

FOR IMMEDIATE RELEASE

DATE: July 1, 2016

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Oh My! Fashion Exhibit Opens at Museum of Texas Tech

The display shows the best in the collection of the evolution of fashion from necessity to luxury.

The <u>Museum of Texas Tech University</u> has opened a new exhibit, Hats and Purses and Shoes...Oh My!, which shows the evolution of fashion from utilitarian objects to works of art. More than 115 accessories were selected from more than 2,000 pieces in the museum's collection.

"Selecting only 115 accessories for the exhibit was a challenge with all the fabulous examples in the collection. The stories behind each object and the events to which they were worn are numerous," Marian Ann Montgomery, curator of clothing and textiles said.

The exhibit focuses on the functions and importance of the pieces and how each one is used differently in today's society. Several accessories date back to the mid-19th century, with the earliest coming from 1830s and the most recent from 1980s.

"It is fascinating to see the development of shoes from the high button boots that walked the dusty streets of West Texas before the advent of the automobile, to silk pumps embroidered in gold from Italy," said Gary Morgan, executive director of the Museum of Texas Tech.

Most fashion in earlier eras was geared toward protecting the body and carrying objects; Montgomery cited hats as an example. In the early 20th century, hats were an essential accessory for properly dressed women because of the fashionable silhouette they provided. The diminishing of importance of hats, other than the baseball caps, is dated to the 1970s with the development of a high headrest in cars.

The exhibit will be on display until Jan. 15.

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FOR IMMEDIATE RELEASE

DATE: July 1, 2016

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Texas Tech Gerontology Named One of Top Online Master's Programs in U.S.

Gerontology, the study of old age, is becoming a fast-growing field as the senior population increases in the U.S.

Texas Tech University recently was included on a list of the top 15 online schools for master's degrees in gerontology. The list, created by <u>Online Schools Center</u>, selected the <u>top gerontology programs</u> based on various factors including nature of coursework, degree of curriculum thoroughness and complexity, full online availability, financial aid availability and an education extending beyond classroom experience.

Gerontology is the study of the aspects of old age and the process of aging, including social, psychological, cognitive and biological components. According to Online Schools Center, the field of gerontology is likely to increase immensely over the next several decades, as senior citizens will represent around 20 percent of the U.S. population by 2040. Professionals specializing in both the social and medical fields of gerontology will be valuable in providing vocational, legal, medical, social, psychological and advocacy services to senior citizens in the near future.

Lynn Huffman, executive associate dean of the <u>College of Human Sciences</u>, said students' interest in studying gerontology has increased along with society's need for services and understanding about older people.

"This need has always been there, but it's getting bigger now, and a lot of people are becoming interested in this field," Huffman said. "We want to take care of our older population as it grows. Not only do they have a lot to offer, but we're all going to be where they are someday and we need to understand where we're going."

Texas Tech's gerontology program, which offers an online master's degree in <a href="https://human.com/hum

The 36-credit-hour program at Texas Tech is completed entirely online and offers specialization options in adult development, aging in the family and environments and aging. Huffman said in addition to the collaboration of universities used to create the

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program, studying gerontology through Texas Tech is unique due to the faculty's excellence in creating an efficient and thorough online curriculum.

"This program stands out from others because as a student, you get access to the best faculty from several different schools," Huffman said. "The courses are very well done and the faculty is committed and knowledgeable about teaching in an online manner. This is obviously quite different than the in-classroom experience, but our team has years of experience and genuinely wants to take care of the students in this program."

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FOR IMMEDIATE RELEASE

DATE: July 5, 2016

CONTACT: Heidi Toth, heidi.toth@ttu.edu

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Research: Watching Right TV Shows Can Help Kids Develop Social Skills

Researchers in mass media and autism education found young children who watch "Daniel Tiger's Neighborhood" learn empathy and other school readiness skills.

A child's first day of school can be scary. So can a visit to the doctor, trying something unfamiliar and meeting new people.

Daniel Tiger can help with that. In fact, with some assistance from parents, Daniel Tiger can help preschool children learn the social and emotional skills needed to be successful in kindergarten, which directly correlates with success later in life. And it starts with watching TV.

Two studies released by Texas Tech University researchers show watching the PBS KIDS show "Daniel Tiger's Neighborhood" from the Fred Rogers Company and the cartoon offspring of "Mister Rogers' Neighborhood," can help young children learn important social skills. One study focused on parental interaction among largely low-income preschoolers, while another looked at children with autism and whether simply watching the show was enough to change behavior.

The short answer to both is yes, Daniel Tiger helps children. But it's not that simple.

Eric Rasmussen, an assistant professor of <u>public relations</u>, and his co-authors from the <u>College of Media & Communication</u> and <u>College of Human Sciences</u> found children who watch "Daniel Tiger's Neighborhood" demonstrate greater empathy, recognized emotions better and felt more confident in social interactions than their peers who didn't watch the show, but only when their parents regularly discussed television content with them.

Essentially, the study showed watching programming designed to teach skills can do so, but not in a vacuum.

"It's not enough to just plop your kid in front of the TV and hope they're going to develop these social and emotional skills," Rasmussen, the study's lead author, said. "There has to be a certain level of parental involvement in kids' TV viewing experiences."

They also found children don't respond equally to the show. Children younger than 4 years and children from low-income households were more likely to reap the benefits. The researchers theorized older children may already be learning those skills. The same is true for higher-income children, who have greater access to opportunities to develop social

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skills. Because "Daniel Tiger's Neighborhood" was designed for younger and low-income children, the findings made sense, he said.

Of course, watching "Daniel Tiger's Neighborhood" doesn't negate the need for parental involvement, which is harder in low-income families due to stress from financial, employment and housing uncertainty, Rasmussen said. There's no easy fix to that either. However, watching the show can provide openings for conversations and questions children can ask.

"Anything that can be done to support these parents in their efforts to help their kids is what's needed," Rasmussen said. "One of those things is having kids watch 'Daniel Tiger's Neighborhood' and encouraging them to talk with their parents about what they're watching."

The study was published this month in the <u>online edition of Journal of Children and Media</u> and is scheduled to be published in the journal's January-February print issue.

Autism study

While conducting the first study, Rasmussen and his team also partnered with Wesley Dotson, co-director of the <u>Burkhart Center for Autism Education & Research</u>, to examine how effective exposure to "Daniel Tiger's Neighborhood" was in teaching young children with autism spectrum disorder.

In the pilot study, researchers tested two 5-year-old boys with high-functioning autism. Each was tested on a skill – either trying new foods or stopping play, both difficult tasks for children with autism and around which "Daniel Tiger's Neighborhood" aired an episode – then watch the episode and go back into free play time, where each was tested again.

The results were shocking. Researchers found both boys learned the skills simply from watching the show. They didn't pick up each skill immediately and they didn't perform each skill perfectly every time, but they did learn the skill. One boy, who hadn't tried new foods in months, watched the episode twice and had no problems trying new foods in six consecutive meetings, even without watching the episode again.

"That was really the moment when my jaw dropped and I said 'Wow. We've got something here," Dotson, the study's lead author, said. "I don't know what it is yet, but there's something here to understand, because kids with autism who are food selective don't just walk in one day and try everything that's put in front of them."

The study can't be generalized to all children with autism, given how diverse the community is and how small Dotson's sample size is. As a pilot study, what it tells autism researchers is the prevailing wisdom that video modeling needs to be specific to a child and needs to be accompanied by instruction from an adult may not be true for all children, which allows both for more research and adds another tool in helping children and families cope with autism.



"Realistically, I don't believe for a second that you can plop a kid with autism down in front of a TV show and that be the primary means of instruction," he said. "But it can be really hard to find things that engage a child with autism, and 'Daniel Tiger's Neighborhood' does seem to engage kids with autism to a high degree."

The preliminary findings of this study will be published in Behavior Analysis in Practice. Dotson is still working to replicate his results with a larger sample size.

Read more about the research.

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Advisory

FOR IMMEDIATE RELEASE

DATE: July 5, 2016

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Texas Tech University School of Music to Host BalFolk 2016!

The event is a weekend of Euro-French-English folk music and dancing.

WHAT: BalFolk 2016! is an event hosted by the Texas Tech University School of

Music to celebrate and participate in Euro-French-English folk music and

dancing. The event is open to the public.

WHEN: July 29-31

WHERE: Texas Tech School of Music 18th Street and Boston Avenue; and the

Louise Hopkins Underwood Center for the Arts Icehouse Theatre, 511

Ave. K

EVENT: Three instructors will be available at BalFolk 2016! to help teach the

dances.

WHO: Richard Taylor has spent the last 30 years playing, teaching and

performing all across the world. He specializes in folk dance music from

France, Italy, Hungary and Galicia.

Gyslaine Kirstetter traveled through Paris participating in workshops and dance festivals. She later became the principal and folk dance instructor at the Maison de la Jeunesse et des Sports in Paris from 2009 until 2010.

Lise Pingault is a member of Les Gas du Berry, the oldest folk dance band in France. In the summer of 2015 she moved to Oklahoma and started working at the University of Oklahoma.

Tickets can be purchased online at https://squareup.com/store/roots-music-institute.

The weekend will include workshops and instructional sessions on Saturday. The workshops will be instrumental and dance sessions. Sunday at 11:30 a.m. there will be a farewell dance to wrap up the week.

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Expert Pitch

FOR IMMEDIATE RELEASE

DATE: July 6, 2016

CONTACT: Glenys Young, glenys.young@ttu.edu

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Experts Available to Discuss Summer Olympics in Rio de Janeiro

The 2016 Summer Olympic Games opening ceremony is Aug. 5 in Rio de Janeiro, Brazil, bringing together athletes and spectators from throughout the world.

Texas Tech University has experts who can discuss various aspects of the Games themselves as well as the country hosting them. Faculty members can speak on topics including sports ethics, exercise-induced fatigue, sports history, Brazilian history, climate and its effect on athletes, security and the spread of disease.

Sports and exercise

Angela Lumpkin is a professor and chairwoman of the Department of Kinesiology & Sport Management. She can speak on sports ethics, intercollegiate athletics, women in sports and sports history. She is the author of 23 books and more than 60 publications, and she has delivered over 200 professional presentations. She earned her bachelor's degree in physical education, her master's degree in sport administration and doctorate in sport history, and a master's of business administration.

Lumpkin can be reached at (806) 834-6935 or angela.lumpkin@ttu.edu

Joaquin Gonzales is an assistant professor in the Department of Kinesiology & Sport Management. He can speak on exercise-induced fatigue. He is the author of more than 25 research publications and has been funded by the National Institutes of Health and the American Heart Association. He earned a bachelor's degree in kinesiology, his master's degree in exercise and sport sciences, his doctorate in exercise science and was a post-doctoral fellow in the Noll Laboratory at Penn State University.

Gonzales can be reached at (806) 834-5944 or joaquin.gonzales@ttu.edu

History

Jorge Iber is an associate dean in the College of Arts & Sciences and a professor of history. He can speak on sports history. He serves as a member of the editorial board for the International Journal for the History of Sport and as the series editor for the Sports in the American West Series for Texas Tech University Press, and he contributes to the "Sports in American History" blog. He teaches courses in U.S. sports and recreation. His research focus is on the social significance of the history of Latinos in U.S. sport. He earned his bachelor's degree in business and his doctorate in history.

Iber can be reached at (806) 834-5511 or jorge.iber@ttu.edu

Jeffrey Mosher is an associate professor of history. He can speak on the history of Brazil. He teaches courses on the history of Brazil, the history of modern Latin America and the emergence of new nations in Latin America. He has conducted research in Rio de Janeiro, Recife and São Paulo. He is the author of "Political Struggle, Ideology and State Building: Pernambuco and the Construction of Brazil, 1817-1850" as well as articles on the political history of Brazil. He is currently focused on religion in contemporary Brazil, preparing an ethnography of a Tibetan Buddhist temple in São Paulo. He has received funding from the Fulbright Commission and the National Science Foundation to conduct research in Brazil. He earned his bachelor's degree in philosophy, his master's in Latin American studies and a doctorate in history with a focus on Latin America.

Mosher can be reached at (806) 549-4692 or jeffrey.mosher@ttu.edu

Climate

Jennifer Vanos is an assistant professor of atmospheric science. She can speak about the effects of climate on human health. She was on the Canadian national team for track and field, and she competed at the Pan American Games, after which she worked as a track coach for many years. She specializes in the study of human biometeorology and bioclimatology, connecting weather and climate to human health, with a specific focus on extreme heat, atmospheric radiation and air pollution exposure in urban areas. She co-manages the Texas Tech Atmospheric Science Instrumentation Lab at Reese Technology Center and works in Texas Tech's Climate Science Center. She is a member of the American Meteorological Society's Board of Environment and Health and serves as chair of the Students and New Professionals Group for the International Society of Biometeorology. She earned her bachelor's degree in environmental science and her doctorate in atmospheric science and completed post-doctoral work with Health Canada's Environmental Health Science Research Bureau.

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Katharine Hayhoe is an associate professor in the <u>public administration program</u> and director of the Climate Science Center at Texas Tech, part of the Department of the Interior's South-Central Climate Science Center. She can speak about climate science, impacts and solutions. Her research focuses on developing and applying high-resolution climate projections to evaluate the future impacts of climate change on human society and the natural environment. She has served as lead author on key reports for the U.S. Global Change Research Program and the National Academy of Sciences, including the Second and Third U.S. National Climate Assessments. She serves on the University Corporation for Atmospheric Research's President's Advisory Committee on University Relations and the National Center for Atmospheric Research's (NCAR) Climate and Global Dynamics Laboratory Advisory Panel, and on the author team for the U.S. Global Change Research Program's Climate Science Special Report, to be released in 2017. She also serves as a scientific adviser to the NCAR Climate and Global Dynamics Laboratory, Citizen's Climate Lobby, the EcoAmerica MomentUS project, the Energy and Enterprise Initiative and the Evangelical Environmental Network. She earned a bachelor's degree in physics and astronomy and her master's and doctorate degrees in atmospheric science. Hayhoe can be reached at (806) 834-8665 or ljames@atmosresearch.com

Security

Col. David J. Lewis, USAF (Retired) is the director of the strategic studies graduate program at Texas Tech. He can speak on terrorism, intelligence and security. He was a career military officer with extensive operational and staff experience and served as a professor of strategy at the United States Naval War College. He teaches courses in strategy, intelligence, terrorism, counterinsurgency, national security, public sector strategy and Homeland Security. He founded the Texas Tech Military & Veterans Programs and operates a veterans program in Lubbock. He holds a bachelor's degree in mechanical engineering, a master's of business administration and a master's degree with distinction in national security and strategic studies from the U.S. Naval War College.

Lewis can be reached at (806) 787-9730 or dave.lewis@ttu.edu

Spread of disease

Lisa Gittner is an assistant professor in the Department of Political Science and has a joint appointment in the Department of Public Health at the Texas Tech Health Sciences Center. She can speak on health policy, public health infrastructure and computer modeling of disease. Her work models effects of the entire environment including climate, weather, pollution, health care infrastructure and social deprivation on the development of obesity, cardiovascular diseases and poor health outcomes. She also models the early-life growth patterns and the development of diseases in infancy that affect later-life health. She earned her bachelor's and master's degrees in biochemistry/toxicology and her doctorate in public administration and health policy. She completed post-doctoral work at Case Western Reserve University as a program director for a National Institutes of Health/National Institute of Minority Health and Health Disparities grant. Gittner can be reached at (440) 915-8831 or lisa.gittner@ttu.edu

Steve Presley is a professor in the Department of Environmental Toxicology and The Institute of Environmental and Human Health. He can speak on environmental threats, biological pathogens and zoonotic diseases. His research and teaching focus is on the risks, threats and potential effects of naturally or intentionally introduced biological pathogens into military and civilian populations and the agricultural industry. He serves as the research coordinator for the Admiral Elmo R. Zumwalt Jr. National Program for Countermeasures to Biological and Chemical Threats at Texas Tech. He has completed various aspects of chemical, biological, radiological and environmental-related response and control training and practical experience. His operational and research experience has focused upon the surveillance, prevention and control of biological threats in the environment; specifically vector-borne infectious diseases in tropical and subtropical environments. He earned his bachelor's degree in animal science, his master's degree and doctorate in medical/veterinary entomology and a master's degree from the U.S. Marine Corps University focused on domestic terrorism. He completed a post-doctoral fellowship at the University of Kentucky and served in the United States Navy as a medical service corps officer. Presley can be reached at (806) 834-8260 or steve.presley@ttu.edu

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Advisory

FOR IMMEDIATE RELEASE

DATE: July 6, 2016

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'Putting on the Dog' Photo Exhibit Observes Dog Days of Summer

Texas Tech's International Cultural Center hosts its annual summer exhibit.

WHAT: "Putting on the Dog: Dogs without Borders" photo exhibit reception

WHEN: 4:30-6:30 p.m. Friday (July 8)

WHERE: International Cultural Center, 601 Indiana Ave.

WHAT: Texas Tech University's Office of International Affairs is hosting its

annual summer photo exhibit for the seventh year, featuring photographs of dogs highlighting all of the species' diversity. Photos in the exhibit have been submitted by Texas Tech faculty, staff and students as well as photographers locally, throughout the state and a few outside of Texas.

Each photograph in the exhibit is accompanied by a label that informs visitors about the breed and the dog's country of origin.

