



## Carnegie Mellon

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### Sweet Office Suite



PHOTOS BY KEN ANDREYO

FORTUNE MAGAZINE RECENTLY PLACED GOOGLE ATOP ITS LIST OF THE "100 BEST COMPANIES TO WORK FOR IN 2007," AND THESE INTERIOR SHOTS OF THE GOOGLE PITTSBURGH HEADQUARTERS IN THE COLLABORATIVE INNOVATION CENTER ON CARNEGIE MELLON'S CAMPUS SHOW A FEW REASONS WHY. COMFY FURNISHINGS IN GOOGLE'S TRADEMARK COLORS, FOOSBALL AND POOL TABLES FOR WHEN YOU NEED A LITTLE BREAK TO GET THE CREATIVE JUICES FLOWING, AND A WELL-STOCKED COOLER WITH YOUR CHOICE OF BEVERAGES ALL COME WITH THE JOB. FORTUNE NOTED THE FREE MEALS, SWIMMING SPA AND FREE DOCTORS IN GOOGLE'S SILICON VALLEY HEADQUARTERS ARE PARTLY WHY THE COMPANY RECEIVED MORE THAN 1.1 MILLION APPLICATIONS LAST YEAR.

### Students Say Improvements Needed for Pedestrians

■ Jonathan Potts

The campus community was devastated last April when sophomore Wei Wei Wang died from injuries sustained when she was struck by a car as she crossed Forbes Avenue at Margaret Morrison Street.

To History and Policy Professor Joel Tarr, there was something dreadfully familiar about the accident that claimed Wang's life. Nine years ago, he was hit — though not seriously injured — by a

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### Elvis, the Stones, the Dead, Rocked Our World

#### SHUMWAY'S NEW BOOK EXAMINES ROCK N ROLL'S SOCIAL IMPACT

■ Jonathan Potts

When Elvis Presley gyrated to the delight of teenage girls in the 1950s, he was doing far more than merely giving television network censors fits: He was smashing norms of male sexuality, says English Professor David Shumway.

"Elvis violated taboos of masculinity by displaying himself as an object of sexual desire. This sexually explicit dancing is something women did and men didn't do," Shumway said. "He embodied a whole lot of cultural tensions."

Shumway, the director of the university's Humanities Center, is writing a book that focuses on Elvis and six other rock stars: The Rolling Stones, James Brown, Bob Dylan,

The Grateful Dead, Joni Mitchell and Bruce Springsteen. The book, due for release in the spring of 2008, is being published by New York University Press.

It's only natural that Shumway would pick a social force like rock and roll as his subject — the center he directs is devoted to studying human culture and its products.

"The idea is to discuss these people

as cultural icons. It's less about them as historical individuals. It's less about the facts of their lives than how they were perceived and what they meant,"

Shumway said.

Shumway recently gave a series of talks about his book at several European universities.

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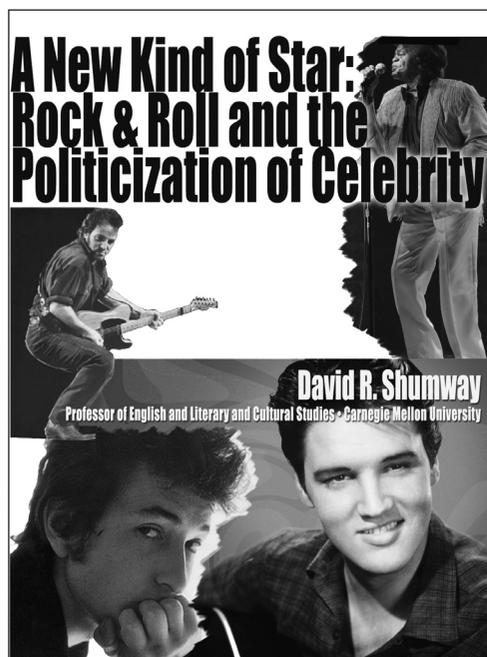


IMAGE COURTESY OF DAVID SHUMWAY



# the PIPER

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

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## Elephants Have Feelings, Too

### BIO MAJOR SHOWS HUMANS SOOTHE "GENTLE GIANTS"



PHOTO COURTESY OF THE PITTSBURGH ZOO & PPG AQUARIUM

FRYDMAN WORKED PRIMARILY WITH TASHA, MATRIARCH OF THE PITTSBURGH ZOO'S ELEPHANT HERD, TO DETERMINE HOW CONTACT WITH HUMANS IMPACTS AN ELEPHANT'S STRESS LEVEL.

■ Erin Martin

Everyone's seen the cowardly elephant cartoons. You know, the ones where the largest mammal in the world sees a mouse, panics and jumps on top of a narrow stool to get away from an animal a fraction of its size. But an elephant's gentleness isn't just the stuff of fiction. Elephants are renowned for their placid demeanor. In fact, people have reported feeling calmer just by interacting with these "gentle giants." But how does contact with humans impact elephants? Junior biological sciences major Galit Frydman tackled this quandary last summer at the Pittsburgh Zoo.

"There's a lot of controversy in the zoo world — as well as in the animal rights world — as to how elephants should be handled," explained Frydman, who plans on attending veterinary school after graduating from Carnegie Mellon. "Studies done with horses and dogs suggest that human contact lowers the animals' heart rates and cortisol levels [the stress hormone], and vice versa."

Frydman teamed-up with Adjunct Professor William Langbauer, head of research and conservation biologist at the Pittsburgh Zoo, to determine if these findings could be applied to African elephants. Her work was funded by a

grant from the Howard Hughes Medical Institute and a Summer Undergraduate Research Fellowship from Carnegie Mellon's Undergraduate Research Office.

Frydman and Langbauer initially explored whether human contact decreases elephant stress levels. But their long-term goal is to determine if regular contact or protective contact is healthiest for elephants. Regular contact is physical contact performed only by the keeper inside the elephant's enclosure. Protective contact, though, is non-physical interaction with keepers and trainers.

Working mainly with Tasha, the matriarch of the Pittsburgh Zoo's elephant herd, Frydman and Langbauer measured heart rate and cortisol levels after regular contact with her keepers or protective contact with others. Frydman and her colleagues are still collecting data, but initial findings suggest that any contact with humans reduces heart rate and cortisol levels, therefore reducing stress levels in the elephants.

