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Powerful Two Weeks a Microcosm of CMU's Influence

Bruce Gerson, Byron Spice and Robert Vickers

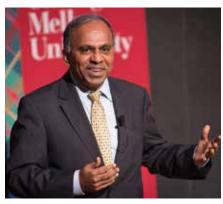
Carnegie Mellon is helping to set the agenda in the U.S. and the world.

Consider this impressive two weeks in mid-September. In a span of just 14 days Carnegie Mellon dominated the world stage in Dalian, China, was summoned to the White House twice and hosted dignitaries from the U.S. and India.

Fifteen faculty members, the largest delegation of any university, participated in the World Economic Forum's annual meeting in China, where they led discussions and demonstrations among global thought leaders in business, government and academia on robotics, artificial intelligence and data analytics.

A few days later, university leaders and professors were twice called to the CONTINUED ON PAGE FOUR

First Fall Town Hall



Bruce Gerson

Carnegie Mellon President Subra Suresh hosted his first fall town hall meeting on Sept. 30 with members of the university community in Pittsburgh, while the global CMU family watched via webcast. CONTINUED ON PAGE EIGHT

Hittin' a High Note



Kiltie Band Director Paul Gerlach struck a chord with his colleagues this year and landed the Andy Award for Outstanding Spirit. From leading the band to helping students navigate college finances, improving administrative processes and keeping campus safe, this year's Andy Award winners all work diligently to make Carnegie Mellon a better place. Read about all the winners on pages 6 and 7.

CMU-Boeing Partnership Takes Flight

Byron Spice

Carnegie Mellon has joined with The Boeing Company to establish the Boeing/Carnegie Mellon Aerospace Data Analytics Lab, a new initiative that will leverage the university's leadership in machine learning, language technologies and data analytics to help make aircraft operations safer, more reliable and more efficient.

The goal is to find ways to use artificial intelligence and big data to capitalize on the enormous amount of data generated in the design, construction and operation of modern aircraft. Creating a maintenance schedule determined by the actual flight history and component performance for each airplane, rather than historic norms for similar aircraft, is just one of the possibilities.

Boeing will provide \$7.5 million for the lab over the next three years. Jaime Carbonell, the Allen Newell University Professor of Computer Science and director of the Language Technologies Institute, will lead the new research endeavor, which will tap world-class expertise from across the School of Computer Science and the CMU campus at large. John Vu, a former Boeing chief software engineer who now is a professor in language technologies and computational biology, is playing a key role in establishing and overseeing the lab.

Aeronautics is one of today's most data-intensive industries. Today's aircraft contain sensors and embedded computers that are constantly generating data. Together with voluminous information gathered during the manufacture and regular maintenance of each of thou-CONTINUED ON PAGE EIGHT

Open Enrollment for 2016 Benefits Begins Nov. 2

Employees Must Enroll Through Workday

Emily Baskin Gauthier

Open Enrollment for 2016 benefits will begin Monday, Nov. 2 and end at 5 p.m., (ET) Monday, Nov. 16.

During this time, faculty and staff have the opportunity to review their benefit options and make new elections for 2016. Faculty and staff who do not elect their benefits during this period will be automatically enrolled in the same benefits they currently have in 2015 (except for flexible spending accounts, in which employees must actively enroll each year to participate).

Elections made during Open Enrollment are effective beginning Jan. 1, 2016, and will remain in effect for the entire calendar year. Employees can only change benefit elections during Open Enrollment, unless they experience a qualified life or family status change during another time of the year.

This year's Open Enrollment features a redesigned and improved Benefits Guide, in which employees can find plan, rate and additional benefit information for all domestic full-time and parttime faculty and staff.

There are no changes to medical plans or providers for 2016, with many plan rates remaining consistent with 2015 rates. Moderate rate increases will apply to a few plan options. In addition, the Health Care Flexible Spending Account (HCFSA) limit is increasing from \$2,500 to \$2,550 in 2016.



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Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report is also available online at www.cmu.edu/police/annualreports. Produced by Marketing & Communications, October

2015 16-176

Employees will enroll in benefits through Workday, the human resources, payroll, time-tracking and benefit management system. Workday Quick Guides will be available to assist employees through the process.

E I S MENTAL RAVE

OPPORTUNITY FOR FACULTY AND STAFF TO GET FLU

SHOTS, FREE MASSAGES AND HEALTH SCREENINGS,

AND EXPERT ADVICE ON EVERYTHING FROM PLAN

THE BENEFITS AND FITNESS FAIR IS AN

OPTIONS TO HEALTHY LIVING.

Additionally, representatives from Benefits and the CMUWorks Service Center will be on hand at Workday Open Enrollment Workshops to provide oneon-one assistance to employees as they enroll through the system.

Detailed 2016 plan information and rates will be available to view at www.cmu.edu/hr/benefits/oe/. Questions about benefits or accessing Workday can be directed to the CMU-Works Service Center at 412-268-4200 or cmu-works@andrew.cmu.edu.



UPCOMING EVENTS

Staff Council's Benefits Open Forum Tuesday, Oct. 27 Noon – 1 p.m. Rangos Ballroom, Cohon University Center

Workday Open Enrollment Workshops

Monday, Nov. 2 and Tuesday, Nov. 10 9:30 - 11 a.m. and 1:30 - 3 p.m. Near and Far Clusters, Hunt Library Representatives from Benefits and the CMUWorks Service Center will be on hand to provide one-on-one assistance to employees as they enroll in Workday.

2015 Benefits & Fitness Fair

Wednesday, Nov. 4 10 a.m. – 2 p.m.

Rangos Ballroom, Cohon University Center Benefits and fitness vendors will be available to answer your questions. The fair also includes fitness demonstrations. free health screenings and flu shots, raffles and giveaways. For more information, visit www.cmu.edu/hr/benefits/fair.html.

INGENIOUS INVENTORS

She's Brilliant Whitehead's Research Will Revolutionize Treatments for Cancer, Diabetes

Sherry Stokes

Kathryn Whitehead has proven that persistence pays off.

The chemical engineering professor was determined to design a nanoparticle that could shuttle therapeutic drugs directly to the cells in the body that need them. In her laborintensive quest — some have called it unorthodox — she tested thousands of nanoparticles just to identify a select few that had the potential.

The feat was challenging, in part, because the body's immune system considers therapeutic nanoparticles to be foreign substances that need to be destroyed. However, Whitehead's nanoparticles circumvent the immune system and are free to deliver medicine to cells in many parts of the body, including the liver, the skin and the intestine.

Her research group is now using her nanoparticles to engineer therapies for maladies that include inflammatory bowel disease, chronic wounds and non-Hodgkin's lymphoma, a type of blood cancer.

