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McPhee hails MTSU retention efforts in 'State of the University'

Accentuating the positive, Middle Tennessee State University President Sidney A. McPhee delivered his 15th "State of the University" address before a packed house Aug. 21 at the 2015-16 Fall Faculty Meeting at Tucker Theatre.

McPhee emphasized the university's continuing drive to improve student retention and graduation rates, symbolized by the Quest for Student Success initiative implemented by the university in the 2014-15 academic year.

"Within the first six months of implementing just two key components of the quest — a new advising model and a predictive analytics software system to better monitor student progress — encouraging increases in student persistence rates were observed," McPhee told several hundred faculty and staff members in attendance.

McPhee noted that persistence, a measurement of the rates at which students stay in college and return

for future studies, increased by 2.2 percentage points for new freshmen, 4.5 percentage points for transfers and 2.1 percentage points for sophomores.

The president said that MTSU advisers made more than 40,200 contacts with students during the brief six-month period between October 2014 and last April.

McPhee added that the Association of Public and Land-grant Universities also named MTSU one of five national finalists for its Project Degree Completion Award.

The Aug. 21 event also included recognition for 18 faculty members' superior work by the MTSU Foundation, including a Career Achievement Award for Dr. Carroll Van West, director of MTSU's Center for Historic Preservation and the governor-appointed Tennessee State Historian.

You can read the president's address in its entirety via PDF at http://ow.ly/Rcqnq. A highlight video

Air, soil quality part of 10 students' research experiences at MTSU



MTSU senior Jonathan Flores and Amber Han conduct geology research along the Murfreesboro Greenway System. (MTSU photo by Dr. Mark Abolins)

A National Science Foundationsponsored summer undergraduate research grant is enabling future science teachers Michelle Manzano and Hilary Roath to study soil quality at the Copper Basin mine and surrounding area in Ducktown, Tennessee.

Research partners Katherine Kuklewicz and James Milstead examined air quality, conducting fieldwork at the Stones River National Battlefield in Murfreesboro.

Ten students, including seven from universities outside Tennessee, participated in MTSU's nine-week National Science Foundation Geoenvironmental Challenges Research Experience for Undergraduates, or REU, project. The five groups' work was part of nearly 50 projects featured July 31 at MTSU's Summer Research Celebration in the Student Union Ballroom.

The National Science Foundation, or NSF, funds a large number of research opportunities for undergraduate students nationwide through the program.

"This is the first National Science Foundation Geosciences Directorate REU designed for future Earth science, chemistry and biology teachers," said Dr. Mark Abolins, a professor in MTSU's Department of Geosciences and project co-leader with Concrete Industry Management chair Heather Brown.

You can learn more about this undergrad research project at http://ow.ly/RBHwO.



MTSU President Sidney A. McPhee, center, presents Dr. Carroll Van West, left, director of MTSU's Center for Historic Preservation and the Tennessee State Historian, with the 2015 Career Achievement Award at the Aug. 21 Fall Faculty Meeting as MTSU Foundation President Kathy Jones looks on. West, a professor of history at MTSU since 1985, was one of 18 faculty members honored after McPhee's annual "State of the University" address. (MTSU photo by Andy Heidt)

from his speech is available at http://youtu.be/4-en397p5TE.

MTSU Veterans and Military Family Center renovation underway

Administrative efforts to make MTSU both a state and national leader in educating veterans are taking a significant turn this fall.

By late October, the new Veterans and Military Family Center will be up and running, enabling the university's student-veteran population to have a virtual onestop-shop to meet a variety of academic-related needs.

MTSU will celebrate the dedication of the center at 10 a.m. Thursday, Nov. 5, highlighting a busy fall semester for student-veterans. The public and MTSU community are invited.

The renovated 2,600-square-foot center will be located on the first floor of Keathley University Center. The university has committed \$329,000 toward the project. The center will occupy space formerly held by the Disability and Access Center, the first VetSuccess on Campus office in Tennessee, and the Military Center.

AP Austin Peay State University AUSTIN PEAY STATE UNIVERSITY

APSU breaks ground on new Art and Design Building

On a humid summer morning, a large crowd gathered on the Austin Peay State University campus to celebrate the beginning of a longawaited project—the construction of a new fine arts building.

