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Dallas/Fort Worth (DFW) area students interested in earning their pharmacy education locally from one of the country’s top pharmacy schools will have an opportunity to do so when the Texas Tech University Health Sciences Center (TTUHSC) School of Pharmacy revamps its DFW program to include all four years of its doctor of pharmacy (Pharm.D.) curriculum.

The initial class of up to 40 first-year students (P1s) will be admitted in August 2018. Additional faculty will be recruited to help teach the program through a combination of direct one-on-one and group exercises and through didactic classroom teaching in person and via a video linkage system currently used for the school’s Pharm.D. program in Amarillo, Abilene and Lubbock.

“Bringing all four program years to the Metroplex”

“The opening of a full four-year campus in Dallas will bring forth an increase in campus resources and infrastructure that will bring all Metroplex components of TTUHSC together at a focused site,” School of Pharmacy Dean Quentin Smith, Ph.D., said.

TTUHSC President Tedd L. Mitchell, M.D., said the combined graduates of all Texas schools of pharmacy presently comprise less than 40 percent of all new registered pharmacist licenses in the state. By offering all four years of its Pharm.D. program in the Metroplex, Mitchell said TTUHSC is positioning itself to better meet the pharmacy demands within the state of Texas, particularly those of the western and northern areas of the state.

“Roughly half of our School of Pharmacy enrollment has historically come from Dallas/Fort Worth and the surrounding areas of North Texas, and we have many other well-qualified applicants who simply aren’t able to relocate to Amarillo or Abilene for their first two years,” Mitchell added. “So bringing all four years of our program to the Metroplex will also allow some of those students to get their pharmacy degree from TTUHSC while remaining closer to home.”

The TTUHSC School of Pharmacy consistently ranks amongst the top third of the country’s 140-plus accredited pharmacy programs and is recognized nationally for the quality of its clinical training program. Its students receive more clinical training hours than do students at any other pharmacy school in Texas and almost every other pharmacy school in the country.

In 1999, the TTUHSC School of Pharmacy initiated its current two-year DFW pharmacy program to accommodate the clinical pharmacy education objectives that are central to the third and fourth (P3 and P4) years of its Pharm.D. program. In 2002, the school established its first permanent DFW home on the VA North Texas Health Care System grounds, and six years later, expanded its DFW program facilities to the Southwest Professional Building, located on Forest Park Road across from UT Southwestern.

The TTUHSC School of Pharmacy currently partners with more than 240 DFW hospitals, clinics and community pharmacies to deliver clinical training to its P3 and P4 students. The DFW regional campus boasts the highest percentage of advanced experiential clerkships within the school’s overall program, which includes its home campus in Amarillo and additional regional campuses in Abilene and Lubbock.
Following graduation, faculty members from each of the School of Pharmacy’s four campuses remained in Amarillo to participate in the school’s annual faculty retreat. In addition to group discussions and exercises related to topics like active learning, curricular transformation and serial assignments as a teaching and learning technique, the 2017 retreat also gave faculty members a chance to honor four of their own who retired following the school year: Cynthia Raehl, Pharm.D.; Roland Patry, Dr. PH; Richard Leff, Pharm.D.; and Harold Miller, Ph.D.

Raehl arrived at TTUHSC in 1998 as founding chair for the Department of Pharmacy Practice and served as regional dean for the School of Pharmacy campus in Abilene beginning in July 2013. Prior to coming to TTUHSC, she was a professor for the University of Wisconsin School of Pharmacy in Madison for 16 years.

Raehl and her late husband, Dr. C.A. Bond, are internationally recognized for health services research focused on the outcomes associated with hospital-affiliated clinical pharmacy services. Their 20-year study of more than 1,000 U.S. hospitals demonstrated the impact clinical pharmacists could have in reducing mortality rates, total cost of care, length of stays, drugs costs and medication errors. They are eight-time recipients of an ASHP Research and Education Foundation Research Award. In 2015, Raehl received the Chancellor’s Council Distinguished Faculty Award, the Texas Tech University System’s highest faculty honor.

Patry, also a founding faculty member for the School of Pharmacy, served as regional dean for the School of Pharmacy campus in Dallas beginning in July 2013. While based in Amarillo, Patry worked with Texas Tech University’s Rawls College of Business to establish the Pharm.D./MBA dual degree program at the School of Pharmacy.

Patry was named a University Distinguished Professor in 2015. The Texas Society of Health-Systems Pharmacists (TSHP) awarded him a TSHP Research & Education Foundation Research Award in 2005 and 2012.

Leff, a professor for the school’s Department of Pharmacy Practice in Dallas and senior associate dean for the school’s clinical and translational research, came to TTUHSC in 2002 as regional dean for the Dallas/Fort Worth campus, a position he held until 2013. He is also the founding director of the Clinical Pharmacology & Experimental Therapeutics Center, a designated Center for Research Excellence at the School of Pharmacy.

Leff was awarded the James A. ‘Buddy’ Davidson Endowed Professorship in Pediatric Pharmacology in 2012. He received the Chancellor’s Council Distinguished Faculty Award in 2017.

Miller served as interim chair for the Department of Immunotherapeutics and Biotechnology in Abilene during 2016-2017. During his career at TTUHSC, he also served as an assistant professor for the Department of Pharmaceutical Sciences at the Abilene campus.

Miller received numerous teaching awards, including a TTUHSC President’s Award for Interprofessional Teamwork in 2014. In addition, the School of Pharmacy Classes of 2014, 2016 and 2017 selected him to receive their Most Influential Professor Award. The TTUHSC Student Government Association also named Miller an outstanding School of Pharmacy faculty member in 2014; the TTUHSC Graduate School of Biomedical Sciences selected him for the same honor in 2015.
At its March 2 meeting, the Texas Tech University System Board of Reagents approved the promotion of four School of Pharmacy faculty members and the promotion and tenure of another.

The group includes Krystal Edwards, Pharm.D., and Krystal Haase, Pharm.D., from the Department of Pharmacy Practice; Nikita Mirajkar, Ph.D., from the Department of Biomedical Sciences; and Anna Karamyan, Ph.D., and Luca Cucullo, Ph.D., from the Department of Pharmaceutical Sciences.

Edwards and Haase were promoted from associate professor to professor. Mirajkar and Karamyan were promoted from assistant professor to associate professor. All promotions take effect Sept. 1.

In addition, Cucullo was promoted from assistant professor to associate professor. He was also awarded tenure, effective March 2.
Each year, state agencies from the upper 26 counties in the Texas Panhandle are invited to select an employee or team of employees to receive a Texans Caring for Texans award.

The 2017 Texans Caring for Texans recipients were honored in a ceremony Aug. 10 on the West Texas A&M University campus in Canyon. Honorees from the TTUHSC campus in Amarillo included Shari Morris from the School of Pharmacy’s Department of Pharmaceutical Sciences.

The Texans Caring for Texans award recognizes state employees in the Texas Panhandle for the effort they put forth to positively impact their communities. Former State Representative David Swinford created the event in 1996.

The School of Pharmacy’s Office of Experiential Programs places TTUHSC pharmacy students in actual practice settings in or near each of the School of Pharmacy’s campus communities in Amarillo, Abilene, Lubbock and Dallas/Fort Worth. The technology-driven program provides these future practitioners with opportunities to interact with real patients and other health care professionals and has earned high marks from both students and preceptors.