Her innovative work has earned her a place this year on Popular Science's Brilliant 10 list. Her research will revolutionize how we treat formidable diseases, such as cancer, diabetes and hereditary disorders.

"Cancer therapy is so difficult for patients, in large part, because of the toxic side effects of chemotherapy," Whitehead said. "In contrast, our targeted nanoparticles deliver drugs only to cancerous tissue, sparing healthy cells. We expect these targeted treatments to extend the lives of cancer patients while increasing their quality of life through a reduction in side effects."

Popular Science annually combs through hundreds of nominations from around the country to select the brightest minds in engineering and science. Whitehead's approach to finding the right nanoparticles for drug delivery



KATHRYN WHITEHEAD

was unorthodox in that it required her to examine a very large number of nanoparticles using high-throughput screening.

"Although high-throughput screening has not been a well-accepted approach to scientific discovery, I felt strongly that we needed to test many compounds to maximize our chances of success," Whitehead said.

Not only has her hard work paid off in the discovery of these versatile nanoparticles, she has broadened the scientific community's understanding of how drug delivery chemistry affects efficacy.

She is now able to predict which nanoparticles will work in living animals.

"The Popular Science Brilliant 10 award acknowledges the power of Katie's ideas and the important contributions that faculty members can make early in their careers," said James H. Garrett, dean of CMU's College of Engineering.

Whitehead said, "I'm here at Carnegie Mellon because I want to use my creativity and scientific skills for the betterment of society. Knowing that our work could improve the lives of millions of patients is deeply satisfying."

Energized

Whitacre's Battery Lands Him \$500K Lemelson-MIT Prize

Tara Moore

Jay Whitacre is leading the charge for renewable energy.

His invention, the Aqueous Hybrid Ion (AHITM) battery, a reliable, eco-friendly, cost-efficient energy storage system that is often used with solar and wind energy systems has earned him this year's \$500,000 Lemelson-MIT Prize.

Whitacre's battery can store significant amounts of energy at a low cost and allows for around-theclock consumption.

The materials scientists and professor in the College of Engineering developed the battery using abundant and inexpensive resources including water, sodium and carbon, which can help reduce dependence on fossil fuels and make sustainable energy a viable alternative.

His company, Aquion Energy, has fully scaled manufacturing and commercialized the battery with global distribution channels and installations in many locations in-



JAY WHITACRE

cluding Australia, California, Germany, Hawaii, Malaysia and the Philippines.

The Lemelson-MIT Prize honors outstanding mid-career inventors improving the world through technological invention and demonstrating a commitment to mentorship in science, technology, engineering and mathematics (STEM). Whitacre plans to contribute a significant portion of the money from the prize to create a fellowship that will support graduate students and nurture interest in innovative energy solutions.

"We are proud to recognize Jay Whitacre as this year's Lemelson-MIT Prize winner," said Joshua Schuler, executive director of the Lemelson-MIT Program. "Jay is passionate about sharing his experiences with young people, and is intent on inspiring them to cultivate an interest in STEM and invention. He personifies the mission of Lemelson-MIT through his commitment to mentorship, his desire to solve some of our world's greatest problems and his ability to commercialize his technologies."

Storing energy for use when the sun isn't shining or a breeze isn't blowing has remained an expensive hurdle, and is the greatest technical challenge associated with harnessing electricity from renewable sources. And energy storage batteries for stationary applications have historically been based on lead-acid chemistry that pollutes and is largely unreliable, or lithium-ion chemistry that has proven to be unsafe at times.

Whitacre's goal in founding Aquion Energy was to bring to market a new class of aqueous sodium ion functional battery. The resulting Aquion battery systems help customers increase use of renewables, reduce reliance on diesel, control peak energy costs, provide power stability, bring access to electricity in under-electrified regions, and improve power reliability to areas with unstable grid infrastructure.

It is the industry's first-ever Cradle to Cradle Certified[™] battery while offering superior value when compared to other energy storage products on the market.

Whitacre is a prolific inventor, with 30 patents either in his possession or pending, and has had more than 60 peer-reviewed papers published or in press.

Prime Time: Two Weeks a Microcosm of CMU's Influence

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White House as founding members of a new national alliance aimed at improving urban infrastructure and services, and as experts in technology-enhanced learning.

On the heels of the visits to the nation's capital, the university hosted U.S. Secretary of Education Arne Duncan and his back-to-school "Ready for Success" bus tour promoting STEM education and improving college access for America's youth.

One day later, Carnegie Mellon hosted Arun Kumar Singh, the Indian Ambassador to the U.S., who spoke about the need to collaborate with universities, such as CMU, to improve higher education in India.

Shortly after, Singh's counterpart, Richard Verma, the U.S. Ambassador to India, came to CMU. He said Carnegie Mellon was symbolic of the strong ties that exist between India and the U.S.

Start the two-week tour here, and continue on pages 5 and 11.

Summer Davos

Leading the CMU contingent at the World Economic Forum's Annual Meeting of the New Champions, often referred to as "Summer Davos," were Justine Cassell, Andrew Moore, Jason Hong, Tom Mitchell, Daniel Neill, Aarti Singh, William "Red" Whittaker, Ralph Hollis and Illah Nourbakhsh.

"Carnegie Mellon is always on the cutting edge of technology innovation, particularly technologies that collaborate with people to address the most pressing challenges of our time, so the World Economic Forum (WEF) meetings are natural venues in which to share our ideas and demonstrate our technologies," said Cassell, CMU's associate vice provost of Technology Strategy and Impact, and a member of several WEF councils and committees on Artificial Intelligence and Robotics, the Future of Health and New Visions for Education.

Moore, the dean of the School of Computer Science, presented a session on Machine Learning for Health, which discussed ways in which artificial intelligence can make people healthier.



Using a video wall, Illah Nourbakhsh presents at the World Economic Forum on using satellite imagery to better understand massive amounts of data.

CMU's dominance in robotic technology was on display in a "Meet the Robots" exhibition. Whittaker led a demonstration for participants that enabled them to drive CMU's lunar rover "Andy" remotely around a mining site in the Pittsburgh suburb of West Mifflin.

Hollis presented his "Ballbot," a robot about the size of a person that moves atop a sphere the size of a bowling ball. Ballbot can maneuver in homes, offices and other environments to assist humans.

White House Workshop

Helping people learn English is an integral part of U.S. public diplomacy and Amy Ogan, assistant professor in the Human-Computer Interaction Institute, is part of a new working group that will help the U.S. Department of State use technology to make their English educational outreach efforts more effective.

Ogan was among a select group of academic, industry and government representatives invited to participate in Technology in English, a daylong workshop at the White House Conference Center.

Ogan said State Department officials would like to use technology, such as mobile technology, natural language processing, open learning platforms and massive open online courses, or MOOCs, to increase worldwide access to these high-quality resources.