The results of her research were so promising that Frydman was asked to present them at the 2006 International Elephant Conservation and Research Symposium last fall in Copenhagen, Denmark. As the only undergraduate at the conference, the Miami Beach native felt intimidated at times. But her willingness to pose questions to fellow attendees allowed her to meet researchers and veterinarians, and make some significant contacts. "Everyone was asking me to apply for internships at their institutions," she said.

For now, Frydman, who is graduating a semester early, is concentrating on completing her elephant project in the next few months.

"This is a controversial topic," said Frydman. "The results can affect how zoos and circuses handle their captive elephants."

## Sidewalk Café Comes to East Campus

■ Bruce Gerson

While the new School of Computer Science Complex and the Doherty Hall renovation have garnered most of the construction talk on campus, a rather interesting project on the east side has flown under the radar. Until now.

Set to begin construction in mid-February is a new 4,100-square-foot eatery that will extend west from the Carnegie Mellon Café on the plaza between Resnik Hall and the playing field at Gesling Stadium. Unofficially called the "Tartans Pavilion," the new place to eat, meet and greet friends will include a brick grill and oven for pizza and hoagies, and seating for about 100.

The new venue will be largely enclosed by seven glass garage doors facing the athletic field. The doors will be raised in nice weather and a canopy will extend outward, creating an outdoor sidewalk café where students, faculty and staff can enjoy the food and weather while watching football, soccer or other athletic activities.

Bob Reppe, director of design for



PHOTO BY BRUCE GERSON

THE NEW 4,100-SQUARE-FOOT EATERY WILL EXTEND WEST FROM CARNEGIE MELLON CAFÉ ON THE PLAZA BETWEEN RESNIK HALL AND THE FOOTBALL FIELD.

Campus Design and Facility Development, said the \$1 million project is the second phase of the effort to "reinvent" the old Highlander Dining Hall. Phase one resulted in the Carnegie Mellon Café, which opened this past fall.

"The Tartans Pavilion will provide another place to eat on campus and will take some of the pressure off the University Center dining areas," Reppe said. "We hope it will have a big impact on student life and create another popular spot for university events."

Reppe said the new eatery would have an "industrial loft" look with structural elements in plain view. The 12-foot-high ceiling will consist of tongue-and-groove wooden planks.

The project, which will be completed by June of this year, has been designed by Springboard, whose principals include Paul Rosenblatt, an adjunct faculty member in the School of Architecture; and Petra Fallaux, former director of the Regina Gouger Miller Gallery.



## ASK ANDREW

Dear Andrew,

**Tell me about the steam tunnels. What are they for? Why don't they let people explore them? – L.T., Software Engineering Institute**

Long the subject of Carnegie lore, the steam tunnels are indeed real and are right now keeping Carnegie Mellon functioning. When campus designer Henry Hornbostel created Tech's first campus plan, he connected all of his buildings with underground tunnels, about eight feet tall by six feet wide, that could carry lines for steam, hot water, electricity and telephones.

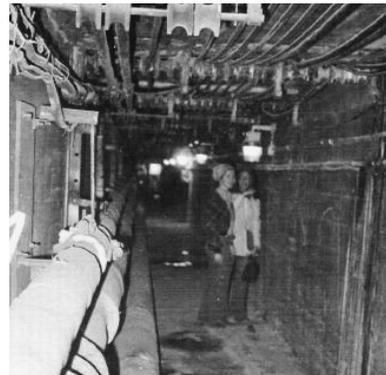
According to University Engineer Martin Altschul, the tunnels are still used mainly for that purpose. "The steam tunnels contain pipes for steam and chilled water that heat and cool university buildings. We put the pipes in tunnels when we can afford to so we don't have to disturb our landscaping when repairs are needed," he said.

You probably want to know more about the daring days in Tech's history when students

used to blatantly ignore the "Employees Only" signs and hang out in the tunnels. Well, let's just say some things are better left unsaid. And those days are long gone, anyway.

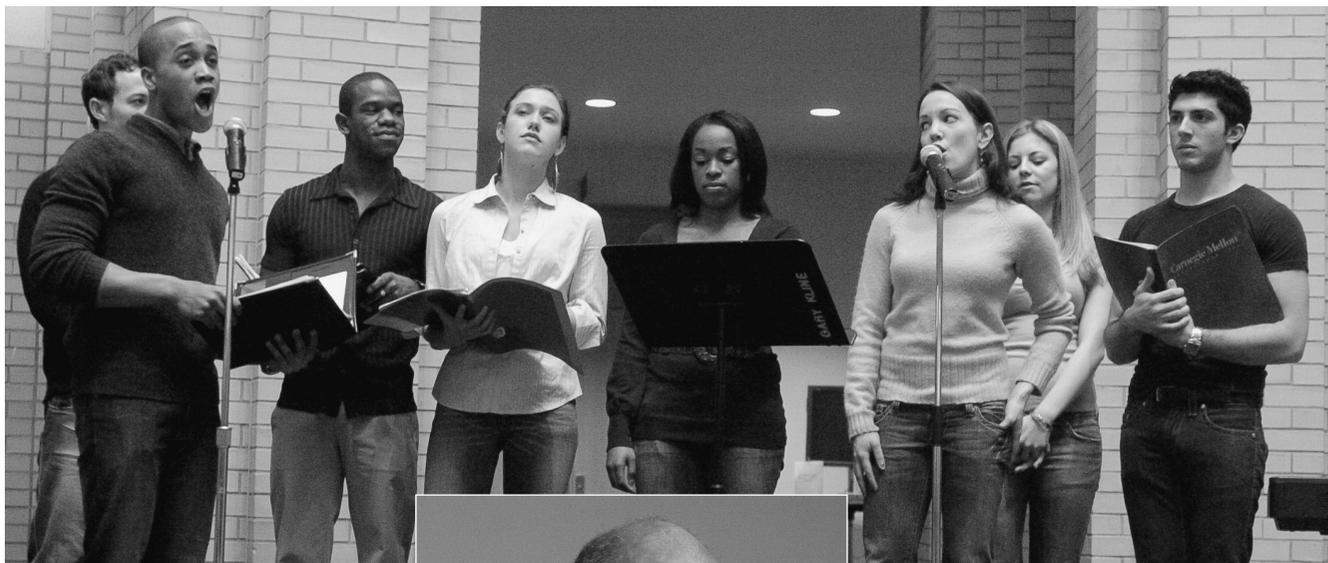
"We don't allow people in the tunnels because they are dangerous places with lots of opportunities to trip, bump a head or get burned on an exposed steam line," Altschul said.