"This building was put on APSU's list of projects in 1998," APSU President Alisa White said during the Sept. 1 groundbreaking ceremony. "We put it on the state's list in 2004, and it is long overdue, and that is because we are bursting at the seams."

More than 100 people showed up that morning to watch ceremonial shovels dig into the earth, kicking off the construction phase for the new



\$21.3 million, 46,000-square-foot Art and Design Building and Trahern Building renovation.

"I know that there are many, many folks here who are extraordinarily happy to see this day finally come, and that list of people includes me," John Morgan, Tennessee Board of Regents chancellor, said. "This project represents a continued investment really toward first-class, world-class facilities at this institution. It promises to make what is already a beautiful campus even more beautiful."

APSU named Great College to Work For

For the fourth consecutive year, Austin Peay State University is one of the best colleges in the nation to work for, according to a recent survey by The Chronicle of Higher Education. In addition, APSU is the only university in Tennessee to make the national publication's "Great Colleges to Work For 2015" list.

"Austin Peay State University is a great place to work because employees take ownership of the institution," APSU President Alisa White said. "We take responsibility for the institution and one another. Many employees are involved in the institution outside of work hours, participating in staff activities, attending campus events and investing in meaningful relationships with co-workers. Employees have built a rich Austin Peay culture, which has become a rewarding way of life."

In all, only 86 institutions achieved "Great Colleges to Work For" recognition for specific best practices and policies. Because APSU was recognized in several categories, the University received Honor Roll recognition. Only 10 out of the 25 schools in the large institutions category were placed on the Honor Roll.

APSU professor's research featured in National Geographic



Five years after the Deepwater Horizon oil spill flooded nearly five million barrels of oil into the Gulf of Mexico, scientists are still struggling to unravel the mysteries of a natural habitat deeply impacted by the disaster.

In a recent National Geographic article, "Is Gulf Oil Spill's Damage

Over or Still Unfolding?," Austin Peay State University assistant professor of biology Stefan Woltmann discussed his research on how the spilled oil impacted organisms that don't even inhabit the water.

Woltmann, an expert in ornithology, discussed the impact the spill had on the birds and the marshes they inhabit. He has observed a marked decrease in sparrow population in those areas – a surprising and potentially serious finding according to many in the scientific community.

"This is the one of the largest uncontrolled experiments that has ever happened," Woltmann said. "From a scientific standpoint, we're much more in a forensic mode than an experiment mode because there's no control here. We have nothing to compare this situation to and things are constantly shifting around us in nature."

APSU nursing program ranked among best in nation

Austin Peay State University's School of Nursing is one of the top nursing programs in the eastern United States, according to a recent survey by the website NurseJournal.org. APSU was ranked No. 32 in the journal's inaugural list, beating out prestigious nursing programs at places such as Yale University, Johns Hopkins University, the University of Pennsylvania and the University of North Carolina.

"To determine our rankings," the journal reported, "we evaluated 1,189 schools and selected two metrics, sorting them into five categories: quality, affordability, convenience, satisfaction and value."

APSU's School of Nursing excelled in all the categories, earning a composite score of 99.28 and a spot in the Top 50 programs in the east. The high score didn't surprise many APSU faculty members because they know their program is one of the best around. APSU had a 100 percent State Board exam pass rate for its nursing students who graduated in December 2014.



TSU researchers develop breast cancer vaccine

Tennessee State University scientist Dr. Venkataswarup Tiriveedhi and a group of researchers from Washington University School of Medicine at St. Louis have developed an experimental vaccine for breast cancer that appears to be safe in a preliminary trial.

Tiriveedhi, assistant professor of Biological Sciences in the College of Life and Physical Sciences, and his colleagues, found that the experimental vaccine, Mammaglobin-A was "overexpressed" in 40 to 80 percent of primary breast cancers.

Also known as MAM-A, the vaccine prompted CD8 T-cells to track and eliminate the MAM-A protein, noted Tiriveedhi. To determine the efficacy and safety of the experimental drug, he said they conducted a phase I trial involving 14 patients diagnosed with advanced breast cancer. By the one-year mark, the study revealed, roughly 50 percent of the patients showed no signs of disease progression. By comparison, only 20 percent of a similar group of 12 patients showed no signs of disease progression one year out.