Each year, the Office of Experiential Programs and the School of Pharmacy’s third- and fourth-year students honor one faculty member and one adjunct faculty member from each campus community with a Preceptor of the Year Award.

For the 2016-2017 academic year, David Simmons, R.Ph., was selected as the Amarillo Faculty Preceptor of the Year winner and Shawna King, Pharm.D., from Northwest Texas Healthcare System was selected the Amarillo Adjunct Faculty Preceptors of the Year.

Winners from the other School of Pharmacy campuses include Jennifer Grele, Pharm.D. (Abilene faculty); Levi Campbell, Pharm.D. (Dallas faculty) and Randy Ball, R.Ph. (Dallas adjunct faculty) and Justin Hesse, Pharm.D., in Lubbock.
On March 20, fourth-year (P4) TTUHSC pharmacy students interested in completing a residency found out where they would spend the next one to two years of their training at Phase I of Residency Match Day.

Winter Smith, Pharm.D., vice chair for residency programs, thanked all faculty and staff for helping the students navigate the residency placement process.

“We had a successful day, but there was still more work to be done,” Smith added. “We started working with all of the P4 students planning to participate in Phase II to help them reach their goals of residency training.”

Nationwide, there were 5,236 applicants for PGY-1 programs and 3,361 (64.2 percent) were successfully matched. A combined 36 students from all four School of Pharmacy campuses sought residencies during Phase I, and 23 (64 percent) were successfully matched.

Smith said ten P4 students who did not match in Phase I went into Phase II of the match process in April. The Phase II participants included seven students who participated in the Phase I Match and three students who did not participate in Phase I.

When the Phase II matches were announced April 12, Smith two TTUHSC P4 students were matched with residency programs for a 20 percent Phase II match rate. The national rate was 24 percent.

Smith said 25 of the 39 P4s who participated in Phases I and II were ultimately matched, giving the school a 64 percent residency match rate. Nationally, the combined match rate for Phases I and II was 65 percent.
has been named regional dean for the Texas Tech University Health Sciences Center (TTUHSC) School of Pharmacy campus in Dallas. Pass, whose appointment began Sept. 1, 2017, said being named the Dallas regional dean is an honor and he looks forward to facing the challenges of his new position by working closely with campus faculty, staff, students and residents.

“I genuinely hope to provide strong leadership that will contribute to the growth and continued success of what I believe is a truly special place,” Pass said.

Pass, a professor for TTUHSC’s Department of Pharmacy Practice, has served as the School of Pharmacy’s vice chair for residency programs since 2011. Under his leadership, the school’s residency program has become one of the nation’s strongest, with 36 residents currently working in the school’s 16 affiliated post-graduate year 1 (PGY-1) and PGY-2 programs. In addition, 41 of 48 (85.4 percent) residency applicants from the School of Pharmacy Class of 2017 that graduated in May found residency slots, a success rate that is well above the 68.5 percent national average for such placement.

“We are extremely proud of our students and all of our campuses for this achievement,” Pass said. “It is a true testament to the hard work and dedication of our students, faculty, staff and preceptors and to the overall quality of our pharmacy program at TTUHSC.”

Pass earned his Pharm.D. from the University of Kentucky College of Pharmacy in 1996. In 1997, he completed a pharmacy practice residency at Baptist Memorial Hospital in Memphis, Tennessee, and in 1998 he completed a critical care residency at The University Hospital in Cincinnati. During his career, Pass has focused upon providing quality pharmacotherapy in the critical care setting and advancing pharmacy resident education and training.
The new blood pressure guidelines for diagnosing hypertension released in 2017 by the American College of Cardiology (ACC) and American Heart Association (AHA) represented several years of work and research by an interdisciplinary writing committee whose members represented 11 different organizations. One of those committee members, Eric MacLaughlin, Pharm.D., is a professor and chair for the Department of Pharmacy Practice at the Texas Tech University Health Sciences Center in Amarillo.

The American Pharmacists Association (APhA) approached MacLaughlin in October 2014 to be a possible APhA representative to the guideline writing committee. The ACC and AHA, who took the lead in developing these guidelines, eventually selected MacLaughlin as the committee’s lone pharmacy representative.

“As a member of the Guideline Writing Committee, my role was to lead the literature review and writing of the various sections to which I was assigned,” MacLaughlin explained. “All of the authors also served to review, edit and revise the guidelines and their accompanying documents, including the data supplement tables and results of the meta-analyses that were undertaken by the Evidence Review Committee specifically for these guidelines.”

MacLaughlin said the goal of the new guideline is to ultimately improve public health and decrease the morbidity and mortality associated with elevated blood pressure.

“Hypertension remains the leading cause of death in the United States and worldwide,” he added.

According to an online ACC news story published Nov. 13, the new guidelines eliminate the prehypertension category and will now classify patients as having either Elevated (120-129 and less than 80) or Stage I hypertension (130-139 or 80-89). The former guidelines classified 140/90 mm Hg as Stage I hypertension, a level classified as Stage 2 hypertension by the new guidelines.

In addition, the ACC news story said the new guidelines stress the importance of using proper technique to measure blood pressure; recommend the use of home blood pressure monitoring using validated devices; and highlight the value of appropriate training of health care providers to reveal “white-coat hypertension.”

Other guideline changes include a recommendation that clinicians only prescribe medication for Stage I hypertension patients who have already had a cardiovascular event such as a heart attack or stroke and those who are deemed to be at high risk of heart attack or stroke based upon their age, the presence of diabetes mellitus, chronic kidney disease or calculation of atherosclerotic risk using the same risk calculator used in evaluating high cholesterol.

“The guidelines will undergo a periodic review and will be updated as newer literature becomes available,” MacLaughlin said.

MacLaughlin said there is a significant role for pharmacists in the care of hypertension, and the use of a team-based approach to treating hypertension was given a high-level recommendation by the ACC/AHA committee.

“Pharmacists are specifically mentioned because of the evidence that supports their involvement in the care of patients with high blood pressure,” he said.
AMARILLO & ABILENE FACULTY HONORED

In conjunction with his annual State of the University Address Nov. 7 in Lubbock, TTUHSC President Tedd L. Mitchell, M.D., recognized 25 university faculty members for their exceptional efforts in the clinic and the classroom.

Individual honorees from the Amarillo campus included Harold Werner, M.D., who received a University Distinguished Professor Award, and Krystal Haase, Pharm.D., a recipient of the President’s Excellence in Teaching Award. In addition, Deborah Casida, MSN, R.N., was a member of the School of Nursing team that received the President’s Teaching Team Award.

Honorees from the Abilene campus included Irene LaBeck, Pharm.D., who received the President’s Early Career Investigator Award. In addition, the President’s Excellence in Interprofessional Teamwork went to Ruth Bargainer, MSN, R.N., April Beckling, BSN, R.N., Terran Keidl, R.N., and Kathryn Whitcomb, DNP, R.N., from the School of Nursing and Bethany Ibach, Pharm.D., Young Lee, Pharm.D., Chephra McKee, Pharm.D., from the School of Pharmacy.
Harcopf also sought ways to improve existing processes in ways she believed would benefit the organizations she served and the School of Pharmacy for years to come. In short, she looks for positions where she can most effectively fulfill the unmet needs and expectations of others.

“When I came across a problem I would think, ‘what could I do to make this better, easier or more efficient for the future officer team?’ From there we could then brainstorm ways to make it happen,” she added.