During the reception on Friday, a screening of "My Dog: An Unconditional Love Story" will be available in the center's auditorium. This 50-minute documentary explores the unique relationship between people and their beloved pets through candid interviews with notable dog lovers such as Edward Albee, Glenn Close, Billy Collins, Richard Gere, Isaac Mizrahi and more.

The exhibit will be on display through Aug. 20.

For more information about the exhibit, visit the Office of International Affairs' website.

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FOR IMMEDIATE RELEASE

DATE: July 11, 2016

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Texas Tech to Lease Part of New Pantex Complex for National Defense Work

Construction is anticipated to begin in August.

Texas Tech University is taking a big step forward in research and development for national defense.

Management firm Consolidated Nuclear Security, LLC (CNS) received approval recently from the National Nuclear Security Administration (NNSA) to pursue a lease for a facility that will transform the skyline of the Pantex Plant, the nation's only nuclear weapons assembly and disassembly facility and a key element in the U.S. nuclear security enterprise. Pantex is located 17 miles east of Amarillo.

The new Pantex Administrative Support Complex (ASC), to be built just south of the Pantex Plant, will be a 343,000 square foot, state-of-the-art facility providing office space for up to 1,100 federal and contractor employees. The facility will be developed by Lawler-Wood, LLC.

A portion of the new complex -16,000 square feet - will be leased to Texas Tech with visions of optimizing the facility's utility and providing profound service in the national agenda. Texas Tech has been recognized for its commitment to national defense.

"Texas Tech is committed to meeting our national security needs," said interim president John Opperman. "Texas Tech and CNS researchers are collaborating in the areas of novel 3-D printing technologies, modeling of chemical processes and advanced machining studies. This partnership with CNS is the next step in our ongoing national defense efforts."

In September, Texas Tech and CNS agreed upon areas for collaboration efforts as well as the scope of potential future opportunities. Since then, several contracts have been awarded to Texas Tech to meet research needs at both Pantex and the Y-12 National Security Complex in Oak Ridge, Tennessee, which CNS also operates. Multiple employees from Pantex have enrolled in Texas Tech's Master's of Systems and Engineering Management program.

"CNS and Texas Tech will continue to work closely to broaden and deepen the collaborative efforts that meet our mutual strategic goals," said Guy Loneragan, Texas Tech's interim vice president for research. "The Texas Tech space at the new ASC will serve to further solidify our growing relationship with CNS."

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Robert V. Duncan, the university's vice president of strategic research initiatives, said the collaboration benefits Texas Tech alumni as well as current and future students.

"I am delighted we have negotiated this excellent opportunity for Texas Tech with Pantex and CNS," Duncan said. "This is yet another example of how achieving our designation as a Tier One Highest Research University by the Carnegie Foundation has increased the reputation of Texas Tech worldwide and increased the value of our degrees to our alumni's benefit everywhere."

"This milestone underscores our commitment to address the Pantex Plant's aging infrastructure challenges and to invest in the site to position it for the future," said CNS Deputy Enterprise Manager Michelle Reichert. "The ASC will enhance our ability to attract and retain highly skilled employees to safely perform our national security mission. It will also allow us to be more focused on other critical infrastructure needs at the Plant"

CNS will now begin working with Lawler-Wood, LLC to finalize the project details. Construction is anticipated to begin in August. The new facility will be near the intersection of Farm to Market Road 2373 and Highway 60.

"This announcement is an important milestone in strengthening our continued work with Pantex," Texas Tech University System Chancellor Robert Duncan said. "Nuclear safety and security is paramount to our national defense, and Texas Tech's leadership will help enhance the mission and overall efforts at this facility. We are excited to increase our research and development activities with Pantex and look forward to future collaborations this space will provide as we work together in service to the NNSA."

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Expert Pitch

FOR IMMEDIATE RELEASE

DATE: July 12, 2016

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European Union Expert Can Discuss British Relations With U.S. After Brexit

Pitch

British Prime Minister David Cameron is scheduled to resign Wednesday (July 13), at which time he will be replaced by Home Secretary Theresa May, who on Monday (July 11), was officially named the Conservative Party leader and Cameron's successor.

Cameron announced his intention to resign following the United Kingdom's June 23 vote to leave the European Union. May's only rival for Cameron's position, Energy Minister Andrea Leadsom, pulled out of the race Monday after making controversial comments about motherhood and leadership.

Stephen Meserve, an assistant professor of <u>political science</u> at Texas Tech University, can discuss how the United States' relationship with Britain and other members of the United Kingdom may change in the wake of Brexit and the change in leadership. Meserve specializes in European Union and Western European politics, with research interests in comparative political economy and comparative legislative studies. His works have been published in journals including Comparative Political Studies, Journal of Politics, Political Analysis and Political Science Research and Methods. He teaches undergraduate courses in historical political economy, introduction to comparative politics, Western European politics and American public policy, and graduate courses in comparative distributive politics, comparative political economy and European politics.

Expert

Stephen Meserve, assistant professor of political science, (806) 834-4048 or stephen.meserve@ttu.edu

Talking points

- Theresa May is a Conservative party veteran, previously a cabinet member holding the Home Secretary portfolio.
- In the short term, Brexit means harmful economic dislocation for the UK.
- In the longer term, a great deal depends on when May triggers the British exit and what the treaties that replace the EU arrangements ultimately look like.
- Brexit probably means very little change in the relationship between the United States and the UK.

Quotes

- "Theresa May supported the 'Remain' camp during the referendum but has publicly said she will honor the referendum result of 'Leave' when she takes office. She also said the exit will not be triggered in 2016 in order to give the UK more time to prepare. Labour and the Liberal Democrats are demanding new elections, but I believe they are unlikely to receive them."
- "The pound has already lost a huge amount of value in the wake of the referendum and there is a substantial fear among economically vital migrants living in the UK. In general, economic actors shy away from political uncertainty and investors may reconsider investments in the UK and instead seek to invest in EU member states like Germany or France where they can be absolutely certain of their access to EU member state markets."
- "On one hand, the UK could emerge with almost identical agreements with EU countries that they had before the 'Norway' solution, which may minimize long-term economic changes. On the other hand, they could emerge with radically different agreements than they had under the EU, which would mean major long-term economic readjustment that could initiate a recession. The outcome the 'Leave' campaigners promised during the referendum campaign an 'EU-like' agreement where the UK receives the same trade/capital integration treaties while rejecting some regulations and the right of EU citizens to move freely is an unrealistic pipe dream the remaining 27 EU members will not agree to."
- "Some of the UK's treaties with the U.S. remain in place as they were, for example security-related treaties (e.g. NATO). But for many agreements, especially on economy and trade, the EU acted on behalf of the UK in all agreements with the United States. So Brexit means the United States will need to negotiate new agreements with the UK once it has separated from the EU. My first reaction is this will be relatively easy given that both the UK and U.S. will want business as usual to continue as soon as possible, but it is an outside possibility that U.S. presidential politics will interfere and demand significantly altered agreements. We will not know more until the UK starts to negotiate its exit from the EU and the U.S. presidential election is resolved."

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FOR IMMEDIATE RELEASE

DATE: July 14, 2016

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Obesity Researcher Selected for National Grant Review Committee

Naima Moustaid-Moussa, who directs the Obesity Research Cluster at Texas Tech, will serve for six years on a National Institutes of Health study section.

A Texas Tech University researcher recently started a six-year term on a committee that evaluates grants submitted to the National Institutes of Health.

Naima Moustaid-Moussa, a professor of <u>nutritional sciences</u> and director of the <u>Obesity Research Cluster</u>, started July 1 as a member of the Clinical and Integrative Diabetes and Obesity Study Section for the National Institutes of Health (NIH). NIH study sections are composed of experts who provide reviews of the grant applications, discuss their merits and rank the applications. These recommendations are then discussed by the NIH council and director. Moustaid-Moussa will participate in this twice a year for the next six years.

It's familiar territory for Moustaid-Moussa, who has studied obesity and diabetes for years, focusing on adipocytes, or fat cells, and the way the activity of those cells contributes to obesity and various side effects. She has been on similar study sections for the American Heart Association (AHA), including as peer review committee chair, and has been a temporary and ad hoc member of other NIH nutrition and obesity study sections. She also has written numerous grants to federal agencies such as NIH and the U.S. Department of Agriculture as well as foundations like the AHA and American Diabetes Association.

"It's an honor to be invited to serve in an NIH study section as it means you are recognized as an expert in your field where you're known and trusted for your research," she said

This study section also is the best section to review her grants, a common issue for all the members, who are required to recuse themselves from evaluating and discussing grants related to their institution or any grant where they are collaborators or consultants. Moustaid-Moussa will be able to submit any grants through this study section during her tenure but not during cycles in which she is participating.

Her responsibilities will include going to Washington, D.C., twice a year for two to three days at a time. Each member will be assigned 10-12 grant applications for either a primary, secondary or tertiary critique; they will critique the science, look at the expertise of the researchers and the budget, ask if the hypothesis is reasonable and justified, consider if the grant request is consistent with the NIH mission and ask whether the

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research will produce meaningful results that will advance and generate new scientific knowledge and discoveries in disease treatment. After all of the applications have been reviewed by at least three members, the primary reviewers will present the grant to the rest of the study section, with the secondary and tertiary reviewers contributing any additional ideas.

From there, non-conflicted members of the study section will score each grant based on the reviewers' presentations and discussion. Meeting discussions and scores are forwarded to an NIH council, then the NIH director, who makes the final decision on funding.

Moustaid-Moussa's participation in this study section speaks to her expertise and standing in the diabetes and obesity research community, said Dr. Nikhil Dhurandhar, chairman of the Department of Nutritional Sciences.

"NIH is the biggest federal source of biomedical research funding in the U.S. Receiving this highly competitive funding is considered prestigious mainly due to the extremely rigorous review process," he said. "Highly respected, dedicated and talented reviewers volunteer their time to provide careful reviews of submitted grants. Due to the responsibility involved in reviewing projects that would potentially have a high impact on society, the reviewers are handpicked for their expertise and scientific acumen. Therefore, invitation to be a reviewer for NIH is often an acknowledgement of one's scientific expertise and prominence in one's research field."

Moustaid-Moussa also was elected as a member-at-large in the 2016-2017 Governing Committee of the American Society for Nutrition's Nutritional Science Council and previously served as council member for The Obesity Society.

Read more about the Obesity Research Cluster and Moustaid-Moussa's research.

Find Texas Tech news, experts and story ideas at <u>Texas Tech Today Media Resources</u> or follow us on <u>Twitter</u>.

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FOR IMMEDIATE RELEASE

DATE: July 14, 2016

CONTACT: Sarah Connell, sarah.n.connell@ttu.edu

(806) 742-2136

Texas Tech University Press Announces Lou Halsell Rodenberger Prize

The winner, Nancy Draves, will receive a \$1,000 award and publication of her manuscript.

<u>Texas Tech University Press</u> (TTUP) recently announced "A Promise Fulfilled: the Kitty Anderson Diary and Civil War Texas, 1861" by Nancy Draves as the winner for the 2017 Lou Halsell Rodenberger Prize in History, Culture and Literature.

Rodenberger's Prize will honor Draves with a \$1,000 award and publication of her manuscript, which discusses women's roles in the history, culture and letters of Texas and the American West, particularly the Texas border regions. Draves' manuscript will be published by TTUP in 2017.

"Nancy Draves's work with the Kitty Anderson diary makes accessible the personal reflections of a smart, self-possessed young woman who crossed the Texas-Mexico border to escape the very real dangers of being a Unionist in Civil War San Antonio," said Joanna Conrad, assistant director and editor-in-chief of the TTU Press.

In 2008, Texas historian Nancy Draves found the 1861 diary of Kitty Anderson, the daughter of prominent San Antonio resident and Union Army supporter colonel Charles Anderson in a public auction. Kitty's diary, which was acquired in 2009 by the Dolph Briscoe Center for American History, documents the Anderson family's experience during the early years of the Civil War.

"It is such an honor to be recognized for this esteemed award," Draves said. "The Kitty Anderson diary is, in fact, a prized addition to Civil War history in Texas, and an added bonus is the skill and unparalleled eloquence with which Kitty pens her story and of her family. Kitty Anderson's diary is nothing other than a spellbinding masterpiece."

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FOR IMMEDIATE RELEASE

DATE: July 15, 2016

CONTACT: Heidi Toth, heidi.toth@ttu.edu

(806) 742-2136

Ag Dean Galyean Selected as Interim Provost, Replacing Schovanec

Galyean will be allowed to be a candidate for the permanent position.

Michael Galyean, dean of the <u>College of Agricultural Sciences & Natural Resources</u> (CASNR) has been appointed interim provost of Texas Tech University. He will take over responsibilities on Aug. 1.

Galyean replaces Provost Lawrence Schovanec, who was announced last week as the 17th president of the university beginning Aug. 1. Schovanec will convene a search committee, which will conduct a nationwide search for the next provost. Galyean will be allowed to be a candidate for the position if he desires.

"Dr. Galyean is a distinguished scholar and educator with an extensive record of professional service and leadership," Schovanec said. "As dean of the College of Agricultural Sciences and Natural Resources, he has earned the respect of colleagues within CASNR and across campus. I have great confidence in the leadership Dr. Galyean will provide as our chief academic officer."

Galyean served on the faculty of New Mexico State University from 1977-1996 and West Texas A&M University from 1996-98. He joined the Texas Tech faculty in 1998 and was named a Paul Whitfield Horn professor in 2006. He is the Thornton Distinguished Chair in Animal Science and became dean of the college in 2012.

He received his doctorate in animal nutrition from Oklahoma State University and has published more than 300 peer-reviewed journal articles, invited papers and book chapters. He has directed the graduate work of more than 50 master's and doctoral students, served on several National Research Council committees and recently chaired the Committee on Nutrient Requirements of Beef Cattle. He was president of the American Society of Animal Science (ASAS) Western Section, served on the ASAS Board of Director and was section editor and editor-in-chief of the Journal of Animal Science.

"To serve as the interim provost at a Tier One, Big 12 university is something I would never have dreamed of a few years ago, and I am honored Dr. Schovanec has asked me to take on this challenge," Galyean said. "I look forward to working with him and our great faculty, staff and students as we continue to advance the academic and scholarly missions of Texas Tech University."

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FOR IMMEDIATE RELEASE

DATE: July 16, 2016

CONTACT: K'Leigh Sims, kleigh.sims@ttu.edu

(806) 742-2136

New Dean of Students, Director of Center for Campus Life Announced

Matthew Gregory and Kimberly Thornton recently began their new positions at Texas Tech while both came from the state of Louisiana.

Texas Tech University has announced a pair of hires as Matthew Gregory has been named dean of students and Kimberly Thornton has assumed the role of the director of the Center for Campus Life.

Gregory, who has worked in student affairs at the collegiate level since 1996, previously served at Louisiana State University as associate dean of students and director of Student Advocacy and Accountability.

"I am thankful for the opportunity to serve the Texas Tech University community," Gregory said. "From the moment I stepped foot on the beautiful Texas Tech campus, I was impressed by the commitment and pride exhibited by the students, staff and faculty I had the privilege to meet. I welcome the opportunity to attend events and meet fellow members of the university community during my tenure as the students' dean."

Originally from Marion, Illinois, Gregory has a biological sciences degree from Southern Illinois University; a master's of arts in education, focusing on counseling and student affairs from Western Kentucky University; and a doctorate in education administration from Southern Illinois University.

Gregory said his decision to join Texas Tech was based on three major factors.

"First and foremost, the opportunity to work with such an accomplished campus community consisting of caring and committed students, staff and faculty," he said. "Secondly, the dean of students position has been re-envisioned to be a dedicated advocate for students. This vision for the dean position at Texas Tech was a significant factor for me. Lastly, I was looking for a vibrant campus environment that is rich in tradition and embodies a sense of pride to be a student. Texas Tech exudes that type of energy and it is a good time to be at Texas Tech University."

Gregory replaces former Dean of Students Amy Murphy, who transitioned to a new position at <u>Angelo State University</u>, the second largest campus in the <u>Texas Tech</u> University System.

Thornton, who was previously the director of career services at Louisiana State University-Shreveport, will oversee student involvement activities, fraternity and sorority life, the Red-to-Black financial awareness program and the spirit programs. Thornton said she was excited to be offered the position at Texas Tech, as she enjoys working with students and helping them succeed.

"Texas Tech is such a great university full of opportunity, and I am excited to be working with students as the new director," she said. "I have worked in other areas of a university, but this is the area I enjoy the most."

Growing up in Shreveport, Louisiana, Thornton served as the director of student activities, assistant director of student leadership and involvement, director of admissions and director of career services for LSU-Shreveport during her tenure there.

She received her bachelor's degree in mass communications from LSU-Shreveport, her master's degree in integrated marketing communications from Northwestern University and is completing her doctorate from Louisiana Tech.

As the director of the Center for Campus Life, Thornton said she is excited to watch the students grow as she now has the opportunity to help students while they are here at Texas Tech.

Juan Muñoz, senior vice president for the <u>Division of Institutional Diversity</u>, <u>Equity and Community Engagement</u> and vice provost for the <u>Division of Undergraduate Education and Student Affairs</u>, said Gregory and Thornton are great addition to Texas Tech.

"We are thrilled to have two new student affairs professionals of this caliber join the Texas Tech family," Muñoz said. "Two strong search committees were assembled and a national search was conducted for each position, and we were fortunate enough to attract the attention of two rising stars within student affairs and student services in higher education. I look forward to great things from Dr. Gregory and Ms. Thornton as they help Texas Tech achieve greater levels of student success."

