

PULSE

A PUBLICATION for ALUMNI & FRIENDS of TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

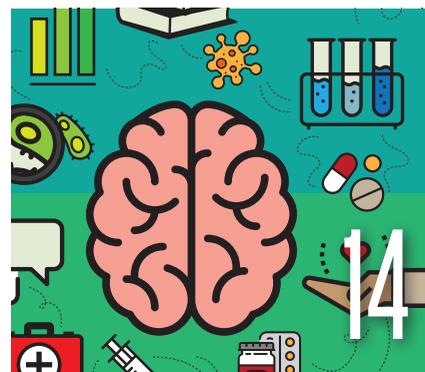


SUMMER 2016 • GSBS JOINS TTUHSC EL PASO 16 • NURSING CELEBRATES 35 YEARS 27 • FORWARD THINKING 36

INSIDE



20



14



30

DEPARTMENTS

2-3 | PRESIDENT'S MESSAGE

4 | ROUNDS *Grand*

13 | DISCOVERIES

Research and Scholarly Activities

41 | ROUNDS *Alumni*

48 | ALUMNI PROFILES

56 | THE LAST WORD

Susan McBride, PhD, RN-BC

FEATURES

14 | FROM BENCH TO BEDSIDE *The Center of Excellence for Translational Neuroscience and Therapeutics creates an environment for collaborative research that will bring novel concepts from the scientific bench to the patient's bedside.*

16 | RESEARCH READY *The new Graduate School of Biomedical Sciences at TTUHSC El Paso will help pave the way for El Paso to become a hub of biomedical research.*

20 | WITH HIGHEST HONORS *Vice Admiral Raquel C. Bono (Medicine '83), leads the Defense Health Agency, providing medical services for all military branches. She also is TTUHSC's first Presidential Distinguished Alumni Award recipient.*

27 | 35 YEARS *The School of Nursing has posted impressive numbers over the past three decades.*

30 | BETTER BREAST CARE *Patients at the Texas Tech Physicians of El Paso Breast Care Center receive some of the best care in the city.*

32 | MIKE RUSSELL: MASTER PUZZLE SOLVER *As an engineer, Mike Russell liked to fix things ... to put broken pieces back together. That realization, coupled with extensive experience watching his physician-parents provide health care overseas, brought him to the study of medicine and to his passion, global medicine.*

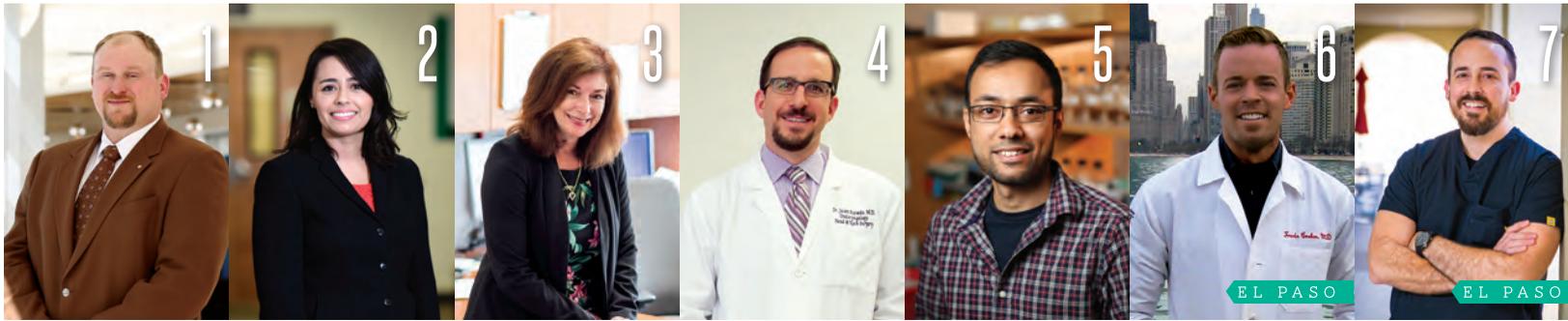
36 | FORWARD THINKING *With advancements in technology, Sue Ann Lee, PhD, believed it pertinent to update learning modalities and introduced her students to ultrasound equipment.*

38 | CHANGING THE FACE OF MENTAL HEALTH *As the new home of the Southwest Brain Bank, TTUHSC El Paso offers faculty and students new opportunities to conduct impactful research.*

PULSE is published twice a year by Texas Tech University Health Sciences Center. Articles, photographs and illustrations from PULSE may be reprinted with permission, with credit given to the Texas Tech University Health Sciences Center. Please direct all inquiries concerning text and photography to Danette Baker, TTUHSC Office of Institutional Advancement, 3601 Fourth St. STOP 6238, Lubbock, Texas, 79430, or to danette.baker@ttuhsc.edu. TTUHSC is committed to the principle that in no aspect of its programs shall there be differences in the treatment of persons because of race, creed, national origin, age, sex or disability, and that equal opportunity and access to facilities shall be available to all. Copies of this publication have been distributed in compliance with the State Depository Law and are available for public use through the Texas State Publications Depository Program at the Texas State Library and other state depository libraries. In compliance with HB 423, PULSE is now available in an electronic format. If you no longer want to receive the printed version, please notify the editor in writing.

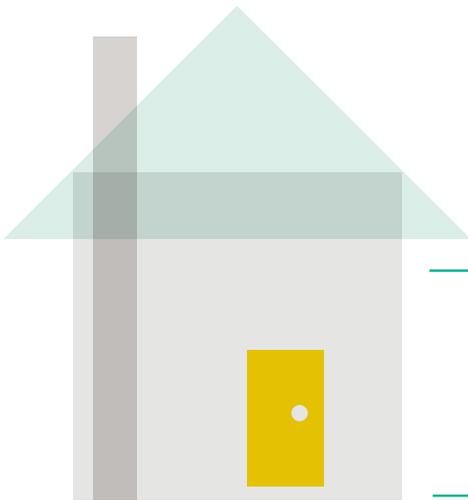
ALUMNI

PAGES 48-54



- 1 SIDNEY P. PHILLIPS, PHARM.D, MBA | PHARMACY 2 MIRIAM (CHACON) BOESCH, PH.D | HEALTH PROFESSIONS
3 CYNTHIA POWERS, DNP, MSN, RN | NURSING 4 JASON ACEVEDO, MD | MEDICINE 5 HUZEFA DUNGRWALA, PH.D | BIOMEDICAL SCIENCES
6 TRAVIS COSBAN, MD | PAUL L. FOSTER SCHOOL OF MEDICINE 7 RICARDO ALDANA, BSN, RN, CCRN | GAYLE GREVE HUNT SCHOOL OF NURSING

UPDATES



Moved recently or just need to update contact information?

Change it with the Office of Alumni Relations by visiting ttuhscalumni.org/forms

We want your feedback

Send your comments to Danette Baker at danette.baker@ttuhsc.edu



Class Notes

Keep up with your classmates on the TTUHSC Alumni Insider. Check it out: www.ttuhsc.edu/alumni/blog.aspx

VISIT US ONLINE



TTUHSC Alumni Association www.ttuhscalumni.org TTUHSC Alumni Insider www.ttuhsc.edu/alumni/blog.aspx



TTUHSCAlumniAssociation

TTUHSC Institutional Advancement giving.ttuhsc.edu El Paso Institutional Advancement el Paso.ttuhsc.edu/ia/ Pulse Online www.ttuhsc.edu/communications/pulse



A SEASON OF FIRSTS

As individuals and as a society, we celebrate many “firsts” in our lives and in our history – everything from a person’s first birthday to the first steps by man on the moon. Often these special occurrences are the tipping points for significant advances for humankind.

We have recently had two “firsts” at TTUHSC that will make their mark on our institution and significantly impact health care in our communities, state and beyond.

Five years ago, the first cohort of students entered uncharted waters through the newly established Family Medicine Accelerated Track program. This new three-year medical degree program provided an opportunity to increase the rate primary care physicians could begin treating patients – and at a significantly reduced cost of about half that of the standard four-year program.

Seven of those students completed their residency training this summer and began their careers as practicing physicians in Texas, many in rural, underserved communities. Their colleagues will continue an additional year of training in primary care fellowship.

Commendations go to School of Medicine Dean Steven L. Berk, MD, and his team for identifying and establishing this innovative program that has received national attention and is serving as a model for other medical schools to address the predicted shortage of family medicine physicians.

Additionally, in May, degrees were conferred to the first graduates in the Master of Public Health program. In the fall of 2014, the Graduate School of Biomedical Sciences welcomed its inaugural class [Visit <http://bit.ly/299HjV6> to read more about this program’s in the winter 2015 issue of PULSE]. Another “first,” was the addition of an online degree option to better accommodate schedules for working professionals.

We look forward to further celebrations in our public health initiative as we develop our proposed School of Public Health. This fall, the program and future school will have a permanent physical location at our Abilene campus with the opening of our third building. The addition of the public health program and the opportunity to expand it to a full-fledged school further solidifies TTUHSC’s prominence as a leader in health care education and delivery.

These “firsts” and their anticipated impact on the health care of those we serve would not be possible without the generosity of our alumni and friends. Thank you for your continued support.

Tedd L. Mitchell, MD
TTUHSC President

 @TeddLMitchell  @TTUHSCPresident

Texas Tech University System Chancellor
ROBERT L. DUNCAN

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

President
TEDD L. MITCHELL, MD

Associate Vice Chancellor, Institutional Advancement
KENDRA BURRIS

Managing Director, Institutional Advancement
ASHLEY HAMM

Development Officers

PHILIP WICKER, *Abilene*

CARLEY DU MENIL, *Amarillo*

RIANE GAY, *Dallas*

MATTIE BEEN, *CYNDY MORRIS, Lubbock*

JESSICA ZUNIGA, *Permian Basin*

MARTA COLLIER, *Corporations and Foundations*

Senior Director, Alumni Relations

JULIE DOSS

TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER EL PASO

President
RICHARD LANGE, MD, MBA

*Associate Vice Chancellor,
Institutional Advancement*
VICTORIA PINEDA

*Associate Managing Director,
Institutional Advancement*
VERONIQUE MASTERSON

Assistant Director, Alumni Relations
MIRIAM FLORES

Development Officer
MEGHAN DARNELL

ADVANCING HEALTH CARE FOR OUR BORDERS AND BEYOND

It's an exciting time to be a part of TTUHSC El Paso! For more than 40 years we have played a pivotal role in advancing education, research and patient care in the Paso del Norte region.

In January 2016, the Graduate School of Biomedical Sciences was officially added to our university after the Texas Higher Education Coordinating Board approved our request to offer a Master of Science in Biomedical Sciences. We are growing as a university, and this new school will allow us to better serve our community by offering a broader range of advanced educational opportunities to prospective students.