Receiving the Dean’s Student Leadership Award is especially humbling for Harcopf. She said knowing her peers and colleagues consider her to be someone who exemplifies the leadership practices associated with the award is the best part of the honor. She said she would be “terribly remiss” if she failed to express gratitude for the important input and support she received from others in meeting the characteristics associated with the award. Her thank you list includes patients, preceptors, faculty, mentors, advisors, family, friends and fellow students who are now colleagues.

“I love them all very much and I sincerely acknowledge how integral they have all been to my growth as a leader and a person,” Harcopf said. “My heart is overwhelmed with joy and gratitude because this award encourages me to continue to grow in the practices of a leader in my residency and throughout the rest of my career and life. I am often asked what my favorite part of pharmacy school and being a leader has been, and I can wholeheartedly say it’s the people I had the opportunity to meet, interact with and learn from. I am forever grateful for the mark they have made on my life and I wouldn’t be who I am today as a leader or a person without all of them.”

Harcopf also recalled, “This inspired me to train an organization full of equipped officers and members so there could be smooth transitions each year.”

“I have been blessed with a plethora of leadership roles, but I did not pursue these roles to further my own name and to just have titles,” Harcopf explained. “I took them to invest in others. It’s really such a unique experience to be able to foster and see growth in other officers and members of organizations you are leading or serving in other capacities.”

Harcopf, the 2017 recipient of the Dean’s Student Leadership Award for the School of Pharmacy’s Dallas/Fort Worth regional campus, served as an officer or special committee member for six School of Pharmacy student organizations during her years at TTUHSC. She was also a member or student representative to six more. She said student organization leadership requires much planning and dealing with unknown factors, often on the fly. The experiences have made her more adaptable and taught her to trust others.

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When it comes to assuming leadership roles, Jennifer Harcopf looks for positions that challenge her to be a better person.

HARCOPF INVESTS IN OTHERS THROUGH LEADERSHIP

PHARMACY STUDENTS PREPARE FOR FUTURE

at Annual Conference

A group of pharmacy students took in a variety of presentations designed to be insightful and intellectually stimulating at the 2017 Texas Pharmacy Association (TPA) Conference July 7-9 in San Antonio.

Third-year student (P3) Alex Parish said the presentation topics ranged from Naloxone use in opioid overdose to drug induced nutrient depletions to bills from the 85th Texas Legislative session. He said the presenters included 2017-2018 TPA president Mary Klein, Pharm.D., an assistant professor from the Abilene campus who discussed various medical devices pertinent to pharmacy practice.

“This year’s TPA Conference was an amazing experience for all students and practicing pharmacists who had the opportunity to attend,” Parish said. “The conference brought together pharmacists and pharmacy students from all over the state who represented the wide range of various practices and specialties.”

The conference also included a pair of competitions to assess student skills in patient counseling and self-care. Parish said P4s Hayley Brazeale, Kriigel Padolina and Stephanie James participated in the Patient Counseling Competition. P3s Aubree Gast and Casey Bryant and P2s Matthew Bigelow and Goravpaul Chattrath competed as a team in the Self-Care Championship.

“All of the contestants represented our school with extraordinary professionalism and each valued the experience tremendously,” Parish said. “In the thrilling Jeopardy-style Self-Care Championship, which tested the knowledge of over-the-counter medications and self-treatable disease states, TTUHSC continued its winning tradition.”

Parish said the self-care contest was a dead heat going into the final Jeopardy round. During that round, the TTUHSC team wagered all of its points and then outmatched competitors from seven other Texas pharmacy schools to earn the Self-Care Championship trophy for the second year in a row.

To address the issues and innovations that will be important to the future of pharmacy, Parish said conference attendees formed small groups to discuss new ideas for increasing awareness, participation and advocacy in pharmacy schools and within the profession itself.

“Health care is a dynamic field that presents a rocky road for the future and is in great need of innovation,” Parish said. “Further joint efforts between TPA and other pharmacy organizations will help us to advance the profession through innovation, education, and advocacy in order to deliver quality health care initiatives.”

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Hannah Lenamon arrived at the School of Pharmacy campus in Abilene sporting a leadership style influenced primarily by her family. When she graduated in May, Lenamon did so as one of the most respected leaders for the Class of 2017 and the recipient of the Dean’s Student Leadership Award for the Abilene campus.

“I’ve never been one to volunteer for leadership positions with an award in mind, but it is certainly nice to be appreciated for the hard work I put in throughout pharmacy school,” Lenamon said. “There are many long nights and stressful days behind my being presented this award and I am grateful my efforts have been noticed.”

Lenamon, currently a PGY-1 resident in community pharmacy practice at the TTUHSC School of Pharmacy campus in Amarillo, grew up in McGregor, a small town about 15 minutes southwest of Waco. Her mother has worked as a schoolteacher and librarian and her father as a school administrator. She described both as strong and independent leaders.

“LEADERSHIP IS A FAMILY AFFAIR for Lenamon

“I grew up watching my mother deal with a variety of children with poise and intelligence,” Lenamon said. “She can turn children who hate reading into the biggest book worms and she can help even the most challenged of children understand a tough math problem. She has truly inspired me to be an approachable and kind leader to all.”

Lenamon’s father, James, was recently named superintendent for the McGregor Independent School District.

“I have already seen him juggle countless budget issues, personnel issues and other school related problems,” Lenamon said. “However, during all of this, he has never forgotten his family and he always makes time for us. In this way, he motivates me to be both a strong leader and successful family woman.”

As a pharmacy student, Lenamon was very active in student organizations like Kappa Psi, Phi Lambda Sigma. She was also an officer for the TTUHSC Student Government Association and the School of Pharmacy Student Council. She also served as president for the National Community Pharmacists Association and she is a new board member for the West Texas Pharmacy Association.

“I think it is important for students to be involved in a multitude of organizations, Lenamon said. “They can help you find your calling, connect you to great contacts and they are a vital part of the pharmacy school experience.”

Lenamon’s dream is to work in a small independent or retail pharmacy that specializes in compounding, veterinary pharmacy or both. Because of her experiences as a pharmacy school leader, she also plans to continue mentoring future West Texas pharmacists no matter where her career takes her.

“As a student organization leader, I have had to deal with some very high-stress situations,” Lenamon said. “Because of this, I now know how to better budget my time and resources, all while staying cool and collected. I have also had to deal with many different people with many different personalities; I know this will also be true as I go forward into my professional career.”
PDC ELECTS ABILENE STUDENT TO REGIONAL POST
Alexandria Ybarra, a fourth-year student at the School of Pharmacy's Abilene campus, was elected the Phi Delta Chi (PDC) south central regional correspondent at PDC's 71st Grand Council Meeting Aug. 1-5 in Washington, D.C.

As a regional correspondent, Ybarra will be responsible for all communication between PDC's national office and the 11 chapters that comprise PDC's south central region. The TTUHSC School of Pharmacy has two chapters: the Beta Rho chapter, founded in 1999 on the Amarillo campus; and the Gamma Eta chapter, founded on the Abilene campus in 2009.

"Alex makes the fourth TTUHSC student, and third in a row from the Gamma Eta chapter to hold this position," Assistant Professor Chephra McKee, Pharm.D., said. "I believe this reflects very well on our school as a whole. We are very proud of Alex and wish her the best in this new position."