For more information about the <u>Dean of Students</u> and the <u>Center for Campus Life</u>, visit their websites.

Find Texas Tech news, experts and story ideas at <u>Texas Tech Today Media Resources</u> or follow us on Twitter.

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FOR IMMEDIATE RELEASE

DATE: July 18, 2016

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(806) 742-2136

Photographs of Yi-Yuan Tang available upon request. Video: Yi-Yuan Tang discusses his research.

Body-Mind Meditation Can Boost Attention and Health, Lower Stress

As few as five sessions can make a noticeable difference for participants.

Meditation has long been promoted as a way to feel more at peace. But research from a Texas Tech University faculty member shows it can significantly improve attention, working memory, creativity, immune function, emotional regulation, self-control, cognitive and school performance and healthy habits while reducing stress.

<u>Yi-Yuan Tang</u>, the presidential endowed chair in neuroscience and a professor in the <u>Department of Psychological Sciences</u>, has developed a novel method of mindfulness meditation called Integrative Body-Mind Training (IBMT).

"Meditation encompasses a family of complex practices that includes mindfulness meditation, mantra meditation, yoga, tai chi and chi gong," Tang said. "Of these practices, mindfulness meditation — often described as nonjudgmental attention to present-moment experiences — has received most attention in neuroscience research over the past two decades. For example, when we observe our thoughts or emotions in the mind, we are often involved in them. With IBMT practice, you distance your thoughts or emotions and realize they are *not* you, then you see the reality in an insightful and different way. Mindfulness helps you be aware of these mental processes at the present, and you just observe without judgment of these activities."

IBMT avoids struggles to control thought, relying instead on a state of restful alertness that allows for a high degree of body-mind awareness while receiving instructions from a qualified coach, who provides body-adjustment guidance, mental imagery and other techniques while soothing music plays in the background. Thought control is achieved gradually through posture, relaxation, body-mind harmony and balance.

"IBMT works by brain (central nervous system) and body (autonomic nervous system) interaction – IBMT coaches help participants to change both body and mind states to achieve a meditative state; this is why participating in just five 20-minute sessions of IBMT has shown increased attention, relaxation, calmness, body-mind awareness and brain activity," Tang said. "Most participants notice a significant decrease in daily stress, anxiety, depression, anger and fatigue. Additionally, IBMT participants show an overall

improvement in emotional and cognitive performance as well as improved social behavior."

Tang says the specific parts of the brain most affected by IBMT – the anterior cingulate cortex and adjacent medial prefrontal cortex – are mainly involved in self-control ability.

"Deficits in self-control have been shown in mental disorders such as attention deficit hyperactivity disorder, addictions, mood disorders and post-traumatic stress disorder," Tang said. "Since IBMT could improve self-control effectively, it may help prevent and treat mental disorders. In the education field, since IBMT improves attention, cognitive performance and self-control, it could help those with ADHD or learning difficulties to improve academic performance and school behavior."

The next step in Tang's research will be to conduct large-scale longitudinal studies to more fully understand brain-body mechanisms of mindfulness and their applications.

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Advisory

FOR IMMEDIATE RELEASE

DATE: July 19, 2016

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University Libraries Hosting Texas STEM Librarians Conference

The annual event brings together STEM librarians from around the region to collaborate and learn about current trends in technology.

WHAT: Texas Tech University Libraries will host the Texas STEM Librarians

<u>Conference</u> in an effort to bring together science, technology, engineering and mathematics (STEM) librarians from around the region. The event, which began in 2011, encourages librarians to attend professional

presentations, collaborate with regional colleagues and learn about current

trends in STEM publications and technology.

This year's conference will include a reception, tour and a discussion panel featuring academic and library community members, including <u>Patricia DeLucia</u>, associate vice president for research; Joni Blake, executive director of the Greater Western Library Alliance; and Kristi

Park, executive director of Texas Digital Library.

The conference is open to all STEM-related disciplines, including

administrators, faculty, students and community members.

WHEN: July 21-22 (Complete Schedule)

WHERE: Conference held at University Library with reception at the Bayer

Museum of Agriculture, 1121 Canyon Lake Drive.

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FOR IMMEDIATE RELEASE

DATE: July 20, 2016

CONTACT: Moriah Beyers, moriah.beyers@ttu.edu

(806) 742-2805

Meat Science Quiz Bowl Team Earns Eighth National Title in Academic Competition

The team outlasted Colorado State in the competition this summer in San Angelo.

Texas Tech University's Meat Science Academic Quiz Bowl Team earned the title of National Champions at the 69th Reciprocal Meat Conference (RMC), defeating Colorado State University in the final round of competition.

It marks the third national championship in the last four years for the Texas Tech team and eighth title since 2003. The team previously won the crown in 2003, 2005, 2007, 2009, 2010, 2013 and 2014. The 2016 team was coached by Lindsey Drey, an undergraduate student who had competed with the team in previous years.

The 2016 Undergraduate Quiz Bowl contest was a competitive event with 136 undergraduates representing 34 teams. The Red Raiders entered two teams.

Members of the 2016 team include:

- Clay Bendele, a senior from Hondo
- Erin Beyer, a senior from Brookshire
- Dean Chapman, a sophomore from Sweetwater
- Landon French, a senior from Burleson
- Darby Gonzales, a senior from Hondo
- Ben Mills, a sophomore from Shallowater
- April Molitor, a sophomore from Hondo
- Shannon O'Quinn, a junior from League City
- Cole Perkins, a junior from Llano
- Kiersten Scott, a junior from Scott City, Kansas
- Keeley Sears, a junior from Weatherford
- Cody Shannon a senior from Royse City

"The students who competed are extremely intelligent," said Mark Miller, professor and the San Antonio Stock Show & Rodeo Distinguished Chair in Meat Science. "Their performance at RMC was a great reflection of the high academic standards of our Department of Animal and Food Sciences."

In addition to the competition at the RMC, Nathan Tapp, a recent Texas Tech graduate, won the doctoral division of the 2016 Student Research Competition. Keelyn Hanlon received honorable mention in the master's division.

Two students also earned individual awards. Gonzales and Beyer, both seniors in the Department of Animal and Food Sciences, were honored by the American Meat Science Association (AMSA) for their outstanding academic achievement and leadership in the meat science industry.

The RMC also held its first Processed Meat Judging Contest during the conference where students were evaluated and answered questions on various processed products. Texas Tech took top honors in the undergraduate division where 55 undergraduate students from nine universities competed.

RMC is an annual conference sponsored by AMSA, which brings together meat scientists and students from academia, industry and government. This year the conference was hosted by Angelo State University, a campus in the Texas Tech University System, in June.

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FOR IMMEDIATE RELEASE

DATE: July 21, 2016

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Dangerously Hot Playground Temperatures Explored by Texas Tech Researcher

Jennifer Vanos with the Climate Science Center led the team that found very hot temperatures on playgrounds.

In warmer climates, where 90- and 100-degree air temperatures are the norm for several months of the year, unshaded playground equipment can reach temperatures that cause burns to children. But a pilot study and <u>paper</u> published this past fall could be the first step toward improving safety at playgrounds throughout the country with a simple, obvious solution – providing a little shade.

The study is from Jennifer Vanos, an assistant professor in the atmospheric science group in the <u>Department of Geosciences</u> and a faculty associate with the <u>Texas Tech Climate</u> <u>Science Center</u>, and her colleagues at Arizona State University.

"We need to provide comfortable spaces, especially in urban areas so kids can go out and play," said Vanos, whose area of specialty is the impact of weather and climate on humans. "During the summer, those spaces often aren't available. But we were able to show that even on extremely hot days, a park that had a shade sail was safe to play in considering heat exposure and burning potential."

Vanos, along with Arizona State professors Ariane Middel and Benjamin Ruddell, studied a playground in the Phoenix suburb of Gilbert, Arizona, which had areas of sun where surface temperatures reached near-boiling point levels but where shade made a significant difference.

The study showed even a little shade on the equipment, whether by an artificial shade sail or by natural means such as trees, had a huge impact on the safety and comfort of not only the playground equipment but also the natural and artificial surfaces on which the playgrounds were constructed.

"This is all probably common sense to a lot of people," Vanos said. "Essentially we're showing by just providing the mechanism of shade in the playground it brought temperatures into safe values so kids could actually play. In hotter temperatures they're not going to play and have a high likelihood of burning their skin."

What Vanos and her colleagues found was striking. For example, the rubber surface on which the playground was constructed, which was soft to cushion falls and colored green and black, was recorded at 87.2 degrees Celsius in the sun at noon, less than 13 degrees

Office of Communications and Marketing

below the boiling point of water. In the shade of a tree, that same surface was recorded at 42.2 C, and under the shade sail was measured at 46.7 C, both much closer to the air temperature of 41.6 C.

In terms of equipment, a green, molded plastic slide with a high-density polyethylene coating was measured at 71.7 C in the sun and 43.9 C under the tree shade. A beige-colored slide of the same material and coating was measured at 63.9 C in the sun and 40.6 C under the shade tree.

For a point of reference, the burn threshold for the slide's material is made is one minute at 60 C, five seconds at 74 C and just three seconds at 77 C, meaning a child's skin does not have to contact the surface for very long in the sun to be burned.

"There are so many reports you can find of kids burning themselves on playgrounds that are just too hot, yet there is little in the way of guidelines from the National Program for Playground Safety (NPPS)," Vanos said. "But this paper is showing there is a good solution."

But Vanos and her colleagues haven't relied just on temperatures taken at the state.

Since the paper was published, further research has focused on taking microscale data from the children themselves. Vanos said an additional step has been taken where researchers assess how microscale weather variables, such as temperature or radiation, can impact a child's thermal comfort level, i.e., how hot or cold they are.

Another pilot study has bene undertaken collecting "individually experienced exposures" of temperatures and ultraviolet-b (UVB) radiation and children's heart rates while playing, and the impact that surface type and shade cover have on children's exposures to both parameters.

"With our microclimate weather station, we get a sense for the full playground's environment, but with the personal sensors, we can see the fine-scale environment experienced by each and every child," Vanos said. "The data can help provide the evidence base needed for designers of playgrounds to use when thinking about the impacts of shade, surface type and overall weather parameters on children's activity levels, health, well-being and behavior."

With the continued warming of the planet, temperatures are only going to rise, making playgrounds hotter and the need for shade greater.

"Urban climates also warm with growing urban areas due to the urban heat island effect. That's cumulative with the increasing temperature due to climate change," Vanos said. "We need to be able to make sure kids can still play and not be stuck inside all the time, especially in warmer climates, because we know it happens. Providing shade is something Lubbock could easily do. We've started this pilot study in Phoenix because that's the hottest city in the U.S., but we want to expand it to other cities and climate zones."



This study is one of the first done on the subject, so little information exists on playground surface temperatures. Vanos is hopeful this study begins the discussion to add heat stress and temperature-related guidelines to construction standards for current and future playgrounds.

"Playgrounds are one of the only places kids get a chance to be creative and play and be kids," Vanos said. "To be able to freelance and play and be creative, it's a really important aspect of kids' lives. We need to make sure we provide a good environment process for that."

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Expert Pitch

FOR IMMEDIATE RELEASE

DATE: July 21, 2016

CONTACT: George Watson, george.watson@ttu.edu

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Expert Available to Discuss Listeria Contamination at Oklahoma Facility

Pitch

On Tuesday, the U.S. Department of Agriculture's Food Safety and Inspection Service announced the Bar-S Foods Company in Altus, Oklahoma, has initiated a voluntary recall of more than 370,000 pounds of chicken and pork hot dogs and corn dog products due to possible Listeria contamination. Though no cases of contamination were confirmed, past issues with Listeria prompted the recall as a precautionary measure.

Kendra Nightingale, an associate professor in the Texas Tech University <u>Department of Animal and Food Sciences</u>, is an expert in Listeria and focuses her research mainly on food safety during pre-harvest and post-harvest time periods.

Expert

Kendra Nightingale, associate professor, Department of Animal and Food Sciences, (806) 834-0837 or kendra.nightingale@ttu.edu

Talking Points

- Possible topics of conversation could include the incidence of listeriosis, the
 general characteristics of Listeria and Listeria monocytogenes and the use of
 combined testing and molecular sub-typing to understand the ecology of Listeria
 in the processing plant environment.
- Specifically, she can discuss how some Listeria monocytogenes strains appear to persist in the processing plant environment while others seem to be transient.

Quotes

 "Persistent strains pose the greatest risk for cross-contamination of ready-to-eat foods such as hot dogs when the product is exposed to the processing plant environment following the lethality treatment."

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Expert Pitch

FOR IMMEDIATE RELEASE

DATE: July 25, 2016

CONTACT: Heidi Toth, heidi.toth@ttu.edu

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Experts: Summer Camps Help Prepare People with Autism for Success

Summer camp is a staple for American children, but one group is often left out – children with autism spectrum disorders (ASD). People with ASD struggle with unfamiliar situations and building relationships, so traditional summer camp is frequently too difficult.

Country musician Zac Brown has announced the coming <u>Camp Southern Ground</u>, a summer camp for all children with special emphasis on children with neurobehavioral disorders, social or emotional challenges and children from military families. It is not the first camp of its kind, but it highlights the need to offer "typical" experiences for neuroatypical children, which help these children develop the life skills needed to be successful in school and beyond.

The co-directors of the <u>Burkhart Center for Autism Education & Research</u> at Texas Tech University are available to discuss the importance of providing "typical" childhood experiences for children with autism spectrum disorder (ASD). The Burkhart Center hosts summer camps for elementary, middle and high school students with ASD.

Janice Magness, co-director, Burkhart Center, (806) 438-9143 or janice.magness@ttu.edu

- Through the years of hosting summer camps she has helped students overcome their fears and enjoy the experience, while talking with a few who struggled with certain aspects of the camp.
- "Many students with ASD have one area of interest they tend to focus on, and it makes it difficult for them to converse or have things in common with others if they don't share their area of interest. Camp works well to expose kids on the spectrum with all types of activities so they are able to see what other things are available to them or that they haven't been exposed to."
- "Hopefully it broadens their horizons, and the student with ASD can become less self-focused and learn to participate in and share other interests."
- "Many students with ASD don't have an opportunity to attend regular camps. So camp can be a special time for them. It would be a sad day when students on the spectrum couldn't participate and have the same opportunities as other kids. Yes, some accommodations must be made to sponsor these camps, but the small changes we make are well worth the effort."

Wesley Dotson, co-director, Burkhart Center, (806) 834-0783 or wesley.dotson@ttu.edu

• Data shows once people with ASD graduate from high school, 75 to 80 percent of their daily social interaction is with family and paid caregivers.

- Camps provide students opportunities to learn and practice the social skills that will help them later in life as they go to college, apply for jobs and begin relationships.
- "Adult success is tied to the ability to develop and maintain relationships, and it's an area of great deficit for folks on the spectrum. It's one of the hardest things for them to do, and it's one of the most important areas to target."
- "Forming relationships does not occur naturally. Exposure is not enough. There's very compelling data showing if you take kids with autism and put them in a class with normally developing peers for six months, they don't develop relationships without help and support."
- "The most common reason people with autism drop out of college is they don't feel connected to their institution and they fail to develop social relationships."
- "Most intervention is focused on young kids who are in school. But they're in school for 18 years and they're going to live another 50 years after that. And those 50 years, the outcomes are driven more by social skills than nearly anything else."

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FOR IMMEDIATE RELEASE

DATE: July 25, 2016

CONTACT: K'Leigh Sims, kleigh.sims@ttu.edu

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Texas Tech, Central Texas College District Commit to College Credit for Heroes Program

The program works to maximize the acceptance of college credits awarded to Texas veterans and service members for their military educational experiences and more.

Texas Tech University and the <u>Central Texas College District</u> (CTCD) in Killeen recently partnered to actively commit to the <u>Texas College Credit for Heroes Program</u>, established by the Texas Workforce Commission in 2011.

The new partnership with the College Credit for Heroes Program will work to maximize the acceptance of college credits awarded to Texas veterans and service members for their military educational experiences and nontraditional learning.

"Our partnership with the College Credit for Heroes Program will provide veterans an excellent opportunity to receive credit for their military training and work experience that applies to their Texas Tech degree program," said Lou Ortiz, director of Texas Tech's Military and Veterans Programs. "The university is committed to helping those who have served our country, and this is an additional way..."

Unique to Texas, College Credit for Heroes was designated as a permanent program after the passage of Senate Bill 806 in the 84th legislative session. The program has succeeded in establishing a standard evaluation process used across the state for veterans and service members to receive classroom credit through a growing network of partner schools. It also supporting the development of 76 fast-track programs to help transform veterans' military experience to civilian careers.

Program administrators hope, along with Texas Tech, CTCD and other participating institutions, that veterans and service members will be able to earn their associate's and bachelor's degrees in an expedited manner to get into the workforce faster.

Depending on each veteran's degree program, it is a possibility that not all military experience and nontraditional learning will be applied as credit. Each transcript will go through an evaluation process before the credits are applied to a veteran's schooling.

Several Texas colleges and universities have partnered with the program, including the <u>Texas Tech University Health Sciences Center</u>, <u>Angelo State University</u>, Texas A&M University and the University of Texas at Arlington, El Paso and San Antonio, and more.

Texas Workforce Commission Chairman Andres Alcantar said the commission and its higher education partners are committed to providing innovative programs to help ease the transition veterans and service members face after going back to civilian life.