The workshop participants spent much of the day brainstorming about how that could be achieved and about the kind of partnerships that might help make that a reality. "Rather than simply discuss, participants in the workshop used human-centered design techniques to start developing solutions, something that is second nature at the HCII," said Ogan, who is among faculty members developing technology as part of the university's Simon Initiative.

Named for the late Nobel and Turing laureate Herbert Simon, the Simon Initiative aims to leverage decades of research in learning science to develop technology to improve student-learning outcomes.



World Economic Forum Young Scientist Morency's Research Makes MultiSense for Doctors

Susie Cribbs

A patient walks into a doctor's office, complaining of a sore throat. After an initial exam, the doctor orders a culture and a few blood tests that she uses — along with the exam results and professional judgment — to make a fairly objective diagnosis.

But what about patients struggling with mental illnesses? There's no blood test for depression or anxiety, and diagnosis is often based on more subjective criteria. Language Technologies Institute Assistant Professor Louis-Philippe Morency wants to change that. His primary method? Building algorithms and programs that not only understand how people communicate, but that also allow computers to understand subtle human behaviors during social interactions.

"I want to understand how people express themselves through language and gestures, and I want to understand them together," he said. "There's a lot of great work in analyzing speech and gesture, but there's been little work that puts them together."

Morency's research into these multimodal algorithms has taken the form of MultiSense, the sensing and analysis technologies designed to help clinicians assess psychological distress. Outfitted with a simple webcam, the technology can automatically measure patient's facial expressions, gaze directions and voice quality. This data is then provided to doctors, who can use it as a more objective way to identify depression and anxiety. The research behind MultiSense covers a wide range of topics, including multimodal interaction, social psychology, computer vision, machine learning and artificial intelligence. This natural inclination toward multidisciplinarity is what brought him to Carnegie Mellon.

"The Language Technologies Institute (LTI) is the perfect place for me to forward my goal for building multimodal algorithms that bring together speech and gestures — like facial expressions, posture and reciprocity —

MetroLab Network

You could say the Memorandum of Understanding between CMU's Metro21 and the City of Pittsburgh signed in summer 2014 has gone viral.

It was the catalyst for the MetroLab Network, a new alliance among more than 20 city-university partnerships in the U.S. committed to researching, developing and deploying innovative technologies to address critical challenges in urban areas.

The network was announced at a White House event attended by university leaders including Provost Farnam Jahanian, College of Engineering Dean Jim Garrett, Heinz College Dean Ramayya Krishnan and Distinguished Service Professor Rick Stafford, founder of Traffic21, an initiative that began in 2009 to leverage technology to improve the city's transportation infrastructure.

Traffic21 led to the creation of Metro21, an effort led by Garrett and Krishnan to take a more comprehensive "smart cities" approach to the overall urban infrastructure. Metro21 is an initiative that taps expertise across the university to improve the economy and quality of life in metro areas through research, development and deployment.

"The MetroLab Network is a new way to solve old problems," said Pittsburgh Mayor Bill Peduto, who called the catalytic MOU between CMU and Pittsburgh "historic."

"It was the first time ever that a city and institution of learning entered into this type of agreement. For CMU it means the City of Pittsburgh becomes an urban lab. For the City of Pittsburgh, I now have a research and development arm," Peduto said.

The MacArthur Foundation has provided \$1 million to CMU to cover MetroLab Network administrative costs, including the hiring of an executive director.



Secretary of Education Arne Duncan participates in a technology-enhanced learning demonstration. Among the onlookers are Justine Cassell and Farnam Jahanian.

The Bus Stops Here

Secretary of Education Arne Duncan saved Carnegie Mellon for his last stop on his seven-state bus tour.

"This could be an ivory tower type elitist institution, but it's not," Duncan said. "It's got real heart for the community, a real heart for giving back. The commitment to bringing more women in [computer science], the commitment to increasing the number of PELL recipients you serve and helping them graduate means a huge deal to me personally. It's an example for other universities to follow. "I'm thrilled to be here. I've been

an admirer from afar," he said.

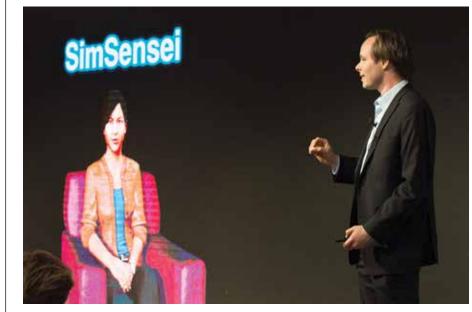
During his stop, Duncan participated in a town hall discussion about STEM education and college preparedness. He saw several demonstrations of the work CMU is doing to improve student learning through the use of technology and through its Simon Initiative, and to enhance educational opportunities for K-12 students.

The exhibits included displays from Women@SCS, a support program for women in computer science; Professor Jack Beuth's 3-D Printing Lab; Justine Cassell's Articulab, which bridges the gap between language skills practiced outside and inside the classroom; and CreateLab, which develops technology to support social innovation.

Also represented was the Leonard Gelfand Center for Service Learning and Outreach, which conducts more than 75 educational outreach programs for K-12 students and teachers each year.

"Arne Duncan's visit to Carnegie Mellon clearly shows that we're a spot to visit when you want to know how technology can serve educational goals," Cassell said. "We're proud to have him come see what we're doing with the Simon Initiative. That really shows what a model we are."

PRIME TIME CONTINUED ON PAGE TEN



LOUIS-PHILIPPE MORENCY PRESENTS AT THE WORLD ECONOMIC FORUM.

"I WANT TO UNDERSTAND HOW PEOPLE EXPRESS THEMSELVES THROUGH LANGUAGE AND GESTURES, AND I WANT TO UNDERSTAND THEM TOGETHER." - LANGUAGE TECHNOLOGIES INSTITUTE ASSISTANT PROFESSOR LOUIS-PHILIPPE MORENCY

because of its established expertise in speech and language," he said.

Morency's work in speech and gesture analysis has also put him on the international stage. Last month, the World Economic Forum recognized him as one of this year's class of Young Scientists — scientists under the age of 40 who are advancing the frontiers of science, engineering or technology in areas of high societal impact. "As part of this award, I had the chance to attend the summer meeting of the World Economic Forum," Morency said. "It was a great opportunity to better understand the global view of scientific research and how to interact with policymakers."

And having that understanding may be incredibly important, since his work could change the face of mental health care forever.

Hittin' a High Note

Andy Winners Strike a Chord With CMU Community



Honored with the Andy for Commitment to Excellence was Officer Don Campbell (center), a role model for his colleagues Lt. Joseph Meyers (right) and Lt. Gary Scheimer.