The degree, which launches in the fall of 2016, will prepare students to pursue additional health-related graduate opportunities – such as medicine and veterinary school and doctoral programs in biomedical and related sciences – by teaching four core subjects: biochemistry, cell biology, genes and function, and laboratory methods. Students in this new graduate school will also be able to work directly with our medical and nursing students on one campus, thus allowing them to learn interdisciplinary skills that will give them an edge other graduates won't have.

The 2016-17 academic year will also mark the first group of resident physicians, faculty and students that practice, train and learn at the new Hospitals of Providence Transmountain Campus and the Texas Tech Physicians of El Paso Transmountain Campus clinical office building.

This new 140-bed teaching hospital and 110,000-square-foot medical office building, located across from each other in west El Paso, are scheduled to open in September 2016. These facilities will enhance educational training in specialties such as emergency, family and internal medicine, obstetrics and gynecology, orthopedics, pediatrics, psychiatry, radiology and surgery. This collaboration will provide patients with opportunities to participate in cutting-edge research. It will also offer training for approximately 75 medical residents across a multiyear program.

The hospital also is poised to provide exceptional care for the area and to create more than 300 jobs with a median income of \$45,000.

With world-renowned faculty, state-of-the-art facilities and equipment, as well as unique community partnerships, students who graduate from TTUHSC El Paso are prepared to care for patients beyond our borders.

TTUHSC El Paso is the nation's first health science center on the U.S.-Mexico border and is uniquely positioned to lead the nation in border health initiatives. By working together with community partners, we not only provide much needed services, but we also build the foundations necessary to educate the next generations of culturally competent and caring health care professionals who will serve our community and beyond.

Richard Lange, MD, MBA
TTUHSC El Paso President



 @TTUHSCEP  @PresidentLange

PULSE EDITORIAL

Editor
DANETTE BAKER

Contributing Writers
JESSICA BAGWELL, SUZANNA CISNEROS, ADAM DEVER,
CARLEY DU MENIL, JACLYN INKHAMHENG, JO GRANT
LANGSTON, HOLLY LEGER, NADIA M. WHITEHEAD,
LAURA RAY

Contributing photographers
CAROLYN CRUZ, RAUL DE LA CRUZ, NEAL HINKLE,
DOUG HODEL, JOSEPH HOWELL/VANDERBILT
UNIVERSITY, KAMI HUNT, ARTIE LIMMER, MIGUEL
LOPEZ, WARREN LOVE, GARY PAYNE/UNIVERSITY OF
NORTH TEXAS, MIKE RUSSELL, BARRY G. SMITH/MD
ANDERSON CANCER CENTER, ZACHARY TIJERINA,
BRIAN WANCHO, JOHN WEAST

Designer
AMANDA SNEED, HARTSFIELD DESIGN

Printer
CRAFTSMAN PRINTERS INC.

*You can share Pulse with your
colleagues, family and friends.*

Visit www.ttuhsce.edu/communications/pulse

Trio of Events Highlights Institute's Impact

The Laura W. Bush Institute for Women's Health held three community events this spring to support its efforts in sex and gender research, education and women's health initiatives.

Taya Kyle, widow of U.S. Navy Seal sniper Chris Kyle, was the keynote speaker at an educational event in San Angelo and the seventh annual Power of the Purse in Amarillo. She shared her family's story of love, war, faith and renewal, and described how the pay-it-forward concept can produce a powerful ripple effect.

In Fort Worth, former first lady Laura W. Bush welcomed attendees at a women's health symposium also sponsored by her namesake institute. Information about heart health, effects of hormones on brain health, and sex and gender medicine was presented by nationally recognized health care experts, including Wayne Isom, MD, chairman emeritus of cardiothoracic surgery at NewYork-Presbyterian Hospital Weill Cornell Medical Center, and Marjorie Jenkins, MD, Laura W. Bush Institute for Women's Health chief scientific officer and director of medical initiatives and scientific engagement within the Food and Drug Administration Office of Women's Health.

Laura W. Bush

INSTITUTE for WOMEN'S HEALTH
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

The Laura W. Bush Institute for Women's Health supports programs at TTUHSC including:

- InfantRisk Center, a call center providing crucial information about the safety of medications while pregnant or breastfeeding. Since inception in 2011, nurses at the InfantRisk Center have provided direct advice to more than 38,000 women. The center also has a top 10 ranked smartphone app called Mommy Meds that places safety ratings for more than 20,000 drugs, vitamins and herbs at the user's fingertips.
- Nurse Family Partnership, a TTUHSC program that provides maternal and early childhood health programs and guidance to families most in need by monitoring young girls/women from the beginning of their pregnancy until several months after their baby is born.
- Girls Night Out, an annual event to provide important safety and health guidelines to incoming freshmen college girls.

New Facility Will Enhance Simulation Training in Amarillo

TTUHSC at Amarillo received approval in May from the Texas Tech University System Board of Regents for construction of a new simulation center, which will expand the campus' existing facility known as SiMCentral.

The Panhandle Clinical Simulation Center, a 20,485 square-foot facility, will provide space for teaching clinical simulations using high-tech, state-of-the-art mannequins and computer software. It will also include observation rooms, a large classroom that can be divided into two smaller classrooms and requisite space for support staff and equipment.

The project has a \$9.75 million budget primarily supported through tuition revenue bonds. The Amarillo Economic Development Corporation also contributed \$500,000.

The supplemental space will be an important addition to training health care professionals in the Panhandle.

"Medical simulation is an indispensable part of medical and nursing training because invasive medical procedures can be practiced before performing them on actual patients," said Richard M. Jordan, MD, regional dean for the School of Medicine at Amarillo. "It also allows physicians, nurses and other health care providers to practice as a well-functioning team when seconds can make the difference between living and dying."

Completion date on the new simulation center is scheduled for fall 2017.

Student Leaders Selected to Serve for 2016-2017

This year's Student Government Association will be led by Cheyenne Mangold, a third-year medical student. Also serving on the 2016-2017 executive team: Sarah Jaroudi, vice president of communications; Jane Gilmore, vice president of operations; and Amanda Mitchell, vice president of finance.

Gilmore and Jaroudi are second-year medical students; Mitchell is an occupation therapy student.

Each school and regional campus also has senate representatives. For a complete list, visit www.ttuhsc.edu/sga/.

The SGA serves as the voice for students and focuses on a number of key projects.

MATTERS

of the heart

By Holly Leger

Passion with purpose

Occupational Therapy Alumna Brings Direction to Local AMBUCS Chapter

After working as an occupational therapist for 20 years in Lubbock, Dena Fant, OT, (Health Professions '92) was ready for something different. So when her husband moved their family to Lawton, Oklahoma, in 2011 for his new job, Fant decided to make a change.

"I was feeling a little burned out," she said. "I just kind of wanted to take some time off and focus on my family."

Which left Fant wondering: How would she meet people if she wasn't working? She didn't know anyone in Lawton.

So Fant looked up a local AMBUCS chapter. She knew only a few things about the program, one being that it awarded scholarships to therapists so it could be a good place to meet others in the profession. Fant sent an e-mail to the president of one of the local clubs and attended a meeting, where she was met with a surprise.

"I found out they didn't have a therapist in that chapter," she said, laughing. "So I didn't meet any therapists in my chapter; I became the therapist."

Her arrival was a welcome one. AMBUCS is a national non-profit organization dedicated to creating mobility and independence for people with disabilities. Their membership includes a diverse group of people who work together to provide AmTryke therapeutic tricycles to individuals unable to operate a traditional bicycle.

Having a therapist in a local chapter can be beneficial as the therapist often serves as the liaison between the charity and those in the community who need an AmTryke.

Bobby Henderson, the 2014-2015 president of the Great Plains AMBUCS Chapter, said that with Fant's new membership, their club was able to utilize resources better.

"She just really got our club going far more efficiently and going with a greater sense of direction than we'd had in the past," Henderson said.

Fant quickly earned a "Big Hat," a recognition given for recruitment efforts, and her chapter's AMBUC of the Year award in 2012-2013. According to Henderson, Fant broadened the chapter's involvement over the years by creating more connections with the medical community, which in turn meant more AmTrykes given to individuals in need.

Fant's determined service to those with disabilities in Lawton and the improvements to the Great Plains Chapter earned her the honor of the 2015 National Therapist of the Year. Only one therapist in the United States (AMBUCS member or not) is chosen for this annual recognition.

"I was excited that my chapter thought that much of me that they nominated me," Fant said. "It was a very sweet experience, very humbling."



Aside from her accomplishments, Fant has since found a renewed sense of passion in the medical field. She is now a part-time developmental consultant in the neonatal intensive care unit (NICU) at the Comanche County Memorial Hospital. She also works one morning a week assessing development in NICU graduates at The Children's Hospital at University of Oklahoma Medical Center in Oklahoma City.

"AMBUCS helped me because they did not let me quit," Fant said. "They reminded me that being a therapist is who I am; it is more than just a job."

Matters of the Heart is a narrative in PULSE designed to highlight the passion for health, wellness and humanity shown through the work of our alumni, faculty, staff, students and friends. Story suggestions are welcomed.



Simulation Expands to Active Shooter Drills

TTUHSC at Amarillo is bridging the gap between industry, law enforcement and health care in workplace safety.

On May 10, the university's simulation center, SiMCentral, was the lead partner with Bell Helicopter Amarillo to provide active shooter simulation training to the Amarillo Police Department and its SWAT team, Amarillo Fire Department, Amarillo Secret Service, Randall County Sheriff's Department, Potter County Sheriff's Department and the Drug Enforcement Agency.

The coordinated effort was the result of a long-standing partnership between TTUHSC at Amarillo and Bell Helicopter Amarillo.

"This training is something that will transcend the walls of Bell Helicopter and hopefully save someone's life in the event they are ever faced with a real-life situation," said Sonja Clark, Bell Helicopter Global Health Services manager. "The gift of preparedness will be invaluable and the breadth of the support by our community partners is a testament to the significance of the event.

"Bell Helicopter is blessed to be in a community that networks and partners well with other groups. The Amarillo community has embraced Bell in a tremendous way and it is our honor to give

back where and when we can. We participate from a corporate perspective as well as encourage our employees and their families to be engaged in the community."

The drill was held at Bell Helicopter and simulated a situation where a disgruntled group of employees came into the workplace looking to harm other employees. SiMCentral was in charge of creating simulated wounds on the participants to give a life-like feel to the exercise. This simulated environment allows all participants to become more deeply immersed in their environment and sharpens their reaction time and decision-making skills, said John Smoot, director of SiMCentral.

"When it comes to simulation training, collaboration with enforcement agencies is invaluable," he said. "As a community we have to be prepared for every emergency scenario possible, and the more we work together the better prepared we'll be when a real emergency does arise."