To be a part of the College Credit for Heroes program, veterans and service members must first register as a user of the program. After becoming a user, they will then be able to:

- Receive an immediate estimate of credits based on military occupation and service schools attended
- Request an evaluation of military education experiences
- Request a College Credit for Heroes transcript to be sent to a college or university of choice

For more information about the College Credit for Heroes Program, visit its website.

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Advisory

FOR IMMEDIATE RELEASE

DATE: July 26, 2016

CONTACT: Sarah Connell, sarah.n.connell@ttu.edu

(806) 742-2136

Geologist John Organ to Discuss Bridging Wildlife and Politics

The Office of International Affairs will host Organ's lecture on integrating science and politics.

WHAT: The Office of International Affairs at Texas Tech University will host

geologist John Organ to present a lecture titled "Integrating Science and

Politics: A Quest for Durable Decisions."

Organ is chief of the U.S. Geological Survey Cooperative Research Units Program, where his office oversees the operations of natural resources management research conducted at 40 cooperative units at universities

around the country.

The <u>Texas Cooperative Fish and Wildlife Research Unit</u> is sponsoring Organ's lecture, along with the <u>Department of Natural Resources</u>

<u>Management</u>. The lecture will be followed by graduate student poster

displays, all of which is open to faculty, staff and students.

WHEN: 4–6:30 p.m. Thursday (July 28)

WHERE: International Cultural Center Auditorium, 601 Indiana Ave.

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News Release

FOR IMMEDIATE RELEASE

DATE: July 27, 2016

CONTACT: Glenys Young, glenys.young@ttu.edu

(806) 742-2136

Team Led By Texas Tech Physicists Discovers Loneliest Young Star

CX330 may help scientists study the different ways stars can form.

Alone on the cosmic road, far from any known celestial object, a young, independent star is going through a tremendous growth spurt.

The unusual object, called CX330, was detected as a source of X-ray light in 2009 by NASA's Chandra X-Ray Observatory while surveying the bulge in the central region of the Milky Way. Further observations indicated this object was emitting optical light as well. With only these clues, scientists had no idea what this object was.

But when a team led by Texas Tech University <u>Department of Physics</u> associate professor Tom Maccarone and postdoctoral researcher Chris Britt examined infrared images of the same area taken with NASA's Wide-field Infrared Survey Explorer (WISE), they realized this object has a lot of warm dust around it, which must have been heated by an outburst.

Comparing WISE data from 2010 with Spitzer Space Telescope data from 2007, researchers determined CX330 likely is a young star that has been outbursting for several years. In fact, in that three-year period, its brightness had increased a few hundred times.

Astronomers gathered data about the object from a variety of other observatories, including the ground-based SOAR, Magellan, and Gemini telescopes. They also used the VISTA Variables in the Via Lactea and Optical Gravitational Lensing Experiment IV to measure the intensity of light emitted from CX330. By combining the different perspectives on the object, a clearer picture emerged.

"We tried various interpretations for it, and the only one that makes sense is that this rapidly growing young star is forming in the middle of nowhere," said Britt, lead author of a study on CX330 recently published in the Monthly Notices of the Royal Astronomical Society.

The lone star's behavior is remarkably similar to FU Orionis, a young outbursting star that had an initial three-month outburst in 1936-37 and whose bright emissions have been fading ever since. CX330 is fading as well, but its brightness hasn't fallen more than a factor of 10 since its peak in 2010 or 2011. CX330 is more compact, hotter and likely more massive than the FU Orionis-like objects, launching faster outflows slamming into the gas and dust around it.

"The disk has probably heated to the point where the gas in the disk has become ionized, leading to a rapid increase in how fast the material falls onto the star," said Maccarone, co-author on the study.

Most puzzling to astronomers, FU Orionis and the rare objects like it – there are only about 10 of them – are located in star-forming regions. That's because young stars form and feed from their surroundings, which are the gas- and dust-rich – and most tightly packed – regions in star-forming clouds. By contrast, the region of star formation closest to CX330 is several hundred parsecs away. If the sun were this isolated, the nearest star-forming region would be near Orion.

"CX330 is both more intense and more isolated than any of these young outbursting objects that we've ever seen," said Joel Green, study co-author and researcher at the Space Telescope Science Institute in Baltimore. "This could be the tip of the iceberg – these objects may be everywhere."

In fact, it is possible all stars go through this dramatic stage of development in their youth, but many of the outbursts are too short in cosmological time for humans to observe.

How did CX330 become so isolated? Scientists aren't sure. One idea is that CX330 was born in a star-forming region but was ejected into its present lonely pocket of the universe. This is unlikely, astronomers say. Because CX330 is in a youthful phase of its development – likely less than 1 million years old – and still is eating its surrounding disk, it must have formed near its present location in the sky.

"If it had migrated from a star-forming region, it couldn't get there in its lifetime without stripping its disk away entirely," Britt said.

CX330 also may help scientists study how stars form under different circumstances. One scenario suggests stars form through turbulence. In this "hierarchical" model, a critical density of gas in a cloud causes the cloud to gravitationally collapse into a star. A different model, called "competitive accretion," claims stars begin as low-mass cores that fight over the mass of material left in the cloud. CX330 more naturally fits into the first scenario, as the turbulent circumstances would theoretically allow for a lone star to form.

It is still possible other intermediate- to low-mass stars are in the immediate vicinity of CX330 but have not been detected yet.

CX330 was last viewed in August 2015, and it was still outbursting then. Astronomers plan to continue studying the object, including with future telescopes that could view CX330 in other wavelengths of light.

Outbursts from a young star change the chemistry of the star's disk, from which planets may eventually form. If the phenomenon is common, that means planets, including Earth, may carry the chemical signatures of an ancient disk of gas and dust scarred by stellar outbursts.



But as CX330 is continuing to devour its disk with increasing rage, astronomers do not expect that planets are forming in its system.

"If it's truly a massive star, its lifetime is short and violent, and I wouldn't recommend being a planet around it," Green said. "You could experience some pretty intense heat for a few centuries."

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News Release

FOR IMMEDIATE RELEASE

DATE: July 28, 2016

CONTACT: Glenys Young, glenys.young@ttu.edu

(806) 742-2136

New Director Named to Lead Texas Tech Neuroimaging Institute

Eric Walden will work to expand the institute's scale and research opportunities.

Texas Tech University has named Eric Walden as the new director of the <u>Texas Tech</u> <u>Neuroimaging Institute (TTNI)</u>.

<u>Walden</u> is the director of <u>data science</u> programs and is the James C. Wetherbe Professor in the <u>Rawls College of Business</u>. He earned his doctorate in information and decision sciences from the University of Minnesota's Carlson School of Management. Walden's research uses a variety of neuroscientific tools – including functional and structural magnetic resonance imaging, electro-encephalogram and genetic analysis – to understand how people search for information.

The TTNI is a multi-user neuroimaging facility that promotes cutting-edge research among faculty and graduate students of Texas Tech and the <u>Texas Tech University Health Sciences Center</u>. The institute provides researchers with brain and body imaging technologies and techniques. One of Walden's duties will be to expand the institute's scale and research opportunities.

"One of the ways Texas Tech achieved and will retain a Tier One research distinction is by doing cutting-edge multidisciplinary research, and the Texas Tech Neuroimaging Institute is part of that," Walden said. "It is an honor to be charged with leading the TTNI, and I look forward to working with more members of the Texas Tech research community."

Walden replaces <u>Sunandra Mitra</u>, who served as the TTNI's interim director since October 2013. Mitra is a Paul Whitfield Horn Professor in the <u>Department of Electrical & Computer Engineering</u> and founding director of Texas Tech's Computer Vision & Image Analysis Laboratory.

"I'm excited to have Eric in this new role," said Guy Loneragan, interim <u>vice president for research</u>. "He is an exceptional researcher and leader and will build on the solid foundation Sunanda Mitra has put in place at TTNI. I thank Dr. Mitra for her work as interim director and look forward to the new research opportunities Eric will create at TTNI."

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Office of Communications and Marketing

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News Release

FOR IMMEDIATE RELEASE

DATE: July 28, 2016

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Research Shows 'Dr. Phil' Viewers More Empowered to Seek Treatment

The study, conducted by Media & Communication professor Eric Rasmussen, shows those who regularly watch the daytime show intend to seek help for mental health issues.

A plethora of daytime television talk shows are broadcast every day throughout the United States on a variety of subjects, some of which go almost beyond the unbelievable.

Rarely is the value of any of these shows more than sheer entertainment, exposing drug problems, marital problems or which of three men is the father. Getting actual help from any of these shows is probably the furthest thing from a viewer's mind.

But the "Dr. Phil" show might be the exception. New research performed by a professor in the Texas Tech University College of Media & Communication shows those who watch Dr. Phil are more apt to seek treatment for mental health issues for both themselves and their children than those who do not watch the show.

Eric Rasmussen, an assistant professor in the area of <u>public relations</u>, collaborated with David Ewoldsen at Michigan State University on the project. Through an online survey of more than 300 people with children ages 8-17, they found people who regularly watch Dr. Phil were more likely to seek professional help for a mental illness – and do so for their children as well – because they felt encouraged by the trained psychologist after watching him deal with similar mental health issues on his show.

"Many people with a diagnosable mental disorder don't obtain professional personalized treatment, so they turn to things in the mass media like Dr. Phil or self-help books," said Rasmussen, whose research specialty is children and mass media. "Our study shows the more people watch "Dr. Phil," the more they develop a parasocial relationship with him. It's a media-mental health professional and TV viewer-patient relationship. That eventually leads to intentions to seek treatment for oneself and one's child."

Developing the relationship

Phil McGraw is a native of Vinita, Oklahoma, who earned his doctorate in clinical psychology from the University of North Texas in 1979. He got his start in television as a weekly relationship consultant on "The Oprah Winfrey Show" in 1998 before launching his own program, which is syndicated worldwide, in 2002.

On the show, Dr. Phil offers advice through what is called "life strategies," taking experiences from his life to cover a variety of topics and offer therapy sessions. It is his dealings with people on his show who identify as having some form of mental illness that was most intriguing to Rasmussen and Ewoldsen.

They sent out an online survey asking people how much they watched "Dr. Phil." It wasn't a requirement to watch the show in order to take the survey. The only requirement Rasmussen put forth was those taking the survey had to be a parent of a child between the ages of 8 and 17. Participants also were not asked about how much they watch similar shows.

What they found was those respondents who regularly watch "Dr. Phil" develop what is called a parasocial relationship. A parasocial relationship occurs when a person feels as though they have a special connection with a character in the media, such as a television star or athlete.

"It's like when you go to a normal doctor you develop that sense of trust, that feeling of thinking you have a special connection with that person," Rasmussen said. "This happens with people with athletes and actors they see on television. If people watched a TV show like "Friends" back in the day, they develop that parasocial relationship with the characters to where when it finally goes off the air, people feel that sense of loss as if they have lost a friend.

"It's kind of like a quasi-friendship, almost."

Rasmussen said the survey found people who watched "Dr. Phil" regularly develop that parasocial relationship with him, mostly due to two factors. The first is he is a genuine person, not an actor playing a part, and second, he often looks into the camera, speaking to the television audience directly.

Through that electronic interaction, Rasmussen said, viewers see people on his show who have similar problems as they do, and by Dr. Phil helping those people on his show, viewers feel empowered to seek treatment not only for their problems but for those of their children as well.

Rasmussen warns, however, that people need to make sure the relationship doesn't go further than that, forcing the media mental health professional to walk a fine line.

"The American Psychological Association has these rules that media psychologists aren't supposed to lead viewers to believe they are developing a professional relationship with viewers," Rasmussen said. "But there is a relationship going on between Dr. Phil and his viewers. One of the things I worry about is media mental health professionals need to be clear that you are not their counselor, you are not their psychologist. You're just people in the media talking about these issues."

Rasmussen feels Dr. Phil does a good job of explaining to the audience, both in studio and watching on television, that they are just discussing the issue while encouraging them to seek professional help if they feel it is necessary.



Seeking help

Even though some psychotherapists have criticized the "Dr. Phil" show over the years for handing out advice that was too simplistic or ineffective, Rasmussen's research shows regular viewers of the show were more apt to seek treatment for themselves and their children once they saw people with similar problems receive help from McGraw on the show.

"The relationship in a normal doctor-patient setting leads to a belief that, 'Hey, I have the ability to treat my mental illness or have the ability to find help," Rasmussen said. "And they think when they go look for help that it will work. It starts with the "Dr. Phil" show, leads to the parasocial relationship and that leads to self-efficacy beliefs that I will find treatment for myself and for my child if I suffer from that mental illness. And that leads to intentions to seek treatment. Intentions are probably the biggest predictors of actual behavior."

Rasmussen said that pathway, from Dr. Phil to the parasocial relationship to perceived efficacy to intentions to seek treatment, was performed for not only the adult taking the survey but the child as well.

Rasmussen noted that because this is solely survey-based research it does not necessarily establish causality, but that the theoretical mechanism involved can show that, statistically, it is all related.

Part of the survey also included a video clip from the show that was shown to determine if viewers get the same empowerment to seek treatment from watching just one episode, but they did not, meaning the empowerment comes from watching the show over time.

Rasmussen also feels Dr. Phil's background as a trained psychologist gives his show and the advice he gives on it extra credence that might not be found on other shows.

"I don't know if he's currently licensed to practice, but at one point he was, and I think he's not afraid to say he's a psychologist," Rasmussen said. "He has that credibility of being a psychologist, whether or not he's a licensed practitioner in whatever state he is in."

The next step in the research is to find out if the "Dr. Phil" show actually changes behavior, to discover how many of those surveyed who said they felt empowered to seek mental health treatment actually went to a trained psychologist or psychiatrist. But to do that, he said, he would need to bring in a mental health professional to assist with further questions that delve into the actual mental health issues.

"Right now it just changes intentions," Rasmussen said of the show. "But does the 'Dr. Phil' show or other media mental health professional that people watch or listen to, does it change their behavior? Are people actually walking into a doctor's office from this? That is the next step."

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News Release

FOR IMMEDIATE RELEASE

DATE: July 28, 2016

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Texas Tech Vice Provost to Temporarily Head U.S. Embassy in Nigeria

Tibor Nagy, vice provost for International Affairs at Texas Tech, was selected to serve as interim ambassador in Nigeria by the U.S. Department of State.

Tibor Nagy, vice provost for International Affairs at Texas Tech University, was recently selected by the U.S. Department of State to temporarily head the U.S. Embassy in Nigeria as charge d'affaires (interim ambassador) during the month of August.

Due to the retirement of the current U.S. ambassador and the wait required for Senate confirmation of the newly nominated ambassador, an important position managing a key foreign relationship was left unfilled. Because of his extensive experience in African relations, Nagy was selected to temporarily fill this key position by serving as Nigeria's U.S. ambassador.

Nagy's experience in Africa numbers over 20 years and includes serving as general services officer in Lusaka, Zambia, administrative officer in Victoria, Seychelles, systems administrator for the African Bureau in Washington, administrative officer in Addis Ababa, Ethiopia, deputy chief of mission at Lome, Togo, Yaounde, Cameroon and Lagos, Nigeria, deputy U.S. ambassador in Nigeria, U.S. ambassador to Ethiopia and ambassador to Guinea.

Born in Budapest, Hungary, Nagy entered the U.S. as a political refugee before attending Texas Tech, where he earned his bachelor's degree in 1972. Nagy said he is deeply honored for the opportunity to again represent the U.S. and promote its interests in one of the most key partner countries in Africa.

"For the U.S., Nigeria grows in importance each year because of our mutual security and economic interests," Nagy said. "The Nigerian people are terrific and I'm really looking forward to experiencing all the changes since my last visit many years ago."

Because Nigeria is the world's 15th largest nation in terms of sending international students to the U.S., Nagy plans to promote Texas Tech during his time there as an ideal option for Nigerian students seeking to study at a U.S. university. With Nigeria's greatest higher education needs paralleling areas where Texas Tech excels – petroleum engineering, agriculture, business and other STEM areas, for example – both Texas Tech and the students of Nigeria can benefit from this collaboration as well as from Nagy's continued service in Africa.

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Web Only

Research: Watching Right TV Shows Can Help Kids Develop Social Skills

Researchers in mass media and autism education found young children who watch "Daniel Tiger's Neighborhood" learn empathy and other school readiness skills.

By Heidi Toth

Imagine if a person's future success could be predicted in kindergarten.

While the United States is nowhere near an Aldous Huxley-inspired society where futures are assigned at or before 5 years old, the years leading up to and including kindergarten are a critical time for children to learn the skills needed to build relationships, become independent and communicate with others. Neither success nor failure are guaranteed by this age, but it's a lot of pressure to put on 5-year-olds – and the people raising them.

"Research shows kids who develop certain social and emotional skills by kindergarten are more successful socially and academically in both kindergarten and beyond than kids who don't have those social and emotional skills by that time," said Eric Rasmussen, an assistant professor of <u>public relations</u> in the <u>College of Media & Communication</u> at Texas Tech University. "The preschool years are really important for building these skills."

Those skills – empathy, recognizing others' emotions and knowing how to respond, following directions, asking for help and the ability to do age-appropriate tasks for themselves, among others – are known as school readiness skills. They are frequently taught through interactions with parents, siblings and peers, modeling, parental mediation and curricula in preschool and day care.

