President Jared L. Cohon will deliver his annual "State of

Diversity at Carnegie Mellon" address, which will be followed by the Martin Luther King Jr. Writing Awards. The Community Conversation, a panel discussion on "Opportunity. Justice. Pittsburgh?" is scheduled for 2:30 p.m., and award-winning author and Homewood native

John Edgar Wideman will deliver the keynote address at 5 p.m. Other activities scheduled throughout the day include service programs for students, children's activities and a photo exhibit from The Pittsburgh Courier archives. Classes will be canceled in the afternoon to allow all members of the campus community to participate in the events. Activities will take place in the University Center and are free and open to the public.

## MySecureCyberspace Offers Cybersafety Tips

An Information Networking Institute survey has found that parents are increasingly on edge about Web safety. The survey, conducted in conjunction with marketing research firm Campos Inc., found that 97 percent of the 500 Allegheny County residents interviewed not only wanted to know more about cybersafety, but also wanted simpler tools to monitor their child's online activities. In response to this demand, university researchers have created the MySecureCyberspace portal to help the public better understand the dangers of surfing the Web. The portal ([www.mysecurecyberspace.com](http://www.mysecurecyberspace.com)) offers information and tools to combat

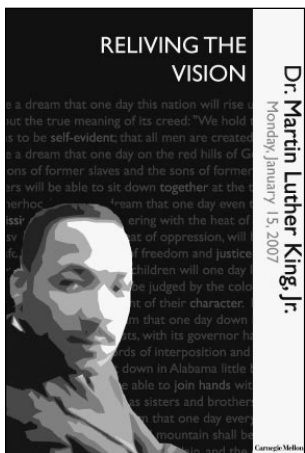
cyberbullying, identity theft and the dangers of online predators. Carnegie Mellon has also partnered with i-SAFE America to expand outreach of "Carnegie Cadets, the MySecureCyberspace Game," in which cartoon figures resembling superheroes help children learn about the dangers of Internet viruses and cybercriminals.

## "Buxfer" Helps Roommates and Friends Share Expenses, Settle Debts

An online tool developed by three computer science graduate students could replace notes on the refrigerator door as a way for friends and roommates to keep track of shared expenses. Called Buxfer, the free, Web-based service enables users to quickly note expenses shared among a group or between members of a group. In addition to providing a common site where all group members can see who owes whom, Buxfer also keeps a running balance of each member's credits or debits. Launched in late September and publicized primarily through university bulletin boards, [www.buxfer.com](http://www.buxfer.com) now has about 1,500 users and is tracking transactions totaling more than \$450,000.

## Carnegie Mellon Creates New Master's Degree in Biotechnology and Management

A new breed of successful managers must handle the business of biotechnology and have a solid grasp of the complex science that underlies it. To meet the growing need for managers with such breadth and depth of expertise, Carnegie Mellon has established the first Master of Science in Biotechnology and Management (MSBM) program. Unlike other universities, which host their biotechnology programs and degrees in schools of engineering or science, the MSBM is the only truly interdisciplinary program that ensures an equally balanced, in-depth emphasis on business and science. The new program — a partnership among the Mellon College of Science (MCS), the Heinz School and the Tepper School — leverages the strengths of each school and challenges students to investigate the many dimensions inherent in managing a biotech company. The program enrolled its first group of students this fall. For more, visit [www.bio.cmu.edu/msbm/](http://www.bio.cmu.edu/msbm/).



### RELIVING THE VISION

Dr. Martin Luther King, Jr.  
Monday, January 15, 2007

Carnegie Mellon

# Panel Addresses Ways To Engineer More Women Engineers

■ Chriss Swaney

Only 25 percent of undergraduate engineering students at Carnegie Mellon are female. Shocked? You shouldn't be. Women make up a mere 9 percent of all engineers in the U.S. In a world where women have been steadily coming into their own professionally for the past half-century, these figures seem frighteningly antiquated.

So what's the best way to recruit more women into the competitive engineering field? A panel of engineering experts recently met to discuss just that — how to address the shortage of women in the field and attract younger females to engineering — during a lunch at the Engineering Society of Western Pennsylvania (ESWP).

"It's an issue every country is wrestling with," said panel moderator

Pa., native, earned her bachelor's degree in electrical and computer engineering and engineering and public policy from Carnegie Mellon in 1979.

"We probably don't celebrate the contributions of engineering enough," said Rudolph, one of more than 40 attendees at the Nov. 8 "Women In Engineering" panel co-sponsored by the College of Engineering and ESWP.