A SHOT OF STUDENTS IN THE STEAM TUNNELS THAT APPEARED IN THE 1976 THISTLE YEARBOOK.

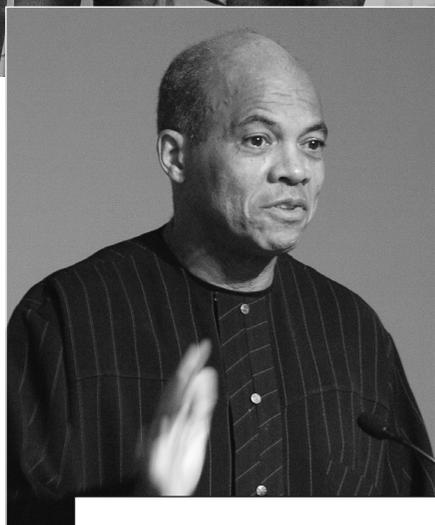


## A Day On

■ Susie Cribbs



PHOTOS BY KEN ANDREYO



Some people think of the national Martin Luther King holiday as a welcome three-day weekend that dispels the January blahs. But Carnegie Mellon annually holds fast to the "day on, not a day off" national theme for the holiday, offering a full afternoon of programming for the campus and local communities that inspires thoughtful discussion and dialogue on the slain civil rights leader's life and work.

Events included a choral tribute and Community Collage, during which students and staff paid tribute to King through song and personal interpretation. Mark Roosevelt (above, far right), superintendent of Pittsburgh Public Schools, was part of a panel of local community leaders who discussed the relevance of King's dream for social and economic equality in present-day Pittsburgh during the Community Conversation. The day's events concluded with author and Homewood native John Edgar Wideman (above, center), who delivered the keynote address and read from his own fictional works that dealt with race and difference. "We'll leave on these words," he said when he'd concluded his readings. "Everything's going to be all right."

## Tademy Wins Lazarus Award

Everett Tademy, assistant vice president for diversity and director of equal opportunity services, received the 2007 Barbara Lazarus Award during the MLK Day activities. Reading from Tademy's nomination letter, President Jared L. Cohon said Tademy was honored for his "deep knowledge and passion, his dedication to his work to improve our environment, and for his sage counsel and unassuming way of working." The Lazarus Award, named in memory of the late Vice Provost for Education Barbara Lazarus, honors individuals and teams for making substantial contributions to improving the culture and climate in the Carnegie Mellon community. Tademy is shown here leading the panel discussion during the Community Conversation.



PHOTO BY KEN ANDREYO

## BLACK HISTORY MONTH

Carnegie Mellon will celebrate Black History Month in February with a wide array of events, lectures and discussions on race, identity and culture. Highlights of Black History Month activities are listed below. For a complete schedule, see [www.studentaffairs.cmu.edu/multicultural/festivals/blackhistory.html](http://www.studentaffairs.cmu.edu/multicultural/festivals/blackhistory.html) or contact Emily Half at 412-268-2075. For more about what's coming to campus in February, see the Upcoming Events on page seven.

**Feb. 6, 5-6:30 p.m.**

Speak Your Mind: Diversity Discussion and Dinner—The Change: Exploring Race and Identity Through Poetry  
Facilitator: Creative Writing Professor Terrance Hayes  
McKenna/Peter/Wright Room, UC

**Feb. 8, 5:30-7 p.m.**

"History of Black Entrepreneurship"  
James E. Clingman, the nation's most prolific writer on economic empowerment for black people  
Rachel Mellon Walton Auditorium, Tepper School of Business

**Feb. 11, 2 p.m. and 5 p.m.**

Alvin Ailey Tribute: "Alive and Dancing"  
Rangos Ballroom, UC  
Cost \$5 to benefit Senior Showcase

**Feb. 12, 8 p.m.**

In Celebration of Gospel Music: From the Negro Spiritual to Contemporary Gospel  
Featuring François Clemmons (A'69)  
Kresge Theater, CFA

**Feb. 16, 5 p.m. (Reception 4:30 p.m.)**

"The South and the City: Migration and Sacred Space in an Urban Black Metropolis"  
Wallace D. Best, Harvard Divinity School  
Location to be announced

**Feb. 22, 4:30 p.m.**

A Dialogue with Phylicia Rashad  
McConomy Auditorium, UC  
(Free tickets available at the UC Info Desk beginning Feb. 5)

**Feb. 24, 5 p.m.**

Incognito: A one-man play by Michael Fosberg  
Philip Chosky Theater, Purnell Center

**Feb. 26, 11:30 a.m. - 1 p.m.**

Soul Food Sampler  
Connan Room, UC

# Tartan Racing Pushes Hard ... for Failure



THE TARTAN RACING TEAM WILL SOON PACK-UP TWO CHEVY TAHOES AND HEAD TO ARIZONA TO PREPARE FOR THE NOV. 3 DARPA URBAN CHALLENGE.

## ■ Byron Spice

About a dozen members of Carnegie Mellon's Tartan Racing team are packing up two Chevy Tahoes they're prepping for the DARPA Urban Challenge competition and heading west — where they face almost certain failure. But that's a good thing.

For the next two months, the team will put the robotic vehicles through their paces at General Motors Desert Proving Ground in Mesa, Ariz. And as Chris Urmson, the team's director of technology, points out, failures are an essential part of testing.

"If things don't fail when you test them, you're not really learning anything," he explained. "So we push hard."

The team members have an awful lot to learn between now and Nov. 3, when the Defense Advanced Research Projects Agency (DARPA) will run its Urban Challenge at an as-yet undisclosed location in the western United States.

Like DARPA's 2004 and 2005 Grand Challenges, the event pits driverless vehicles against each other on a closed course, with a \$2 million prize

at stake. But the Urban Challenge immerses the vehicles in a far more complex environment.