The researchers, however, stressed the need for a larger and longer study, to prove the current preliminary evidence prior to its use in all breast cancer patients. They theorized that "these promising results" from initial studies could be applied not only to prevent cancer progression but also to prevent the development of breast cancer in women.

He called the study a "promising move forward" that is not just restricted to breast cancer, but one that can be employed in "similar strategies" to treat other cancers such as lung and colon cancers.



Dr. Venkataswarup Tiriveedhi, a cancer and immunology specialist and assistant professor of Biological Sciences, works on cancer mechanism in his laboratory at TSU. Tiriveedhi and researchers from Washington University School of Medicine at St. Louis have developed an experimental vaccine for breast cancer that appears to be safe in preliminary trials. (Photo by Emmanuel Freeman, TSU Media Relations)

TSU continues growing focus on cybersecurity research professionals



Dr. Sachin Shetty (back row, far right) and students present the Cyber Defense and Security Visualization Laboratory during a tour of the TSU Interdisciplinary Graduate Engineering Research Institute (T.I.G.E.R. Institute). Dr. Sachin Shetty, associate professor in Tennessee State University's Department of Electrical and Computer Engineering, leads the Cyber Defense and Security Visualization Laboratory and a team of faculty committed to excellence in academics and research to create the next generation of cybersecurity researchers for Tennessee.

TSU has established numerous partnerships helping to develop technologies designed to protect critical infrastructure, such as cloud computing and mobile devices from cyber threats, and infusing undergraduate and graduate academic programs with cybersecurity concepts.

In addition, research projects in the area of cloud and mobile security funded by federal research agencies have resulted in increased research productivity for the University's faculty and students. Students who are currently enrolled in the program have benefited professionally due to their participation in conferences, symposiums, and internships; and other students who have graduated from the program are succeeding in professional cybersecurity careers.

Legendary Coach Ed Temple gets due recognition

When people use the phrase, "living legend," it is a perfect fit for describing legendary Olympic track and field coach Ed Temple.

Temple was honored with a "befitting" tribute among family, friends and an entire community Aug. 27 chronicling his outstanding 40-plus-year career on-and-off the track when a 9-foot bronze statue was unveiled in his likeness at First Tennessee Park in Nashville, Tennessee.

Temple, 87, served as Tennessee State University's women's track coach from 1953 to 1994. He led 40 athletes to the Olympics, snagging a total of 23 medals, 13 of which were gold. His athletes also accumulated more than 30 national titles. Temple's accomplishments are even more impressive coming in the midst of severe racism and discrimination that permeated the United States during the 1950s and 1960s.

Among the supporters at Friday's unveiling ceremony was Nashville businessman Bo Roberts who spearheaded the project, TSU President Glenda Glover, Mayor Dean, Congressman Jim Cooper, and former TSU Tigerbelles Wyomia Tyus and Edith McQuire Duvall, who made brief remarks at the event.



Nearly 200 people including federal, state and local government officials, as well as family and friends turn out as the city unveils a 9-foot bronze statute honoring legendary TSU track and field Coach Ed Temple. L-to-R: Sculptor Brian Hanlon, TSU President Glenda Glover, Coach Ed Temple, Businessman and project visionary, Bo Roberts, and Coach Temple's daughter, Edwina Temple. (Photo by John Cross, TSU Media Relations)

TENNESSEE TECH UNIVERSITY

Celebrating the community that has made TTU strong for 100 years

For many years, the faculty and staff at Tennessee Polytechnic Institute would meet students coming to town on the train and take them up to campus.

That walk was recreated in reverse during Tennessee Tech University's centennial Downtown Kick-Off Sept. 18. Led by the marching band, people from the university and community led the Centennial Walk, marching down Dixie Avenue to Dogwood Park. At the park, there was live music, theater, awards and birthday cake.

TPI was established, against the will of the state's elected officials in Nashville, because of the passion of residents of the Upper Cumberland who were determined that their children would have a place to further their education close to home.



TTU participates in White House's National Week of Making launch

For years, Tennessee Tech University students have created technologies and systems to solve problems facing society. Recently, the university expanded those opportunities by building a makerspace and expanding innovation and entrepreneurship efforts on campus.