Whether it's leading the Kiltie Band, helping students navigate through college finances, keeping campus safe, improving the research administrative process or improving the HR function for employees, the 2015 Andy Award winners all work diligently to make Carnegie Mellon a better place.

And they've succeeded.

Honored for their excellence at the 21st annual Andy Awards ceremony were: Paul Gerlach for Outstanding Spirit; Don Campbell for Commitment to Excellence; Brian Fernandes for Commitment to Students; Rhonda Kloss for Innovative and Creative Contributions; and The CMUWorks Project Team for Outstanding Teamwork and Collaboration.

SPIRIT

Paul Gerlach

Under Paul Gerlach's leadership, the university's Kiltie Band is the epitome of CMU's spirit and one of Carnegie Mellon's great treasures, according to Josh Centor, director of Athletics, who co-nominated him for the award.

"Paul influences the students' educational experience in a profound way. He teaches them about music, but moreover, he teaches them to have a passion for this university and community," Centor said.

While Gina Casalegno, dean of Student Affairs, believes Gerlach's commitment has been demonstrated over the tenure of his career, she noted this year his dedication was on display under the most heartbreaking of circumstances.

This past November, Gerlach's wife, Myra, passed away after a short battle with cancer.

"Throughout Myra's illness, Paul maintained his commitment to the band while ensuring he was there for Myra every step of the way," said Casalegno, who co-authored the nomination with Centor. Just a couple short weeks after her passing, Gerlach took the director's stand and delivered a moving and beautiful holiday concert in Kirr Commons.

"I was struck by his poise in the face of such loss and realized he was right where he wanted to be," Casalegno said, "in the comfort of his CMU family where he has dedicated a lifetime of contributions to directly impact the lives of hundreds of students who played for him and thousands more who have enjoyed the celebrative environment brought to campus by the band all these years."

Carl Glazer, a recent cheermaster and president of the Kiltie Band who worked closely with Gerlach, said Gerlach's dedication extends far beyond the kilts and the instruments.

"The Kiltie Band serves as one of the first exposures to upperclassmen for many of the first-years, and the atmosphere of acceptance allows them to form bonds that are used for academic help, social guidance or simple lasting friendship," Glazer said.

From early Saturday morning pre-game rehearsals to Friday night pep band doubleheaders, Glazer said Gerlach's commitment goes far beyond the standard 9-5.

He never fails to be meticulously organized and prepared, spending countless additional hours outside of rehearsals and performances to ensure the students are not hampered in their ability to enjoy making music," Glazer said.

"Paul Gerlach serves as a living representation of the spirit that makes our campus and community so unique and special," he said.

COMMITMENT TO EXCELLENCE Don Campbell

When Tom Ogden was interviewing for the chief of police position at CMU, Bill



RHONDA KLOSS (SECOND FROM RIGHT) REVAMPED RESEARCH ADMINISTRATIVE TRAINING TO FOCUS ON DELIVERY, EARNING HER AN ANDY FOR INNOVATIVE AND CREATIVE CONTRIBUTIONS. SHE'S PICTURED WITH (LEFT TO RIGHT) ANNE MARIE BOSNYAK, AMIR RAHNAMAY-AZAR AND LIZ MILAVEC.

Elliott, then vice president of Enrollment, pointed to Officer Don Campbell sitting on the steps talking to a student.

Elliott said, "If all police officers were like that one, your job would be a lot easier. Look at him with that student. He really cares and they know it."

Ogden was hired for the position, and it didn't take long for him to recognize what Elliott meant.

"Don is one of the most dedicated and caring people that I have ever met," Ogden said. "The university and its students, staff and faculty mean everything to him."

In his nomination letter, Ogden said Campbell takes time out of every day to speak with members of the campus community and to assist them in hundreds of different ways. He watches out for the students, giving advice, help and support during many difficult times in their lives.

"On those occasions when I need to call upon University Police to assist with a serious or emergency situation, I find myself 100 percent more calm and assured just by the mere sight of Officer Campbell arriving on the scene," said John Hannon, associate dean of Student Affairs.

"Don is a multifaceted problemsolver and a phenomenal collaborator. He ensures that response is thorough and complete by raising gentle questions about things that may have been forgotten or missed, without ever making anyone foolish for overlooking them," Hannon added. "He is incredibly decisive, and on more than one occasion, his swift actions have literally saved the life of one or more of our community members."

In 1989, Campbell rescued a sixyear-old girl from serious injury. In 1992, 2007 and 2014, he was recognized for saving the lives of students in three separate incidents. Ogden added that Campbell has made several high profile arrests of individuals victimizing members of the CMU community, and his file is full of countless letters and accolades recognizing his service and compassion.

Lieutenant Joseph Meyers offered Campbell as a role model in a time when police are coming under intense scrutiny.

"Law enforcement in parts of America has come under intense criticism for its lack of connectivity with and failure to support and engage with those communities that they are expected to protect and serve," said Meyers. "That degradation occurred over an extended period of time and for a variety of complicated and intertwined reasons.

"I hold Officer Campbell up to the law enforcement profession as a model of professionalism, respect, caring and genuineness that should be emulated by all police officers if they are to start rebuilding a relationship of trust and support with their communities," Meyers said.

"He is truly what every police officer should be."

OUTSTANDING TEAMWORK AND COLLABORATION CMUWorks Project Team

On Dec. 29, 2014, Workday launched at Carnegie Mellon. It was no easy feat.

Implementing this multi-year crossorganizational initiative to evaluate, streamline and enhance the delivery of human resources, payroll and benefits services for faculty, staff and students across CMU's campuses was a Herculean task.

The CMUWorks Project Team — Kim Abel, Karen Eck, Jeff Houser, Bob Riddle, Linda Schmidt and Deanne Weaver — brought the project to fruition.

Cheryl Wehrer was so impressed, she nominated the team for an Andy Award for their dedication, commit-



Representing the CMUWorks Project Team are: front row (left to right) Christa Cardone, Efthia Barron, Linda Schmidt, Deanne Weaver, Karen Eck and Shannon Konek; second row (left to right) Jeff Houser, Amir Rahnamay-Azar, Dan McNulty, Liz Milavec, Bob Riddle, Kim Abel and Amanda Perkins.

ment, coordination and successful completion of the project.

"After four long and arduous years, they came together for an amazing finish to deliver a smooth implementation of Workday — arguably the largest and most complex system, process and reorganization project in recent CMU history," Wehrer said.

In order to deliver this important project to campus, the project leaders brought together a number of key departments across the university, such as Finance, Computing Services and Human Resources.

"They managed a large cross-functional team of external consultants and campus representatives whose efforts focused in human capital management, conversion, payroll, reporting, security, absence and time tracking, technical issues, testing, change management and implementation of the CMUWorks Service Center," said Liz Milavec, who also wrote a nomination letter for the team.