The Phi Delta Chi Pharmacy Fraternity seeks to advance the profession of pharmacy by developing leaders. As a lifelong experience, Phi Delta Chi promotes scholastic, professional and social growth in its members and strives to provide quality services to patients, thereby advancing public health and strengthening pharmacists' roles as health professionals.

LENDING A HAND TO HARVEY EVACUEES
Pharmacy Alumnae

As those affected most by Hurricane Harvey begin the arduous process of putting their lives back together, heroic stories of people helping people will continue to inspire and fuel the rebuilding effort. One of those stories belongs to School of Pharmacy alumna Quynh Do, Pharm.D., a Houston native and member of the Class of 2017.

Do and fellow School of Pharmacy alumna Kelli Anthony, Pharm.D. (Class of 2014), were part of Kroger’s effort to help people from the Texas Gulf Coast who escaped Harvey by evacuating to the Dallas-Fort Worth Metroplex (DFW). They each spent several days as part of Kroger’s Dallas team, manning the company’s mobile pharmacy and working at the Walnut Hill Recreation Center in North Dallas alongside various church groups, veterans, Red Cross personnel and responders from the Federal Emergency Management Agency.

In addition to providing evacuees with free food, mobile showers and clothes from donation trailers, Do said the volunteers also organized moonwalks for children, served free ice cream and manned a mobile pharmacy.

"The opportunity to work in a mobile pharmacy trailer is different and interesting, but most importantly, it was my opportunity to help the community that gave so much to me," Do said. "I saw Texans helping one another on social media and there was a line of volunteers to help in Houston. I wish I could have joined my friends in Houston to help those in need, but I’m glad I was given this opportunity because other pharmacists didn’t and I know they would love to help."

Do said the most memorable moment for her was when a woman and her family came to get their medications and relayed how they didn’t have any food and had evacuated prior to the storm. Despite their situation, Do said the woman only asked for blood pressure and diabetes medications.

"She was so worried for her diabetic dad who was stuck in Port Arthur," Do said. "We all listened and gave her a group hug, her tears and joy were felt by all in the trailer. I will not forget that moment."

Do said the opportunity to work in the trailer was more rewarding for her than for the evacuees. In addition to handing out free medications, she said the mobile pharmacy also provides humanity.

"We are all caring individuals and we are here to provide a helping hand and support to all who need it," Do explained. "I grew up in Houston, so it is natural for me to help those from my city and those in need. I am still devastated; it was hard for me to read the news and look at live updates while my friends and family were stuck in their homes. It’s hard not being able to help them, but I am happy that they’re all safe, including the pets. It will take a long time to rebuild, but I am so proud to see Houstonians and Texans reaching out to help each other."
ABILENE TEAM CLAIMS CLINICAL SKILLS TITLE

The Texas Tech Student Society of Health-System Pharmacists (TTSSHP) held its annual Clinical Skills Competition Sept. 14-16. Two-member teams representing each School of Pharmacy class and all four of the school’s campuses participated in the event.

Abilene fourth-year (P4) students Hayden Stewart and Hayley Brazeale were selected as the top overall team. The win advanced them to the National Clinical Skills Competition Dec. 2-7 in Orlando, Florida at the American Society of Health-System Pharmacist’s (ASHP) Midyear Clinical Meeting.

Stewart, who also competed as a P2 and P3, already had plans to attend the ASHP Midyear Meeting to explore residency opportunities. She said the complimentary registration fee that goes winning the TTUHSC contest is icing on the cake.

“I participate in the clinical skills competition because I enjoy testing my knowledge and being able to identify my strengths and weaknesses,” Stewart said. “This is the first year that I have competed and advanced to the local finals, and it’s the first time I have been a part of a team that placed first overall.”

Brazeale competed in state-level clinical skills competitions hosted by the Texas Society of Health-System Pharmacists in her P2 and P3 years. Though her team didn’t place in those competitions, she was eager to compete at the local level this year to see how the competitions differ.

“Competitors gain so much from participating through practice and clinical development,” Brazeale explained. “I signed up because I’ve watched my peers compete in past years and they had so much fun with it. I’m so excited that we get to continue competing on the national level against other qualified teams from across the country.”

Brazeale and Stewart said preparing for these types of competitions is difficult because the team’s case can include any disease state. The overall clinical experiences they gained through rotations and practice helped them build knowledge and clinical judgment they needed to compete at a high level. Winning the competition, they said, means they simply had what it took on this particular patient case to have a competitive edge over the other TTUHSC teams.

“On another day, and with a different patient case, I honestly think the competition results could have gone another way,” Stewart said. “This competition requires skill, but it also requires a bit of luck when it comes to what topic is chosen for the case and I think we had luck on our side this time.”
From May 22-June 30, during their first rotation block as fourth-year School of Pharmacy students, Cameron Lowery and Samantha Gazzola traveled from the TTUHSC Dallas campus to Keio University in Tokyo, Japan as exchange students. They considered the trip a once-in-a-lifetime opportunity to broaden their cultural horizons and learn about pharmacists’ roles in another country.

“I learned a great deal about the differences between American and Japanese pharmacy practice,” Lowery said. “The single greatest lesson I learned, however, was to open my mind to new ideas and approaches. Despite the staggering differences between our two countries, I have come to admire, and in some cases prefer the Japanese way of doing things, both pharmaceutically and otherwise.”

For Gazzola, the rotation in Japan was also a chance to see the country from which her family hails and to view pharmacy — and pharmacy education — in a new setting. She said the Japanese pharmacy curriculum focuses more upon research than does that of the typical American pharmacy program.

“I learned how different pharmacy can be from what I am used to in the U.S.,” Gazzola said. “Community pharmacies are much smaller with no technicians. Herbal products such as ‘kampo’ play a much bigger role in their health care and Japanese patients are also more involved with their own health care. They carry booklets with them that list all the medications they are currently taking.”

In September, Lowery and Gazzola saw the exchange student experience from another perspective when they helped the Dallas campus host a pair of exchange students from Keio University. The Keio students, Kodai Yajima and Yuka Kase, completed a pharmacy rotation at Texas Health Resources Presbyterian Hospital with School of Pharmacy preceptor Carla Philmon, Pharm.D.

Like her American colleagues, Kase wanted to experience the differences between American and Japanese health care systems. She said the role of pharmacists in America is quite different than in Japan. One immediately noticeable difference, she said, is the use of pharmacy technicians.

“There are no such technicians in Japan, therefore I am interested in their roles,” Kase added. “Learning about different ways to care for patients can help improve health care in my home country.”

Yajima said he wanted to study in the U.S. in hopes of becoming a more capable hospital pharmacist. His clinical rotation experiences in Japan have given him the impression that hospital pharmacists in Japan are primarily focused upon technical tasks like preparing medications and injections. He also belongs to a clinical pharmacy laboratory group in Japan that primarily researches pharmacokinetics, so he hopes to train with American pharmacists within the same specialized area. He likes the fact that TTUHSC’s Pharm. D. curriculum offers clinical pharmacy experiences in a wide variety of patient care sites and he hopes to be able to better understand the perspectives, roles and contributions of physicians, nurses and other health care workers in relation to general patient care.

“Experience with — and opportunities to learn from — different medical systems and cultural backgrounds can also help shape future changes in Japan’s health care delivery system,” Yajima explained. “I am very interested in the roles that pharmacy technicians hold and the medical delivery system in America. Taking part in hospital rounds is another important feature of your program for me: communicating with others from different disciplines is very important for pharmacists in patient care.”