Rasmussen, who studies children and mass media, wondered if prosocial television programming – in this case, the PBS KIDS show "Daniel Tiger's Neighborhood" from the Fred Rogers Company – could help children develop these skills. He gathered a group of media and child development researchers and asked a seemingly counterintuitive question – can watching TV be good for children?

The short answer? Yes.

The long answer is more complicated – yes, if it's the right TV and is accompanied by parents who talk to their children about what they're watching. In another, related study, a researcher who studies autism found "Daniel Tiger's Neighborhood" may actually help children with autism spectrum disorder (ASD) pick up skills as effectively as specialized video modeling, the long-time gold standard in autism treatment.

"Realistically, I don't believe for a second that you can plop a kid with autism down in front of a TV show and that be the primary means of instruction," said Wesley Dotson, codirector of the Burkhart Center for Autism Education & Research and lead author on the

Office of Communications and Marketing

second study. "But it can be really hard to find things that engage a child with autism, and 'Daniel Tiger's Neighborhood' does seem to engage kids with autism to a high degree."

Who is Daniel Tiger?

Parents of today may notice some familiar themes as they watch "Daniel Tiger's Neighborhood" with their children. The show is the cartoon descendant of "Mister Rogers' Neighborhood;" the 4-year-old animated Daniel Tiger is the son of Daniel Striped Tiger, a puppet from the Neighborhood of Make-Believe. Daniel's friends also are the children, siblings, nieces and nephews of characters on the original show.

It was created with the intent of teaching young children, Rasmussen said. As he considered research into children learning from the media, he and other researchers looked at the shows their children were watching. His then-4-year-old daughter watched "Daniel Tiger's Neighborhood," and he noticed how carefully crafted each episode was.

Rasmussen contacted Out of the Blue Enterprises, one of the creators and producers of the show, and learned about the research into child development and media that goes into each episode, down to how fast the scene switches, when the characters talk at the camera versus to each other and the repetitive nature of the songs.

"We found out all the strategies that go into the show and the purpose of each episode," he said. "We were able to really understand why the curriculum does what it does and what the goals of each show were."

He also learned Daniel Tiger was designed for children 4 years and younger and their parents, especially low-income families who might need extra help with strategies on fostering the social skills needed to succeed in school. Daniel Tiger has many of the same experiences young children do, including going to school for the first time, being afraid of getting a shot at the doctor's office, trying new foods, getting along with friends and listening to their parents.

The effect of prosocial media on children

Rasmussen and his colleagues enrolled 127 preschoolers between the ages of 2 to 6, plus one parent per child, in the study. About two-thirds of the group was classified as low-income, which Rasmussen said was intentional.

"The low-income kids don't get some of the social interactions that are necessary to develop these school-readiness skills," he said. "Those are the kids that need it."

The participants were divided into groups:

- A group that watched "Daniel Tiger's Neighborhood" with their parents and talked about it frequently.
- A group that watched the show with their parents but did not talk about it.
- A group that watched the show without their parents and did not talk about it.
- A control group that watched episodes of a nature documentary.

After two weeks, with children watching one episode per day, they returned to the lab to be tested on three skills: empathy, emotion recognition and self-efficacy, which is basically



the child's confidence in his or her ability to be successful in social interactions. Researchers measured empathy by asking parents a number of questions about how their children reacted in certain situations; emotion recognition by showing children a series of faces and asking them to identify which emotion showed on the face; and self-efficacy by having two frog puppets, Muffy and Fluffy, say statements like, "I'm good at making friends" and "I'm not good at making friends," then asking the children to choose which puppet they were more like.

The results showed children who came from homes where regular parent-child communication about TV takes place showed greater empathy, emotion recognition and self-efficacy. How much parents talked to their children about TV during the study was inconsequential – what made the difference in whether children learned from watching the show was the long-term consistency of parents talking with their kids about television content. This was especially evident in the 2- to 4-year-olds and the low-income children. With the age difference, Rasmussen said they thought older children likely already had those skills, so any benefit was minor.

The low-income dynamic is a tougher piece to tackle. The researchers theorized children from higher income households had more access to opportunities to develop these skills, so they needed the lessons from the show less. However, low-income children also are more likely to live in a higher state of stress because parents may be worried about employment, money and housing. Additionally, if the poverty was generational, their parents may not have adequately developed these skills when they were young and thus may be less effective at interacting with their children.

That leads to Rasmussen's next research question – can parents learn parenting skills from watching "Daniel Tiger's Neighborhood?" Although the adults in the show don't directly address the parent viewer the way Daniel does with children, his parents, teacher, doctor and other adults do model empathy, listening, encouragement and emotion recognition. Rasmussen thinks Daniel Tiger could help parents as well, which is a necessary part of the equation.

"It's not enough to just plop your kid in front of the TV and hope they're going to develop these social and emotional skills," he said. "There has to be a certain level of involvement in kids' TV viewing experiences."

One other finding stuck out to co-author Malinda Colwell, an associate professor of human.col.org development and family studies in the College of Human.col.org. Researchers found the children who were more familiar with the characters on "Daniel Tiger's Neighborhood" had better socio-emotional skills. The researchers thought this had less to do with actually spending more time watching the show than it did with relating to the characters and thus focusing better on what those characters were doing.

"One explanation is that children may have more familiarity with the characters because they relate to them well and they like them and therefore learn more from them because they pay close attention," she said. "Young children are clearly influenced by those characters (and people) they relate to and want to be like."

Exploring Daniel Tiger and autism

As the Daniel Tiger producers worked with Rasmussen, they passed on some anecdotal evidence they'd heard: "Daniel Tiger's Neighborhood" was good for teaching life skills to children with autism. Rasmussen reached out to Dotson and brought him to the research team.

Dotson started with watching the show. After a few episodes he understood why children responded to Daniel Tiger; the episodes were designed in the same way autism researchers design effective instruction. Each episode was based around a skill or experience, like trying an unfamiliar food, and showed Daniel or another character describing the skill and each step, modeling the skill, inviting the viewer to try it and offering feedback.

Moreover, no other autism researchers have examined the idea that a TV show could effectively teach skills. The prevailing wisdom has been that video modeling must be designed for each specific child, since autism is a spectrum disorder. Researchers also thought children needed an adult to walk them through each step and reinforce what was on the video to make learning effective.

To isolate the effect of "Daniel Tiger's Neighborhood," the researchers brought in two high-functioning 5-year-old boys with ASD one at a time. They picked two skills: trying new foods and stopping play when asked. Researchers tested each boy, having them play in a room with adult supervision but no interaction. After a few minutes, the adult would ask the boy either to stop playing and come to the door or to try some of the food that had just been brought out. Neither boy responded to either request.

With that as a baseline, the researchers had each boy come in separately, play for a few minutes, test one of the skills, then send the boy into a different room to watch the Daniel Tiger episode about that skill. An adult was present but still not interacting. After the episode the child went back into the play room, played for a few minutes, then was invited to try a new food. There was no hinting, cajoling or referencing Daniel Tiger from the adult.

"Because I know that adult involvement in teaching absolutely will lead to learning, I wanted to pull that out," Dotson, the study's lead author, said. "I could have had the adult in the room with the kid prompting and saying, 'Hey, look at Daniel Tiger trying new foods! If you have food in front of you, you should try it too, and here's how.' Well, if they tried the food, experience would say it's because the adult told them to do it and used the cartoon as a way to have the conversation. We wanted to know if they only watched the cartoon, what happened?"

"There was never a prompt to say, 'Show me how Daniel Tiger tries new food' or 'Show me how Daniel Tiger stops play,' or 'Would you stop play like Daniel Tiger?' We didn't do any of that, and that's actually what the literature would suggest we would need to do."

The results were astounding. Researchers found both boys learned the skills simply from watching the show. They didn't pick up each skill immediately and they didn't perform



each skill perfectly every time, but they did learn the skill. One boy, who hadn't tried new foods in months, watched the episode twice and had no problems trying new foods in six consecutive meetings, even without watching the episode again.

"That was really the moment when my jaw dropped and I said 'Wow. We've got something here," Dotson said. "I don't know what it is yet, but there's something here to understand, because kids with autism who are food selective don't just walk in one day and try everything that's put in front of them."

It was a small study; the numbers dropped from five to two after one child lost interest in "Daniel Tiger's Neighborhood" and the parents of two other children went home and practiced the skills with their children. Because of its size and the nature of autism as a spectrum disorder these results can't be extrapolated to children with autism at large, but it does introduce new ideas about how to teach effectively.

"Although that study was done with just two kids, it was a rigorous, extensive study on these kids' reaction to 'Daniel Tiger's Neighborhood," Rasmussen said. "This was the first time with any number of kids that the rigorous research methods used in autism research were employed to see whether kids on the autism spectrum could learn from it. It can't be generalized to all kids with ASD, because the spectrum is so broad, but it does provide initial evidence that TV, especially programming aimed at teaching kids, may be a way to model behaviors for kids on the autism spectrum."

Next steps

The research into autism raised more questions than it provided answers. Dotson and the other researchers are working to replicate the results found in the pilot study. Because they are working with more children, they have older and younger children along with some who are high-functioning and others who are almost nonverbal, which has produced different results. They also are determining the frequency with which children need to watch the episodes to learn the most; he is finding too much time between visits is not helping the children.

On the mass media side, Rasmussen and his team are looking at whether parents can learn parenting skills from "Daniel Tiger's Neighborhood" and looking at children's use of an app based on the show. They want to know how playing games can supplement what children learn from watching the show.

Outside of research, the team is hoping parents, teachers and caregivers can use this information to help children. From Colwell's perspective as a child development researcher, it's a promising step that mainstream media is taking a role in helping children develop life skills and encouraging conversations between children and parents.

"The show is developed with children and their families in mind," she said. "Our findings support the importance of parents talking with their children about social situations when children are quite young. This reinforces the idea that young preschoolers are learning

much about social interactions, as well as expressing and responding to emotions, through what they see Daniel Tiger and his friends do."

Sidebar: Authors in the media study

- **Eric Rasmussen,** assistant professor of public relations in College of Media & Communication
- Autumn Shafer, assistant professor at the University of Oregon, who was a faculty member in public relations at Texas Tech during the study
- Malinda Colwell, associate professor of human development and family studies in the College of Human Sciences
- Shawna White, doctoral candidate in the College of Media & Communication
- Narissra Punyanunt-Carter, associate professor of communication studies in College of Media & Communication
- Rebecca Densley, doctoral candidate in the College of Media & Communication
- Holly Wright, a doctoral student in human development and family studies in the College of Human Sciences

Read "Relation between active mediation, exposure to Daniel Tiger's Neighborhood and U.S. preschoolers' social and emotional development" in the Journal of Children and Media.

Authors in the autism study

- **Wesley Dotson**, assistant professor of educational psychology and co-director of the Burkhart Center in the College of Education
- Eric Rasmussen, assistant professor of public relations in College of Media & Communication
- Autumn Shafer, assistant professor at the University of Oregon, who was a faculty member in public relations at Texas Tech during the study
- Malinda Colwell, an associate professor of human development and family studies in the College of Human Sciences
- Rebecca Densley, doctoral candidate in the College of Media & Communication "Evaluating the ability of the PBS children's show Daniel Tiger's Neighborhood to teach skills to two young children with Autism Spectrum Disorder" will be published later this summer in <u>Behavior Analysis in Practice</u>.



Web Only

Researcher Looking at What Bears, Worms, Weeds Contribute to Obesity Treatment
Naima Moustaid-Moussa, who recently accepted an NIH appointment to review grant
applications, is a leading researcher in the causes of obesity.

By Heidi Toth

Naima Moustaid-Moussa came to Texas Tech University almost four years ago as a senior strategic hire for the <u>College of Human Sciences</u>. Dean Linda Hoover charged Moustaid-Moussa to expand research and increase collaboration in the field of obesity research.

In that time, Moustaid-Moussa has spearheaded the creation of the <u>Obesity Research</u> <u>Cluster</u>, a group of dozens of researchers from several disciplines who study all aspects of obesity, continued a collaboration with an agriculture group at the University of Tennessee looking at biofuel, collaborated with engineering, biological sciences, animal and food science and plant and soil science and medical researchers and received a number of awards and recognitions from within the obesity and nutrition research community.

And in 2014, through the efforts of many people, Hoover created the <u>Department of Nutritional Sciences</u>, for the first time breaking nutrition, diabetes and obesity research away from <u>Hospitality and Retail Management</u>.

The latest recognition for Moustaid-Moussa, who came to Texas Tech from the University of Tennessee and to the United States after earning her doctorate in France, is an invitation to review grant applications for the National Institutes of Health (NIH), one of the most competitive funding sources in the United States because of its rigorous review process.

"Highly respected, dedicated and talented reviewers volunteer their time to provide careful reviews of submitted grants," said Dr. Nikhil Dhurandhar, chairman of the Department of Nutritional Sciences at Texas Tech. "Due to the responsibility involved in reviewing projects that would potentially have a high impact on society, the reviewers are handpicked for their expertise and scientific acumen. Therefore, an invitation to be a reviewer for NIH is often an acknowledgement of one's scientific expertise and prominence in one's research field."

Moustaid-Moussa started July 1 as a member of the Clinical and Integrative Diabetes and Obesity Study Section for the NIH. Study sections are composed of experts who provide reviews of the grant applications, discuss their merits and rank the applications. These recommendations are then discussed by the NIH council and director for funding decisions. Moustaid-Moussa will participate in this twice a year for the next six years.

This is her first appointment as a standing member of such a committee for the NIH, though not her first time reviewing NIH grants. She was a peer review committee chair for

the American Heart Association and has been a temporary and ad hoc committee member for the NIH and U.S. Department of Agriculture (USDA).

It will not slow down her research. Moustaid-Moussa has a half-dozen studies looking at a variety of factors related to obesity. She has made this work her life's mission, and that includes her research, mentoring graduate and undergraduate students, postdoctorates and junior faculty and helping other researchers answer their questions. So much of what they do is interconnected.

"When you do this kind of basic science, it's trying to solve puzzles," she said. "One piece of the puzzle might hold the key to many things."

Obesity Research Cluster

As the co-founder of the Obesity Research Center at the University of Tennessee, Moustaid-Moussa had an idea to increase collaboration: get people talking to each other about their research. When she came to Texas Tech she implemented the same strategy. Within a few months of her arrival the Obesity Research Cluster advisory board was formed.

The board has about 20 people from plant and biological sciences, nutritional sciences, media and communications, biotechnology, engineering, nursing and medicine. From there, they planned faculty seminars and annual research meetings, brought in guest lecturers and created a website and a journal club, all centered on increasing collaborations among obesity researchers.

"The goal was to discuss this idea of creating some kind of resource, some kind of infrastructure where people can share and collaborate on research related broadly to obesity," Moustaid Moussa said.

In 2014, the university put out a call for research clusters, Moustaid-Moussa led a successful application and the Obesity Research Cluster was official. It received Tier 2 funding, which paid for postdocs and graduate students to help with collaborations; bringing top scientists in obesity to Lubbock to talk about their research and give feedback, which would raise the university's profile; and research seed money for teams to generate preliminary data that would help jumpstart external grant applications.

From there, they've worked to increase collaborations, get more studies published and raise the profile of obesity researchers at Texas Tech, which will help the cluster to grow.

"We cannot just go after major external funding for our obesity cluster," she said. "We need to show we have a track record of some sort to be competitive."

The Obesity Research Cluster is reaching outside the university, looking at partnerships with other institutions within the Texas Tech University System, the Texas A&M AgriLife Extension and others.

It remains a labor of love for Moustaid-Moussa; being director of the cluster isn't actually in her job description. She does it because she believes encouraging collaboration is critical



in research into obesity and because it is in line with her research, which looks at a variety of contributors to obesity.

Adipocytes, inflammation and genetics

Adipocytes are fat cells. Every human and animal has them, but not every fat cell works the same way in different areas of the body, nor is every fat cell created equal. Fat tissue, Moustaid-Moussa explained, is not composed only of fat cells. It includes stem cells, which can create more fat cells, and immune cells. The fat tissue also has blood vessels that nourish it and helps it communicate with other parts of the body.

Of the fat cells, some expand easily while others don't. More and bigger fat cells are present in obesity, but it's not clear why some people's fat cells expand at differing rates. This could be due to differences in age, genetic factors or different metabolic rates that can be influenced by both genetics and age. Physical activity and diet also play an important role.

"When someone develops obesity, the fat tissue expands," she said. "It expands in size in part because as those round fat cells grow, they accumulate more lipid."

Some of those reasons are the commonly known contributors to obesity that change the energy balance toward storing more fat instead of breaking it down. For example, people eat diets rich in calories, especially fat and sugar, which the body converts into lipids and stores in fat cells. Others are a little more complicated. In some people, the high-fat diet can trigger their stem cells to multiply and convert into new fat cells. To explain, Moustaid-Moussa paraphrased a common expression in her field: "The genes load the gun and the environment, like high caloric diets and low physical activity or a sedentary lifestyle, pulls the trigger."

What that leads to, besides greater obesity, is inflammation-inducing molecules known as cytokines are secreted from the fat tissue into the bloodstream. These molecules can cause the liver to stop responding to insulin and therefore make more glucose; stop muscles from taking in glucose; and dysregulate the pancreas, all of which can lead to high blood sugar and over time Type 2 diabetes and other obesity-related illnesses.

"One of our main hypotheses is that adipose tissue expansion and inflammation is responsible for most disorders associated with obesity through the substances the fat tissue produces that can reach all the organs in the body," she said.