"Women, if they are good in math and science, are pushed into medicine because it's a people field," said Sonya Narla, a 16-year-old senior from Winchester Thurston. Narla and a dozen other high school students were looking for specific information about how to apply their math and science skills to engineering.



A PANEL OF ENGINEERING EXPERTS RECENTLY MET TO DISCUSS HOW TO ADDRESS THE SHORTAGE OF WOMEN IN THE FIELD AND ATTRACT YOUNGER FEMALES TO ENGINEERING. PANELISTS INCLUDED (L-R) PRADEEP K. KHOSLA, DEAN OF THE COLLEGE OF ENGINEERING; NADINE AUBRY, HEAD OF MECHANICAL ENGINEERING; JOANN TRUCHAN, THE SOCIETY OF WOMEN ENGINEERS; AND RUTHANN OMER, THE GATEWAY ENGINEERS.

**"KIDS NEED TO KNOW ENGINEERING ISN'T BORING. IT'S FUN STUFF."**  
— JANE RUDOLPH, LOCKHEED MARTIN TRANSPORTATION AND SECURITY SOLUTIONS

Pradeep K. Khosla, dean of the College of Engineering at Carnegie Mellon.

A key step in encouraging women to be engineers, the panelists agreed, is to expose more middle school students to what engineers do.

"Kids need to know engineering isn't boring. It's fun stuff," said Jane Rudolph, vice president of business development for Lockheed Martin Transportation and Security Solutions in Rockville, Md. Rudolph, an Irwin,

Nadine Aubry, newly appointed head of Carnegie Mellon's Mechanical Engineering Department, told the high school students to push the envelope, accept challenges and learn from those challenges.

"We simply need to communicate in a more dynamic way that women can be engineers; they can do it," said Aubry, who was joined on the panel by Ruthann Omer, president of Gateway Engineers; and Kirk H. Schulz, dean of the Bagley

College of Engineering at Mississippi State University.

Joann Truchan, an air quality engineer with the Allegheny County Health Department and president of the Pittsburgh Chapter of the Society of Women Engineers, said more girls will consider engineering if they grow up believing that "math and

science are not just for geeks."

When people ask Truchan, who holds a bachelor's degree in engineering and a master's in public policy from Carnegie Mellon, about her primary goal for the Society of Women Engineers, she sums it up in three words.

"To become obsolete."

## Helping the Hungry



CARNEGIE MELLON WRAPPED-UP ITS 13TH ANNUAL FOOD DRIVE ON NOV. 10. MORE THAN 7,000 POUNDS OF FOOD AND NON-PERISHABLE ITEMS WERE COLLECTED, AS WELL AS MORE THAN \$600 IN CASH DONATIONS. KRIS HUTCHINGS (LEFT) FROM THE COMPUTER SCIENCE DEPARTMENT WAS JUST ONE OF SEVERAL STAFF VOLUNTEERS WHO HELPED LOAD THE FOOD ON A TRUCK BOUND FOR THE GREATER PITTSBURGH FOOD BANK.

## Review Committee Formed

CONTINUED FROM PAGE ONE

Other trustees on the committee are Erroll Davis Jr., Linda Dickerson, Thomas McConomy, Kears Pollock and Lea Simonds. In addition to Dzombak, faculty members include Paul Fischbeck of the departments of Social and Decision Sciences and Engineering and Public Policy, Khee Poh Lam of the School of Architecture, David Owen of the Mathematical Sciences Department, Lynne Reder of the Psychology Department, and Stanley Zin of the Tepper School of Business.

"The committee is just beginning its work, which will primarily involve interviews with faculty, staff and students, and some individuals from external constituent organizations," Dzombak said. "The committee plans to complete its work in the first quarter of 2007."

Dzombak also noted that a Web site will be created that will allow the

campus community to provide confidential input. The Web address will be announced soon.

Cohon, a leading authority on environmental and water resource systems analysis, became Carnegie Mellon's eighth president in July 1997. He came to Carnegie Mellon from Yale University, where he was dean of the School of Forestry and Environmental Studies and professor of environmental systems analysis from 1992 to 1997.

In May 2002, the Board of Trustees, acting on the recommendation of a Presidential Review Committee, appointed Cohon to a second five-year term. Erroll Davis Jr., then chairman of the board, said Cohon's vision and leadership style were powerful assets that would help Carnegie Mellon achieve even greater successes in the years ahead.



## INTERNATIONAL DISPATCHES

### ICTI@Portugal and @Carnegie Mellon

Carnegie Mellon and the Portuguese government will create an international "virtual" Information and Communications Technologies Institute (ICTI) with a five-year, \$42.6 million investment into research and education programs by the Portuguese government.