The simulation was filmed with a 360-degree camera and the footage will later be used in active shooter simulation classes throughout the Bell Helicopter and its parent company, Textron Inc.

Students Rank TTUHSC First Nationally for Graduate Programs

TTUHSC ranked first nationally in the 2016 Top Graduate Schools by SR Education Group. The 2016 Top Graduate Schools were released on GraduatePrograms.com.

According to GraduatePrograms.com, 18 ranking categories were listed for graduate programs at each university. Rankings cover a variety of student topics, such as academic competitiveness, career support, financial aid and quality of network.

TTUHSC President Tedd L. Mitchell, MD, said this ranking is unique because it is based on student reviews.

"These rankings are by the students and for the students," Mitchell said. "One hundred percent of the information is from the students without university input. Other rankings may adjust the outcome because of university input. These rankings demonstrate the quality of education our students are receiving here. We are extremely proud of this."



Boswell



Dissanaiké



Griswold



Markiewski



Miller



Redman



Siddiqui



Sobel

Awards & Accolades

CAROL BOSWELL, EDD, RN, (NURSING '91, '87) was appointed by Gov. Greg Abbott as one of seven health care leaders in Texas to serve on the Statewide Health Coordinating Council. The council ensures access to health care services and facilities for Texans through health planning activities and provides guidance in the development of the Texas State Health Plan. Boswell, a professor in the School of Nursing at the Permian Basin, holds the James A. “Buddy” Davidson Charitable Foundation Endowed Chair for Evidence Based Practice. She is also co-director of the Center of Excellence in Evidence-Based Practice.

SHARMILA DISSANAIKE, MD, (SURGERY RESIDENT '06) was named chair of the School of Medicine Department of Surgery. She began the new position this spring replacing **JOHN GRISWOLD, MD**, who has served as chair since 1999. Dissanaiké joined the School of Medicine faculty in 2007 and has received numerous awards, research grants and commendations for her work. Along with his leadership in the department, Griswold also has served as the medical director of the UMC Health System Timothy J. Harnar Regional Burn Center since 1992. He also was medical director of UMC's Level 1 Trauma Center from 2000-2014. The center was recently renamed the John A. Griswold Level 1 Trauma Center in his honor.

MACIEJ MARKIEWSKI, MD, PHD, associate professor in the School of Pharmacy Department of Immunotherapeutics and Biotechnology at Abilene, was awarded \$1.8 million grant by the National Institutes of Health for his research on therapeutic targeting to prevent metastasis.

HAROLD MILLER, PHD, is serving as interim chair for the School of Pharmacy Department of Immunotherapeutics and Biotechnology at Abilene. He is an associate professor in the school's Department of Pharmaceutical Sciences at Abilene.

WADE REDMAN, PHD, MBA, MT, (HEALTH PROFESSIONS '99) was named as the new chairman for the School of Health Professions Department of Laboratory Sciences and Primary Care. He began this new appointment in the spring semester. He joined the faculty in 2005 and has served as assistant program director and program director for the Traditional Clinical Laboratory Science program and the Second Degree program.

AFZAL A. SIDDIQUI, PHD, a Grover E. Murray Distinguished Professor in the School of Medicine, has received a \$3.82 million grant from the National Institutes of Health to prepare the Schistosomiasis vaccine (SchistoShield®) for human clinical trials. The vaccine protects against schistosomiasis, which is contracted through contaminated water. In 2015, he received a U.S. patent for the vaccine.

ANNETTE SOBEL, MD, MS, received the 2015 Henry L. Taylor Founder's Award, presented by the Aerospace Human Factors Association, in recognition of her accomplishments in the field of aerospace human factors. She is the executive director for Critical Infrastructure Protection and Health Security Initiatives for Texas Tech University and TTUHSC and is an associate professor in the Department of Medical Education and the Graduate School of Biomedical Sciences. Additionally, she is an adjunct professor of electrical and computer engineering at TTU and is a former major general in the Arizona Air National Guard. She joined TTUHSC in 2014.



The Free Clinic Leadership Team Looks to Expand Services

School of Medicine physicians and students staff The Free Clinic every Wednesday from 4 p.m. to 10 p.m., providing urgent care through Lubbock Impact, a program designed to provide support to the uninsured, working poor and homeless population of Lubbock.

As a result of the impact The Free Clinic has made on the community, the South Plains Association of Social Workers selected it as the 2016 best agency of the year.

Each year, a leadership team is selected to help guide the clinic's efforts. This year they partnered with the Lubbock Health Department to provide a vaccine clinic the third Wednesday of every month. The partnership allows The Free Clinic to save costs on vaccinations and provide a consistent range of vaccines. The Free Clinic also is looking at how they can work more closely with the South Plains Homeless Consortium.

Along with the care provided every Wednesday night and at specialized clinics such as the Women's Day Clinic, this year's leadership team hopes to also implement a patient assistant program for illnesses such as hepatitis C, diabetes and asthma. Treatments for the diseases are expensive, and the patient assistance programs would help diabetics with their insulin and inhalers for asthmatics, said Garrett Meeks, student liaison for the leadership team.

Meeks and Logan Adams, M.J. Bollinger, Brittany Cox, Jena Deitrick and David Stamps make up the 2016-2017 leadership team. They worked this summer to prepare grants for these new projects and the possibility of establishing endowments.

TTUHSC, Covenant Establish Joint Venture for Medical Education

The School of Medicine has developed a new joint venture with Covenant Health for student training. The TTUHSC School of Medicine Covenant Branch will serve medical students staying in Lubbock who wish to experience community-based medicine as well as offer a wide variety of subspecialty experiences.

"This branch was a great opportunity to expand our educational program into Covenant Health," said Steven L. Berk, MD, TTUHSC executive vice president, provost and School of Medicine dean. "Teaching hospitals help train the next generation of doctors with skills that they will use throughout their careers. With the help of our alumni and community physicians, we now provide our students these opportunities at two hospitals."

The new TTUHSC branch opened in early July with 30 third-year clerkships. Robert Salem, MD, founding regional vice dean for Covenant Branch Medical Education Programs, said the joint venture continues Covenant's support of medical education since the School of Medicine enrolled its first class in 1972. The school's medical students in Lubbock also train at UMC.

The diversity and experience of Covenant's medical staff will enhance the students overall knowledge base, said Salem. "We look forward with great enthusiasm to this joint venture opportunity with TTUHSC."

Celebration of Generosity Thanks to the generosity of TTUHSC donors, the university awarded more than \$9.1 million in grants and scholarships this year as well as provided support for faculty appointments and research initiatives.

Scholarships and grants help offset TTUHSC student loans, which during the 2015-2016 academic year totaled approximately \$71 million. Visit giving.ttuhs.edu to read about the impact your gifts are making.

TTUHSC receives only 23 percent of its budget from state funding, which makes donor support critical in carrying out the university's mission, said TTUHSC President Tedd L. Mitchell, MD.

5 minutes with the faculty...

MULTIGENERATIONAL MEDICINE

TRISTA BAILEY, PHARM.D, BCPS, CGP | Teaching the next generation of pharmacists how to care for the aging | *By Danette Baker*

A genuine passion resonates as Trista Bailey, PharmD, BCPS, CGP, discusses caring for the geriatric population and the opportunity afforded by her position with the School of Pharmacy at Abilene to share her knowledge with future pharmacists while continuing to work in the field.

“It does sound a bit cliché,” she said, “but this really is a dream come true.”

An assistant professor for the Department of Pharmacy Practice-Geriatrics Division, Bailey teaches three courses each semester, facilitates lab experiences and oversees fourth-year students during their geriatric rotation. Also, she has a practice site as a consultant pharmacist at two nursing homes and an assisted living facility, all in Abilene.

Continuing to practice in addition to teaching allows Bailey to share real-life scenarios or “clinical pearls” with her students. “Having the opportunity to bring students onsite to talk with those in the nursing homes and assisted living facilities and interacting with them one-on-one is often more impactful than what they learn in the classroom,” she said.

Understanding the aging process and its subsequent health challenges is an area that will be of utmost importance in their careers, said Bailey. Not only is it rapidly becoming the most populous age group demographically, but also the life expectancy for Americans continues to increase. Conversely, the lack of literature for treating the geriatric population and the dearth of clinical trial outcomes for those older than 65, along with cascading effects of prescribing medications to combat side effects of other medicines, make it a very different and often difficult population to care for, she said.

“This is not a textbook generation,” Bailey said. “As a person ages, the body changes; things slow down, and so it’s imperative to understand the pharmacokinetics – how these changes in the body impact the way medications are going to work.”

Bailey takes her fourth-year intern students with her when she makes rounds at her practice sites and when she speaks at community events. “Because we live in such a mobile society, many of them have never been around the geriatric population,” Bailey said.

She’s also proud that TTUHSC is one of the few pharmacy schools in the nation that require a geriatrics rotation.

“It’s very beneficial for the students to have that background knowledge so when they go out into practice they are not suddenly caring for a person they know nothing about,” she said. “And it also gives students a chance to work through some their misconceptions about the aging population.”

While Bailey is a strong proponent of active learning, she also loves the traditional lecture. One of her favorite courses to teach is the Advanced Geriatrics Elective. It’s an opportunity, she said, to delve more into the philosophical questions of palliative care. “We are trained in the health care field to identify a problem and fix it at all cost; sometimes for the geriatric population, that’s not the best course of treatment.

“My main goal is to prepare my students by sharing with them the knowledge they need but also the compassion and understanding to care for this very special generation.”



PROVIDED BY TRISTA BAILEY, PHARM.D



{VISIT PULSE online to read more of her story}



The Hunt Family Foundation continues to support the Gayle Greve Hunt School of Nursing as it impacts nursing education and the health of those in the region. The school was named in honor of Gayle Hunt (pictured second from right), wife of El Paso businessman and philanthropist Woody Hunt. The school held a ribbon-cutting ceremony in February 2015.

Transformative Investment In early 2015, TTUHSC El Paso celebrated the ribbon-cutting of the Gayle Greve Hunt School of Nursing (GGHSON) facility, thanks to a generous \$10 million gift from the Hunt Family Foundation. While the majority of the donation supported construction of the nursing building, the remaining \$2.2 million is being invested in areas that are fundamental to meeting accreditation standards and the anticipated growth of the school and university.

“As the Gayle Greve Hunt School of Nursing flourishes in our city, our goal is to continue to positively impact the economy, health, and well-being of our regional residents, while attracting the best and brightest students from across the country,” said GGHSON Dean Jeanne M. Novotny, PhD, RN, FAAN.

To ensure top-notch leadership and innovation in nursing for years to come, the Hunt Endowed Chair was established May 1, 2016. This \$1 million chair will support recruitment and retention of the GGHSON dean.

The remaining \$1.2 million of the Hunt Family Foundation gift will go toward strategically recruiting stellar faculty capable of educating the next generations of culturally competent, compassionate nurses, Novotny said.