"They fostered collaborative relationships across groups and considered multiple perspectives to define and solve problems, reach agreements and ensure that campus users were well informed, educated, and ready to use Workday and the CMUWorks Service Center," Wehrer added.

The task was not without its challenges, including leadership changes and an aggressive implementation timeline, but the team persisted to ensure the right people were doing the right jobs and that everyone stayed on track toward the path of successful implementation.

"This team enabled a positive and recognizable difference in the university community that will impact current and future employees for years to come," Milavec said. "The delivery of the CMUWorks project improved organizational efficiency and productivity at the university by eliminating manual, standalone and paper processes, realized cost savings by consolidating multiple systems and providing a lower total cost of ownership, and positioned the university to be agile in meeting changing business and compliance needs."

Milavec said feedback from the campus and university leadership has been overwhelmingly positive regarding this project, and it is viewed as a vast improvement to the previous systems and processes.

INNOVATIVE AND CREATIVE CONTRIBUTIONS Rhonda Kloss

Rhonda Kloss has always been a proponent of training in research administration for her staff and for campus. She participates regularly in Research Administration Council meetings and has presented in workshops and classes.

At conferences, she has networked with peers to learn about training initiatives implemented at their campuses.

"Obviously CMU has other valuable research training opportunities through the Research Administrators Council, but Rhonda often talked about other ways to broaden the knowledge and experience of CMU's research administration professionals," said Anne Marie Bosnyak. "Her goal was to reinvent or reimagine the delivery of training. She also wanted to build a research administration community."

Kloss finally saw her dreams come true in fiscal year 2015, when the Research Administration Training Series launched.

"What sets the Research Administration Training Series apart is the delivery of the materials," Bosnyak said. "The series is a cohort style training program led by Carnegie Mellon's own subject matter experts. The cohort training brought together 15 CMU employees from different departments and with different skill levels for a year-long training program. The program was focused primarily around the life cycle of an award — from proposal to closeout."

Of course, the talent of the presenters played a role in the success of the program's first year, however the program existed because of Kloss's vision, contributions and follow through.

"Rhonda managed the entire project, from soliciting help from CMU's subject matter experts to do the training — she was also a trainer for several sessions and coordinating the topics to moderating each session," Bosnyak said.

The new educational training series Kloss designed filled a gap in educational programming for staff and afforded all CMU employees the opportunity to get a 360-degree view of aspects of research administration in general, as well as the processes and procedures that are unique to the university.

"She likely spent considerable time building the comprehensive curriculum and identifying two to three appropriate subject matter experts for each of the 16 sessions," said Colleen Mantini in her nomination letter. "Thanks to her taking on this challenge and organizing this series, 15 CMU staffers across campus — CIT, Tepper, Heinz, Dietrich, MCS, and Central Administration — completed this series and gained valuable insights into research administration."

Mantini said the gains were most likely greatest for staffers new to research administration or new to Carnegie Mellon research policies and procedures.

"However, staffers with 20-plus years' experience in research admin at CMU also enhanced their knowledge of some administrative issues and/or processes of which they were previously unaware," she said.

"Overall, all participants are carrying out their work activities with a greater knowledge base. We are able to spot issues that merit further attention and know whom to contact to resolve those issues," Mantini said.



BRIAN FERNANDES, KNOWN AS A "GO-TO GUY" FOR STUDENTS FACING FINANCIAL CHALLENGES, WON THE ANDY FOR COMMITMENT TO STUDENTS. CONGRATULATING BRIAN IS RENEE CAMERLENGO.

COMMITMENT TO STUDENTS

Brian Fernandes

Shernell Smith, assistant director of Student Affairs, says one of the stressful concerns for the student population is financial affordability during unexpected emergency situations.

"When I am faced with complex student situations that require a magical touch, I pick up the phone to call Brian Fernandes in Enrollment Services," Smith said. "I always know that Brian is going to work tirelessly to ensure that we are able to find a solution that meets the unique needs of the student."

Smith called Fernandes a "consummate professional" who meaningfully engages with students and their families.

"One of Maya Angelou's most empowering quotes is, 'I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.' Brian Fernandes is an inspiring role model for our campus community who sincerely cares about the well-being of our students," Smith said.

Smith recalled a complicated situation that featured a student who was academically soaring, but whose family was engaged in a number of financial setbacks.

"Through Brian's guidance, the student and her family were able to work through their financial situation. That student is now a proud Loyal Scot, and someone who truly gives back to CMU because someone like Brian Fernandes was there when she needed support the most," Smith said.

Fernandes has not only dedicated himself to meeting the critical challenges that sometimes surround Enrollment Services, but also to advancing new methods that meet the needs of students.

"Brian has done so in a way that highlights the values of leadership,

President Suresh Hosts First Fall Town Hall CONTINUED FROM PAGE ONE

Suresh said he would be holding these meetings annually to provide students, faculty and staff with the opportunity to provide him with ideas and suggestions as well as to ask questions and raise issues and concerns of importance to the university.

"It's a chance to have a dialogue," he said. "These [meetings] are very important for me to hear what's on your minds and for you to hear what's on mine."

During the meeting in McConomy Auditorium, Suresh answered questions from individuals representing the student body, faculty and staff. He also fielded several that were submitted previously online.

Questions covered many topics, including: how staff can engage and support the new strategic plan that is nearing completion; industry-university partnerships; student engagement with

"THE ACTIVITIES OF OUR FACULTY LED TO MORE THAN 125 COMPANIES COMING TO CAMPUS, BRINGING ABOUT \$500 MILLION IN EXTERNAL FUNDING," SURESH SAID. "WHAT IS SO UNIQUE ABOUT FORBES IS THAT EAST OF SILICON VALLEY, IT IS THE PLACE WITH THE HIGHEST CAPACITY TO CREATE ENTERPRISE."



 $\label{eq:president Suresh answers a question from Professor Omer Akin.$

global locations; sexual assault on campus; innovation and creativity; technology-enhanced learning; diversity; and the challenges international graduate students face.

Shernell Smith of Student Affairs asked how CMU staff can become involved and engaged with transforming the CMU experience, one of the overarching areas of the university's strategic plan.

Suresh acknowledged the "unprecedented" support by staff in the strategic planning process, thanking hundreds for their participation in the various working groups and town hall discussions.

He said the plan will have a dynamic presentation on the Web, will be updated periodically and progress toward goals will be recorded.

He encouraged staff to become engaged by reading the plan and becoming involved in the progress. A student in the School of Computer Science asked if a partnership with one company would prevent a company's competitor from doing business with CMU.