ICTI will have headquarters in Pittsburgh and Portugal, with Electrical and Computer Engineering Professor Jose Moura serving as the institute director in Pittsburgh. Carnegie Mellon faculty in a number of engineering and science disciplines will partner with at least 16 different Portuguese research and education institutions on issues relating to information and communications technology.

Portugal Telecom, Siemens Network, Novabase and a number of Portuguese technology-based companies will form an industrial affiliates program that is part of ICTI.

The Carnegie Mellon-Portugal program

is part of a major initiative undertaken by the Portuguese government to strengthen the country's knowledge base at an international level.

"The Portuguese government launched a technological plan as a political idea to mobilize the state, business and citizens around critical drivers of modernization: knowledge, technology and innovation. The duty of a responsible government with a look toward the future is undoubtedly to foster scientific and technological skills and to recognize the essential role of research and development activities," Portuguese Prime Minister Jose Socrates said during an Oct. 27 ceremony.

The agreement came after months of assessment by university administrators and faculty, in consultation with the Portuguese Ministry of Science, Technology and Higher Education.

"Carnegie Mellon is well-suited to collaborations with Portugal. Our partners have expressed an eagerness to pursue scientific and technological advances, particularly the

opportunities created by an ever-more connected world. We believe our agreement will mobilize people, knowledge and ideas to catalyze strong progress," said President Jared L. Cohon.

College of Engineering Dean Pradeep Khosla and Moura both expressed enthusiasm for the agreement and said it complements and strengthens existing international partnerships for the college and university.

### ETC Expands Into Singapore

With the National University of Singapore's (NUS) School of Computing and support from Singapore's Infocomm Development Authority (IDA), the Entertainment Technology Center will begin to offer a degree in interactive digital media in Singapore next fall.

Students will participate in an accelerated program that allows them to obtain two degrees — a bachelor's degree in communications and media from NUS and a master's degree in entertainment technology from Carnegie Mellon — in five years, rather than the typical six.

"NUS is pleased to partner with Carnegie Mellon and IDA to offer aspiring interactive digital media professionals opportunities, space

and challenges to pursue their passion and hone their creative and technical skills," said NUS President Shih Choon Fong, who signed the agreement during a Nov. 9 ceremony with President Cohon.

"What the National University of Singapore and the Carnegie Mellon ETC have in common is a commitment to excellence and a desire to see our research developed, implemented and commercialized rapidly," said Don Marinelli, ETC executive producer. "We both seek to impact the world broadly and directly. NUS is such a kindred spirit that our becoming brethren makes all the sense in the world."

ETC is no stranger to global partnerships. It began offering classes this past fall in Adelaide, South Australia, and has plans to develop project opportunities in Korea.

Carnegie Mellon has another educational partnership in Singapore through a degree program with Singapore Management University and support from IDA. The latter is committed to making Singapore into a global hub for information and communications through a variety of programs and partnerships.

## Blumstein Q&A

CONTINUED FROM PAGE ONE

they do it and how long do they continue doing it? Those are the key features of a criminal career, and much of my research has been directed at modeling that process. I look at individual-level information to understand how it aggregates into crime rates. And that's particularly relevant for policy questions like who should go to prison, how long they should stay and how much crime is averted as a result.

### How is your research related to public policy?

During the past 25 years we've seen a massive drug war. My presidential address to the American Society of Criminology in 1992 argued that incarceration of drug dealers is rather futile because we don't avert many transactions as long as the market can recruit replacements. The thing I didn't appreciate then was that the replacements for the older sellers being sent to prison were young kids. Those kids carried guns to protect themselves and their drugs, but they didn't have the restraint of the older folks. Also, their buddies — who were not even in the drug market — started carrying guns for self-defense. So between 1985 and 1993, we saw a major arms race with a 25 percent rise in homicides that was all attributable to young kids with handguns. This was an important unintended consequence of this massive incarceration. During that same time, we saw a major decrease in violence by people over 30, the dominant group in prison.

### What keeps you interested in the field?

The ever-opening questions about crime that have a strong policy import. The

criminal justice system is absolutely fascinating. Many of its policies are driven by ideology. And that is made worse by politicians' mindless, or perhaps cynical, responses to the public's demand for protection. The political arena provides an extremely limited repertoire of responses, limited to being tougher: more incarceration, longer sentences, more mandatory minimums — whether that makes sense or not. It makes a lot of sense for violent offenders who are going to lash out at people around them, but it makes little sense for drug dealers because of the concern about the replacements. So, it requires sorting out.