TTUHSC El Paso Launches Free Clinic for Migrant Farmworkers Migrant farmworkers in El Paso have a new option for medical services: *La Salud Sin Fronteras Clínica*, or the Health Without Borders Clinic.

Launched by faculty and students at TTUHSC El Paso, the clinic treats farmworkers free of charge at El Paso’s local migrant farmworkers center.

Charmaine Martin, MD, spearheaded development of the clinic as part of the Longitudinal Primary Care Track, a program designed to spark medical students’ interest in primary care, but also to expose them to the economically disadvantaged and often underserved community of migrant farmworkers.

“It has been a real eye-opener,” said Martin, associate professor in the Paul L. Foster School of Medicine Department of Family and Community Medicine. “The center has been very welcoming to us, and we are learning a great deal about the history and the plight of the workers.”

Visiting the clinic is just like going to a regular doctor’s office for the farmworkers.

Students take the patients’ height, weight, blood pressure and blood sugar levels as soon they check in to the clinic. The patients then fill out a form about their health history and describe their symptoms to the medical students. Under the supervision of experienced physicians, the students conduct a physical examination and administer care for the patient.

Martin says it’s been exciting to watch her students work in the clinic and enhance their primary care experiences and abilities. She hopes the program will help increase the number of primary care doctors in Texas.



Recently, pediatric residents in the Border Health Track took their advocacy skills to Washington, DC, where they lobbied members of Congress to favor the Child Nutrition and WIC Reauthorization Act.

TTUHSC El Paso Offers Unique Pediatric Residency Track

El Paso, Texas, has many characteristics that are unique not just to the U.S., but in some cases, the entire world. The border region shared by El Paso and Juarez, Mexico, is the second largest bi-national metroplex on the planet; more than two million people call this region home. With a population that is more than 80 percent Hispanic, El Paso poses unique opportunities and challenges for medical knowledge research and service delivery. For this reason, TTUHSC El Paso offers a Border Health Track (BHT) to its pediatric residents.

“The mission is to develop leaders, advocates and innovators for the underserved and immigrant population along the border region,” said Lisa Ayoub-Rodriguez, MD, BHT co-director with Blanca Garcia, MD.

Started in 2014, the BHT aims to address specific needs of the grossly underserved Hispanic population along the U.S.-Mexico border. High levels of poverty, low insurance coverage rates and linguistic isolation are major factors in serving and educating such a dispersed and unique population. Many live in colonias, unincorporated townships that often lack public utilities such as sewage and water.

The BHT focuses on specific issues with a three-year longitudinal curriculum incorporating such topics as immigration issues, understanding access to care, health care barriers, mental health needs and cultural competencies. The track begins with complete immersion via the Border Awareness Experience, which allows residents to live at an immigrant shelter. This experience gives residents the opportunity to meet face-to-

face with the community they are learning to serve.

“We give the residents the necessary tools to become equipped to care for this unique population while also providing a skill set that is generalizable to all immigrants and underserved populations nationwide,” said Ayoub-Rodriguez.

The BHT currently has 10 residents. The long-term goal is to cultivate residents with skills that are not found in a traditional pediatric residency track and to produce doctors who are true advocates of children’s health and welfare within border communities.



TTUHSC El Paso Student Appointed Student Regent for TTU System

For the first time in the university’s history, a TTUHSC El Paso student has been appointed student regent for the Texas Tech University System Board of Regents.

Gov. Greg Abbott, who appointed Jeremy Stewart to the prestigious position, made the announcement May 11. As student regent, Stewart will represent nearly 50,000 students across the TTU System for the 2016-17 academic year.

“We are very proud of Jeremy,” said TTUHSC El Paso President Richard Lange, MD, MBA. “He

has been a true leader during his time at TTUHSC El Paso, and I know he will do an outstanding job serving on the board and representing all Texas Tech students.”

Currently a fourth-year medical student at the Paul L. Foster School of Medicine, Stewart serves as the 2017 class president of the Medical Student Council. He is a former president of the university’s Student Government Association and was the 2015 representative for the Texas Medical Association. Stewart was recently inducted into the Arnold P. Gold Foundation’s Gold Humanism Honor Society.

Before joining TTUHSC El Paso, Stewart earned a Bachelor of Science in Biology from the University of Texas at Arlington and a Bachelor of Science in Kinesiology from the University of Texas at Austin.

Stewart’s one-year term began June 1.




TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER
EL PASO
Gayle Greve Hunt School of Nursing

TAKE YOUR DEGREE TO THE NEXT LEVEL
ONLINE RN TO BSN PROGRAM

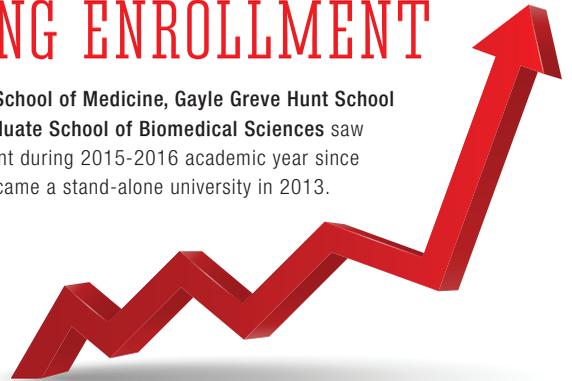
SUCCESS. IT'S IN OUR DNA.

elpaso.ttuhscc.edu/son

JUST *The facts*

GROWING ENROLLMENT

The Paul L. Foster School of Medicine, Gayle Greve Hunt School of Nursing and Graduate School of Biomedical Sciences saw the largest enrollment during 2015-2016 academic year since TTUHSC El Paso became a stand-alone university in 2013.



FIRST
CLASS

The Graduate School of Biomedical Sciences at TTUHSC El Paso welcomes its first class of students in the fall of 2016; the school was officially added in January 2016.

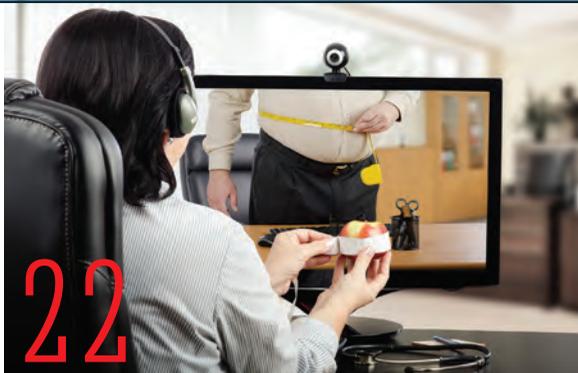
TTUHSC El Paso is committed to improving the quality of life for residents of the Paso del Norte region. In 2015, TTUHSC El Paso provided the surrounding community with \$29 million in uncompensated health care services.

\$29M



\$9.1M

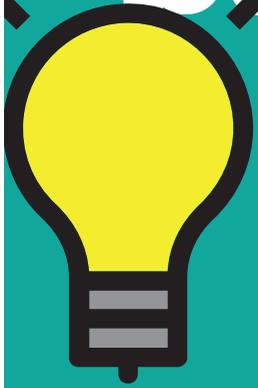
The amount of grants and scholarships TTUHSC awarded in 2015-2016 through the generosity of its donors.



22

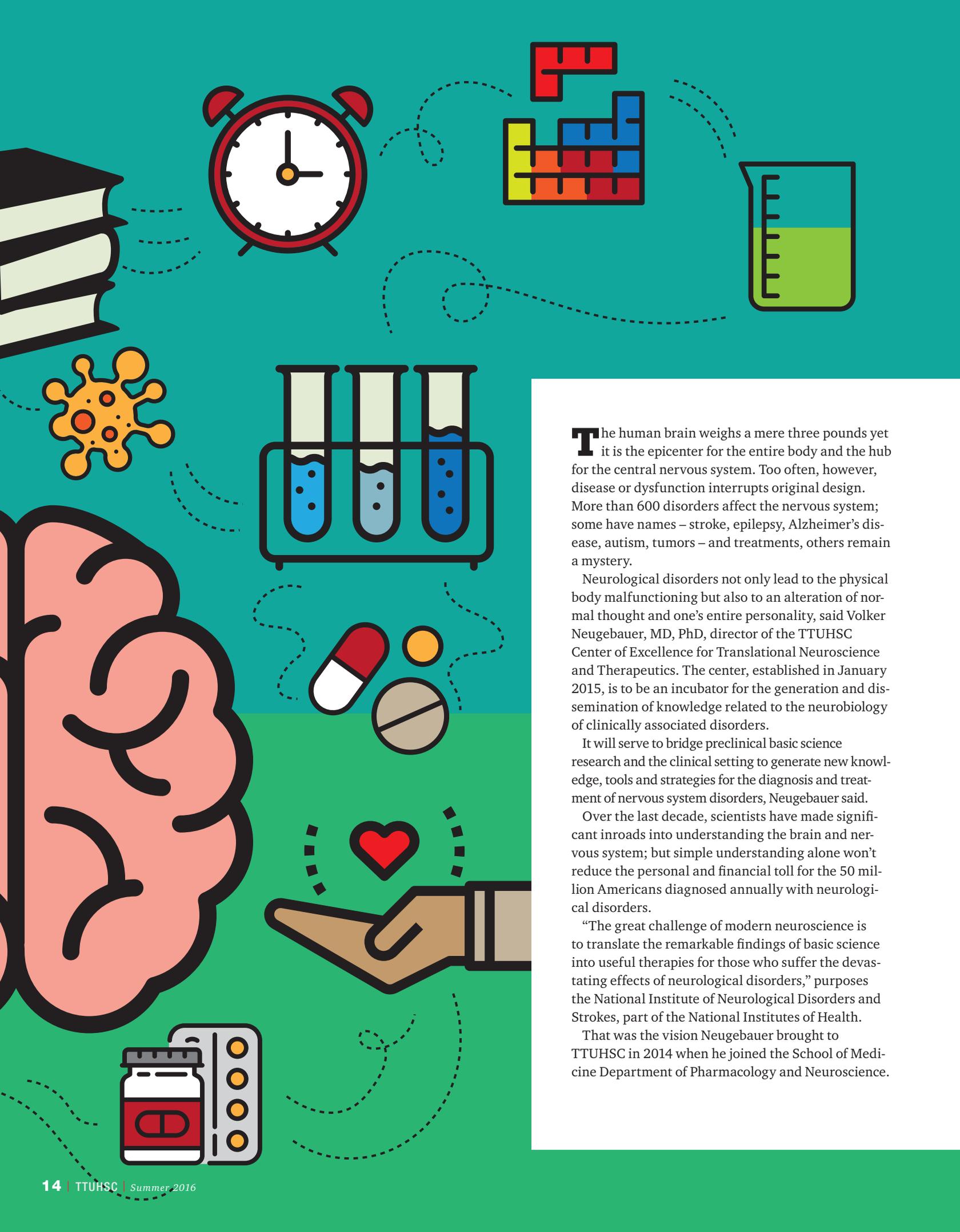
Community telemedicine sites in TTUHSC's 108 county service area provide patient services including rural health clinic-based specialty care, school-based clinic primary care, correctional telemedicine and mental health services.

basic scientists



clinicians





The human brain weighs a mere three pounds yet it is the epicenter for the entire body and the hub for the central nervous system. Too often, however, disease or dysfunction interrupts original design. More than 600 disorders affect the nervous system; some have names – stroke, epilepsy, Alzheimer’s disease, autism, tumors – and treatments, others remain a mystery.