"What CMU has today other universities want to emulate," Suresh said, pointing to university relationships with competitors, such as Microsoft, Yahoo and Google.

He also noted the recent partnership with Tata Consultancy Services, a competitor of Cognizant, whose CEO is a member of CMU's Board of Trustees.

"CMU pushes the boundaries of human intelligence. We don't take sides," he said.

Responding to a question by Student Government representative Michael Gormley about student interaction with university locations abroad, President Suresh noted that often students from global locations, such as Qatar and Rwanda, visit the Pittsburgh campus and mentioned the IMPAQT program, which sponsors student trips between Pittsburgh and Doha.

He said technology is another way in which students from around the world can connect.

A question about sexual assault on campus came from the live audience.

In response, Suresh spoke about the recent survey that was conducted on campus and among AAU institutions.

"The upshot is that CMU is in line with the national average. And that's nothing to cheer about," he said, reaffirming the university's commitment to keep students safe.

He talked about the efforts made by Dean of Student Affairs Gina Casalegno and her staff to meet with student leaders and the broader student population, and the creation of the new Office of Title IX Initiatives. He said Student Affairs would be holding additional town hall meetings to discuss the role we can all play.

Architecture Professor Omer Akin posed a question in which he spoke about CMU's history of creativity and suggested that the Forbes Avenue corridor between Craig Street and Morewood Avenue be called the "Innovation and Creativity Corridor."

Suresh said the "Innovation Corridor" came about organically from the many companies that have established offices near campus to work with faculty and students.

"The activities of our faculty led to more than 125 companies coming to campus, bringing about \$500 million in external funding," Suresh said. "What is so unique about Forbes is that east of Silicon Valley, it is the place with the highest capacity to create enterprise."

 $C \, {\tt ontinued} \, \, {\tt on page eleven}$

CMU-Boeing Partnership

 $C \, {\tt ontinued} \, \, {\tt from} \, \, {\tt page} \, \, {\tt one}$

sands of aircraft, this data provides opportunities for gleaning new insights that could improve aircraft operations.

"Researchers from Carnegie Mellon and Boeing have enjoyed a collaborative relationship for more than 30 years and we're proud of the fact that hundreds of our graduates are working at Boeing," said President Subra Suresh. "This new agreement will extend this relationship even further, leveraging the distinctive intellectual strengths of CMU to benefit everyone who steps onto an airplane."

Ted Colbert, Boeing's chief information officer, described the lab as a unique aerospace partnership that will address the company's evolving business needs.

"We're aiming to push the technology envelope," Colbert said. "We have the best and the brightest faculty at a leading institution focused on how we can innovate and solve business challenges for today and into the future."

The lab will tap the expertise of CMU's Language Technologies Institute, including such capabilities as automatically analyzing written reports for evidence-based predictive maintenance, and the Machine Learning Department, which specializes in finding patterns in large databases.

"The mass of data generated daily by the aerospace industry overwhelms human understanding," Carbonell said, "but recent advances in language technologies and machine learning give us every reason to expect that we can gain useful insights from that data. The new algorithms and methods should create a stronger aerospace industry and be applicable to many other important endeavors."

More than half a dozen initial



INSIGHTS GLEANED FROM THE NEW BOEING/CARNEGIE MELLON AEROSPACE DATA ANALYTICS LAB COULD LEAD TO SAFER, MORE RELIABLE AND MORE EFFICIENT AIRCRAFT OPERATIONS.

Boeing-directed projects have been identified. CMU anticipates the Boeing lab will involve at least 20 faculty and graduate student researchers.

"We couldn't be more excited to

engage with and leverage the research power and incredible knowledge of a premier academic institution," said Nancy Bailey, vice president for Boeing IT Business Partners.

Flight Paths Art Professor Puts the Sky Into Air Side Terminal



Pam Wigley

People making their way through busy airports have one thing on their minds: their destination. But at Pittsburgh International Airport, travelers are stopping to enjoy the view along the way.

The new Airside Terminal Center Core offers a great view of the sky to people arriving or departing the city — as long as they're looking down. Beneath their feet, guests will see a beautiful new terrazzo floor that features airplanes soaring through a vast blue sky above several notable Pittsburgh neighborhoods. More than a floor, this is a work of art by School of Art Associate Head and Professor Clayton Merrell.

Merrell was commissioned to design the new floor by the Allegheny County Airport Authority in summer 2013. He is expected to complete the project that will cover nearly 69,000 square feet (1.5 acres) later this month. It's been a long process, but one that will be worth it — not only to him, but also to the millions of airport travelers.

"When I was invited to submit a proposal for this project, I knew immediately that it was a perfect match with my work," Merrell said. "For years, I've been making paintings of the sky, with unusual perspectives that include the entire circle of the horizon. The effect is to defy gravity and include a feeling of flying — a bit like being a kid lying on the ground gazing up into the clouds."

Merrell said he envisioned the circular hub of the airport as a spectacular sky. People walking across its surface would experience an "extraordinary extension of the magic of air travel, so that the mundane act of walking through an airport could become an evocation of the freedom, speed and openness of flight."

After 10 initial designs he narrowed the submissions to three. The panel chose his favorite.

The floor's blue tones lend them-

selves to a feeling of openness, and every so often, a different type of aircraft can be seen "flying" across the surface. Airport visitors with some extra time can seek out an airplane, satellite, helicopter, space shuttle and even a whimsical paper airplane whizzing through the clouds. Or they might follow the inlaid lines connecting the aircraft and depicting flight paths. Finally, they can look at some of Pittsburgh's landmarks.

Merrell incorporated silhouettes of five notable Pittsburgh neighborhoods - the "Golden Triangle" of downtown; the South Side, including the Smithfield Street Bridge and Duquesne Incline; Oakland, featuring The Carnegie Museums, Phipps Conservatory, the University of Pittsburgh and Carnegie Mellon; the North Shore, including Heinz Field, PNC Park and the Carnegie Science Center; and the Carrie Furnace, which he said serves as a reminder of the city's former primary industry. It also serves as a transition into the topographical map of the Mon Valley that extends into the terminal's food court.

The muted tones of the terrazzo, which was installed by Roman Mosaic & Tile of Westchester, Pa., blends seamlessly as it depicts the vast blue yonder, but Merrell said getting that effect from terrazzo is not an easy task. Terrazzo is made of marble, quartz, granite, glass and other chips that are mixed into a colored resin then polished; work that requires great skill and expertise.

Merrell credits all those involved in the project — the Airport Authority, the Pittsburgh Office of Public Art, architects Lami Grubb, contractor Mosites Construction and the tile company itself — for working together to ensure that his design is truly the inspiration to travelers that it is meant to be.