In June, several university representatives traveled to Washington, D.C., to participate in the second National Maker Faire. TTU is also part of the Make Schools Alliance, a coalition of schools dedicated to the maker movement that works in partnership with the White House.

The invitation is in part due to TTU engineering students' selection to the National Science Foundation-funded Pathways to Innovation program, which is designed to instill entrepreneurial habits in the discipline. This is the second year TTU students have been involved.

For years, TTU engineering students have developed devices to help area businesses and children with disabilities solve problems in original ways.

TTU offers strings program for children

In September, Tennessee Tech University music faculty and students offered an afterschool strings program for children in third through sixth grade.

The String Project offered students 12 weeks of education for \$60.

The program gave students the opportunity to learn string instruments – violin or cello – in small groups, led by a Tennessee Tech string student with faculty supervision. Then all the small groups combined to play in a larger ensemble, led by a music faculty member.

The program benefited TTU strings musicians studying to be music teachers by giving them more teaching experience. All education majors complete one year of a teacher residency program where they work in a classroom, but the program provided additional practice.

Digging for craft – two TTU artists experiment with 'wild clay'

Just off a two-lane highway in middle Tennessee, two artists from Tennessee Tech University's Appalachian Center for Craft wade through a sea of chest-high weeds on their way to a secluded dig site.

With shovels and a five-gallon bucket in hand, Catherine Lemaire Lozier, a Nashville native, and Bryce Brisco, clay artist-in-residence at the Center for Craft, work together to discover the difficulties of digging and firing clay found in nearby Tennessee counties.

Native, or "wild," clays are fine-grained rock or soil taken from a small vein found in nature. They are different from clay dug and processed at a large facility because most wild clay contains impurities, often in the form of iron oxide, sand and root debris, while processed clays have most of these removed.

Because these clay bodies are typically dug by the artists themselves, the material is minimally processed and more likely to result in a unique color and texture from impurities reacting to the temperature in a kiln.



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UofM and Auburn Collaborate on Additive Manufacturing

The UofM Herff College of Engineering and Samuel Ginn College of Engineering at Auburn University have agreed to collaborate on additive manufacturing. The universities signed an agreement to provide resources to develop improved additive manufacturing processes for the production of biomedical implants.

"The Next Industrial Revolution" employs 3D printing technology and presents the opportunity to produce truly personalized medicine in the field of biomedical devices. "The Herff College of Engineering is pleased to be partnering with the Ginn College of Engineering at Auburn University, a leader in manufacturing research," said Dr. Richard Sweigard, dean of the Herff College. "Manufacturing of biomedical devices is critical to the economic health of Memphis. We are excited about the opportunity to work with Auburn University to advance the stateof-the-art in additive manufacturing technology in the biomedical field, thus opening the door for more personalized medicine in the future."



Dr. Richard Sweigard

Grant Will Support Success of Student Veterans



The University of Memphis is one of 11 colleges selected to receive the Veteran Reconnect Grant, a competitive grant aimed at improving the success of student veterans enrolled in Tennessee colleges and universities. The UofM was awarded \$93,374.

"From 2008 to 2013, we saw a 200 percent increase in the number of veterans enrolling in our Tennessee colleges and universities," said Gov. Bill Haslam in announcing the awards. "Our Veterans Education Task Force has been working to address the unique needs that our service men and women have when they come home and go back to school."

The grant will allow the UofM to create a Student Veteran Support Team that will serve as an advisory committee for the Veterans Resource Center (VRC) and Grant Oversight Committee, and collaborate so the VRC serves as a single point of contact to coordinate comprehensive services for student veterans.

The University will focus on increasing use of its Prior Learning Assessment program, including experiential learning credit. Funds also will support dedicated internships for student veterans, increased marketing, and training for faculty and staff on improving services to veterans.

Crews Center Seed Fund Invests in Innovative Thinking

The University of Memphis' Crews Center for Entrepreneurship has launched the Crews Center Catalyst (C3) Seed Fund. The fund will encourage student and faculty entrepreneurs to form startup teams for the commercialization of ideas, devices, processes or other intellectual activities.

"The UofM is committed to encouraging innovative and creative thinking," said Dr. Jasbir Dhaliwal, UofM chief innovation officer. "And the Crews Center is the University's hub for turning ideas into the foundation for successful startup companies."