Kase and Yajima stayed with School of Pharmacy associate professor and faculty host Krystal Edwards, Pharm.D., and her family during their TTUHSC rotation. Edwards said she was supported by several members of the School of Pharmacy’s Office of Experiential Programs, including Craig Cox, Pharm.D., Jean Haynes, Kandice Garner and Emily Banda.

“Dr. Cox and I have visited Keio University and delivered lectures to the Japanese pharmacy students,” Edwards said. “Through those experiences, we have learned more about the variations in the Japanese pharmacy school system and the overall differences between health care in Japan and the U.S.”

For Gazzola, the rotation in Japan was also a chance to see the country from which her family hails and to view pharmacy — and pharmacy education — in a new setting. She said the Japanese pharmacy curriculum focuses more upon research than does that of the typical American pharmacy program.
STUDENT ORGANIZATION HOLDS ANNUAL PILL TALK
2017-2018

The Texas Tech Student Society of Health System Pharmacists, also known as Double T, held its annual Pharmacy Information on Leadership and Learning Talk (PILL Talk) Sept. 23 on the School of Pharmacy’s Dallas/Fort Worth (DFW) campus. The purpose of PILL Talk is to help students interact and network with faculty in a casual setting outside the classroom and rotation sites.

Amie Blaszczyk, Pharm.D., an associate professor on the DFW campus, hosted the 2017 event that was attended by 18 third- and fourth-year students. DFW Regional Dean Steven Pass, Pharm.D., and Krystal Edwards, Pharm.D., associate dean of career development, also attended.

"PILL Talk has gained a very positive reputation among the school’s students and faculty at the TTUHSC School of Pharmacy," Edwards said. "It’s a wonderful opportunity to mingle over food and to speak to students and faculty regarding how to navigate the remainder of pharmacy school, future career opportunities and more."

Third-year DFW pharmacy student Sheena Chokshi said Double T strives to provide similar experiences for each of its members on all four TTUHSC School of Pharmacy campuses. She said PILL Talk is scheduled for the Lubbock campus in November and will likely be hosted by Craig Cox, Pharm.D., associate professor and vice chair for experiential programs. The Amarillo and Abilene campuses have scheduled their PILL Talks for March.

"Double T is excited about each of these events and hopes the students and faculty will have a wonderful experience," Chokshi said. "Furthermore, Double T plans to continue growing this event from year to year and shares in the passion its members have for pharmacy."

PHARMACY STUDENTS MEET THE FUTURE
at 2017-2018 Career Fair

The TTUHSC School of Pharmacy gave 164 third- and fourth-year students a chance to meet their potential future employers at the school’s 2017-2018 career fair Oct. 2-3 at the Hurst Convention Center in Hurst, Texas.

This year the school combined its career fair with that of the University of North Texas (UNT) Health Science Center College. The combined event provided an opportunity for TTUHSC pharmacy students to engage with students and faculty from another school and offered a wider variety of vendors with whom the students could network.

Vendors attending the career fair represented hospitals, residency programs, long-term health care consulting firms, a professional pharmacy organization, a fellowship program and a financial planning company. The vendor list included Baylor Scott & White Health, Texas Health Resources Dallas/Fort Worth, CHRISTUS Trinity Mother Frances Health System, CVS Health, Kroger, Walgreens, H-E-B, Albertsons/Lambda Tom Thumb and United pharmacies. TTUHSC faculty members and Mass Mutual simultaneously offered mock interviews and career development training sessions related to CVs and LOIs, social networking, time management, debt management and residency preparation.

In addition, 19 TTUHSC faculty members and residents, 19 UNT faculty members and representatives from Mass Mutual offered simultaneous career development workshops and training sessions covering topics like curriculum vitae (CV) and letters of intent (LOIs); interviewing; networking; job offers; time management; debt management; CV reviews; and residency preparation for third-year students. There was also a resident panel, an alumni panel and mock interviews.

"The mock interviews allowed TTUHSC students to work with a UNT faculty member to practice their interview skills about a career option of the student’s choice," Associate Dean for Career Development Krystal Edwards, Pharm.D., said. "The alumni and resident panels offered the students the opportunity to ask questions about career options and get clinical pearls, along with words of wisdom, from those in a variety of positions."

On Oct. 3, eight pharmacy companies conducted interviews for fourth-year students. By the end of the day, the companies conducted more than 240 interviews with students interested in residencies, retail and hospital-based job opportunities. Companies conducting the second-day interviews included Texas Health Resources Dallas/Fort Worth, CHRISTUS Trinity Mother Frances Health System, CVS Health, Kroger, Walgreens, H-E-B, Albertsons/Lambda Tom Thumb and United pharmacies. TTUHSC faculty members and Mass Mutual simultaneously offered mock interviews and career development training sessions related to CVs and LOIs, social networking, time management, debt management and residency preparation.
In a classic battle to benefit the community, student organizations at the TTUHSC School of Pharmacy in Amarillo staged a penny war in conjunction with the American Heart Association’s (AHA) Heart Walk that took place Oct. 21 at the Don Harrington Discovery Center.

For those not familiar with penny wars, each organization is given a jar into which its members contribute pennies. The organization earns one point for each penny.

“However, this is a game of strategy, treachery and skullduggery,” Associate Professor Margaret Weis said. “It is possible to sabotage a rival organization by placing nickels (negative 25 points) or currency (minus MANY points) into the opposition’s jars.”

Weis said the student organizations raised a total of $1028.39, including $727.65 in pennies. “That’s more than 400 pounds of pennies,” Weis added.

In a fitting end to a classic battle, the pharmacy students presented a check for all of the penny war proceeds to Judy Cato, AHA’s corporate market director, Nov. 2 inside the Pharmacy Academic Center.

Lee's research poster titled, "Do the types and routes of proton pump inhibitors affect Clostridium difficile infections in ICU patients?" was selected as one of four finalists for best student poster. Though she didn't end up with the top spot in the competition, Lee said the experience was undeniably beneficial.

“I am truly honored to be nominated, but this could not have been accomplished if it weren't for the great support from my mentors, Drs. (Ron) Hall, (David) Fike, (Steven) Pass and (Carlos) Alvarez,” Lee said. “I am extremely grateful for their time, patience and wisdom to guide me, a novice researcher, throughout this process to become both a poster and platform presenter. And even though all good things have to come to an end, our research doesn’t end at this nomination. We are currently working on a manuscript about this research to share with many others.”

Initially, the top poster nomination appeared to be the highlight of Lee’s ACCP meeting experience. Then, on Oct. 19, she learned that a second research poster she presented with DFW Assistant Professor Ashley Higbea, Pharm.D., won second place in ACCP’s Education and Training PRN poster session. That research is titled, "Student perceptions of an interprofessional student-run free clinic."

“The main purpose of the research was to determine student attitudes about interprofessional teams and the team approach to care within a student-run interprofessional clinic,” Lee explained.

Lee’s research began when she pioneered a student-run clinic for a men’s shelter in Dallas. There, she saw TTUHSC pharmacy students collaborating with medical and physician assistant students from UT Southwestern medical school. Her research showed that those students found it positive to collaborate with each other, and that the interactions produced in all of the students a more positive attitude toward IPE and team-based care.