Besides cytokines, fat cells produce hormones like angiotensin II, known for increasing blood pressure in humans. With grants from the American Heart Association and USDA and using bioengineered mice, Moustaid-Moussa determined this hormone can be produced from fat cells and secreted into the bloodstream, contributing to obesity, inflammation and high blood pressure in mice. When she used angiotensin inhibitors, drugs in use in humans to reduce blood pressure, the mice experienced lower weight, fat mass, inflammation and were better able to handle glucose and protect against diabetes.

Breast cancer

Most breast cancer can't be traced to obesity, especially before menopause, but Moustaid-Moussa's newer research direction led her to believe some can, all leading back to these inflammation-causing cytokines from fat cells. To test this hypothesis, graduate and undergraduate students on this project grew fat cells from both mice and humans, obese and not, and grew breast cancer cells, then exposed the breast cancer cells to the media where the fat cells were cultured. The experiment shows fat cells from an obese human have more harmful molecules and create a better environment for the breast cancer cells to grow and get more inflamed.

That is not great news. What is helpful is finding out which dietary factors can help reduce obesity-related diseases – looking at identifying beneficial components from such things as omega-3 fatty acids in fish oil, which are good fats. Omega-3s are full of anti-inflammatory effects, and the experiment showed feeding omega-3s to mice changed the composition of the fat cells, making them smaller, reducing the number of inflammatory cytokines produced and resulting in a lower weight and blood sugar for the mice.

"Even in those mice that had some degree of obesity, omega-3 fatty acids actually improved the metabolism of that mouse," she said. "It became more healthy, with less inflammation and lower blood glucose and insulin and smaller fat cells."

When mouse or human fat cells were treated with omega-3 fatty acids before being exposed to breast cancer cells, Moustaid-Moussa's lab found the cancer cells used less glucose and produced fewer inflammatory substances, so they had a harder time growing.

Harnessing the power of biofuels

Before coming to Texas Tech in 2012, Moustaid-Moussa was an obesity researcher at the University of Tennessee Institute of Agriculture. While there she started a project with forestry, plant and food science and agriculture groups to study switchgrass, a perennial bunchgrass native to North America and a major biomass and biofuel crop in the United States that is used in ethanol production. The work is funded by USDA and the Southeast Sungrant Center.

Biofuels, though, provide energy for cars and buildings, not bodies. But Moustaid-Moussa and her collaborators found this weed had other secret powers. When switchgrass is fermented, certain compounds had to be removed from it. Her team took a closer look at those compounds and found they were full of polyphenols or phytochemicals like those found in fruits and vegetables that have antioxidant and anti-inflammatory properties. In exposing fat cells to these discarded compounds, she found they reduce inflammation and lipid accumulation in the cells.

Moustaid-Moussa is now part of this unusual collaboration, even holding a patent, issued in March, on antimicrobial and anti-inflammatory effects of switchgrass extracts.

"That's very exciting because this is an added value to this biomass that is usually going to be wasted, but we can create something out of it," she said.

She's also working with professors in kinesiology and at the <u>Texas Tech University Health</u> <u>Sciences Center</u> (TTUHSC) on related projects to test potential uses of bioactive food to



prevent obesity, diabetes and inflammation. One of these projects, led by a TTUHSC professor, was funded by American River Nutrition Inc. to study beneficial effects of vitamin E derivatives in these diseases.

Finding the humanity in worms

The primary purpose of the Obesity Research Cluster is to enhance collaboration among obesity researchers and create new research opportunities. Finding unique collaborations is one of the best ways to generate knowledge and publish innovative research that will draw external grant funding.

With that in mind, Moustaid-Moussa sought unique partnerships. In looking at the idea of developing an obesity and bioengineering research area, she found a natural partnership with chemical engineering professor Siva Vanapalli. Few if any obesity centers funded by the National Institutes of Health are examining bioengineering.

They're starting with finding ways to use a worm – a nematode named C. elegans, one of the most adaptable species around. This worm is, perhaps surprisingly, an excellent model for humans; human-like genes are functional in the worm, including the genes for fat metabolism and insulin signaling, and worms can get fat. Additionally, the nematode lives only three to four weeks, so scientists can study its entire life cycle and track age-related changes.

"It's a very simple model, but some of the earlier studies on caloric restriction and aging came from studies on the worm," Moustaid-Moussa said.

The researchers will study how some dietary factors like bioactive compounds in fish oil (omega-3 fatty acids) and tart cherry (anthocyanin compounds) affect the metabolism of fats and their relationship to inflammation and obesity-related oxidative stress. This study will take advantage of a novel microfluidics system that Vanapalli designed and allows them to study worms in a liquid environment. Working with worms is more cost-effective than humans or rodents and can provide information to be tested later in humans.

The research partnership – Moustaid-Moussa, Vanapalli, mechanical engineering professor Jerzy Blawzdziewicz and nutritional sciences professor Shu Wang received a grant last year from the USDA for this study. Additionally, students from nutritional sciences, plant and soil sciences, biotechnology and chemical engineering, as well as the Undergraduate Research Scholar program in the <u>Honors College</u>, are working alongside the professors on this transdisciplinary project.

Brown vs. white fat

Obesity isn't black and white. It turns out fat has a few more shades as well.

Researchers have found humans have two types of fat: white and brown. Well, and there's also a hybrid of the two, appropriately known as beige, or brite, fat. Brown fat is "good," while white fat is "bad," Moustaid-Moussa said, adding the caveat that white fat in the

right amount can be good; it makes some substances that can reduce inflammation and diabetes.

But white fat also expands and secretes pro-inflammatory substances, so obesity occurs when a subject has more white fat than brown fat and those white fat cells enlarge too much and inflame.

Scientists, including Moustaid-Moussa, are still making sense of the role white and brown fat play in the human body. Brown fat has more mitochondria and is more active metabolically than white fat. Newborns and hibernating animals have more brown fat; its primary use is generating heat.

"Obesity is very complex, and many factors contribute to it," she said. "In the search for solutions to a disease as complex as obesity, one thing that could help is we need more brown fat and less white fat."

That much they know. There are still many questions related to brown fat, however, including how it is created and whether white fat can turn into brown fat. Omega-3 fatty acids seem to increase, or at least activate, brown fat in mice, which led to the animal weighing less and having less inflammation. Colder temperatures also lead the development of brown fat; a study found individuals who keep their bedroom temperatures at 66 degrees or cooler may experience less obesity, possibly by activating brown fat.

Another study showed when people who suffer from insomnia wore a cap filled with cool circulating water, they slept almost as easily as people without sleep problems, which Moustaid-Moussa said may be due to activating more brown fat or lowering brain activity by the cold, which helps sleep.

These are specific actions, but she said they don't know yet why some people have more brown fat and thus are less likely to experience obesity. It could be genetic, it could be environmental or it could be interaction between the two. Certainly obesity is complex and many factors can contribute to it. Some research has shown people who are physically active produce a hormone, irisin, that may go into the bloodstream after exercise and activate the brain fat. Moustaid-Moussa also is asking whether some nutrients can increase irisin and mimic the effects of physical activity.

While no researchers have figured out if going from white to brown is possible, there is a third color of fat in the human body as well. Beige fat still has lipids, as white fat does, but more mitochondria, like brown fat, and it's more responsive to cold and other treatments that stimulate brown fat, so it is a brown fat-like cell. She and other scientists believe beige fat may be a link in turning white fat into brown fat.

Moustaid-Moussa is waiting on a grant from NIH to continue her work into brown fat. She wants to understand what activates brown fat proteins and whether brown fat responds to omega-3 fatty acids as it appears to respond to cold or physical activity. Her goal is to find diet and lifestyle changes that can modulate genetic effects to help people cope with obesity, which is more manageable for most people than frequent trips to the doctors.

Other ongoing collaborations related to omega-3 fatty acids include work with researchers from the Center for Biotechnology and Genomics at Texas Tech with professors Rao



Kottapalli, Susan San Francisco and Masoud Zabet to identify genes and proteins in mice, humans and worms, which may help explain how omega-3 fatty acids and other nutrients regulate fat metabolism.



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Staff Senate Welcomes New Officers, Senators During Transition Ceremony Elizabeth Inskip-Paulk, marketing and communications coordinator for the National Wind Institute, will serve as the 2016-17 Staff Senate president. By K'Leigh Sims

New officers and senators were sworn into office for the 2016-17 year during Texas Tech University's <u>Staff Senate</u> Transition Ceremony Wednesday (July 6) at the Texas Tech Club.

Elizabeth Inskip-Paulk, marketing and communications coordinator for the <u>National Wind</u> <u>Institute</u>, was elected as this year's president, following 2015-16 president Ben Montecillo.

"I feel grateful and privileged to have been appointed as the 2016-17 Staff Senate president, and I am looking forward to working with the many constituencies on campus to maintain and improve working conditions for Texas Tech staff," Inskip-Paulk said. "Staff Senate is the voice for all staff, and I plan to listen to what they say so Texas Tech remains one of the best employers in the region."

Created in 1999, the Staff Senate's mission is to contribute to the welfare of the staff employees; serve as a liaison between staff, administration, faculty and students; and advise the administration in matters affecting the staff. Since its first meeting, Texas Tech's Staff Senate has created positive changes for the faculty, staff and university as a whole, including pay raises, child care for Texas Tech employees, fee and tuition waivers for one course each semester, the BRAVO! Board and more.

More than 40 faculty and staff were sworn in during the ceremony, and the scholarship recipients from the 2015-16 academic year were recognized. Senators sworn in will serve on the Staff Senate for the next three years.

Montecillo, the outgoing Staff Senate president, said it has been an honor to serve and represent the staff at Texas Tech for the 2015-16 year.

"I have had an opportunity to view the university from the widest angle possible, and I have an even deeper appreciation for all of the parts and staff that help make Texas Tech a special place," Montecillo said. "I've learned so much from my time on Staff Senate and I'm so proud of what we have accomplished this past year. The 2015-16 senators and officers are great individuals who worked tirelessly for the betterment of Texas Tech."

During Montecillo's presidency the Staff Senate had appointed members to numerous committees, formally endowed a scholarship for Texas Tech staff and provided resources and professional development for all staff members.

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In addition to Inskip-Paulk elected as president, the following Texas Tech staff were appointed as the 2016-17 executive officers:

- Ashlee Brown, president elect
- Christy Rosson, secretary
- Billy Tiongco, treasurer
- Ben Montecillo, past president

For more information about Staff Senate, visit its website.



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Texas Tech Innovation Hub Joins Inventive Minds, State-of-the-Art Technology

Thanks to new leadership and a donation from National Instruments, the Innovation Hub at Research Park is equipped to benefit its community.

By Glenys Young

Marc Ordoñez knew as a child he wanted to be an inventor someday. Growing up in El Paso, he frequented a local flea market to find things he could experiment with.

"I would go with my dad and buy all the old junk for like \$5 and then take it home and tear it apart: 'Look dad, look at this thing! Look at what I can do with this!' I wanted to take everything apart and learn how it worked and build from it," said Ordoñez, a senior studying computer engineering. "I've always had ideas of how to do things."

Robert V. Duncan, Texas Tech University's vice president for strategic research initiatives, said it's easy to identify young children with inventive and innovative minds by their natural curiosity.

"We're hell on home appliances because it's awfully hard to know how something works until you take it apart," he laughed, only half-jokingly because he admitted to disassembling his mother's brand-new dishwasher. "I did, I took it apart. I was 5 or 6, maybe. It was even worse for the color television. They were fascinating. How can a really curious, interested and inventive kid see something as amazing as a dishwasher or a color television and not want to know how it works?"

These kinds of minds are highly sought after within the <u>Innovation Hub at Research Park</u> under new managing director <u>Kimberly Gramm</u>. And thanks to its new partnership with National Instruments, the Innovation Hub will have a leg up in attracting those scholars.

National Instruments

"National Instruments was co-founded by Jim Truchard, who we call Dr. T, and he started it in his garage with his cofounders. And now it's an 8,000-employee, \$4 billion-a-year corporation," Duncan said. "I think the fact that it was founded in an entrepreneurial way is really encouraging. National Instruments is an ongoing supporter financially and with their time and effort to developing our entrepreneurial culture."

The company makes a program called Laboratory Virtual Instrument Engineering Workbench (LabVIEW), which is a platform for designing and programming electronics.

"It's a very simple way to bring up very complex systems to solve new problems," Duncan said. "They also make a lot of modular electronics that you can implement on LabVIEW to do these things. They're providing a platform for the entrepreneurial makerspace."

National Instruments recently donated to the Innovation Hub a variety of technology, including 20 myRIO units.

"It's a microcontroller," Ordonez explained. "If you wanted to build a robot, this would be the brain for pretty much anything you want to build."

Each unit, which normally costs about \$1,000, includes onboard devices, software and a library of courseware and tutorials. In addition to the myRIO units, National Instruments also offered a course in LabVIEW for 40 people at the Innovation Hub this week.

"National Instruments has brought this outstanding curriculum of LabVIEW Bootcamp to Texas Tech for free – normally people would pay \$3,200 a person to take this training in Austin," Duncan said. "Here, they come to us and they provide it free of charge because they want to see Texas Tech and our outstanding students, faculty and staff develop this entrepreneurial base and makerspace that LabVIEW can provide. It's an exciting opportunity and a great donation to Texas Tech."

'Flipping the classroom'

The entrepreneurial work being done at the Innovation Hub is a perfect example of a national movement Duncan said excites him as an educator and a scientist.

"That's the national movement toward makerspace, toward 'flipping the classroom,' where you use your time away from the university to do what people normally do in lectures. You may use online tools or some other way to learn the vast amount of material you need to learn, and do that learning more on your own time," Duncan explained. "When you come to the university, engage with groups that are creatively pushing the limits and trying to pursue their passion to develop things that really improve the quality of life for us all. That educational experience is vastly superior to the traditional academic experience."

The idea is not to forego a traditional education but to complement it.

"If you move into science or engineering or any of our disciplines, there's a massive amount of knowledge you have to learn; if you don't do that you'll miss out greatly. But I like to say, freshman and sophomore year, answer all the questions. Junior and senior year, question all the answers," Duncan said. "The idea is, if you see something and say, 'Well, why isn't this done a little bit differently? It would be so much better,' then don't stop there. Follow that up with your passion.

"Say, 'I can design something better than that. I can do something that would be useful to people and that would be adopted by the market,' and in doing so, you can go to a makerspace or the entrepreneurial programs at Texas Tech and really make that a reality. That way you're following your passion and you're making a difference to society."

<u>Dr. Annette Sobel</u> serves as the executive for critical infrastructure protection and health security initiatives for Texas Tech and the <u>Texas Tech Health Sciences Center</u>. She also is a human factors engineer, in which capacity she works on the development of novel, interactive learning and educational platforms.



"At the Innovation Hub, it's great to have all these companies here and that's very important, but you don't see many students here now and we need to change that," Sobel said. "This is part of developing more experiential learning programs at Texas Tech and tying it in with the Health Sciences Center and getting the students so they're on the track to commercialize their ideas."

Student focus

Lee Sander, a senior computer science major from McKinney, has been working with electronics.

"I'm really big into drones because I think there's a big future in autonomous drones, specifically using vision sensors and light detection and ranging technology to make these devices smart and aware of what's going on, and then connecting those with the cloud to recognize things and do something useful," Sander said. "I'm really interested in the vision aspect – using cameras and thermal imaging – and also radio frequencies and how we can send information over the air."

Sobel said students' ideas could have a huge impact in the medical field after they're successfully tested in simulation.

"We're going to develop over time a series of ways we can look at patients out in the field, using sensors to do initial triage in an environment in which you don't have a lot of medical care," she said. "That could be at a scout camp, in a rural community or even a football game when you don't have anybody there initially and you need to get an immediate idea of how injured someone is."

Ordoñez is working to build a wearable sensor that sends data real-time through Bluetooth to an iPhone or Android device.

"It would take your data, graph it instantly, tell you what your data actually means, notify you, save it – tons of things," he said. "I also built a portable generator that used 3-D motion to make power. I was inventing that myself and working on that, so hopefully that goes somewhere. I've done tons of different projects."

The students' youth, Duncan said, is a benefit to their innovative potential.

"If it's not the people coming out of the degree programs that have the fresh perspective that can challenge the status quo and say, 'Why do we keep doing it the dumb way? Why can't we do it a little bit better way?' – if it weren't for that, we wouldn't really advance at the rate we advance," Duncan said. "I think this is just going to accelerate the entrepreneurial spirit and the technical position of the United States like never before."

It's not only college students who get to use this new approach. Members of the Texas Tech International Genetically Engineered Machine (iGEM) team will take what they do this year into Frenship and Lubbock Independent School District campuses next year to help them develop high school iGEM teams. They are also developing an exercise for this

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fall that will test the innovation skills of Boy Scouts and Girl Scouts, who will work under the direction of student mentors from Texas Tech and the Health Sciences Center.

"We want to train Boy Scouts and Girl Scouts so they understand the basics of using this equipment and how it can be applied," Sobel said. "The whole idea is to engage students in projects that are about innovation and solving real-world problems."

Innovation Hub

Having a chance to work and learn in the entrepreneurial environment of the Innovation Hub helps students of all ages, Duncan said.

"It's wonderful for the students; it brings out your passion, right? If education is a passive process, sure, you'll learn a few things, but you don't get charged up and energized to go out and make a big difference," Duncan said. "This certainly provides that. It also provides an outstanding improvement: you're growing your local tech base and your local business base for your greater society around you. The West Texas and Lubbock areas will experience substantial growth, as they have already, by the new companies that have been started based on the spinoffs of Texas Tech's intellectual property."