Neurological disorders not only lead to the physical body malfunctioning but also to an alteration of normal thought and one’s entire personality, said Volker Neugebauer, MD, PhD, director of the TTUHSC Center of Excellence for Translational Neuroscience and Therapeutics. The center, established in January 2015, is to be an incubator for the generation and dissemination of knowledge related to the neurobiology of clinically associated disorders.

It will serve to bridge preclinical basic science research and the clinical setting to generate new knowledge, tools and strategies for the diagnosis and treatment of nervous system disorders, Neugebauer said.

Over the last decade, scientists have made significant inroads into understanding the brain and nervous system; but simple understanding alone won’t reduce the personal and financial toll for the 50 million Americans diagnosed annually with neurological disorders.

“The great challenge of modern neuroscience is to translate the remarkable findings of basic science into useful therapies for those who suffer the devastating effects of neurological disorders,” purposes the National Institute of Neurological Disorders and Strokes, part of the National Institutes of Health.

That was the vision Neugebauer brought to TTUHSC in 2014 when he joined the School of Medicine Department of Pharmacology and Neuroscience.

New Center Helps Bridge Gap from Bench to Bedside

By Danette Baker

The center held its first symposium in April, drawing more than 100 attendees from across all TTUHSC campuses and from TTU.

For the past 18 months, Neugebauer and the 30 members of the center have expanded the work in neuroscience began through the former South Plains Alcohol and Addiction Research Center.

“Alcohol addiction research was a great strength of this department before I came here and the research being done aligned well with our new direction of neuroscience research, where we are interested in not only the nervous system but areas that relate to it as well such as pain and emotional disorders,” Neugebauer said.

Membership in the center represents collaboration between TTUHSC and Texas Tech. Members represent five preclinical research departments and eight clinical departments. Areas of expertise and interest include neurological and neuropsychiatric disorders including pain, addiction/alcoholism, Alzheimer’s disease, epileptogenesis, hearing loss and tinnitus.

The center provides the infrastructure for multidisciplinary translational research projects including a lecture series, grant development program, seed funds for collaborative projects, and the Neurophysiology Core Laboratory, which includes state-of-the-art systems for behavioral and brain activity analysis, including a \$1 million multiphoton system.

Monthly meetings gather basic and clinical faculty for discussion about potential research projects involving multidisciplinary researchers that will address relevant questions, Neugebauer explained.

“It’s important to have basic science and rigorous research but to move it beyond the question, you need a team.”

Translational research, Neugebauer said, is a two-way street moving knowledge and information from the basic science realm to the clinical setting and back.

“We make the discoveries and identify targets and opportunities that are moved into clinical applications,” Neugebauer said. “The clinic side identifies knowledge gaps and provides perspectives.

“So that’s the idea of translational – the close interaction between basic sciences and clinical applications.”

Although translational neuroscience exists at a handful of other institutions nationwide, it is still a relatively young discipline, Neugebauer said, but the additional focus of therapeutics makes TTUHSC’s center unique.

“We are broadening the scope to areas beyond the traditional areas of neuroscience,” he said. “And that is what we try to capture with the term ‘therapeutics.’ It’s the integration of the non-neuroscience part that makes us unique.”

Using “therapeutics” as a directional concept demonstrates the center’s goal to bring in expertise and tools from outside the neurosciences to consider a variety of body functions that may be affected in neuropsychiatric disorders, such as immunology, inflammation, cancer research, stroke, cell death and pathology, Neugebauer said.

To date, one project developed through the center has been submitted to the NIH’s National Center for Complementary and Integrative Health and another has received national extramural funding. Also, four other studies have received local funding.

The brain and its counterparts that comprise the complex nervous system regulate and coordinate major body functions resulting in amazing sensory, motor, emotional-affective and cognitive capabilities. Dysfunctions and disorders affecting or resulting from disruptions in the central system represent a major health care problem in the U.S. and worldwide. To gain a better understanding of the disease mechanisms and to develop novel and improved diagnostic and therapeutic strategies requires the concerted effort of basic science researchers and clinicians representing multiple disciplines and specialties, Neugebauer said.

The Center of Excellence for Translational Neuroscience and Therapeutics has created an environment for collaborative research that will bring novel concepts from the scientific bench to the patient’s bedside. 



To learn more about the center and the second annual symposium, visit www.ttuhsu.edu/ctnt



RESEARCH READY

TTUHSC El Paso Adds Graduate School of Biomedical Sciences

BY Nadia M. Whitehead



WARREN LOVE / TTUHSC EL PASO

Biomedical sciences students are excited about the broader range of advanced educational opportunities the school brings.



WARREN LOVE / TTUHSC EL PASO

The first degree offered by the Graduate School of Biomedical Sciences officially launches this fall.

On a clear and sunny afternoon in early February, a throng of students and faculty gathered outside on the campus of Texas Tech University Health Sciences Center El Paso (TTUHSC El Paso).

Clad in their beloved red and black, the group buzzed with excitement as it crowded around a podium decorated with a large, scarlet double-T. The assembly quickly hushed when TTUHSC El Paso President Richard Lange, MD, MBA, approached the lectern.

“Today, I’m proud to announce that the Graduate School of Biomedical Sciences (GSBS) has become an official and independent school of TTUHSC El Paso,” Lange told the audience. “This new school is proof that we’re growing as a university and will allow us to better serve our community by offering a broader range of advanced educational opportunities for prospective students.”

The GSBS joins the Paul L. Foster School of Medicine and Gayle Greve Hunt School of Nursing to become the university’s third school, but it is more than a sign of growth, said Texas Tech University System Chancellor Robert Duncan.

The GSBS represents TTUHSC El Paso’s increasing focus on research.

Duncan explained, “When we were first dreaming up TTUHSC El Paso in the late 1990s, one of the things we always talked about was the region’s unique opportunity for research.”

That’s because of the university’s location on the U.S.-Mexico border. Based in a city made up of 80 percent Hispanics, TTUHSC El Paso is poised to serve and study one of the fastest growing minority groups in the country: Mexican-Americans.

Despite the growth of this population, Hispanics are often underrepresented in national health studies, meaning the demographic is one of the least understood when



Graduate School of Biomedical Sciences Dean Rajkumar Lakshmanaswamy, PhD; Vice President for Research Peter Rotwein, MD; Texas Tech University System Chancellor Robert L. Duncan; Gayle Greve Hunt School of Nursing Dean Jeanne Novotny, PhD, RN, FAAN; and TTUHSC El Paso President Richard Lange, MD, MBA

“This new school is proof that we’re growing as a university and will allow us to better serve our community by offering a broader range of advanced educational opportunities for prospective students.”

In the future, TTUHSC El Paso plans to add PhD and combined MD-PhD programs to offer the community even more advanced educational opportunities. “We hope that our newly approved Master of Science program will be the springboard for a new cohort of outstanding biomedical scientists who will contribute to improving the fabric of our community and region,” said Vice President for Research Peter Rotwein, MD

Rotwein envisions El Paso becoming a hub of biomedical research on the U.S.-Mexico border with TTUHSC El Paso researchers paving the way. He believes the research conducted here by both current and future scientists could have a major impact on the health and well-being of all Americans.

The GSBS is the foundation for that dream. 

it comes to health. They also suffer from health disparities — inequalities in disease presence and health outcomes — with higher rates of many diseases compared to other groups.

Duncan, though, knows the new graduate school can help. The GSBS is expected to attract distinguished scientists and students interested in the biomedical sciences, thus boosting the amount of research conducted at TTUHSC El Paso.

The current research faculty is already off to a promising start.

Family and community medicine physician Jennifer Molokwu, MD, MPH, is studying how to increase Hispanic women’s participation in cervical cancer screenings; Hispanic women suffer from some of the highest rates of cervical cancer.

Navkiran Shokar, MD, another family and community medicine doctor, is investigating how to reduce the rate of colorectal cancer in El Paso County Hispanics. Colorectal cancer occurs more frequently, and causes the most deaths, among El Paso’s Hispanics than in Hispanics in the rest of Texas.

Rajkumar Lakshmanaswamy, PhD, GSBS dean, also has his eye on cancer. The professor studies how diabetes makes triple negative breast cancer, a subtype of breast cancer, more aggressive. The disease combination is difficult to treat and is often seen in the Hispanic population.

A handful of other studies on the minority population are underway, and more are expected with the creation of the new school. The GSBS will not only contribute much-needed research, but it will also help create the next generation of biomedical scientists. The first degree offered by the school, the Master of Science in Biomedical Sciences, officially launches in the fall of 2016.



The Graduate School of Biomedical Sciences is expected to increase the number of research studies conducted at TTUHSC El Paso.

TOBACCO, DIABETES AND THE BLOOD BRAIN BARRIER

For years, research has linked the use of smoking tobacco products to multiple health issues, most commonly those related to heart disease and stroke. Research has also built a case between the use of tobacco smoke and Type 2 diabetes.

One of the root problems is that smoking increases blood sugar and keeps the body from properly responding to insulin. If not managed, complications can lead to serious problems involving the kidneys, heart and blood vessels.

Existing evidence suggests that diabetes is a major risk factor for stroke and exacerbates a host of central nervous system pathologies through potential impairment of the blood-brain barrier, a semipermeable layer surrounding the brain's surface that allows transfer of some substances into the brain, but keeps others out.

What's lacking is the exact reason for these relationships. Luca Cucullo, PhD, and his team are looking to unravel these relationships by studying the functional changes that take place in the body, specifically looking at the structure and function of the blood-brain barrier.

"Structure and function of the BBB have been well-correlated in recent years as a major prodromal factor for the onset of neurological disorders," Cucullo said. "Understanding why it often acts as an impediment to successful drug delivery to neurons will be key in pharmacological treatment of central nervous system disorders."



Luca Cucullo, PhD, is an assistant professor in the Graduate School of Biomedical Sciences Department of Pharmaceutical Sciences. He received the TTUHSC President's Young Investigator Award for 2015.



HOPE FOR THOSE WITH HUNTINGTON'S DISEASE

An estimated 30,000 Americans have Huntington's disease, and more than 200,000 people are at risk of inheriting it.