“The student-run IPE clinic provides great learning opportunity for students to develop clinical, organizational and leadership skills, while also instilling a lifelong commitment of service to the community and others in need,” Lee said.

Though she is grateful and appreciative of the ACCP poster nominations, Lee said the research skills she developed working alongside her faculty mentors would ultimately prove more beneficial to her education and career goals.

“My future plan upon graduation is to pursue a residency, and these posters have helped me enhance my presentation skills at a national conference,” Lee added. “I have reaped this valuable lifelong experience, which has helped me gain some of the requisite skills needed to be a successful resident and a future pharmacist.”
Thailand Pharmacy Students Visit Abilene Campus

From Sept. 17 through Oct. 28, students, faculty and staff from the Texas Tech University Health Sciences Center (TTUHSC) campus in Abilene hosted a pair of pharmacy students from Khon Kaen University (KKU), a public research university located in Khon Kaen, Thailand.

The students — Chanokporn Hakandai, who goes by Mint, and Patra Asavatanabodee, who goes by Juelie — were the first visitors to the Abilene campus as part of a memorandum of understanding (MOU) established earlier this year between the TTUHSC School of Pharmacy and KKU. The MOU allows KKU students to come to TTUHSC to complete a six-week pharmacy-related rotation, and for selected fourth-year TTUHSC School of Pharmacy students to travel to Thailand and KKU to complete an experiential rotation.

Sara Brouse, Pharm.D., regional dean for the School of Pharmacy in Abilene said having the KKU students on campus was a very positive experience that she looks forward to repeating. She believes everyone involved made some memories they won’t soon forget.

“It was a great start to a wonderful partnership and opportunity for our faculty and students,” Brouse added. “I’m excited to bring the first international exchange program to Abilene and continuing to build international experiential rotation opportunities for students on all of our campuses.”

Mint and Juelie arrived at KKU from different Thailand cities, each located about an hour from the school. Mint said they are both studying in KKU’s Faculty of Pharmaceutical Sciences and are concentrating on the school’s pharmaceutical care track, which in Thailand relates to clinical pharmacy practice in the hospital and drugstore.

“We are studying to become clinical pharmacists,” Mint said. “We hope to learn about clinical pharmacy, medications in U.S. and the pharmacist’s roles in outpatient and inpatient care and in retail pharmacy”

Juelie said this was the first trip to the U.S. for her and Mint. She said it was a great opportunity to come to Abilene to observe and learn about the U.S. work culture and to get more experience in clinical pharmacy.

“We gained a lot of knowledge and experiences from the internship, especially work cultures, systems and new medications,” Juelie said. “We will apply these experiences to help develop the health care system in Thailand.”

They also had an opportunity to experience Texas, thanks to the Abilene campus faculty, staff and students. Their favorite Key City food is steak and barbecue.

“There are a lot of foods that we never tried in our country,” Mint said. “We felt excited every time when people took us to the restaurants. Texas people also have their leather boots and jackets, which we thought they had only in the movies. We’d like to thank the faculty, staff and students from TTUHSC for helping us in many things. You guys are amazing and we really appreciate it.”

Brouse said the KKU School of Pharmacy dean and three other faculty members who are working with the KKU international exchange program also visited the Abilene campus Oct. 19-21. She said the visiting educators learned about the curriculum at the TTUHSC School of Pharmacy and about Techlink, the distance education network the school uses to connect each campus. They also toured Abilene’s Simulation Center.

Brouse spoke in January at an international conference in Khon Kaen. As part of the MOU between TTUHSC and KKU, two fourth-year TTUHSC pharmacy students will also be selected to complete a six-week elective rotation at the University Hospital in Khon Kaen next year. The TTUHSC pharmacy students will also spend time in KKU’s retail pharmacy and the hospital’s Alternative Medicine Unit, where patients can request a Thai massage, tiger balm applications and other non-traditional approaches to healing.

“It takes a village to host dignitaries from another country and international students for a six-week rotation,” Brouse said. “Thank you to all of the faculty & staff who helped to coordinate and host the deans and international affairs faculty from Khon Kaen University and the students we got to know during their visit to our campus.”
ABILENE STUDENT EARNES SECOND PLACE IN ASHP COMPETITION

The American Society of Health-System Pharmacists (ASHP) recently announced that Hayley Brazeale, a fourth-year pharmacy student on the TTUHSC Abilene campus, earned a second-place finish in ASHP’s Fall 2017 New Drug Update competition.

The New Drug Update competition is a national clinical writing competition hosted by ASHP’s Community and eCommunications Advisory Group. Participants are asked to write a report regarding a specified newly approved medication. The biannual competition was held for the first time in March, but this was Brazeale’s first time to compete.

“I didn’t really prepare as I didn’t really know what to expect,” Brazeale said. “I believe that completing drug information questions on rotations helped to prepare me the most.”

The New Drug Update competition is open to pharmacy students throughout the country, and Brazeale said all ASHP student members were invited to compete.

“Competitions like this provide extra practice to develop the clinical skills we learned as a student,” Brazeale said. “I like competing in these contests because they challenge me to strengthen and perfect the skills studied during school in order to work on improvement.”

Brazeale said she was surprised and honored by her second-place finish and credits her School of Pharmacy education and training for preparing her for clinical writing challenges like the ASHP competition. It’s an experience she recommends to all of her classmates.

“New rounds of the competition will be ongoing next year and I highly encourage my peers to participate,” she said. “It’s a great experience and you might do better than you think.”

GRAD STUDENT INVITED TO SHARE WORK

Kshitij Verma, a Ph.D. candidate who works as a research assistant in the School of Pharmacy’s Department of Pharmaceutical Sciences laboratory of Paul Trippier, Ph.D., made a podium presentation at the American Chemical Society (ACS) Southwest Regional Meeting (SWRM) Oct. 29 – Nov. 1 in Lubbock, Texas. His abstract was titled, “Discovery of highly potent and selective inhibitor of AKR1C3 for the treatment of castration-resistant prostate cancer and acute myeloid leukemia.”

GSBS SELECTS DEAN’S SCHOLAR AWARD HONOREES

In support of its goal of recruiting and retaining the best quality student, TTUHSC’s Graduate School of Biomedical Sciences (GSBS) recently selected Md. Abul Kaisar and Nehal Gupta as the latest recipients of the Dean’s Scholar Award.

Kaisar, a Ph.D. candidate, works as a research assistant in the Department of Pharmaceutical Sciences lab of Luca Cucullo, Ph.D. Gupta is also pursuing her Ph.D. and works as a research assistant in the Department of Biomedical Sciences lab of Dr. Sanjay Srivastava.

The GSBS Dean’s Scholar Award recognizes outstanding Ph.D. and M.D./Ph.D. students who have shown exceptional academic ability and potential for research excellence, as evidenced by their GPA, GRE, meeting abstracts, presentations and publications and other awards they have received. Recipients receive an additional $5,000 added to their annual research assistantship base stipend for the duration of their doctoral degree. Recipients must continue to maintain a 3.5 cumulative GPA or the award will be withdrawn.

GPPS STUDENT SELECTED FOR GRANT

The Society of Toxicology Awards Committee recently selected Sharavan Ramachandran, a Ph.D. candidate in the School of Pharmacy’s Graduate Program in Pharmaceutical Sciences, to receive the Syngenta Fellowship Grant in Human Health Applications of New Technologies. The award includes $15,000 in fellowship funds presented to Ramachandran March 11-15 at the Society of Toxicology (SOT) 2018 Annual Meeting and ToxExpo in San Antonio.