"The prior races were essentially dirt races that went from A to B," said William "Red" Whittaker, the Fredkin Research Professor and team leader. "Some of it was dirt, some of it was pavement, some of it was tunnel, but it was one long road. In this event, streets

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**"IF THINGS DON'T FAIL WHEN YOU TEST THEM, YOU'RE NOT REALLY LEARNING ANYTHING. SO WE PUSH HARD." — CHRIS URMSON**

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will intersect, robots will share the road and competitors will literally drive head-to-head."

Operating in a mock-urban setting, the autonomous vehicles will complete several missions totaling about 60 miles. Each must negotiate intersections, blocked streets and oncoming traffic. Vehicles must obey stop signs and rules of the road. And unlike the earlier races, teams can refuel, change tires and wipe off sensors between missions.

For the desert races, sensors on the

vehicles were concerned primarily with what lay ahead. For the Urban Challenge, the vehicles will require "wrap-around sensing" so they are aware of what's happening to the sides and rear as well. That means that the type and mix of radars, cameras and other sensors differ from those of Carnegie Mellon's previous Grand Challenge racers, Sandstorm and Highlander. Finding the right

mix and figuring out how to combine, interpret and act on the sensor output are major goals.

Tartan Racing has dubbed its entry in the challenge "Boss." Two Tahoes, one tan, one black, have been modified for autonomous driving and will be electronic and mechanical near-twins when complete — but only one will have the chance to race.

Both vehicles are largely finished as the team heads for Arizona, where winter weather won't disrupt testing. By

the time the team returns to Pittsburgh, Urmson said, the vehicles will be able to negotiate intersections and will be able to complete missions, if slowly.

The two-month stay in Arizona, away from the distractions of home, will likely be "a real team-building experience," said Urmson, a mainstay of both earlier Grand Challenge campaigns. Tartan Racing includes a mix of veterans and new blood, including faculty like Anthony Stentz, Sanjiv Singh and Martial Hebert of the Robotics Institute, and Raj Rajkumar of the GM-Carnegie Mellon Collaborative Research Laboratory.

About 10 to 15 work day-to-day on the team, with twice that number assisting part time. Engineers employed by sponsors are once again embedded with the team — Hong Bae of GM, Michael Darms of Continental AG, David Ferguson of Intel and Michael Taylor of Caterpillar.

"It's addictive," Urmson said of robot racing. "You don't often get an opportunity to tackle this many interesting problems at once and to have such an impact on the perception of robotics."

## NEWS BRIEFS

### Tepper School of Business Announces PNC Professorship

The Tepper School of Business has announced the creation of the PNC Professorship in Computational Finance, which is aimed at supporting outstanding junior faculty and helping the Tepper School sustain and enhance its world-renowned work in finance. The PNC Professorship in Computational Finance combines a \$1 million contribution from PNC Foundation — the philanthropic arm of PNC — and \$250,000 from PNC executive management.

The Tepper School pioneered the field of computational finance through a collaboration with the College of Humanities and Social Sciences, the Heinz School and the Mellon

College of Science. Together, the schools offer bachelor's, master's and doctor's degrees in computational finance that continue to be among the world's best.

### Stay Fit With Free Faculty, Staff Fitness Classes

Staff Council and Human Resources have again joined forces to bring all Carnegie Mellon faculty and staff free fitness courses. Classes are offered Monday through Thursday, and include low-impact aerobics, Pilates, a total body workout and Tai Bo. All classes begin at 5:15 p.m. and run until 6 p.m. in Whitfield Hall (143 N. Craig St.). Parking is available on-site and no special equipment is needed. To learn more about the classes and to see a complete schedule, visit <http://www.andrew.cmu.edu/org/StaffFacultyFitness/info.html>.

### Brain Scans Predict When People Will Buy

For the first time, researchers have used functional magnetic resonance imaging to determine what parts of the brain are active when people consider whether to purchase a product and to predict whether or not they ultimately buy the product. The researchers found that when the participants were presented with the products, a brain region that is associated with the anticipation of pleasure was activated. When the subjects were presented with prices that were excessive, two things happened: the brain region known as the insula was activated and a part of the brain associated with balancing gains versus losses was deactivated. By studying which regions were activated, the authors were also able to successfully predict whether the study participants would decide to purchase each item.

The study appears in the journal *Neuron* and was co-authored by Scott Rick and George Loewenstein of the Department of Social and Decision Sciences, and colleagues at Stanford University and the MIT Sloan School of Management.

### A New Home in Hollywood

Second-year students in the Master of Entertainment Industry Management (MEIM) program have a new place to call home: the Carnegie Mellon Los Angeles Center in North Hollywood, Calif. The center is minutes from the heart of Hollywood's film and television industries. In addition to housing the MEIM program, the center is also available for university colleagues who need to hold a meeting, host a reception or conduct business activities while in the city.

MEIM students spend the first year of study in Pittsburgh, taking core management coursework that provides them with the skills to work in the entertainment industry. During the second year the

# Mind Over Matter? Cohen's Work Shows Outlook Impacts Health



PHOTO BY KEN ANDREVO

SHELDON COHEN

■ Jenni King

Cold and flu season strikes again, and Sheldon Cohen's research is as relevant as ever. For more than 25 years, Cohen, the Robert E. Doherty Professor of Psychology, has studied the role of stress, outlook and social support systems on immunity and health. His unique research has earned him widespread recognition, including awards for distinguished lifetime scientific contributions from the American Psychological Association, the American Psychological Society and the American Psychosomatic Society. He's also received the National Institutes of Health's Research Scientist and Senior Scientist awards. A leader in the field, Cohen was elected to the Institutes of Medicine of the National Academy of Sciences, and in 2003 was named one of science's most cited authors by the Institute of Scientific Information.

**Your research about how outlook affects health has been in the news a lot lately. Can you tell me a bit about that?**

We've been studying how psychological and social factors influence physical health, particularly susceptibility to disease, for about 25 years now. We started by studying the effects of stress, beginning with a series of labora-

tory studies where we brought people into the lab, exposed them to stressors and looked at changes in physiological markers that we thought important for health, such as blood pressure, heart rate, stress hormones and measures of immune function.

**How do you test for the role of stress in the common cold?**

These studies were fairly simple. We took healthy people between the ages of 18 and 55 and had them fill out questionnaires that measured stress. We then exposed each of them to a virus that causes a common cold — they put their head back and we gave them a nose drop with a controlled number of viral particles in each nostril. They were then followed in quarantine for five to seven days to see if they developed a cold. So the simple question for us was could we predict from their stress levels whether or not they would respond to the virus by developing a cold? What we found was the more psychological stress the individual reported before being exposed to the virus, the more likely they were to become ill.