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**"WHO COMMITS CRIME, WHEN DO THEY START, HOW OFTEN DO THEY DO IT AND HOW LONG DO THEY CONTINUE DOING IT? THOSE ARE THE KEY FEATURES OF A CRIMINAL CAREER, AND MUCH OF MY RESEARCH HAS BEEN DIRECTED AT MODELING THAT PROCESS." — AL BLUMSTEIN**

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The legislative process isn't very good at that, and research can be helpful.

### Describe a satisfying experience in your career.

It has been very satisfying to have the opportunity to be both a full-time academic here as well as having direct involvement in public policy. In 1979, when Dick Thornburgh was elected governor, he asked me to serve on a state-level commission developing crime-control policy and allocating federal dollars in Pennsylvania. And he asked me to chair it. I said, "That would be nice, but I've got classes to teach and research to do. I'll try it for 18 months." I thought about it as an exciting opportunity to bring research to the policy arena and to bring the policy problems into the classroom and to shape the research. I changed the nature of the job, built up

an excellent staff and ended up doing it for 11 years.

Another important interaction between my life at Carnegie Mellon and the public sector is in the shaping of a paratransit system for the elderly and handicapped. Second-year Heinz School students are required to take a project course called "Systems Synthesis." I had a grant from the U.S. Department of Transportation to design such a system. With important contributions from Rick Stafford and Harold Miller, that became the ACCESS system that has been operating here for about 30 years and has been replicated in a number of other cities.

### What would people be surprised to know about you?

Probably not at Carnegie Mellon, but people in criminology are astonished when I tell them that I'm an engineer. I think like an engineer and I solve problems like an engineer. People in criminology tend to come with an ideological bias one way or another, and I am more in the middle, much more driven by facts and empirical realities rather than by a position I want to push. People on the left and on the right have gotten mad at me. I think people are even more astonished that I was elected to the National Academy of Engineering. And I was astonished at that because I was sure that engineers felt that I had abandoned them by going into something as soft as criminology, so I was really surprised and delighted when that happened.

## Porter Appears on "20/20"

CONTINUED FROM PAGE TWO

on the "20/20" Web site. At least that's Porter's take.

"I think what set me apart was that I'm a working mom, not to mention that I'm single. And my life is very busy. I think they maybe didn't believe that what I wrote is what I really do."

Porter views her brush with fame in an equally practical light, hoping not for fame but more for the opportunity to inspire change in how American businesses and the government view the importance of family time.

"This was my 15 minutes of fame," Porter said. "The only thing I would like to come of this is that there has to be some better policies in place for working mothers, or working parents in general. I would like to be an advocate for working mothers. The government talks about the importance of working mothers and fathers, but they don't walk the walk. I truly would like to see a serious effort put into this — less talk and more action."

Porter also hopes she can get one more small thing out of her "20/20" appearance: an appointment with that foot specialist who started it all.

"I never got in to the foot doctor," she said, "but maybe she saw me on '20/20' and will answer my email!"

## LECTURE SPOTLIGHT: McCloud Spins a Web of Comics

■ Jonathan Potts

When comic book artist Scott McCloud published “Reinventing Comics” in 2000, it was like he threw an aerosol can into a campfire. He dared to suggest that the future of comics resides online and that the Internet could transform how comic book artists tell stories — and how they get paid to do it.

“The book proposed a lot of grandiose ideas for comics on the Web, some of which have come true, and plenty of which haven’t,” McCloud said.

McCloud will give a presentation titled “Comics: A Medium in Transition” at 4:30 p.m., Dec. 7 in McConomy Auditorium as part of the University Lecture Series.

“I’m interested in what happens when the art form of comics comes in contact with new technology,” McCloud said.

McCloud’s repertoire includes the 36-issue “Zot” as well as several online comics, including a series called “The Right Number” that can be read for 25 cents an issue.

Which brings us back to the aerosol can.

“There are some in the print world who didn’t like the whole idea of comics on the Web, who don’t think that they are even comics,” McCloud said.

On the Web, McCloud is not bound by traditional, horizontal, panel-to-panel storytelling. He tells stories vertically, side-to-side and diagonally, with links that open new windows when the narrative demands it. In some comics, one panel appears on the screen at a time and the reader moves onto the next by clicking.

Many artists, however, continue to reproduce online what they do in print, McCloud said.

“Early movies were just filmed stage plays. Early television shows were radio with a camera. Now we just have printed comics splashed up on the screen,” McCloud said. “A few people have experimented with doing things online that can only be done in that environment.”