Huntington's is a genetic disease that causes the progressive destruction of striatal neurons in the brain. The genetic mutation that causes the disease is due to the presence of expanded (more than 35) polyglutamine or CAG repeats in Huntington's disease gene. Mutant huntingtin is a protein that expresses expanded polyglutamine repeats in all cells of those with the disease but selectively targets striatal neurons in the basal ganglia.

A research team led by P. Hemachandra Reddy, PhD, and Maria Manczak, PhD, has identified a mitochondrial division inhibitor 1 (Mdivi1) that may be a promising molecule for the treatment of patients with this disease. Mitochondria are specialized organelles in a cell and are responsible for creating the energy needed by the body to sustain life.

"When the mitochondria are compromised in neurons from brain disease such as Huntington's, injury and even death to the cell occurs," Reddy said. "Mitochondrial damage and synaptic dysfunction are the prominent features in neurons from patients with Huntington's disease."

According to Reddy's research, mitochondrial division inhibitor 1 is capable

of reducing mutant-huntingtin induced excessive mitochondrial fragmentation and maintaining mitochondrial function and improving synaptic activity in Huntington's disease neurons.

"These findings suggest that mitochondrial division inhibitor 1 will improve mitochondrial function and protect against synaptic damage in Huntington's disease," he said.

Findings from the study may also have therapeutic implications for all brain diseases with expanded polyglutamine repeats as genetic mutation(s).



P. Hemachandra Reddy, PhD, is the executive director and chief scientific officer of the Garrison Institute on Aging and professor in the School of Medicine departments of Cell Biology and Biochemistry, Neuroscience/Pharmacology and Neurology. Maria Manczak, PhD, is a senior research associate at the Garrison Institute on Aging. Their research study was published in *Human Molecular Genetics*.



ORTHOPEDIST INVENTS FIRST INTERNAL BONE-LENGTHENING DEVICE FOR CHILDREN

A TTUHSC El Paso orthopedic surgeon is creating the world's first implantation device that can internally lengthen the bones of young children. He expects the device will lead to fewer infections and less pain, making the bone-lengthening process more bearable for children.

"Current limb-lengthening techniques are uncomfortable and can make kids feel socially awkward," said Amr Abdelgawad, MD.

The patent-pending device sidesteps external fixators, bulky frames that penetrate the skin with pins and are particularly uncomfortable for children; they also often cause infection and pain.

Abdelgawad's device will be the first of its kind for use on children who still have growth plates, completely avoiding potential damage to the delicate plate. The apparatus will be entirely internal, requiring a single implantation of a thin, metal plate that attaches alongside the bone with screws. Using a handheld remote control, the patient can adjust the rod to extend slowly over time, thereby extending the bone.

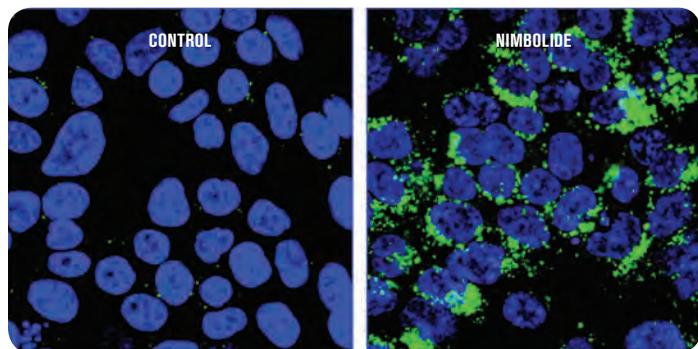
"It's going to help those who suffer from skeletal deformities, like dysplasia or limb-length discrepancies, and those who have suffered from bone trauma," Abdelgawad said.

The orthopedic surgeon presented his innovative bone-lengthener at the Children's National Health System's annual Pediatric Surgical Innovation Symposium last year. Out of 53 pediatric medical devices that were showcased, the bone-lengthener was recognized as one of the top eight innovations.

The device is still in the development phase and is co-patented with Noe Vargas Hernandez, an associate professor of engineering at Carnegie Mellon University.



Amr Abdelgawad, MD, is an associate professor and interim chair of the Department of Orthopaedic Surgery and Rehabilitation at the Paul L. Foster School of Medicine.



Induction of autophagy, or cell death

PLANT EXTRACT SHOWS PROMISE IN TREATING PANCREATIC CANCER

A natural extract derived from India's neem tree could potentially be used to treat pancreatic cancer, according to biomedical scientists at TTUHSC El Paso.

The team tested nimbolide, a compound found in neem leaves, against pancreatic cancer in cell lines and animal models. The results revealed that nimbolide stops the cancer's growth and metastasis without harming normal, healthy cells.

Pancreatic cancer has the highest mortality rate of all cancers with 94 percent of patients dying within five years of diagnosis. The cancer grows quickly and there are currently no effective treatments available.

In the journal *Scientific Reports*, Rajkumar Lakshmanaswamy, PhD, and members of his lab describe how nimbolide reduced the migration and invasion capabilities of pancreatic cancer cells by 70 percent. In humans, this metastasis of pancreatic cancer to other regions of the body is the chief cause of mortality.

Nimbolide also induced cancer cell death, causing the size and number of pancreatic cancer cell colonies to drop by 80 percent.

The researchers stress one of the most important findings is that nimbolide did not harm healthy cells in the experiments.

"Many people in India actually eat neem, and it doesn't have harmful side effects, which suggests that using it will not cause adverse effects like chemotherapy and radiation typically do," said Ramadevi Subramani, PhD, postdoctoral researcher.

The team plans to continue researching the promising anticancer mechanisms behind the plant extract.



Rajkumar Lakshmanaswamy, PhD, is dean of the Graduate School of Biomedical Sciences and the basic research director of the Center of Emphasis in Cancer.



with
HIGHEST
honors

**TTUHSC NAMES INAUGURAL
PRESIDENTIAL DISTINGUISHED
ALUMNI AWARD RECIPIENT**

For the first time in the university's history, TTUHSC will recognize the outstanding achievements of one of its graduates with the Presidential Distinguished Alumni Award. This will be the highest honor bestowed to an alumna/alumnus by the university.



Vice Admiral Raquel Bono was part of a panel discussion at the Strategic Health Diplomacy conference in Washington, D.C., in November.

Vice Admiral Raquel C. Bono '83 Director, Defense Health Agency Falls Church, Virginia

Vice Admiral Raquel C. Bono is director of the Defense Health Agency (DHA) at the Defense Health Headquarters in Falls Church, Virginia. She leads the joint, integrated Combat Support Agency providing medical services for all military branches to ensure a medically ready military and a prepared medical force in peacetime and wartime. Bono also oversees the administration of the TRICARE Health Plan, providing worldwide medical, dental and pharmacy programs to more than 9.4 million uniformed service members, retirees and their families. Also, DHA directs the execution of multiple joint shared services including health information technology, research and acquisition, education and training, public health, medical logistics, facility management, budget resource management, and contracting.

Before her appointment in October 2015 as vice admiral, Bono was a two-star rear admiral serving as director of the National Capital Region Medical Directorate and Chief of Medical Corps at Walter Reed National Military Medical Center in Bethesda, Maryland. Bono is one of only 30 women to earn the flag officer rank; of those only 10 have earned two stars. She and her brother, Rear Admiral Anatolio B. "AB" Cruz III were the first and only siblings of Filipino descent to hold flag-officer ranks simultaneously. Cruz is now retired. Bono has also been named by the Filipina Women's Network as one of the 100 Most Influential Filipina American Women in the United States (2009), recognizing her Naval leadership appointments.

Bono was commissioned in 1979 when she was accepted into medical school through the Navy's Health Professions Scholarship program. The program provides financial support on a year-to-year payback with service to the Navy.

TTUHSC was her first choice for medical school, Bono said, because of the transparent service mission the school displayed.

"I was attracted to TTUHSC initially because of the great sense of service and community. The medical training TTUHSC was offering was very pragmatic and unique at the time. I was in the clinics and getting my hands dirty from the beginning, which I believe set me up with an excellent foundation in the medical field."

Bono became the first woman to complete a general surgery residency at Naval Medical Center Portsmouth after finishing the Navy scholarship program. She is a diplomat of the American Board of Surgery, a Fellow of the American College of Surgeons and has an Executive MBA.

Shortly after completing her residencies, Bono was deployed during Operation Desert Shield as the trauma surgeon to oversee Casualty Receiving at Fleet Hospital Five in Saudi Arabia, and as a Commanding Officer for the Naval Hospital in Jacksonville, the Navy's fourth largest hospital.

Bono and her father, a retired Navy captain, shared an experience in Saudi that was truly unique.



Vice Admiral Raquel Bono shows her support for military children on Purple Up day, an observance in April during Month of the Military Child.



Rear Admiral Raquel Bono conducts a walkthrough of a rescue helicopter stationed aboard the Chinese hospital ship Peace Ark anchored pier side at Muara Naval Base, Brunei Darussalam, during the association of southeast Asian nations humanitarian assistance, disaster relief and military medicine exercise hosted by Brunei.



TTUHSC President Tedd L. Mitchell, MD, had the opportunity in 2014 to show Rear Admiral Raquel Bono how much her alma mater had changed.

MILITARY HEALTH CARE

U.S. NAVY/JACOB SIPPEL

ZACHARY TUDERINA



U.S. NAVY/JACOB SIEPEL

Rear Admiral Raquel Bono learns about pharmacy procedures during a tour of Naval Hospital Jacksonville. She commanded the hospital from 2005 to 2008.

“He and I were deployed at the same time during the first Gulf War. I was on land at the hospital, and he was aboard the USNS Mercy as a reserve medical corps officer. We had Army Black Hawk helicopter pilots assigned to our hospital, and they needed to do their landing quals on the Mercy, so I hopped on the helicopter to have lunch with my dad one day.”

Her military and medical roots go back two generations. During World War II, the U.S. offered commissions to Filipinos if they wanted to join the service, so her grandfather accepted. Although he was a physician, he enlisted as a line officer in the infantry.

“At night he would take care of his patients and by day he would go into the field with the rest of his company,” Bono said. “After the way, in recognition for his service to the military, he was granted fellowship training as an OB-GYN at the old Walter Reed Army Medical Center.”

The highly decorated Bono also served in Saudi Arabia during Operation Desert Storm and has held other notable positions including director of restorative care and director of medical services at the National Naval Medical Center, Bethesda, Maryland, and executive assistant to the Navy surgeon general. Her personal decorations include three Defense Superior Service Medals, four Legion of Merit Medals, two Meritorious Service Medals, and two Navy and Marine Corps Commendation medals.



MASS COMMUNICATION SPECIALIST
3RD CLASS DIANA QUINLAN

Rear Admiral Raquel Bono speaks on the diversity of Filipino heritage at the Makai Recreation Center at Joint Base Pearl Harbor-Hickam during Asian Pacific American Heritage Month.