In later studies, we learned more about the types of stressors our volunteers experienced by using interview techniques. In this way, we were able to identify the types of stressors that were

most strongly associated with developing a cold. These included ongoing, enduring stressful events. Things like having an ongoing conflict with your spouse. And the longer the stressors lasted, the greater the probability of developing a cold when exposed to a virus. The other thing we found is that there are two categories of stressors that were strongly associated with disease susceptibility: interpersonal conflicts with close friends or family and stressors at work. When we looked really closely at the specific kinds of job stress that mattered, it turns out that it was being unemployed or underemployed.

**How does stress influence our susceptibility to colds?**

Colds and flu are sometimes called cytokine diseases. Cytokines are protein molecules produced by the immune system. When you get an infection, your immune system produces pro-inflammatory cytokines, which go to the infected area and recruit other immune cells to help kill the virus. You can think of them as being in charge of the immune response to the infection.

Interestingly, the symptoms of a cold that you experience aren't really

CONTINUED ON PAGE EIGHT

## Rocking Our World

CONTINUED FROM PAGE ONE

"My sense is that the Europeans don't regard Bruce Springsteen with quite the reverence that he receives from the critical establishment here. Dylan, on the other hand, may be more revered there, in England especially, than here," Shumway said.

Each chapter of the book is devoted to one star, and it examines the period in which they had the greatest cultural influence. For Elvis, it's the 1950s. For the Stones, it's the end of the '60s and early '70s, when the Beatles broke up and the Stones were definitely getting the "satisfaction" they sought.

"They were treated as entertainment royalty in ways that even the Beatles weren't," Shumway said.

Part of the Stones' influence stemmed from their constant touring, including the 1969 Gimme Shelter tour that ended with the infamous Altamont concert. Four people died at the show, including one man who was stabbed to death by a member of the Hell's Angels, who had been hired to provide security.

Truman Capote accompanied the band on its 1972 American Tour as a correspondent for Rolling Stone magazine. Although Capote never wrote an article about the tour, he spoke of it extensively

during talk show appearances, Shumway said.

Because of the Stones, "the entourage becomes associated with rock bands for the first time," Shumway said.

In selecting the subjects for his book, Shumway looked for artists who represented a wide range of musical styles and who had enjoyed long careers that made a persistent impact on the culture.

"The only person who clearly is continuing to innovate is Springsteen, and I guess that makes sense since he's the youngest," said Shumway, who acknowledges that this opinion might rattle fans of Dylan's latest work.

Shumway took up the study of rock stars to explore the role that stardom, a concept that evolved significantly in the postwar period, has on the culture. It is an idea that is often dismissed by cultural critics because it's linked with the idea of celebrity and all its negative connotations, Shumway said.

Stars, as performers, have personas that are separate from their true selves, Shumway says.

"When we call someone a star, we assume some characteristics that distinguish stars from the mere celebrity, one of which is achievement in a field of some kind," he said. "There's a complexity to the people we call stars that mirrors the complexity we attribute to real human beings or literary characters."

students work in Los Angeles, expanding and enriching their knowledge of management skills, theories and techniques through specialized courses taught by some of the entertainment industry's leading professionals.

### Carnegie Mellon, Pitt Launch Joint Doctoral Program

Carnegie Mellon and the University of Pittsburgh have launched a joint doctoral program in structural biology and biophysics. "There is a relatively small pool of people with this type of specialized training, and competition for qualified students who can be trained in these technologies is fierce. The ability to offer an advanced degree in these disciplines will allow us to compete with other top-tier institutions in recruiting the best and brightest students," said Angela Gronenborn, co-director of the new program and professor and chair of the

Department of Structural Biology at the University of Pittsburgh School of Medicine.

Gordon Rule, professor of biological sciences at Carnegie Mellon and co-director of the program, added that the combined expertise and resources of the two participating institutions promise to make it a highly visible and attractive program.

### \$18 Million Initiative Will Establish Programs on Entrepreneurship

Carnegie Mellon recently kicked off an \$18 million initiative with \$3 million in seed funding from the Kauffman Foundation to infuse entrepreneurship and innovation-management courses throughout the undergraduate curriculum. Under the new plan, Carnegie Mellon will create a minor in entrepreneurship and innovation that spans the entire undergraduate program and leverage relationships with new

global partnerships to broaden and deepen the educational potential of those efforts.

The new initiative will begin in close collaboration with the College of Engineering and will build on the efforts of the Donald H. Jones Center for Entrepreneurship in the Tepper School. The university-wide effort will be managed through the establishment of a new Institute for the Study of Entrepreneurship, Innovation and Technological Change, which will be directed by Steven Klepper, the Arthur Arton Hamerschlag Professor of Economics and Social Science in the College of Humanities and Social Sciences and the Tepper School.

### International Course Prepares Civil Engineers for Global Economy

Civil Engineering faculty members Burcu Akinci and Lucio Soibelman started a new capstone project course this month to help civil engineers

learn to work in a global environment. The International Collaborative Construction Management course (ICCM) enables student teams from the U.S., Brazil, Turkey and Israel to work collaboratively on a variety of international construction projects executed in these countries.

A combination of video conferencing, email and Web-based collaboration tools will keep student teams connected as they navigate a series of construction project-management-related challenges. The 14 students, based in the U.S., will develop bids and building specs for separate projects in Brazil, Israel and Turkey. Their foreign counterparts will also monitor job bids and participate in interactive project management at the various construction sites in each country. The students will be supported by faculty and industry mentors in all four countries.

# Location, Location, Location: It May Be Why You're Overweight

■ Eric Sloss

If you're looking to shed those extra pounds you put on during the holidays, consider that it wasn't just that second slice of fruitcake that added the extra weight. According to Kristen Kurland, where you ate the cake might be the real culprit.

Kurland, an associate teaching professor, thinks weight gain can be attributed to your living environment. And if you live in the suburbs, it could mean more pounds than you expect.