"The design invites exploration," he said. I hope it's immediately likable and people will have a lot of fun with it." THE NEW AIRSIDE TERMINAL CENTER CORE OFFERS A GREAT VIEW OF THE SKY TO PEOPLE ARRIVING OR DEPART-ING THE CITY — AS LONG AS THEY'RE LOOKING DOWN. BENEATH THEIR FEET, GUESTS WILL SEE A BEAUTIFUL NEW TERRAZZO FLOOR THAT FEATURES AIRPLANES SOARING THROUGH A VAST BLUE SKY ABOVE SEVERAL NOTABLE PITTSBURGH NEIGHBORHOODS.

Andy Awards Continued from Page Seven

integrity, professionalism, diversity and advocacy while respecting the core pillars of our university mission and fostering an environment for meaningful engagement with our students," Smith said.

Helen Wang said Fernandes has the ability to see work as a bevy of opportunities and welcomes challenges, rather than hurdles, barriers and impossibilities.

"That is a quality that makes someone not just good at their work, but exemplary. Brian is such a person," Wang said. "I have never heard a negative comment come from him, despite the many challenges that are present in his work. Rather, he gathers the right information, seeks the right colleagues and makes good things happen where others might resign to the challenges. He is a bridge builder, often finding ways to collaborate when it would be easier not to."

Renee Camerlengo recognizes that working with students in the intimate space of their financial circumstances requires artful navigation.

"Brian is a steadfast partner working with students facing significant physical and mental health needs, family dysfunction, employment interruption and tragedy. His empathy, compassion and can-do attitude bring a tremendous sense of relief to often overwhelming situations for our students," Camerlengo said.

"I am deeply grateful to have such a talented colleague doing the work he does with and for our community."

Moneyball Nation New Course Explores Data Sciences, Quants and Business

Elizabeth Jeffries

What does medicine share with baseball and the law? Moneyball, according to Christopher J. Phillips, a new assistant history professor in the Dietrich College.

The concept was first made popular by the 2003 Michael Lewis book "Moneyball: The Art of Winning an Unfair Game." Then, in 2011, a film adaptation of the book starring Brad Pitt introduced even more people to it.

Moneyball involves the use of mathematical tools and methods to construct winning sports teams, but it also is much more than that. It is about a fundamental shift in how we see the world.

In Phillips' upcoming spring course, "Moneyball Nation: Data in American

MONEYBALL NATION HAS BEEN DESIGNED TO CREATE BUZZ ABOUT THE POWER OF NEW APPROACHES TO DIFFERENT TOPICS. IT ALSO AIMS TO HELP STUDENTS TO THINK CRITICALLY ABOUT THE BENEFITS OF REPLACING CERTAIN FORMS OF EXPERTISE WITH QUANTIFICATION AND COMPUTATION-DRIVEN SYSTEMS. Life," he will dig deep into the history of topics including baseball, medicine and the law while exploring how and why Americans have come to believe that mathematical and computational methods can solve complicated problems, even in seemingly unrelated subject areas.

The course will certainly benefit students who are interested in data analysis, but also will prove useful for students in other disciplines, such as the arts. Phillips believes the course will provide a set of tools for asking both the "how" and "why" questions about data analysis in these unconventional areas.

"Even students who envision becoming poets, actors or athletes will want to know more about the new 'data sciences' and how 'quants' are changing the way business is done in all kinds of fields. You may love or hate the idea that the success of a film can be predicted analytically through the quantification and analysis of its components, but this course will try to get you to think





 $\begin{array}{l} {\sf Professor} \ {\sf Christopher} \ {\sf J}. \ {\sf Phillips} \ {\sf explores} \ {\sf why} \ {\sf America} \ {\sf has} \ {\sf become} \\ {\sf a} \ {\sf Moneyball} \ {\sf nation} \ {\sf in} \ {\sf his} \ {\sf new} \ {\sf spring} \ {\sf course}. \end{array}$

critically about the claims ... and what's 'lost' by their use," Phillips said.

"Moneyball Nation" has been designed to not only create buzz about the power of new approaches to different topics. It also aims to help students to think critically about the benefits of replacing certain forms of expertise with quantification and computation-driven systems.

"Students at Carnegie Mellon are innovative thinkers," Phillips said. "They want to learn about the powerful ways our world is being transformed." Steven Schlossman, professor of history and director of the department's undergraduate studies, agrees.

"This is a general education course that every student should take," Schlossman said. "It is a history course that will join together students from all disciplines. It is everything Carnegie Mellon stands for in scholarship. It is consistent with the larger mission of reaching out to develop courses that speak to the professional goals of the rest of the campus."

The class is designed to do more than just chart this history of data and quantification; it will help students understand the way these methods are supposed to change our understanding of the phenomena itself.

"What is interesting about Moneyball is the concept of making decisions in a way that exploits the underlying reasons, the things you did not initially think were important but are actually the most important," Phillips said.

In addition to Moneyball Nation, students who are interested in sports statistics should take note of the Tartan Sports Analytics Club (TSAC), a new student organization that was founded by undergraduates in the Statistics Department. TSAC members write articles on the quantitative analysis of sports and attend conferences on sports analytics.

Samuel L. Ventura, the club's faculty adviser, a visiting assistant professor of statistics and analytics consultant to the Pittsburgh Penguins, pointed out that there are many other exciting opportunities at CMU for students interested in statistics.

"We offer several courses on modern statistics that are heavily application driven, so that students get a hands-on education of applied statistics and data analysis," said Ventura, who is also a CMU alumnus.

Prime Time Continued from Page five

Ties to India

With more than 1,000 current students and 1,800 alumni from India, Carnegie Mellon celebrated its strong ties to the country with visits by ambassadors Arun Kumar Singh and Richard Verma.

During a talk hosted by CMU Trustee Sunil Wadhwani, Singh, the Indian Ambassador to the U.S., spoke broadly about his nation's need for an expansion of higher education.

He said he is hopeful that of the approximately 100,000 Indian students now studying in the U.S. many will return to help create world-class institutions and educational partnerships that the country needs.

This past July, CMU forged a new partnership with India's Science and Engineering Research Board (SERB) to support outstanding students from India who want to pursue doctorates in math, science and engineering at CMU.

Verma, the U.S. Ambassador to India, spoke about the cultural ties between the two countries.

"At its core, the story about the U.S. and India is a story about personal connections and shared values," Verma said. "It is about the bonds between our people, our cultures, our shared commitment to learning and innovation, and our democratic ideals that knit us more closely together.

"Carnegie Mellon is, in many ways, representative of that story, and is symbolic of the strong people-to-people ties that define the U.S.-India relationship, enriching both of our societies."





Eureka!

New Seminar Preps First-Year Scientists for Success

Jocelyn Duffy

Soon after arriving on campus, first-year students in the Mellon College of Science (MCS) found something new in their schedule. Every Monday evening the entire class gathers for a first-year seminar called "EUREKA! Discovery and Its Impact."