“When I got to the first fork in the road about whether or not I should stay in the service or leave because I had fulfilled my obligated duty, I noticed a correlation between health care and the military,” she said. “Managed care was beginning to emerge in the health care field all over the nation, which brought about many challenges for health care professionals.

“I realized the military already had the infrastructure to make managed care work, so I knew if I could learn a bit more about how they made managed care work in the military, I could bring that knowledge and training to the health care field if I ever decided to leave the Navy.

“Every time the decision came back around to leave or stay, I realized that the service element of the Navy was what made me stay, which is something I originally found at TTUHSC. Plus, I was having way too much fun to leave!”

Bono said her TTUHSC education has influenced her career path daily. “Had it not been for what I learned at TTUHSC, I would never have established the foundation to continue going through my medical career, as well as the element of being able to serve others who are either underrepresented or had a need, which is what attracted me to TTUHSC in the first place.”

SCHOOL OF PHARMACY
Distinguished Alumni
Pharmacy Research Award



CARLOS ALVAREZ, PHARM.D, '04

Assistant Professor of Pharmacy Practice
School of Pharmacy, Division of Clinical/Translational
TTUHSC, Dallas, Texas
Adjunct Assistant Professor
School of Pharmacy Department of Clinical Sciences
UT Southwestern Medical Center, Dallas, Texas

Carlos Alvarez, PharmD, joined the School of Pharmacy faculty in 2006 after completing a postgraduate pharmacy residency. He has distinguished himself as an exemplary educator and outstanding pharmacy practitioner, but remained humble, always willing to help others.

In 2009, Alvarez was accepted to the highly competitive KL2 Clinical Scholars Training Program at UT Southwestern and his funding request for a Type 2 Diabetes research project was accepted on his first attempt, a rare occurrence. The model that emerged from his research project is now used as a tool for clinical scholar students at UT Southwestern. Also in 2009,

SCHOOL OF MEDICINE
Distinguished
Alumni Award

**TOM FOGARTY, MD, '83
(RESIDENT), '80**
Chief Medical Officer and
Executive Vice President, retired
Concentra Inc., Addison, Texas



Tom Fogarty, MD, is retired after serving for 26 years as chief medical officer and executive vice president of Concentra Inc., the nation's leading provider of health care. Through its affiliated clinicians, the company provides occupational medicine, urgent care, physical therapy and wellness services from more than 300 medical centers in 40 states. In addition to these medical center locations, Concentra serves employers by providing a broad range of health services and operating more than 270 onsite medical facilities.

Fogarty earned a degree in industrial engineering and then attended medical school about five years later. As he was completing his degree, he met and joined two physicians who were providing occupational health to the Amarillo workforce. The trio launched the beginnings of Concentra in Amarillo. Their primary focus was to help employers meet health care needs ranging from employee safety to OSHA regulations.

In the mid-'80s, Fogarty moved to the Dallas-Fort Worth Metroplex to oversee a second clinic the trio opened in Garland; the company became publicly traded and later relocated headquarters to Addison and expanded its reach to include primary, preventive and environmental health and safety services.

According to an article in *D Magazine*, Concentra's reach is so widespread that company officials estimate services are "only a 15-20 minute drive for about 40 percent of the U.S. workforce."

Fogarty also was a founder and officer for Concentra Occupational Health Institute, designed to fill the void in occupational and preventive medicine research. The institute promotes occupational medical education, and since 2004, has sponsored national conferences and other educational events.

Concentra branched out again in 2007 to offer urgent care and health and wellness programs, which today has more than 900 affiliated primary care physicians and 600 physical therapists.

Fogarty completed his medical degree and a residency in family medicine in the School of Medicine at Amarillo.

SCHOOL OF MEDICINE
Distinguished Alumni Award

SUE BORNSTEIN, MD, FACP, '92
Executive Director
Texas Medical Home Initiative, Austin, Texas



Since 2008, Sue Bornstein, MD, has served as the executive director of the Texas Medical Home Initiative (TMHI), a non-profit, multi-stakeholder organization dedicated to implementing the patient-centered medical home model of care in Texas.

Under her leadership, and in concert with her board of directors, she successfully created a process and supporting structure for the transition of seven adult primary care physician practices in north and east Texas into patient-centered medical homes and to achieve National Center for Quality Assurance recognition as such. The Texas Medical Home Initiative has conducted 4 successful statewide conferences on primary care and the medical home. Bornstein has been an advocate statewide for this new model of delivering primary health care to patients.

Previous to her position with TMHI, Bornstein, an internist, worked for the Boston-based consulting firm, Bard Group, where she led several projects that involved health system integration and medical staff governance reorganization.

Her medical career includes seven years with Baylor University Medical Center, where she held administrative roles in quality care, clinical ethics and palliative care. Bornstein also was an attending physician in the Department of Internal Medicine. She was the first female president of the medical staff at Baylor University Medical Center.

Throughout her career, Bornstein has been active in professional organizations on the local, state and national level, including serving as governor of the American College of Physicians and as a delegate to the Texas Medical Association House of Delegates.

She has served since 2009 on the Texas Department of State Health Services Medical Home Work Group and recently completed a term on the Meadows Policy Institute Physician Health-Behavioral Health Integration Networking Group, and TTUHSC's Public Health Community Advisory Board.

Among Bornstein's many honors and awards is the School of Medicine's Gold Headed Cane, presented to the graduating student who best exemplifies those attributes that are most desirable in the competent and caring physician.

She completed her medical degree in the School of Medicine at Lubbock.

he was recognized as a National Institutes of Health Clinical Research Scholar. He is one of the few practicing pharmacy faculty members in the school that have excelled so quickly, earning array of accomplishments within 10 years of graduating.

Alvarez has come to be highly respected by students and peers at the School of Pharmacy at Dallas as he is willing to assist others, especially in regard to their aspirations in pharmacy. Humility is one of his strongest qualities and it shines through in his work as well as relationships with colleagues and students. Faculty, staff and students hold him in the highest regard and are often aspiring and working to be "like Carlos." He is thought of as "The Best of the Best" and has a strong presence on the Dallas campus

Alvarez's research interests are in the safety and effectiveness of medications in patients with chronic diseases using large administrative and clinical databases. His has received funding by the NIH and other extramural sources and has published more than 25 medical articles.

Alvarez completed his PharmD at the School of Pharmacy at Lubbock.

SCHOOL OF HEALTH PROFESSIONS

Department of Laboratory Sciences
and Primary Care Distinguished Alumni Award



BRENT HESTER, MP, '03

Forensic DNA Specialist
Texas Department of Public Safety
Crime Lab, Lubbock, Texas

Brent Hester, MP, has served Lubbock and the surrounding 76 counties as a forensic DNA specialist at the Texas Department of Public Safety.

He is responsible for training new DNA analysts and assisting with the validation of new techniques and instrumentation. Hester began his career with DPS in 2004 as a forensic serologist/DNA analyst.

Hester says he has enjoyed watching the industry evolve and the technological advances that have been made to progress the industrial standard.

During his tenure at the DPS, Hester has worked on more than 2,500 cases. He screens biological evidence, and compares known genetic profiles to evidence obtained at the crime. His work has assisted in solving multiple cold cases in the Lubbock area.

Hester also has shared his knowledge and skills to educate the next generation of forensic scientists. He has trained 10 new DNA analysts in the past three years and lectures regularly for the molecular pathology master's courses. Additionally, Hester has assisted in bettering the trainee experience in the program and updating the curriculum.

Hester received his M.S. in Molecular Pathology in the School of Health Professions at Lubbock.

SCHOOL OF HEALTH PROFESSIONS

Department of Clinic Administration and
Rehabilitation Counseling Distinguished Alumni Award



MAJ. RYAN SCHMIDT, PHD, '10

Executive Director, Center for Innovation
Navicent Health, Macon, Georgia
Chief Health Services Administrator
Moody Air Force Base, Valdosta, Georgia

Maj. Ryan Schmidt, PhD, has a history of distinguished accomplishments in health care, military service and academia. He currently serves

as an independent higher education/curriculum design consultant while providing contractual adjunct support in the areas of health care administration, business management and operations, logistics, and supply chain management.

Schmidt also serves as a contractual mental health therapist and holds professional counselor licenses in South Carolina and Georgia. He also is recognized by the National Board of Certified Counselors and is a Nationally Certified Counselor, a distinguished certification recognized by all 50 U.S. states.

Additionally, Schmidt has more than 20 years of service in the U.S. Navy and the U.S. Air Force for which he has served both branches as an officer in Logistics Readiness and Medical Service Corps. He currently serves as the chief Healthcare Administrator within the 476th Aeromedical Flight at Moody Air Force Base in Valdosta, Georgia.

Schmidt has a number of publications and presentations to his credit. His research interests include health policy, integration, analytics and logistics as well as cost containment/access and chronic care conditions. Schmidt has also served on numerous national and international peer-reviewed journals as an editorial board member and as a reviewer.

He holds multiple academic degrees and certifications and serves on the Association for Healthcare Resources and Materials Management's Academic Council for Healthcare Supply Chain Research.

Schmidt earned his master's degree in Clinical Practice Management in the School of Health Professions.

Distinguished Alumni HONOR ROLL



Each of the past recipients of the Distinguished Alumni awards are listed on the Alumni Relations website and on engraved plaques in the Academic Classroom Building at TTUHSC at Lubbock.



Visit <https://www.ttuhsu.edu/alumni/> to view the list of past honorees and submit a nomination for next year's awards.

SCHOOL OF HEALTH PROFESSIONS

Department of Speech, Language and Hearing
Sciences Distinguished Alumni Award



CARLA MAHAN, CCC-SLP '87

Speech-Language Pathologist
Retired from Lubbock Independent School District,
Lubbock, Texas

Carla Mahan, CCC-SLP, began her career in speech pathology at Bryan Independent School District after receiving her B.A. from Sam Houston State University. She worked as a special education teacher and speech language pathologist for four years before moving to Lubbock to pursue her M.S. degree from Texas Tech University School of Health Professions. She began working for Lubbock Independent School District (LISD) in 1987 and dedicated the remainder of her career there to providing therapy services to children with speech and language disorders. In her 33 years as a speech language pathologist, Mahan has had the opportunity to work with students between the ages of 3 to 22 and with a wide range of disabilities. Her greatest love has been working with students with autism.

In her last five years with LISD, she served as the lead speech-language pathologist and has initiated numerous projects to bridge the communication between teachers and the Speech-Language Pathologists across the LISD to improve overall language performance for all school age children. She also partnered with TTUHSC to help establish standardized scores specific to the South Plains area for children to receive access to support that would meet their communication needs.