Her work as a professor in both the School of Architecture and the Heinz School has given Kurland an interdisciplinary perspective to study how communities contribute to unhealthy lifestyles. She's concluded that cities are designed in ways that have contributed to trends in obesity.

ment in cities; curbing urban sprawl; lack of green space; and lack of healthy food choices significantly impact the health of people living in urban environments.

The National Institute of Child Health and Human Development has released a report concluding that Americans gain about one pound during the holiday season. This doesn't sound like much, but the extra weight can accumulate through the years and contribute to obesity later in life.

"Everyone who, like me, abandoned those healthy eating and exercise habits and gained some extra pounds this holiday season can find ways to shed them by just simply walking," Kurland said.

"I suggest buying an inexpensive pedometer and making the extra effort to

**"DURING THE SECOND HALF OF THE 20<sup>TH</sup> CENTURY, AMERICA EXPERIENCED URBAN SPRAWL. ... THIS SHIFT CHANGED THE WAY CITIES WORK, LEAVING MANY PEOPLE TO LIVE UNHEALTHILY."**

— KRISTEN KURLAND

"During the second half of the 20<sup>th</sup> century, America experienced urban sprawl, a move from the urban city to suburbs, creating suburban neighborhoods, strip malls and rural

schools — which are all automobile-oriented," Kurland said. "This shift changed the way cities work, leaving many people to live unhealthily."

City officials have taken notice of the health problems that plague their citizens, and they're taking steps to improve public health. Around the country, cities are implementing laws to improve their residents' lives.

New York City, for example, recently passed a law that would ban restaurants from using trans fats. Other cities like Chicago are following suit. Locally, Allegheny County recently joined many other cities that have passed ordinances banning smoking in restaurants and other public places. And even Carnegie Mellon is considering making the campus smoke-free by 2010.

Though Kurland thinks these policies will help promote a healthier lifestyle, she also believes the way cities are planned plays a major factor in quality of life. Her research shows that physical, structural changes to the built environ-

get 10,000 steps in. A brisk walk around the neighborhood on a chilly winter night may not seem so bad when you know it will help keep you in top physical condition."

As a geographic information system (GIS) specialist, Kurland leads a team of students who are mapping the walkability of Pittsburgh city streets.

Besides wearing a pedometer, Kurland believes city officials can provide other solutions, like designing walkable communities, adding parks and improving public lighting, supporting public transportation, and creating safe sidewalks and bike routes. She also advocates collaborative solutions, such as having architects and city planners partner with professionals in the medical and policy fields to design a city that makes it easy for residents to live healthier lives.

So don't just blame those tempting holiday treats for the extra weight. Instead, evaluate the way your community is designed and consider how your routine may have contributed to your expanding waistband. Then think about what options the community provides to help you lose those extra pounds.

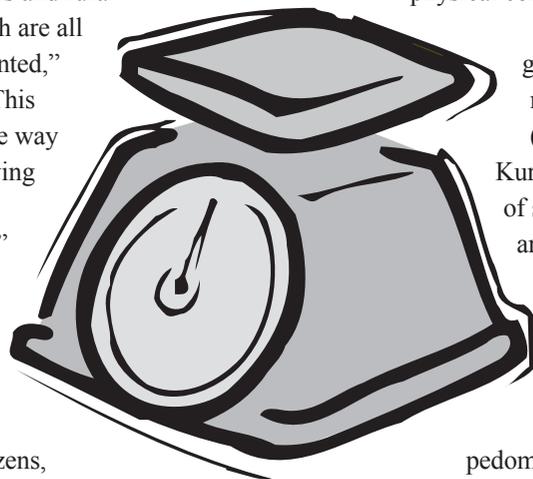


PHOTO BY BRUCE GERSON

TARR AND HIS STUDENTS FOUND THAT THE FORBES AND MOREWOOD INTERSECTION IS VIEWED AS THE RISKIEST ONE ON CAMPUS.

## Improvements Needed for Pedestrians

CONTINUED FROM PAGE ONE

vehicle at Margaret Morrison and Tech streets. It had him thinking — just how safe are pedestrians around campus and in the city of Pittsburgh?

He posed that question this past fall to students in both his senior history and policy seminar in the History Department and his interdisciplinary Public Policy Management class in the Heinz School. Continuing a long Carnegie Mellon tradition of creating solutions to everyday problems, he and his students conducted two research projects. One analyzed the history of traffic and pedestrian safety in Pittsburgh, and the second examined pedestrian behavior around campus as well as in parts of Downtown.

The project culminated with a presentation last month to an audience that included Pittsburgh City Councilman Bill Peduto, who has become a champion for pedestrian safety in the city.

"Some of the stuff we turned up was quite amazing," said Tarr, the Richard S. Caliguiri University Professor of History and Policy.

One of the most notable findings, according to Daniel Hudson, a senior majoring in mathematical sciences and

Several American cities, including Philadelphia, Seattle and New York, have government committees or civic organizations devoted to traffic and pedestrian safety. But Pittsburgh doesn't even have a traffic engineer, Tarr says.

"You need some group responsible for pedestrian safety," said Tarr, agreeing with one of the recommendations made by his students.

The students also studied pedestrian behavior around Carnegie Mellon's Oakland campus through observations and a survey. The most heavily traveled intersection is at Forbes and Morewood avenues, which the campus community views as the riskiest, according to Jacob Chen, a senior mathematics major. Pedestrian flow is heaviest right before the start of classes.

"What was also interesting to note was the number of students crossing against the light. There's a very high increase of pedestrians interfering with cars right before classes were about to start," Hudson said.

Forbes and Morewood was one of six potentially high-risk intersections in the city that the students recommended for safety improvements. The others were Forbes and Devon, and Fifth and Morewood in Oakland; and Sixth Avenue and

**PEDESTRIAN INJURIES IN PITTSBURGH AVERAGED MORE THAN 400 A YEAR FROM 1997 TO 2006.**

a member of the Heinz School class, is that pedestrian fatalities have in fact dramatically declined over time, from about 150 per year from 1925 to 1935 to only between five and 10 per year now. Pedestrian injuries, on the other hand, have remained high, averaging more than 400 a year from 1997 to 2006. Tarr's hypothesis is that improved emergency medical care may have played a large role in reducing pedestrian fatalities in the last several decades. So, he presumes, the dramatic decline in deaths may not really reflect improvements in pedestrian safety.