The award also included a plaque and travel support to attend the SOT Annual Meeting and the Syngenta site where Mr. Ramachandran will present his results. He will also be recognized in the SOT Annual Meeting Publications, including the Preliminary and Final Programs on the SOT Website.

Ramachandran works as a research assistant in the Department of Biomedical Sciences laboratory of Dr. Sanjay K. Srivastava, Ph.D.
RESEARCHERS MEET IN AMARILLO

School of Pharmacy researchers met June 15-16 to tout their latest research activities during the school’s Sixteenth Annual Research Days Symposium at the Amarillo Civic Center.

Research Days is an interdisciplinary forum showcasing the pharmacy school’s research activities during the past year. It provides the school’s faculty, postdoctoral fellows, residents and students an opportunity to exchange research ideas and interests and to discuss potential interdisciplinary collaborations between the school’s departments and campuses.

Edith Nutescu, Ph.D., and John DiGiovanni, Ph.D., were the event’s June 15 keynote speakers. Nutescu is director of the Center for Pharmacoepidemiology and Pharmacoeconomic Research Pharmacy Systems at the University of Illinois at Chicago. Her presentation was titled, “Personalized Medicine at the Intersection of Clinical Pharmacy Practice and Research.”

DiGiovanni is a professor and Coulter R. Sublett Endowed Chair for the Division of Pharmacology and Toxicology at the University of Texas College of Pharmacy. His presentation was titled, “Targeting Amino Acid Metabolism for Cancer Prevention and Treatment.”

Laurent Salphati, Ph.D., principal scientist for Genentech, was the June 16 keynote speaker. His presentation was titled, “Optimization and Development of PI3K Inhibitors for the Treatment of Glioblastoma.”

The annual Research Days poster competition featured more than 45 entries prepared by School of Pharmacy students, graduate students and residents. Poster presentation winners in the resident category included Megan Geurds, Pharm.D., Meghan Duquette, Pharm.D., and Danni McMahan, Pharm.D. Each received a $500 scholarship award for books and resources.

The event also featured 14 podium presentations, including 11 in the basic sciences and three in pharmacy practice. The top presenters included Kshitij Verma, a senior graduate student for the Department Pharmaceutical Sciences; Bader Huwaimel, a junior graduate student for the Department of Pharmaceutical Sciences; and Md. Sanaullah Sajib, a junior graduate student for the Department of Biomedical Sciences. Each received a $500 travel award.

In addition, four School of Pharmacy faculty members received seed grants. The quartet included Jose Vega, Pharm.D., an associate professor for the Department of Pharmacy Practice in Abilene; Vardan Karamyan, Ph.D., an associate professor for the Department of Pharmaceutical Sciences in Amarillo; Paul Trippier, Ph.D., an assistant professor from the Department of Pharmaceutical Sciences in Amarillo; and Ulrich Bickel, M.D., a professor for the Department of Pharmaceutical Sciences in Amarillo.
Quentin Smith, Ph.D., has been named the Texas Tech University Health Sciences Center (TTUHSC) new senior vice president of research. Smith is the current dean of the TTUHSC School of Pharmacy and will serve in that role concurrent with the senior vice president of research.

**NEW VICE PRESIDENT OF RESEARCH**

by Suzanna Cisneros

Quentin Smith, Ph.D., has been named the Texas Tech University Health Sciences Center (TTUHSC) new senior vice president of research. Smith is the current dean of the TTUHSC School of Pharmacy and will serve in that role concurrent with the senior vice president of research.

After working more than 17 years in the National Institutes of Aging of the National Institutes of Health (NIH), where he served as a tenured research investigator and section chief, Smith began at TTUHSC in 1997 as professor and chair of the newly formed Department of Pharmaceutical Sciences in the School of Pharmacy. He worked with the Graduate School of Biomedical Sciences in 1999 to extend their training to the Amarillo campus with creation of the Pharmaceutical Sciences Graduate Program. In 2009, he became the senior associate dean for sciences of the School of Pharmacy, and in 2012 was appointed dean of the School of Pharmacy.

Since joining TTUHSC, Smith has worked to build research and education in the School of Pharmacy. Though the school is only 20 years old, it has placed in the top third of Schools of Pharmacy nationally, ranked 16th in the nation by Graduate Programs.com, and 36 of 129 in U.S News and World Report. TTUHSC President Tedd L. Mitchell said in the last five years, the School of Pharmacy has more than doubled the number of graduates going into postgraduate residency training.

"I am grateful to Dr. Smith for agreeing to take on this important role," Mitchell said. "He will seek guidance and input from those in the basic and clinical sciences who, through their skills and commitment, have advanced the discovery of new knowledge in the areas of research that TTUHSC is known for: cancer, Alzheimer's and aging, infectious diseases and vaccines, rural health, women's health, membrane biology and others."

Smith is an internationally distinguished researcher who, since leaving the NIH, has been awarded substantial extramural grant funding and led several international scientific conferences, including the Gordon Research Conference on Barriers of the Nervous System in 2012. He is a Fellow of the Association of Pharmaceutical Scientists and received both the Award of Merit (1995) from the NIH and the meritorious manuscript award (2014) from the American Association of Pharmaceutical Sciences.

"It is an honor to be invited to fill this critical role in the university," Smith said. "I look forward to working with all schools and campuses to grow and transform TTUHSC research and with our partners in Texas. Our first steps will be to strengthen the research strategic plan of the university and to create a University Research Council."

At TTUHSC, he received the Chancellor's Council Distinguished Research Award, the Grover E. Murray Professorship, University Distinguished Professor and the President's Excellence in Teaching Award. The graduating class of the School of Pharmacy recognized him twice as the Most Influential Professor.
The National Institutes of Health (NIH) recently awarded a multi-PI (principal investigator) RO1 grant to a pair of Texas Tech University Health Sciences Center (TTUHSC) faculty scientists in Amarillo who will continue their investigation into the health effects of electronic cigarettes.

Luca Cucullo, Ph.D., and Thomas Abbruscato, Ph.D., will use the five-year, $1.9 million grant to continue a research project titled, “Testing tobacco smoke and e-cigarette toxicity at the blood-brain barrier.” The grant is a competitive renewal of an NIH-funded project Cucullo brought with him when he was hired as an assistant professor for the School of Pharmacy’s Department of Pharmaceutical Sciences in 2011. Abbruscato is the department chair; the NIH and the American Heart Association have also supported his research into the effects of nicotine and tobacco smoke on blood-brain barrier injuries and stroke outcomes.

“Cucullo is a former smoker himself, and his mother was a chronic and heavy neuroinflammatory diseases like stroke, Alzheimer’s disease and vascular dementia because of her personal experiences. Cucullo is a former smoker himself, and his mother was a chronic and heavy smoker who now depends entirely upon an external oxygen supply to function.

Cucullo said. “Also quite alarming is the fact that the popularity of these alternative devices is growing exponentially and has already surpassed that of conventional tobacco products among millennials, and yet we know nothing about the health risks associated with their use. Therefore, the NIH and the Food and Drug Administration (FDA) have launched a research campaign to look into these issues and provide critical information to inform the population and draw strong guidelines to regulate the manufacturing and e-liquid contents of e-cigarettes.”