Ordoñez said just being around other innovative people is giving him new skills.

"They teach me so much," he said. "I'm actually going out and doing projects; I'm learning how to get these skills to do these things, plus the entrepreneurial experience I wouldn't have gotten since I'm an engineer. I'm accessing a lot of the business side also. In general, this place is a very good environment for ideas to grow from, and then it has the backing: the 3-D printer, the myRIOs, so many things accessible to the student base that eventually will help grow some of these great ideas."

Sander said the benefits offered, as well as the growing population of innovative people at the Innovation Hub, will make others want to join in.

"I think it attracts a lot of like-minded people who have a passion for doing what they want and who know where they're going," he said. "Stuff like the National Instruments training is great for not only being an entrepreneur, but also if I was going into the industry because a lot of the companies in the industry use this software and it'll make me more appealing to them. I'll have a head start on everybody else and be able to get right into doing what I like doing."

It all combines into what seems to be a bright future for Texas Tech, which recently was named a Highest Research Activity university by the Carnegie Foundation.

"Texas Tech is emerging at a rate that's just astronomical," Duncan said. "We're up 50 percent in restricted research expenditures in the last two years; we're up 113 percent in federal research awards over that same two-year period. This rate of growth is just unprecedented and it reflects that entrepreneurial spirit, the strength of the faculty and the enthusiasm of the students and staff. It's an exciting time."



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Texas Tech Senior Heading to Switzerland for World Championship in Duathlon Jenna Hay, who graduates in August, is the national champion in long-course duathlon.

By Heidi Toth

When Jenna Hay's legs feel like rubber because she's been running for so long, she's found the sweet spot.

And she keeps running.

Hay, a senior agricultural communications student from North Richland Hills and member of the <u>Honors College</u>, knows at some point in her next race her legs are going to feel like jelly and she'll have two choices: stop or keep running. Considering how hard she's worked to get there, how far from home she'll be and whose colors she's wearing, finishing is her only option.

"I want to represent the U.S. well, so I want to finish with my head held high and with a smile on my face," she said. "I might crawl, I might even log roll, but I'm going to make it."

Hay, a triathlete with the <u>Texas Tech Triathlon Team</u> and national champion in long-course duathlon, is going to Switzerland in August to compete in the <u>Powerman Zofingen Duathlon</u> – a 6-mile run, 93-mile bike ride and what she called a "nice, gentle 18-mile run" to complete the event. She'll push her way up the Swiss Alps on a bike and run through the Swiss hill country in the mid-day, early September heat. Athletes who have completed full Ironman triathlons say the Powerman makes Ironmans look easy.

She'll do all of this wearing red, white and blue, with "Team USA" emblazoned on her uniform.

Becoming a triathlete

During summer 2014 as a river guide in West Virginia, Hay saw a flier for a triathlon while she was out shopping. River guides, she said, operate with an air of devil-may-care invincibility, so she was pretty sure she could handle this race, despite having never done a triathlon before. Instead of swim-bike-run, this race was kayak-bike-run.

She was so green she showed up with an old, inexpensive bike and in a swimsuit and Spandex shorts.

"I looked like an '80s nightmare," Hay admitted.

The Spandex and invincibility worked out for her, though.

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"I showed up with a great attitude, and I paddled and I biked and I ran, and I ended up getting third in my age group," she said. "It was a weird triathlon, but as soon as I placed I got the bug. When you race they call it the bug, and once you get the bug you're addicted to racing and you have to keep doing it."

She came back to Texas Tech that fall and joined the triathlon team, competing in her first race in spring 2015. She continued to compete throughout 2015 and 2016, adding it to her already physically demanding schedule of practicing and performing with the <u>Goin' Band from Raiderland</u>, in which she played clarinet, and the <u>Mixed Martial Arts Club</u> and playing ultimate Frisbee recreationally.

Hay improved noticeably as the races went by, said Jessica Wolfe, president of the Texas Tech Triathlon Team. Much of that she attributed to Hay's commitment to training.

"I once ran into her at the aquatic center and she said she had a 30-minute break between classes and she wanted to get a workout in," Wolfe said. "Situations like that show Jenna's dedication to triathlon and have helped her become a lot faster in all three aspects of triathlon."

Becoming a national champion

On Nov. 13, 2015, Hay made a decision: She was entering the Long-Course Duathlon National Championship. She knew a good finish could qualify her for the world championship in Switzerland, and she wanted to try it.

She had just one issue – she was in Lubbock, it was 10 p.m. and the race was the next morning in Dallas. She and her bike took a red-eye Greyhound bus, arrived at 6 a.m. and headed to the Texas Motor Speedway, arriving moments before the starting gun.

Hay heard about this race at a triathlon in San Antonio, so she knew the stakes and had her eye on Powerman. Finishing in the top nine in her age group was all she needed, and she kept that in mind through the 6-mile run, 26-mile bike ride and 3-mile run.

She did a little better than that, crossing the finish line in first place in her age group, officially making Jenna Hay the long course duathlon national champion. The email inviting her to Switzerland followed. She thought about it for a while; Hay is graduating in August, so this would put off finding a job, and she has to pay to her own way. Plus, it's really hard work.

However, she couldn't pass up the opportunity to represent Team USA in a worldwide competition. As for the rest of it, she figured, why not go now?

"I'm young, I'm not tied down to anything," she said. "I've already been able to push myself so far in triathlons and duathlons, I feel like this is the next step. I feel like I can do it."

Swiss Alps, flat lands

Training is challenging, both because of the amount of work Hay needs to do and the difference in environment between where she's training and where she'll be competing.



She finished the Ironman 70.3 Triathlon at Buffalo Springs Lake in June and since then has dropped the swimming.

"I'm riding my bike a lot, running a lot," Hay said. "I'm trying to find all of the hills in Lubbock and just ride them over and over again."

There are three, if anyone is counting.

Other days she rides out to Buffalo Springs and Ransom Canyon and then rides the various loops multiple times, spending hours on her bike. Often she'll double up, first riding for hours then immediately going for a long run, or running several miles before hopping on the bike. She wants to train her body and mind to keep going when she's exhausted.

Hay's training will get even more difficult in July when she goes to Washington, D.C., as part of the <u>congressional internship program</u> through the <u>College of Agricultural Sciences</u> & <u>Natural Resources</u>. Lubbock may be flat, but Washington is basically at sea level – a far cry from Zonfingen's 4,700 feet in elevation and Lubbock's 3,256 feet.

Switzerland and beyond

Hay leaves for Switzerland the last week of August. She wants a few days to get over her jet lag, do some workouts in the higher elevation and do a little sightseeing before the race on Sept. 4.

Although the United States isn't paying for the competitors to participate, they are members of Team USA.

"I'll be wearing the Team USA uniform and traveling with the other team members," she said. "It's really cool because all the media, all the teams that are going to be there are going to know I'm competing on behalf of the United States, which is just a huge honor. I can't describe how excited I am about that."

The race will include all levels of athletes, from elites who are in Olympic training to amateurs who enjoy the competitions and are fast enough to qualify. She is in the second category. Although Hay thinks about going to the Olympics, she's far from an elite level, she said. Her focus now is graduating next month and training for this race.

She has had time to make a few plans for her first trip abroad. She will tour the country, and Hay's made several friends on the team either through her race or on social media, so they'll hang out. She's also looking forward to the local delights.

"I'm really looking forward to the Swiss chocolate that I can eat after the race," Hay said.

Beyond the finish line, her plans are a little hazy. She's hopeful an opportunity will arise during her time in Washington. She wants to apply for a public relations internship with Southwest Airlines or with the U.S. Olympic Committee. She's looking around at job opportunities in Lubbock. It's all the "right" next steps.

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"Actually my dream job is to lead biking tours through Napa Valley," Hay confessed after a short pause. "That's what I really want to do, but everything else sounds better when you're about to graduate."



Web Only

Texas Tech Students Mapping a Better World

Texas Tech's YouthMappers chapter participated in a joint mapathon with the White House and six other chapters to help with malaria prevention in Mozambique.

By Glenys Young

A group of Texas Tech University students are helping deliver life-saving malaria prevention tools to people in Mozambique. They're providing data that will help aid agencies serve Syrian refugees on the Turkish border with needed supplies. They're marking roads and bridges for planners to outline evacuation routes for people in Ecuador under the threat of a volcanic eruption.

They're doing it all, and more, from their computers right here in Lubbock.

The <u>YouthMappers</u> network boasts 27 university chapters – and counting – in 11 countries. It brings together scholars and volunteers who work collaboratively using the OpenStreetMap platform to build maps and create geospatial data where it is needed most to help people throughout the world. Texas Tech's chapter – one of the network's three founding chapters – and six others recently participated in a mapathon with the White House. The primary project was Mapping for Malaria Prevention in Mozambique, a joint effort between the Peace Corps, the United States Agency for International Development (USAID), and the President's Malaria Initiative. YouthMappers is supported by a grant from USAID's GeoCenter.

Chapter vice president Hasan Almekdash was one of the organizers for Texas Tech's local mapathon.

"You don't need to have any experience using OpenStreetMap, so we presented to the volunteer participants about humanitarian mapping, the cause, what we are doing, how to use OpenStreetMap to create data and how that is helpful," said Almekdash, a doctoral student in higher education administration from Damascus, Syria, who is also pursuing a graduate certificate in geographic information systems (GIS) and technology. "For example, in Mozambique, the malaria campaign – you need to map infrastructure in order to guide the USAID initiative for reaching the people in these areas. Peace Corps teams need to get to houses, so they need to know the roads, where they can drive, where they can't. So it's important to map all of that."

Fellow organizer and chapter treasurer Tarek Kandakji, a doctoral candidate in geosciences, who is from Homs, Syria, called it an amazing opportunity.

"The whole world is going toward online services and GIS, and mapping should be part of that," Kandakji said. "This whole OpenStreetMap is part of what's called crowdsourced mapping. People provide the sources for the mapping. You open Google Earth, you open

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Google Maps, you already have the sources there. You already have streets – professionals did that; corporations did that. OpenStreetMap has a different strategy: it's a wiki approach. People do their inputs. You don't have to be an expert; you don't have to be a GIS specialist. All you need to do is go there, see the satellite images and draw the lines, draw the houses. You provide a base map for services all around the world."

Because OpenStreetMap's platform relies on volunteers, other experienced volunteers check the work before maps are used to distribute humanitarian aid.

"You have the satellite images first," Almekdash said. "You see houses, you see what looks to be streets and rivers, and then you have tools to select all of these. For example, if you see a house, you use the polygon tool to create a polygon around the house to say it's a house. That's how you mark all the features on the map. Then you have people who are checking the accuracy and validity of these procedures. They have techniques to match things up and make sure they're accurate. The volunteers are not necessarily experts in geography or cartography, so there are people comparing data sources and satellite images to check quality."

It's an important task, Almekdash said, because countries most likely to need humanitarian aid are those least likely to have the infrastructure in place to get that aid to their people.

"In developing countries, resources are not like resources here," he said. "Developing countries in Africa, in Latin America, in the Middle East, those might not have the resources for mapping, so we're trying to help those people mostly."

Last week's mapathon included a secondary project called Missing America, sponsored by the U.S. Census Bureau. Several neighborhoods near Sierra Blanca, Texas, and remote areas of northern Maine were on the to-map list. Unlike the resource-poor developing countries, Kandakji and Almekdash attribute these mapping needs to the areas' isolation.

The mapathon was arranged by the White House Office of Science and Technology Policy and the Office of Digital Strategy. Open, accessible data – including geospatial data – has been a key component of the administration's open data initiatives. Increasingly, tools like crowdsourced mapping are opening up the ability for the public to contribute to government datasets and for government to support the creation of open data. Agencies including the Department of State, the Department of Interior, the U.S. Geological Survey, and the General Services Administration are working on crowdsourced mapping projects.

YouthMappers program director Patricia Solís, a research associate professor of geography in the Texas Tech <u>Department of Geosciences</u>, traveled to Washington, D.C., to participate at the White House along with chapter student government representative Nayara Vasconcelos, a recent Texas Tech graduate. Like her fellow officers back in Lubbock, Vasconcelos helped to teach mapathon attendees how to use OpenStreetMap.

Crowdsourced mapping projects and participants are part of a growing innovation movement, transforming the relationship between the government and the public, and supported by United States commitments in the Second and Third Open Government National Action Plans.



"It really makes me feel proud, like this is something good," Kandakji said. "The White House's contribution to this gives it more legitimacy and popularity for the people. The people know the White House is involved, that means it's something important, something vital, and we need to work on it. So you feel proud, you feel happy this kind of humanitarian approach is adopted by the White House."

Almekdash said his primary emotion was a feeling of accomplishment.

"When you do something to help others, you think, 'what I am doing is impacting people right away in real life,' so that's the fun of the mapathon," he said. "You're actually helping other people. You're using your knowledge and your energy to support people, and to see the results is really rewarding.

"We have the resources to do all of that. Maybe not all people are lucky enough to have the same resources we have here – the same labs, the same knowledge – so we try to make the human condition better through humanitarian mapping."



Theatre Students, Faculty Perform Play at Prague Fringe Festival

'Shooting Blanks' was written by theatre professor Mark Charney and performed by students, faculty members and Lubbock actors at the annual English-language festival.

By Heidi Toth

When a playwright is frustrated with something, there's one obvious way to cope with that frustration.

When Mark Charney, director of the <u>School of Theatre & Dance</u> at Texas Tech University, found himself in a playwriting workshop that he didn't find particularly helpful, he fell back onto what he knew: playwriting.

"I began imagining everyone in the class was a character in a play, except for me," he said.

His play, "Shooting Blanks," is very loosely based on Charney's time at the Great Plains Theatre Festival and his experience in that workshop, but really it's a farce about words, vulnerability and people's inability to communicate, he said. In early June he, theatre professor Linda Donahue and a dozen students, professors and community members traveled to the Czech Republic to perform the play at the Prague Fringe Festival, the largest and oldest English-language theatre festival in continental Europe.

The festival is a regular stop for the study abroad program the <u>College of Visual and Performing Arts</u> offers, but the first time for most of the participants and the first time they performed in the festival. Doctoral candidate Randall Rapstine, who has wanted to attend the festival for years, said it did not disappoint.

"The festival was outrageous," he said. "It's impossible to know what quality of work you might see, but it is always interesting and unusual. Some shows were incredibly thoughtful, some were profoundly ridiculous – on purpose. Performing at the Fringe is a challenge and a rush."

Performing in Prague

Charney workshopped "Shooting Blanks" at the New Works Festival in Los Angeles before performing the play throughout the United States, Indonesia and Singapore. He and Donahue, who directed the play, applied to the Prague Fringe Festival earlier this year. "Shooting Blanks" was one of about 40 plays selected out of hundreds of applicants.

"Shooting Blanks' is a perfect piece for the Fringe," Donahue said. "It is funny, poignant, disturbing, frank and 'Fringey."

It is also, one performer said, full of interesting subtext about issues.

"I'm a pretty political person, and I really love the commentary on gun violence weaved within the play," said Zach Dailey, a doctoral student in interdisciplinary fine arts and theatre who played the character of Russ. "I find the plot timely, especially considering the new <u>campus carry policy</u> starting in the fall."

The cast performed the play three times throughout the nine-day festival, each time at A Studio Rubin, a basement venue in a late medieval building which, through multiple renovations since the mid-1400s, served as both a hospital and a residence. It held about 60 people and was wonderful for the show, Charney said. The set for the play is simple; the props are five chairs and a blackboard.

The festival itself is nine days of theatre and dance performances in half a dozen unique, historic venues scattered through beautiful downtown Prague. Performers and playwrights came from throughout the world to be part of Fringe.

"It's a party of theatre," Charney said. "Artists meet artists, and we all see four or so shows in an evening. We gather at the end of the night to celebrate. It's a theatregoer's dream."

They did not win any of the juried awards at the festival, but Charney said "Shooting Blanks" did take home the Most Suggestive Title award, a joke award from the Fringe community. He was disappointed, but both he and Donahue felt Texas Tech represented well at the festival.

"The play was well-received by audiences, and we enjoyed lots of terrific feedback from Fringe patrons and artists," Donahue said. "It was exciting to showcase our playwright, directors, actors and designers in a prestigious international setting."

Red Raiders in Prague

Rapstine was one of the few students who took part in the performance. He played Gary, a playwright and punk sympathizer who wrote a play about Amarillo native Gary Deneke, who was killed in 1999. Rapstine made special mention of his character's "socialization issues."

"He's middle-aged but sports a turquoise and purple mohawk," Rapstine said – a detail that made his life more complicated when they had just 10 minutes to get ready for one performance, which meant gluing on his mohawk in a tiny, cramped dressing room.

As much as he loved the performance and the city itself – "what a GORGEOUS city!" – his favorite part was working with Charney, Donahue and head of acting Dean Nolen, who has numerous movie and Broadway credits to his name.

Same for Katie Hahn, a master's of fine arts student who served as the assistant director and stage manager for the performance. She got involved in part to get the international experience and in part to be involved with high-level performers.

"There was something special about such a small group putting this show together to take overseas; doing a process like this ensures everyone gets to know each other very quickly," Hahn said. "We only rehearsed for a total of three weeks, so it was imperative to work hard and learn to trust what we were creating. Each actor and member of the production crew



was fully invested and brought something unique to the table, and that's what made this a wonderful show to work on."