Bigelow Boulevard; Stanwix Street and Forbes; and Liberty Avenue and Sixth Street downtown. Students recommended several measures to make these areas safer, including painted crosswalks, crosswalk signals with countdown timers, pedestrian refuge islands and monitoring by police.

The project was hampered during the semester by difficulties in obtaining data concerning pedestrian crashes. But thanks to the efforts of Councilman Peduto, Tarr now has much of the data he has sought, and he and several students will use it to continue their research and analysis this semester.

Until then, be careful crossing the street.



## INTERNATIONAL DISPATCHES

### Qatar Building Construction Under Way

■ Andrea Zrimsek, Carnegie Mellon University in Qatar

The Qatar Foundation for Education, Science and Community Development awarded a contract for the construction of Carnegie Mellon's new facility in Qatar to Athens-based Consolidated Contractors International Company and its local joint venture partner, Teyseer Contracting Company. Consolidated Contractors is a large firm with extensive experience in Qatar, having built the Doha Ritz-Carlton.

Construction of the three-story, 475,000-square-foot building, designed by the architectural firm Legorreta+Legorreta, will be complete in March 2008. The building has been under design for more than two years and will be a state-of-the-art teaching and learning facility. Site work and construction began in November. You can follow construction progress at: <http://www.qatar.cmu.edu/webcam.php>.



### Cultural Heritage Web Site Details Qatar Experience

Carnegie Mellon in Qatar launched a Web site dedicated to the heritage and culture of the state of Qatar. The Web site features detailed descriptions as well as photographs of 21 different cultural heritage sites, including museums, forts, mosques, archaeological areas, and traditional houses and markets (souqs).

"Our hope for this Web site is that lifelong residents, newcomers and visitors will all be encouraged to get out and explore the heritage and beauty of the country," said Carla Salman-Martinez, project manager.

The Web site features an interactive model of a traditional Qatari mosque as well as itineraries catering to three different audiences: visitors, families and those

with an adventurous spirit. The creation of this site is the first project to involve students from Carnegie Mellon Qatar, graphic designers from Virginia Commonwealth University and Qatari officials.

"We're thrilled that our first collaboration with Qatar is one that so beautifully showcases the culture, heritage and people of a country that has so graciously welcomed us. This Web site shows the deep and vibrant history of Qatar, and Carnegie Mellon looks forward to many more ways in which we can work together with community officials and become part of Qatar's future," said Charles E. Thorpe, dean of Carnegie Mellon Qatar.

Experience the site at <http://www.heritageofqatar.org>.

### Zak Is Executive Director of Heinz Australia

Timothy J. Zak, an experienced entrepreneur, educator and consultant, is the new executive director of the Heinz School's master's degree programs in Adelaide, Australia. Zak was chief executive officer of the Social Innovation Accelerator, a private operating foundation that supported the development of revenue-generating businesses and new solutions to social issues by non-profit groups. He is also co-director of Carnegie Mellon's Institute for Social Innovation and an adjunct professor at both the Tepper School of Business and the Heinz School.

In his new role, Zak will set strategy for Heinz Australia, oversee faculty activities, and develop and market the school's popular graduate programs in public policy and management and information technology. He will also establish and maintain relationships with industry and government organizations



PHOTO BY KEN ANDREYO

throughout the Asia-Pacific region.

Zak is a 1986 graduate of the university's computer science and industrial management programs.

### Master's Tournament Ad Airs

Carnegie Mellon's Qatar campus ran an advertisement promoting its programs during the Qatar Master's, a major golf tournament at the Doha Country Club. The golf tournament was held Jan. 24-28.

### Let the Games Begin



Students from throughout Education City and Carnegie Mellon's Qatar campus participated in the opening ceremony for the 15<sup>th</sup> Asian Games, held in Doha, Dec. 1-15. This major sporting event brought together athletes from 45 countries and regions to compete in 39 sports. Thousands of Qataris supported the events as volunteers and hosts. Mona Maher (above) was one of several students who had the opportunity to pose with the torch as it was sent around Education City.

## Upcoming Events

### February is Black History Month

For activities and events see: [www.studentaffairs.cmu.edu/multicultural/festivals/blackhistory.html](http://www.studentaffairs.cmu.edu/multicultural/festivals/blackhistory.html)

### Through March 30

"Tides," an exhibition of new work from Northern Ireland's most innovative artists  
Regina Gouger Miller Gallery

### Feb. 5

Environmental Lecture Series  
"A Revolution in Environmental Health Sciences: New Opportunities To Prevent Genetic Diseases"  
John Peterson Myers, CEO and founder of Environmental Health Services  
4:30 p.m., Adamson Wing, Baker Hall

### Feb. 10

Contemporary Ensemble Concert  
5 p.m., Kresge Recital Hall, CFA

### Feb. 12

Environmental Lecture Series  
"From Silent Spring to Silent Night: Hermaphroditic Frogs, Breast Cancer and Pesticides"  
Tyrone Hayes, associate professor of integrative biology, University of California, Berkeley  
4:30 p.m., Adamson Wing, Baker Hall

### Feb. 14

Bring Your Own Brain Brown Bag Series  
Robert Cavalier, associate teaching professor of philosophy, will discuss a campus deliberative poll on "Public Art at Carnegie Mellon."  
Noon, Baker Hall 154R

### Feb. 16

Basketball Doubleheader vs. Washington University (Mo.)  
Women: 6 p.m., Men: 8 p.m.  
Skibo Gym

### Feb. 18

Basketball Doubleheader vs. University of Chicago  
Men: Noon, Women: 2 p.m.  
Skibo Gym

### Feb. 20

Carnegie Mellon Philharmonic Concert  
8 p.m., Carnegie Music Hall

### Feb. 27

Author Lee Gutkind will sign and discuss his new book, "Almost Human — Making Robots Think." The book is about the people and

projects at Carnegie Mellon's Robotics Institute.  
3:30 p.m., Wean Hall 7500

### Feb. 27

Speak Your Mind Diversity Dinner and Discussion  
Tera Hunter, associate professor of history, will facilitate a conversation about the African American family.  
5 p.m., Connan Room, UC  
RSVP to [ehalf@andrew.cmu.edu](mailto:ehalf@andrew.cmu.edu)

### March 8-9

"TK60," a symposium in honor of Takeo Kanade's 60<sup>th</sup> birthday. Kanade, a pioneer in robotics, computer vision and medical and assistive technologies, is the U.A. and Helen Whitaker University Professor of Computer Science and Robotics.  
Wean Hall 7500

For a complete list of February events, see the Public Events Calendar at <http://my.cmu.edu/site/events/> and click on "view events" at the bottom of the page.