Cucullo was initially motivated to investigate how tobacco smoking affects cerebrovascular and neuroinflammatory diseases like stroke, Alzheimer’s disease and vascular dementia because of his personal experiences. Cucullo is a former smoker himself, and his mother was a chronic and heavy smoker who now depends entirely upon an external oxygen supply to function.

“Also quite alarming is the fact that the popularity of these alternative devices is growing exponentially and has already surpassed that of conventional tobacco products among millennials, and yet we know nothing about the health risks associated with their use. Therefore, the NIH and the Food and Drug Administration (FDA) have launched a research campaign to look into these issues and provide critical information to inform the population and draw strong guidelines to regulate the manufacturing and e-liquid contents of e-cigarettes.”

Cucullo’s first research program into tobacco smoke toxicity at the blood-brain barrier was built using a three-year competitive grant that was funded by Philip Morris. He took his proposal to the NIH and eventually landed his first RO1 grant, then came to TTUHSC shortly thereafter and continued to expand his research by looking into the underlying mechanisms of electronic cigarettes toxicity and their potential countermeasures.

“All of this previous research paid off and brought me and Dr. Abbruscato this competitive renewal,” Cucullo said. “On top of that, it has allowed us to build three more parallel research projects, two of which we recently submitted for funding to the NIH to relate our work to diabetes mellitus and to the FDA to study blood- and brain-based biomarkers to identify injury from emerging tobacco products. A proposal for the third project will be submitted soon.”

In submitting these grant proposals, Abbruscato praised his current graduate students, Heidi Villalba, M.S., and Ali Sifat, M.S., for playing a critical role in assessing the impact tobacco and e-cigarette toxicity have on stroke outcome and the resulting neurological impairments.

Both scientists also lauded the TTUHSC Center for Blood-Brain Barrier Research for its continued support of the collaboration between the Cucullo and Abbruscato labs.

“Cucullo credits Pooja Naik, Ph.D., and Shikha Prasad, Ph.D., two of his former graduate students, for laying the ground work for these projects by identifying previously unknown key mechanisms of toxicity. His said his current graduate student, Mohammad Abul Kaisar, is responsible for the foundational work that allowed he and Abbruscato to expand the project to include the electronic cigarettes.”

In addition, Cucullo commended the work of Ravi Sajja, Ph.D., a senior research scientist in Cucullo’s lab, for playing a critical role in identifying key molecular players and biological targets linking the oxidative stress resulting from smoking and type 2 diabetes-like conditions with blood-brain barrier dysfunctions.

“A call-to-action by the U.S. Surgeon General to investigate e-cig toxicity. Cucullo believes the significant evidence that smoking toxicity was emphasized so much in the cancer field but was practically ignored, or very marginalized, in the cerebrovascular field, save for a host of clinical reports. So I decided to take a leap of faith and start looking into it.”
A study published in the November issue of the Journal of Medicinal Chemistry, the nation’s leading medicinal chemistry journal, describes new compounds designed and synthesized in the lab of Paul Trippier, Ph.D., that show the effects of protecting human neurons in a dish from a form of cell death common in neurodegenerative diseases such as Alzheimer’s disease and Parkinson’s disease.

Trippier is an assistant professor for the Department of Pharmaceutical Sciences at the Texas Tech University Health Sciences Center (TTUHSC) School of Pharmacy in Amarillo. He is collaborating with the lab of Abraham Al-Ahmad, an assistant professor in the same TTUHSC School of Pharmacy department.

Trippier said the TTUHSC research team grew functional human neurons from stem cells and then treated them with the synthesized compounds. When cell death was induced, many more neurons that had been treated with the new compounds survived than did those that were not treated.

“These compounds are in the early stages of drug discovery, but they show promise for the treatment of many different types of neurodegenerative disease,” Trippier said. “The advantage to this study is the use of stem cell-derived functional human neurons. Many studies have identified compounds that can protect either neuron-like cells or mouse neurons, but they rarely carry forward to show effect in humans.”

As the compounds developed in his and Al-Ahmad’s labs already show effect in human neurons, Trippier said they are much more likely to be effective in patients, albeit in the distant future.

Although rates in the U.S. have leveled off in the last several years, kidney cancer cases have steadily increased over the last four decades, making it one of the 10 most common cancers in men and women. In fact, the American Cancer Society estimates more than 63,300 people will be diagnosed with kidney cancer in 2018 and nearly 15,000 of those newly diagnosed patients will die from the disease.

Renal cell carcinoma, or RCC, is the most prevalent form of kidney cancer, and despite the best efforts of medical science, it is still considered incurable at advanced stages because it doesn’t respond to traditional therapies in the vast majority of cases. However, there is evidence that RCC does respond to immunotherapy, which uses the body’s immune system to fight cancer.
With that in mind, the National Institutes of Health (NIH) last fall awarded a three-year, $376,766 grant to Laurence Wood, Ph.D., an assistant professor for the Department of Immunotherapeutics and Biotechnology at Texas Tech University Health Sciences Center (TTUHSC) in Abilene. His project is titled, “Targeting kidney cancer-associated CD105 expression with a novel Listeria-based vaccine approach.”

Maciej Markiewski, M.D., Ph.D., a professor in the same department, is the co-investigator on this grant. Wood said Markiewski’s expertise in pathology will be important in determining if the vaccines developed by the Wood lab are targeting the tumor tissue as expected while not causing damage to normal tissues.

In the early years of his decade-long research career, Wood developed several therapeutic vaccines that proved effective against models of breast cancer. As his work in the laboratory advanced, Wood began investigating ways to expand the usage of these vaccines. He eventually uncovered evidence that one of his vaccines in particular would be more effective at treating kidney cancer. With the support of the NIH grant, Wood hopes the vaccine and his continued research will ultimately provide some better treatment options for patients with kidney cancer, particularly those whose disease has metastasized.

Wood explained, “If kidney cancer is discovered at an advanced stage, the current treatments are not very effective. Those that are available, including some very early immunotherapies, can have some pretty severe side effects.”

Wood said the type of therapeutic vaccines that his lab works with are meant to be more effective than these current treatments, but with fewer and less severe side effects. In fact, he added, a similar vaccine for cervical cancer is currently demonstrating the same promising potential in clinical trials.

In addition to the serious need for kidney cancer treatments that are safer and better tolerated by patients, particularly those whose cancer has metastasized, Wood believes his NIH-funded research is also important because it seeks to advance the development of a promising immunotherapy for cancer.

“In the past 5-10 years, it is becoming apparent that our best hope for curing and/or extending the lifespan of patients with advanced cancer is by activating the immune system to attack it,” Wood stressed. “This project will aim to not just develop a new immunotherapy for kidney cancer, but its findings will also likely inform development of immunotherapies for additional cancers.”

Wood said his project will fund research performed by students in the local community. He said these types of opportunities were very limited or nonexistent in the Big Country area until TTUHSC’s School of Pharmacy established its Department of Immunotherapeutics and Biotechnology in 2012 on the Abilene campus.

“My current graduate student, Min Xie, is funded by this grant and is doing a lot of the work to determine if the vaccines will stimulate an anti-tumor immune response and shrink tumors,” Wood said. “We hope that the presence of cutting-edge NIH-funded research opportunities for college and graduate students in Abilene will spur their interest in making research their career.”
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
School of Pharmacy