IMAGE COURTESY OF SCOTT McCLOUD.

THE CARTOON SELF-PORTRAIT OF SCOTT McCLOUD AS IT APPEARS IN HIS ONLINE COMICS.

**WHAT:** Scott McCloud, “Comics: A Medium in Transition”

**WHEN:** 4:30 p.m., Dec. 7

**WHERE:** McConomy Auditorium, University Center

Read more about what’s going on at Carnegie Mellon in the News Briefs on page 4.

### Upcoming Events

**Through Dec. 10**

Faces of Democracy International Film Festival

The film festival will question the meaning of freedom in various countries and cultures through guest presenters, award-winning short films, documentaries and feature films. For times and locations, see [www.cmu.edu/faces/](http://www.cmu.edu/faces/).

**Through Dec. 17**

Miller Gallery Art Exhibit  
Dean Kessmann, Pamela Howard and Paul Dickinson

**Nov. 30–Dec. 2; Dec. 5–9**

School of Drama musical “Side Show”  
Philip Chosky Theater,  
Purnell Center for the Arts  
For show times and tickets, call 412-268-2407.

**Dec. 2**

Carnegie Mellon Basketball vs. Rochester Women: 2 p.m.  
Men: 4 p.m.  
Skibo Gym

**Dec. 4**

“Toys for Tots”  
Join a festive sleigh-ride parade from Hunt Library to the University Center, where engineering students will deliver toys to U.S. Marine Corps personnel.  
Noon, Hunt Library

**Dec. 4**

Men’s Basketball vs. LaRoche  
7:30 p.m., Skibo Gym

**Dec. 8**

CFA Holiday Concert  
Noon, Rangos Ballroom, University Center

**Jan. 15**

Martin Luther King Day Celebration  
University Center  
Keynote lecture by award-winning novelist and former Homewood resident John Edgar Wideman  
5 p.m., Rangos Ballroom, University Center

## “Side Show” Celebrates the Freak Within



PHOTO BY JOSHUA FRANZOS

THE SCHOOL OF DRAMA WILL PRESENT “SIDE SHOW,” A MUSICAL THAT BRINGS TO LIGHT THE “FREAK” HIDING BEHIND OUR SO-CALLED NORMAL FACADES, NOV. 30–DEC. 2 AND DEC. 5–9 AT THE PHILIP CHOSKY THEATER. BASED LOOSELY ON THE LIFE OF VAUDEVILLE STARS DAISY AND VIOLET HILTON, CONJOINED TWINS LINKED AT THE HIP, “SIDE SHOW” TAKES AUDIENCES THROUGH A CIRCUS WORLD OF FREAKS, FAME AND UNBREAKABLE FAMILY TIES. RAJENDRA RAMOON MAHARAJ, ONE OF NEW YORK’S RISING YOUNG DIRECTORS, WILL DIRECT THE MUSICAL. SCHOOL OF DRAMA STUDENTS STARRING IN THE PRODUCTION INCLUDE (BACK ROW) STEPHEN ROSENBERG, KIRSTEN BRACKEN AND KARA LINDSAY, DEVIN ILAW, AND ANTWAYN HOPPER; AND (FRONT ROW) ROBERTA BURKE, LIAM RHODES AND BARRETT DAVIS.

## South Side, Second Ave. May Be Land of Opportunity

CONTINUED FROM PAGE THREE

McFalls, director of Government Relations at Carnegie Mellon and President Cohon’s representative on the OIC and the Oakland Task Force.

The only problem is getting there from here. It’s a hassle by car or bus, but an automated, reliable, dedicated, elevated light rail service or people mover that travels throughout Oakland, including a segment from Carnegie Mellon to Second Avenue via Junction Hollow, may be the answer.

“It became clear to the OIC that a transportation system in and around Oakland is needed, a circulator so

people could drive either directly to Oakland and park or to an interceptor garage on the outskirts of Oakland and then hop on a people mover. In order for this land to be usable to Carnegie Mellon, it must be easily accessible, and today it is not. It needs to be as accessible as a walk across campus,” McFalls said.

The Oakland Investment Committee is in the process of determining the feasibility for such a plan. Results of a transportation survey distributed to Carnegie Mellon, Pitt and UPMC employees, among others, are being

tabulated. McFalls said the committee must work with technology companies to identify what technologies can work and with the private and public sectors to determine how to fund the project. She also said the committee would work closely with Port Authority Transit so the system would connect with public transit stops.

“We have to look at all the options and acquire the best data that we possibly can and get them to the decision-makers. We need the numbers,” McFalls said.