## LECTURE SPOTLIGHT: URBAN FARMING

■ Susie Cribbs

Urban farming is not an oxymoron.

Across the country, urban communities are converting vacant lots and unused land into usable green spaces. This isn't just gardening, though — that's a hobby. This is farming, something that provides a tangible, socio-economic impact for the neighborhood around it. Urban farming not only educates residents about nutrition, but it also engages and revitalizes communities.

Carnegie Mellon puts urban farming in the spotlight this semester with the lecture series "Urban Farming: Reconnecting Our Farms, Food and Community," part of the University Lecture Series and the Distinguished Lecture Series in Environmental Science. The three talks scheduled for the spring are listed below, with brief descriptions of each topic. Each lecture is from 5:30 to 7 p.m. in Rangos 1&2, University Center.

### Feb. 13: Creating Livelihoods From Greenhouses and Forest Gardens

**Jerome Osentowski, Central Rocky Mountain Permaculture Institute**

Osentowski will show how he created a viable commercial culinary and medicinal herb and salad greens business within the understory of a forest garden and in greenhouses. He'll also discuss his edible landscape nursery, which includes a heritage fruit tree collection.

### March 20: Urban Farming with Youth

**Patricia Gray, executive director, The Food Project of Boston**

The Food Project has been farming with young people for more than 15 years. The food it grows is distributed through three streams: farmers' markets, donations to hunger-relief organizations, and the project's own kitchen and culinary businesses. This workshop will focus on The Food Project's work in the City of Boston — finding and procuring usable land; distributing local, fresh food to those who have little access to it; working in a community; running successful farmers' markets; and involving youth in all aspects of this work.



IMAGE BY KAREN BERTSEN

**WHAT:** Urban Farming: Reconnecting Our Farms, Food and Community

**WHEN:** 5:30–7 p.m.; Feb. 13, March 20, April 24

**WHERE:** Rangos 1&2, University Center

### April 24: High Tunnel Technology — A Tool for Economic Development, Job Creation, and Increased Quality of Life Through Urban Agriculture

**William James Lamont Jr., professor of vegetable crops, Department of Horticulture, Penn State University**

High tunnels are one of the components of season-extension technology. Though not greenhouses, they are generally Quonset-shaped, constructed of metal bows that are attached to metal posts and covered with greenhouse-grade polyethylene. A high tunnel without any supplemental heat in Pennsylvania can produce crops from March through early December. Lamont will discuss the technology, its use at Penn State since 1998 and how it can be applied to urban environments.

Read more about what's going on at Carnegie Mellon in the Upcoming Events on page seven.

## Mind Over Matter?

CONTINUED FROM PAGE FIVE

caused by the virus. They're actually caused by the pro-inflammatory cytokines. So in a sense, the symptoms of a cold are side effects of your immune response to the virus. It's commonly thought that stress suppresses immunity and therefore the immune system is less capable of dealing with an infection. What we found is the stress is associated with the release of too much cytokine and, hence, more symptoms. It isn't that the immune system is less capable; in fact it's overshooting, over-responding. What stress is influencing is the system's ability to regulate itself.

### Are there psychological and social characteristics that are associated with better health?

There's considerable evidence that belonging to a diverse social network is associated with better health and longevity. We were especially interested in testing whether social integration — having many different social roles like spouse, friend, church member — was protective for colds. In fact, we found that the more active social roles people had, the less likely they were to get sick.

Positive emotions are very closely tied to social interaction. So extraverts,

for example, tend to be happier than introverts. We've now conducted two studies where we interview people every evening for a couple of weeks. Each evening we ask about the emotions our volunteers experienced over the last 24 hours. Across the two weeks we get a profile that we call positive emotional style, which is the extent that they express positive emo-

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**"IT'S VERY REWARDING TO SEE STUDENTS BE SUCCESSFUL, AND PARTICULARLY REWARDING TO SEE STUDENTS FIVE OR 10 YEARS LATER MAKING THEIR OWN UNIQUE CONTRIBUTIONS."**

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tions. People who score higher on positive emotional style are less likely to develop colds when later exposed to a virus than those with lower scores. Moreover, if they develop a cold, those with higher positive emotional style scores report fewer and less severe symptoms.

### If happier equals healthier, can we be proactive and try to "stay happy" to stay healthy?

There is recent evidence that people report different levels of happiness at different times of their lives. However, why they change and whether we can change their level of happiness is a whole other issue. There's current work attempting to develop interventions to make people

happier. But at this point, it's very early in the game, and it's still unclear whether this is possible.

### What are you currently working on?

There's literature on childhood social economic status (SES) that suggests that early childhood SES has a long-term impact on your health. We were interested

in whether this was true for susceptibility to infection. The first thing we did was ask our volunteers a simple question: "Did your parents own their own home or not when you were a child?" It turns out that if their parents didn't own their own home before they were 10 years old, they were more likely to get sick when we exposed them to a virus. This association held up even when we controlled for whether our volunteers owned their own homes as adults, at the time of the study. To look at this issue in greater detail, we're interviewing people about their environments during their childhood. We're also testing whether their childhood experiences are associated with their immune and hormonal response during adulthood.

### Do you have medical training? As a psychologist, how did you get into this field?

In the mid-1970s I studied the effects of noise on children. We looked at the effects of noise on kids who lived in apartments that were built over expressways and on others who lived under the air corridor of the Los Angeles International Airport. Most of the outcomes we were looking at were psychological and had to do with learning. But we had included blood pressure as an outcome. And we found that kids who lived under the air corridor had higher blood pressure. So I got interested in this issue of stress and physiological disease. I received a career award from the National Institutes of Health that funded me to study endocrinology, immunology and virology. I took classes. I did a lot of reading and I was almost immediately doing work in the area, learning by doing.

### What part of your career has been most rewarding?

Training graduate and post-doctoral students. It's very rewarding to see students be successful, and particularly rewarding to see students five or 10 years later making their own unique contributions. To see them move the field forward and to learn from them is the nicest payoff.