In addition to receiving funding, entrepreneurs will be assigned a mentor and have access to the staff and resources of the Crews Center. "The goals for the C3 Seed Fund are to increase engagement of students and faculty in entrepreneurial activities, and to increase the number of UofM startup teams that are pursuing commercialization projects," said Mike Hoffmeyer, director of the Crews Center. "We are committed to providing the support the entrepreneurs need to keep their ventures on track."

Student Researches Novel Treatments for Alcohol Use Disorders

The National Institutes of Health (NIH) has awarded Lidia Meshesha, a doctoral student in psychology, a two-year dissertation grant titled Behavioral Economic Supplement for Alcohol Use Disorder Treatment. The grant will provide support for Meshesha to complete an ambitious dissertation study in a community alcohol treatment center and to further her training as an addiction researcher.

Alcohol use disorders are associated with substantial individual and societal costs.



Meshesha's dissertation grant will extend this intervention approach to adults who are participating in intensive outpatient treatment for alcohol use disorders. Her approach will include novel technological elements, including the use of text message-based intervention elements to encourage engagement in constructive alternatives and drug-free activities focused on the future.



Lidia Meshesha

ETSU EAST TENNESSEE STATE UNIVERSITY

Microbiologist studies possible protective factor of chlamydia against herpes

A sexually transmitted infection (STI) is never a good thing, of course, but an ETSU microbiologist has unexpectedly found a potential protective benefit of one common STI against another.

"When you look at patients, they're not usually infected with just one thing," Dr. Robert Schoborg explained. "First of all, you have on your body all the time something we call normal flora – thousands of different types of microorganisms that live on you. You're kind of an apartment building for bacteria. When you get infected with microorganisms that cause disease, often you get infected with more than one. That's particularly common in people who get sexually transmitted diseases.

"If you infect female mice with herpes or chlamydia," he said, "they will get a genital tract disease that is very similar to what you see in humans, and you can study how the organisms interact with each other and with the host." But they did not get the results they expected.

"When we co-infected the mice with chlamydia and herpes, we expected that the disease would be worse," Schoborg said. "That's what you would normally think – when a person gets infected with two pathogenic microorganisms at the same time, usually the disease is worse. And so that's what we thought was going to happen. As it turns out, the



Dr. Robert Schoborg

exact opposite happened. When we infected the mice with chlamydia, then followed that infection with herpes virus, the chlamydia infection actually protected the mice from being superinfected with herpes virus. We really did not expect that."

Schoborg was recently awarded funding to investigate the mechanisms involved in that protective action of chlamydia against herpes.

ETSU launches 'Fast Track Master's' program

A graduate degree has become more affordable and attainable for undergraduates at ETSU.

Starting this fall, all qualifying undergraduate students enrolled at ETSU can apply through the "ETSU Fast Track Master's" program to take graduate courses at undergraduate tuition rates and apply those graduate hours toward both their undergraduate and graduate degree programs.

The "ETSU Fast Track Master's" requires qualifying ETSU undergraduates who have completed 75 undergraduate credits to work with undergraduate advisors and graduate faculty to apply to the Fast Track program. Upon admission, the student works with faculty to enroll in up to 12 credit hours of graduate coursework that can then be applied toward both their bachelor's and master's degrees.

Nursing receives \$1.8 million HRSA grant



Dr. Christy Hall

A \$1.8 million grant has been awarded to the College of Nursing to launch a new model to be used for preparing and mentoring nurse practitioners who serve as clinical faculty preceptors for graduate students.

"Preceptors play a vital role in educating our future nurses and nurse practitioners and it is crucial that we provide them with proper training and support so they can be effective in these roles," said Dr. Christy Hall.

In the project, she and her colleagues will focus specifically on

graduate nursing education and the nurse practitioners who serve as preceptors by launching a new model called Student and Preceptor Advancement in a Designated Education Site (SPADES).

"In undergraduate nursing education, Dedicated Education Units are areas within the acute care setting that are designated as training areas," Hall said. "With this new grant project, we are establishing the concept of a Dedicated Education Site, where an entire primary care site is used for preparing nurse practitioners."

Hall and her research team will focus on the preparation of preceptors on such issues as communication, competency development, teaching and evaluating students, and conflict management, among others.

The constituent universities of the Tennessee Board of Regents



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