But, being in Prague and being part of the Fringe Festival couldn't be oversold. All of the performances are in Malá Strana, the historic neighborhood near Prague Castle. Hahn said as a director, she particularly enjoyed the new and unique works of all types: traditional text-based performance, dance, spoken word, improvisation, mime and immersive theatre. She also liked interacting with actors, performers and directors from throughout the world.

Returning to Prague

This was the fifth year for theatre and dance students to study abroad in Prague. They plan it so the students can attend the Prague Fringe Festival, which Donahue said is always the highlight of the trip. After the festival they stay for two more weeks, spending their days in classes at the University of New York in Prague or exploring the history and artistic legacy of the Czech Republic, both in the nation's capital or throughout the country.

Their day trips included art museums like Lobkowicz, Alfone Mucha, DOX and St. Agnes; Jewish and Christian cemeteries; Terezin/Theresiensadt, a Nazi holding camp; and Kutna Hora, a World Heritage site home to two Baroque churches – the Church of St. Barbara and the Cathedral of our Lady at Sedlec – as well as the Sedlec Ossuary, a church decorated with thousands of human bones.

The students also focus on more modern culture; this year the group went on a tour of the Radio Prague, similar to National Public Radio in the United States, as well as a tour of the Czech National Theatre and an invitation from the British ambassador to the Czech Republic to visit the British Embassy in celebration of the Prague Fringe Festival. They have some surprising connections in this former Soviet country.

"Many of our prospects are provided by our American friends in Prague," Donahue said. "We are, therefore, afforded privileged access to many sites not readily available to tourists."



Tradition Comes Alive at Red Raider Camp

Texas Tech University's camp is designed for incoming students to create connections, experience traditions and learn more about their new home away from home.

By K'Leigh Sims

New college students face many challenges when attending college for the first time: making new friends, getting involved, finding their classes, keeping up with school work and living away from home for the first time, among others.

Texas Tech University's <u>Red Raider Camp</u> was created to ease that transition for incoming students by providing a fun opportunity to make friends, experience university traditions and learn more about their new home away from home before they step foot on campus.

"This camp helps students get connected from the very beginning," said Stefan Altheide, administrator for Texas Tech's <u>Transition and Engagement</u> office. "What I tell parents is that Red Raider Camp will benefit their child academically and socially and it won't take away from their studies because it happens before classes begin."

The camp is optional for students and is led by current Red Raiders who share their experiences and keys to success for being at Texas Tech and Lubbock. Taking place at the Texas 4-H Conference Center campus in Brownwood, the three-day adventure prepares students for what is to come.

While at camp, students participate in a variety of activities, including:

- Small group discussions
- Group activities
- History and Traditions skits
- Pool party
- Ropes course
- Dance
- Bonfire
- Ring ceremony and more

Devin DeLapp, a former counselor and director of training and development for Red Raider Camp, said the experiences incoming students participate in at the camp give them an upper hand as they establish friend groups, learn about life as a student and have a better idea of what they want to get involved in during their first year.

"Red Raider Camp is a one-of-a-kind opportunity for both campers and counselors," said DeLapp, a senior public relations student. "Campers have the opportunity to meet other



incoming students, make connections with current students and learn what being a Red Raider truly means, all before moving to Lubbock."

Students are divided into five teams and two subgroups within those teams. The subgroups, dubbed "Techsans" and "Double Ts" this year, serve as an outlet for students to create closer relationships with other incoming students and their counselors and have open dialogue about college life and Texas Tech. Altheide said the counselors serve as facilitators, but try to keep the conversations as organic as possible.

"These subgroups allow for students to talk and ask questions candidly about the things they really want to know without hesitation or worry about what others might think," Altheide said. "The groups are no larger than 18 with two counselors, so the students get comfortable around each other really quick and are able to ask the things they want to know."

The camp, which began in 2001, was revamped in 2014 after it was combined with Red Raider Orientation from 2009-13. The camp has three sessions and serves 180 students during each camp. From zip-lining, to crafts, to dance lessons, free time and more, the camp helps students nurture relationships and get a feel for what college life will be like before the semester begins.

The camp isn't just for first-year students though; it also is for transfer students.

Altheide said for even those who have already experienced what college is like, Red Raider Camp is still a viable option for new Red Raiders. Even though the students are divided into their teams randomly, Altheide said they try to group transfer students together as they already have an understanding of what college is like but are new to Texas Tech.

Eric Honesto, a senior accounting student from Lubbock, is a Red Raider Camp counselor this year who transferred to Texas Tech earlier in his college career. Honesto said it is a unique experience for any incoming student.

"This doesn't have to be your first year of college but your first time at Texas Tech," he said. "Knowing the people of your university and the history behind it will make your first day on campus something to look forward to."

Current students who have great pride for the scarlet and black also can be a part of Red Raider Camp as counselors even if they didn't attend as campers.

Students go through an application process to be selected as counselors for the camp. This year, Red Raider Camp has 20 counselors and five student directors, including DeLapp, who has been a part of Red Raider Camp since it was revamped in 2014.

"If you're already a passionate Red Raider, this camp is the place for you," DeLapp said. "There is nothing quite like the feeling of spreading Red Raider pride with incoming



students. Red Raider Camp has proven that to me time and time again. Our staff is made up of the most involved, passionate students on campus. Not only do our counselors benefit the campers, they benefit each other as well."

A familiar face serving as a counselor this year is former Masked Rider Rachel McLelland, who attended camp last year as the university mascot.

McLelland, a senior from Tijeras, New Mexico, said Red Raider Camp is an important experience for incoming students as they have the opportunity to learn about the traditions and see the spirit of Texas Tech.

"Red Raider Camp is an incredible opportunity to learn what makes being a part of the Red Raider family so special," she said. "They are introduced to our traditions and their storied pasts, and it is so unique and special. Getting to participate in one's own bell circle, learning about the Masked Rider and knowing the chants is a great way to get ready for football season as it is right around the corner."

The three sessions occur each summer beginning in July through early August. This year's dates are:

- July 31–Aug. 2
- Aug. 4-6
- Aug. 8-10

The registration fee is \$200 and must be paid up front. It includes lodging, meals, activities and three camp T-shirts. No refunds are given after July 1. Students can register online via the Red Raider Camp <u>website</u>.

"Ultimately, my advice to students is: have a good attitude, be open and be ready to have a good time," Altheide said. "You're only an incoming student once, so just know you're going to leave this camp a better prepared student who loves Texas Tech and is excited to move on to the next chapter in life."

For a list of frequently asked questions about Red Raider Camp, visit its FAQ page.



What Freedom Means to Me

The Texas Tech students who are interning on Capitol Hill contributed their thoughts after visiting the monuments to freedom in Washington, D.C.

By Heidi Toth

Every semester, more than a dozen Texas Tech University students go to Washington, D.C., to intern on Capitol Hill. Those interns who go in the summer get the unique opportunity to be in the nation's capital on the Fourth of July. For Independence Day, a number of students toured some of D.C.'s monuments to freedom and reflected on what freedom meant to them.

Caleb Richardson, junior energy commerce major from Levelland

Family, friends and fireworks are the first thoughts when celebrating the Fourth of July. At Arlington National Cemetery on Memorial Day, it was apparent that freedom is not free. I was there to see the gravesite of my uncle, who was killed in Afghanistan. There were widows with their children camping out by their loved one's grave; they will never forget. This place is a sobering reminder of how many blessings we as a country take for granted. If not for these sacrifices, we would not have the liberties we hold so dear. Ronald Reagan once said, "Freedom is never more than one generation away from extinction." Let us never forget the ultimate price countless heroes have paid protecting our freedom.

Jared Opperman, senior economics and atmospheric science major from Austin "We hold these truths to be self-evident: that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness." – Thomas Jefferson in the Declaration of Independence, also engraved on the Jefferson Memorial in D.C.

It's amazing to me how such a simple phrase was so radical for its time and how one man could change the world by the power of his words. What we take for granted had to be fought for tooth and nail, both diplomatically and militarily, but these realities are often forgotten. Even 240 years later these words ring true and continue to be our creed, and while we ourselves had to learn the true meaning of this phrase, these words have come to represent what we hold most dear: freedom.

Aubrey Servantez, incoming first-year law student from Shallowater

Coming to D.C. has really put into perspective the meanings of the national monuments as well as established a great sense of American pride at the beauty of our capital. But I found the real history and beauty – the history of the long and hard-fought battle for freedom and the beauty of the souls who sacrificed so much to defend it – on Memorial Day at the Arlington National Cemetery. Walking through the grounds and reading the names of those who fought for our freedom – my freedom – was such a humbling experience. Seeing the countless number of names etched in stone and family members surrounding

them hit me at the center of my being; I was brought to tears. I didn't know their names or their stories, but I knew their mission. Standing there, taking it all in, I felt it. I felt the freedom that was fought for, won and protected by those men and women. I was filled with such a deep sense of awe at the selflessness of the people who so bravely serve our nation, both past and present. It's something that made me so much more appreciative of the liberties I so often take for granted.

Lila Lowe, senior public relations and pre-law major from Houston

The Supreme Court is the highest court in our country and establishes the laws that allow us as American citizens to enjoy the freedoms we have. Freedom means having the ability to be heard in such a large country so as a human, our basic needs and rights are met through a court of law. Without the Supreme Court we would not have due process, a fair trial or historic advances in our world such as the right to live in a desegregated country, which came from *Brown v. Board of Education*. Having such a prominent court system in America allows for citizens to reach their goals and attain their idea of the American dream, and that is the ultimate freedom.

Tanner Luehrs, senior finance major from Plano

The intangible right of freedom is a gift often taken for granted, and it's hard not to be filled with emotion when looking at the Capitol building in Washington, D.C. Being able to walk by this building every morning is a blessing, and it serves as a sobering reminder of how precious freedom truly is. As the host of both the House and the Senate chambers, the Capitol has been facilitating the beginning stages of the legislative process since its construction in 1793. The preservation of freedom is vital and should be a priority of every American citizen.

Paige Gardenhire, junior marketing major from Hondo

Freedom is defined as the power or right to act, speak or think as one wants without hindrance or restraint. Throughout my time in D.C., the most I have felt this sense of freedom was while visiting Arlington National Cemetery. Standing on the ground where those who have died for our country – died for our freedom – are buried is the most humbling experience I have had. It is so easy to get caught up in the whirlwind of life and take our freedom for granted, but visiting the cemetery brought me back to a place of utter thanksgiving and reminded me this freedom does not come without a price. These men and women have given their lives so we can live and pursue our dreams, like I am doing in Washington, D.C. I am thankful for the freedom we have in the United States, but we need not forget how this freedom came about.

Harry Cutler, senior political science major from Tyler

You see it right away flying into the capital, and right away know what it is. The Washington Monument is the most recognizable monument in D.C. and one of the most significant. George Washington, the father of our country, is the most represented man in the capital and rightfully so. From leading untrained soldiers during the Revolutionary War to resigning his commission as commander-in-chief of the continental army and becoming our first president, George Washington's leadership is a model for all of our future leaders. For me, the monument represents the freedoms that so many before me have fought for and a unifying figure in our country.





What is TTUISD?

The Texas Tech University Independent School District is a flexible online educational program that allows K-12 students to earn credits at their own pace.

By K'Leigh Sims

From Olympians to professional surfers, actresses, models and more, students from around the world are earning their high school diplomas from <u>Texas Tech University Independent</u> <u>School District</u> (TTUISD), a flexible online educational program that allows K-12 students to earn credits at their own pace.

The school is just like any other school, with a superintendent, principal, teachers and counselors. The only difference is that it's online. The Texas Education Agency-accredited program can be completed at anytime, anywhere and there are no enrollment deadlines.

"At the forefront of all we do at TTUISD, following the rigorous standards from the state of Texas ensures the quality of educational curriculum we offer our students," TTUISD Director Sam Oswald said.

TTUISD offers two tracks for students – a full-time diploma program or an individual course supplemental program – for all grades, along with credit by exams (CBEs), homeschool curriculum and bulk testing services for Texas public school systems.

Since its inception in 1993, TTUISD has grown to serve more than 359,000 students from 63 countries all over the world. Although it's not a brick-and-mortar school, TTUISD meets the same rigorous standards as traditional public schools in Texas.

Even actor Jesse Plemons, who is known for his roles in "Battleship," "Friday Night Lights," "Varsity Blues," "Breaking Bad" and more, graduated from TTUISD while working on his career in Hollywood.

The courses

Those who enroll in TTUISD's full-time diploma program will either work toward their high school diploma or take CBEs to supplement their current school or homeschool curriculum.

TTUISD currently offers more than 150 different online and print courses all aligned with the state-mandated Texas Essential Knowledge and Skills (TEKS), which have been determined by the Texas State Board of Education as the important standards of education for students to learn and apply throughout a course.



When students enroll at TTUISD they have six months from the date of enrollment to complete a course, including a final exam. Print courses cannot be completed in less than 60 days, and online courses in less than 30 days.

Students work closely with TTUISD's Texas-certified staff of teachers and advisers to ensure the completion of all requirements needed to earn a diploma. To guarantee success, TTUISD has put in place a credit recovery system so students who have failed past courses can retake them and make up for lost credit.

Although TTUISD differs, regarding when and where schooling takes place, students enrolled in the school, grades 3-12, are still expected to take the State of Texas Assessment of Academic Readiness (STAAR) exams. For students in high school, they must pass the five STAAR end-of-course exams before graduating.

Cost of attendance varies depending on what options the students and their families choose, but there is a \$120 admission fee and courses are \$185 (online) and \$210 (print) each.

The benefits

TTUISD has been nationally recognized for its program in the past few years, including being one of the best online high school programs (No. 4) in the nation by <u>Best College Reviews</u>, a top online school (No. 18) by <u>The Best Online Schools</u> in 2014, and a top online program affiliated with a public university (No. 4) by The Best Online Schools in 2014.

The school prides itself on academic success with students having SAT and ACT scores above the national and state averages and an increasing number of graduates each year. In 2015, TTUISD had its largest graduating class to date with more than 400 graduates worldwide.

The biggest benefit for students is the flexibility and customization of the program. TTUISD makes it possible for students to live and study wherever they choose without being enrolled in a brick-and-mortar school while still having the same opportunities as students in public schools. The program allows students to take the courses needed for themselves and on their own time. TTUISD is able to create customized solutions for students while still meeting the needed requirements for them to earn their high school diploma.

"TTUISD meets the need for quality education with the flexibility of time and place for many families worldwide. Essentially, that's our purpose," Oswald said.

While TTUISD is different than a traditional public school, students still can experience regular school activities, including that final walk across the stage to get their diplomas. Every spring, TTUISD hosts a graduation for its students at the McKenzie-Merket Alumni Center on the Texas Tech campus.



Students also can take physical education courses, including bowling and tennis.

International partnerships

Although any student around the world can enroll in TTUISD, the program has established partnerships with public schools internationally, including Brazil and China. The collaborations between TTUISD and the schools allow students to participate in a dual-degree program where they can earn a local diploma from their own country and a Texas diploma.

By earning a Texas diploma, international students have the opportunity to enroll in American colleges and universities in a more seamless manner.

In <u>2014</u>, Texas Tech welcomed its first international students from TTUISD, Bruno Saliba Helmer and Victor Lima Castro dos Santos, who graduated from TTUISD's dual-degree program in Brazil, where now more than 5,200 students are earning two high school diplomas.

Helmer and dos Santos grew up looking forward to studying in the United States, but it wasn't until being enrolled in TTUISD they realized they could earn an American education from home. Now working on his bachelor's degree at Texas Tech, Helmer said he could see a big difference in the quality of education between Brazil and the United States and was excited to have the opportunity to earn his college degree at Texas Tech after graduating from TTUISD.

"TTUISD continues to serve students that have the necessity for a flexible delivery of quality curriculum," TTUISD Superintendent Jim Taliaferro said. "We strive to enhance our curricular offerings by providing courses designed for online platforms. We currently are developing with Texas Tech, a true dual-credit curriculum that incorporates the rigorous instruction of Texas Tech professors. These courses will be designed for students that possess not only a high degree of self-discipline, but a desire to push themselves toward excellence."

TTUISD's largest partnerships are in Brazil and China with 54 schools overall, which is a record amount of schools for the program. Since TTUISD began its international partnerships in 2002, more than 1,000 international students have graduated from the program with both local and Texas diplomas.

Currently, TTUISD is working toward creating more partnerships in Europe, Asia and South America.

How to enroll

Those who want to participate in TTUISD's program can enroll <u>online</u> or by calling (800) 692-6877 or (806) 742-7200.



To enroll in the full-time diploma program, students must complete a pre-admission form, submit an unofficial transcript (if applicable) and pay a \$120 non-refundable admission fee.

Once accepted to TTUISD, students must receive approval from an academic adviser before enrolling in courses.

Students wanting to enroll in individual/supplemental classes should obtain approval from their local school counselor or principal. Failure to receive approval could cause enrollment delays and/or may result in the student's school not granting credit.

All tuition and fees must be paid in full at the time of enrollment of courses.

Required textbooks and materials are not included in tuition and fees. However, students can order textbooks and materials through various retailers to supply all needed books and materials for TTUISD students.

To see all available courses, visit TTUISD's online course catalog.

For more information about TTUISD and what it has to offer, visit its <u>website</u> or call the main office at (800) 692-6877 or (806) 742-7101.