The class draws on the expertise of many faculty and staff across campus to help prepare students for college life and their future as a scientist.

"It's a different approach to a traditional first-year seminar since it is not subject-based. The goal is to set students up to be successful," said Maggie Braun, director of core education in MCS.

"It's about their career paths, worklife balance, team work, community engagement. We want them to think about things that will be helpful while they're in school and after. We hope that it will get them excited about becoming scientists and mathematicians."

The seminar also introduces the students to MCS's new core education, which made its debut this fall.

The core is the result of more than eight years of discussion, research and planning by MCS faculty and staff, and consultation with campus partners, including the Eberly Center for Teaching Excellence and Educational Innovation and Student Affairs.

The core focuses on encouraging each student to grow as a scholar, person, professional and citizen by having them engage not only in their classwork and research, but also in teamwork, personal wellness, the arts and community service. By doing this, the college believes that students will be well prepared for their future as 21st century scientists.

"We wanted to come up with something that would set the stage for students as they begin their college career," said John Hannon, associate dean for Student Affairs and the new MCS director of Integrative Learning.



First-year students in the Mellon College of Science and Dean Fred Gilman greeted Secretary of Education Arne Duncan and his Ready for Success bus tour last month.

"We took a look at what our most successful students were doing and let that guide us as we developed the new core curriculum."

As part of the seminar, a number of faculty and staff will introduce students to individual components of the new curriculum and give them tools to help them succeed.

- Angie Lusk, assistant director of Student Life, will help students conduct a wellness assessment.
- Lucas Christain, director of Community Standards and Integrity, will present case studies to help the students learn about ethics.
- The Career Center's Katie Cassarly and Kevin Collins will teach the students about teamwork using Strengths Quest.

- Elizabeth Vaughan, director of Student Activities, will talk to the students about service opportunities.
- Joanna Wolfe from the Global Communication Center will teach the students presentation skills.

In the seminar, the students will learn things like work-life balance, planning a research project and accountability from current faculty; hear about life as a scientist from a panel of recent MCS graduates; and participate in small group discussions with upperclass mentors from MCS.

The Eberly Center's Marsha Lovett, Chad Hershock and Emily Weiss will teach students how to optimize their education by using the principles of "metacognition" — an understanding of their thought processes — which will help them to become aware of their strengths and weaknesses in learning and enable them to get the most out of their education.

This portion of the class, along with other components of the new MCS core, is being supported by CMU's Simon Initiative.

The class culminates in a group project in which students will devise a presentation to teach high school students about an interdisciplinary science-related concept.

"MCS students come in excited about science. We're going to give them the tools to build on that enthusiasm from the get-go and open their minds to new possibilities," said Eric Grotzinger, associate dean for Undergraduate Affairs.

Town Hall Continued from page eight

Suresh asked how we could make Forbes a distinctive place between the arts meccas of New York and Los Angeles.

"We need to do the legwork to have all the ingredients in place," he said.

Graduate student Ankita Sharma inquired about CMU's support of graduate students regarding funding and visa issues.

Suresh said it's a priority of his to create and implement a mechanism to financially help to support students so CMU can attract the best, brightest and most diverse student body.

He pointed to the establishment of

the Presidential Fellowships and Scholarships program, but said much more needs to be done. He said student support would be one of the top priorities in the next capital campaign.

Regarding student visas, Suresh said CMU is participating in the national conversation along with other AAU institutions regarding reform.

Suresh said he would be continuing the conversation with the university community with periodic informal meetings with small groups of students, faculty and staff.

He will give his second annual university update this spring.

PRESIDENT SURESH SAID IT'S A PRIORITY OF HIS TO CREATE AND IMPLEMENT A MECHANISM TO FINANCIALLY HELP TO SUPPORT STUDENTS SO **CMU** CAN ATTRACT THE BEST, BRIGHTEST AND MOST DIVERSE STUDENT BODY.

Emotional Experience Alumnus Carves Crucifix for Papal Visit

Kelly Saavedra

Pope Francis was recently in a "New York State of Mind," prompting legendary singer and songwriter Billy Joel to respond with one of his familiar refrains: "I'm movin' out."

The piano man suspended his regular gig in Madison Square Garden for a day in late September to make room for a rare and wildly anticipated papal visit.

Tait Towers — a company that's been providing staging, lighting and scenic design for live entertainment since 1978 and whose dazzling portfolio includes elaborate rigging for Madonna, U2, Elton John, Lady Gaga and the Olympic Ceremonies — built the stage from which Pope Francis celebrated mass and handled other details, including sculpting a 12-foot-tall Crucifix suspended above the altar.

David Lasky, Tait's lead sculptor and a 2009 graduate of Carnegie Mellon's Bachelor of Humanities and Arts program, was handed the task of carving Jesus.

"It was one of the most mindblowing experiences I've had," he said. "Sculpting the Crucifix was such an honor. It's such a rare occasion that I would have the opportunity to present my work before the Pope, and I wanted to make sure that Jesus was expressing the emotion, the meaning of his life."

Lasky completed his divine assignment in seven days, although he says he wishes he'd had more time.

"As artists, we agonize over our work. And this time was no different," he said.

Lasky did not get to see the final product installed at the world famous



venue, as he had already begun work on another assignment. But he did admit to his emotions almost getting the best of him toward the project's end.

"While sculpting, the life and death of Jesus really began ruminating with me," he said, "and on the last day,

before we had to send the Crucifix to Madison Square Garden, I was almost in tears with all of the emotion."

Lasky says he felt like he was given the opportunity not just to do something cool, but also to witness something special.

"Good and capable people came together to give love to each part of the Crucifix as a whole. It really was humbling to see the thing assembled, with cross and color, humming with the collective care of the people who made it."







CARNEGIE MELLON WOMEN'S ASSOCIATION KICKED OFF ITS 100TH YEAR ANNIVERSARY AT ITS ANNUAL FALL RECEPTION WITH A THROWBACK GARDEN PARTY TEA THEME. THE CMWA WAS FORMED BY A GROUP OF VISIONARY WOMEN IN 1916 AND HAS SPENT ITS FIRST CENTURY SUPPORTING CMU FACULTY, STAFF, PART-NERS AND STUDENTS THROUGH SCHOLARSHIP, COMMUNITY, CONNECTIONS AND FRIENDSHIPS. MEMBERSHIP IS AT AN ALL-TIME HIGH, AND SPECIAL EVENTS ARE PLANNED FOR THIS CENTENNIAL YEAR IN ADDITION TO the group's traditional favorites. For more information, including how to become a member of the CMWA, visit www.cmu.edu/cmwa.