Mahan is known by peers to be an advocate for all of her students and worked diligently to ensure each student received individualized services as guaranteed by state and federal law. She also helped lead the Collaboration for Communication project, which increased the awareness of speech-language pathologist's role in special education classrooms. Mahan has also worked endlessly to improve the language performance for all students in LISD, and her efforts have proven to be successful.

In addition to her notable 29-year career at LISD, Mahan has volunteered in her church as youth leader and with other youth activities as well as opening her home to multiple foreign exchange students. She is an advocate for children and their well being in every way possible as well as for the Lubbock community.

Mahan received her master's degree in speech and hearing sciences from the School of Health Professions at Lubbock.

SCHOOL OF HEALTH PROFESSIONS

Department of Rehabilitation Sciences
Distinguished Alumni Award



JASON STARK, OT, '99

President of Cole Health-Houston
Houston, Texas

Since 2011 Jason Stark, OT, has served as president of Cole Health-Houston. He oversees the operations of three companies that provide outpatient adult and pediatric rehabilitation, outpatient applied behavior analysis, and home health services at 10 locations in northwest Houston. He has sole responsibility for the company's \$12 to \$15 million budget, sales and marketing, and human resources. In addition, Stark trains and supervises a team of up to 11 managers for Cole Health-Houston as well as oversees the treatment of more than 2,050 patients per week.

As president, he believes in coaching and developing managers, through mentoring and education, to be their best selves in order to establish a positive, fun and healthy work environment for patients and employees to perform at their best. Stark is also a certified Lean instructor and uses this philosophy to involve employees in decision making and change management in order to achieve operational excellence.

Prior to joining Cole Health-Houston, Stark was the executive director for seven years of the Kids Developmental Clinic, serving in southwest, southeast and west Houston. During his tenure, Stark planned, organized and supervised the growth of the company from its inception. In addition, he participated in the ongoing program development, which consisted of animal-assisted therapy, early intervention programs, children's health and wellness fairs, and social groups.

Stark's peers describe him as a "dynamic and effective leader for not only the discipline of occupational therapy, but also physical therapy services for children with disabilities." He is a respected member of the health care community and has been a representative to the Texas Legislature and Health and Human Services to advise on rehabilitation services policy.

In addition to his work in rehabilitation health care services, Stark has been an influential leader within the Texas Occupational Therapy Association. He was elected earlier this year as vice president and has served in other leadership positions including development chair and district chair of the Gulf Coast East District.

Stark is an ordained deacon at his church and enjoys kayaking, running marathons, cycling and spending time with friends and family.

Stark received his B.S. in Occupational Therapy from the School of Health Professions in Lubbock.

SCHOOL OF NURSING

Excellence in Clinical Care
Distinguished Alumni Award



RUAN REAST, MSN, FNP-BC, RN, '93, '84

Nurse Practitioner
School of Medicine Department of Family and
Community Medicine
TTUHSC, Lubbock, Texas

Ruan Reast, MSN, FNP-BC, RN, is the only full-time family nurse practitioner in the TTUHSC School of Medicine Department of Family and Community Medicine. She was in the second graduating class of family nurse practitioners, and has since used her advanced practice nursing skills through nursing practice, community engagement and involvement in professional organizations to advance nursing and improve population health.

Patients, families, staff and colleagues frequently recognize her for excellence in clinical care and her willingness to mentor others. They say she takes the time to listen to patients, to engage them as partners in their own health care, and to provide appropriate education, counseling and needed referrals to reduce potential complications and enhance well-being.

Before joining the School of Medicine, Reast worked at the Larry Combest Community Health & Wellness Center, and its predecessor, the Wellness Center of TTUHSC School of Nursing.

Her nursing career began at a local minor emergency clinic, followed by positions in the emergency departments of St. Mary and Methodist hospitals (now both are part of Covenant Health System). During graduate school, Reast worked on medical malpractice defense team with McWhorter Cobb, and Johnson Law Firm.

After completing her master's and earning certification as a family nurse practitioner, Reast worked at the Rural Health Clinic in Amherst, Texas, as the solo practitioner of the mobile rural health bus, providing care for those in underserved communities and in migrant worker camps. Previous to her hire at TTUHSC, Reast worked at the Rural Health Clinic, in her hometown of Littlefield, Texas, where she had the privilege of caring for many her family has known for years.

She has been recognized for her excellence in clinical care in multiple ways including receiving the 25th Anniversary Silver Star Award and the Outstanding Preceptor Award from the TTUHSC School of Nursing Graduate Program. She has been named as the Texas Nurse Association District 18 Nurse of the Year, the Covenant Medical Center Emergency Nurse of the Year, and was recognized by the TTUHSC School of Nursing for the Excellence in Writing Award.

Reast completed her master's and bachelor's degrees in the School of Nursing at Lubbock.

SCHOOL OF NURSING

Leadership in Health Care Distinguished Alumni Award



VALERIE KIPER, DNP, MSN, RN, '13

Assistant Professor
School of Nursing
TTUHSC, Amarillo, Texas

Valerie Kiper, DNP, MSN, RN, has more than 36 years of health care leadership experience. She currently operates an independent health care consulting company. Her previous nursing leadership roles have included a lengthy tenure at Northwest Texas Healthcare System in Amarillo, Texas, serving as chief nursing officer and in various other leadership roles in the neonatal intensive care unit and maternal child nursing. In addition, Kiper was previously corporate director of accreditation/regulatory services for Universal Health Services and within the scope of her position assisted the acute care division's 25 facilities in meeting key quality, patient safety and regulatory standards.

Kiper previously served on the nursing faculty at West Texas A&M University in Canyon, Texas, teaching the undergraduate leadership course and leading development of the clinical nursing internship program. Currently, she serves on the Texas Panhandle Coalition for Nursing and is an advisory board member for nursing programs at Amarillo College and West Texas A&M University. She also is working to increase inter-professional education with students and hospital employees.

She serves as the co-leader of the Panhandle region's Texas Team supporting the Future of Nursing Action Coalition and to further ensure the Texas Panhandle is recognized and active in state affairs relative to the advancement of the nursing profession. Additionally, Kiper has been instrumental in organizing the first "Panhandle Great 25 Nurses" recognition event, scheduled this fall. She is a member of TTUHSC's Amarillo Area Advisory Board and is serving a second governor's appointed term as an executive committee board member for the Texas Office of Prevention of Developmental Disabilities. Kiper was recently selected nationwide as one of 25 chief nursing officers to participate in the inaugural Health Leader's Media CNO Exchange.

Kiper's civic interests include serving in leadership roles for the March of Dimes as the 2016 March for Babies Chair and as the American Heart Association's "Go Red for Women" 2017 Chair. Kiper has a longstanding relationship with the Texas Organization of Nurse Executives, serving in key leadership positions including as president and president-elect. She will currently begin her second term as the state organization's secretary.

Kiper earned a Doctorate of Nursing Practice in Executive Leadership in the School of Nursing. 

6
SIX
locations

4
four
deans

9,468
alumni

13
thirteen
degree plans

baccalaureate, master's
and doctoral degrees

DNP, PhD, FNP, MSN, MSN to APN,
RN, RN to BSN, 2nd Degree BSN

Administration, Education, Nursing
Informatics, Executive Leadership,
PhD, Advanced Practice Registered
Nurse, Family Nurse Practitioner,
Adult Gerontology Acute Care
Nurse Practitioner, Pediatric Nurse
Practitioner, Acute Care Pediatric
Nurse Practitioner, Nurse Midwifery,
Post-Master's Certifications

35
YEARS
School of
NURSING



1,635
students enrolled*

Known for its innovation in nursing education, excellent student retention and graduation rates, above national average National Council Licensure Examination (NCLEX) scores, and producing well-prepared nurses for West Texas and beyond.

*Fall 2015

Back in the '80s & '90s

The
School of Nursing
*was established
in 1979*

under the expanded charter
to become Texas Tech University
Health Sciences Center.

Fall 1981

Undergraduate
program began
with 83 students:
Freshmen, LVNs and RNs

First
Graduating
Class:

1983

five students

December
1983

Fully accredited
as a
School of Nursing
by the Board of Nurse Examiners
for the State of Texas

Dean

Teddy Jones,
PhD, FNP, RN

1981 to 1991

*Welcome
home*

School of Nursing moves from
Thompson Hall on Texas Tech
campus to TTUHSC campus.

Fall 1985

School of Nursing expanded
to the Permian Basin.

Dean

Pat Yoder-Wise, EdD,
CNAA, FAAN, RN

1993 to 2000

(Interim Dean 1992 to 1993)

ΣΘΤ

1988

The Honor Society of
Nursing, Sigma Theta
Tau International
Chapter was formed.

Master's in education
and administration

graduate
programs

*began
Fall 1988*

Family nurse practitioner

began in 1991

RN to BSN program

added to curriculum in 1999 and online by 1999.

into the 2000s

Second Degree

BSN

began 2005

Beyond West Texas

Our global health initiative launched in 2007 and students now can earn a certification, gaining the necessary knowledge and skills to excel in a variety of settings in medically underserved areas around the world.

Larry Combest Community Health & Wellness Center, (originally the Wellness Center of Lubbock), Sunrise Canyon clinic, and the Abilene Community Health Center, all began and received the federally qualified health center designation.

In 2015, more than 7,186 patients were seen in these clinics during more than 21,256 patient visits.

SANE,

or sexual assault nurse examiner, program started in 2005 to teach health care providers how to better evidence for prosecution of sexual assault cases.

Dean

Alexia Green, PhD,

FAAN, RN

2000 to 2009

Interim Dean

Yondell Masten,

PhD, WHNP-BC, RNC-OB

2010-2012

Research

became a school priority

in 2013.

Dean

Michael Evans,

PhD, FAAN, RN

2012 to current

Graduate Programs

added from 2003 to 2016

master's pediatric primary care nurse practitioner, adult-gerontology acute care nurse practitioner, midwifery, acute care pediatric nurse practitioner, nursing informatics, psychiatric mental health nurse practitioner, psychiatric mental health post-master's

Doctor of

Nursing Practice

began in 2007.

Traditional BSN program

expanded to Abilene (2008), and El Paso (2009), which became its own school in 2010 at TTUHSC El Paso.

2015

The Veteran Bachelor of Nursing program offers a nursing degree option for those with military medical experience. 

better BREAST *care*

Karinn Chambers, MD, prepares a patient for a breast ultrasound, a common tool used to screen for cancer.



El Paso Clinic Excels in Breast Cancer Treatment

BY NADIA M. WHITEHEAD | PHOTOS BY RAUL DE LA CRUZ

When patients walk into the Texas Tech Physicians of El Paso Breast Care Center, they can trust they'll receive some of the best care in the city.

That's not an overstatement. The Breast Care Center at TTUHSC El Paso is one of just two accredited breast care centers in El Paso. That means the center undergoes rigorous review and performance evaluations to ensure it's providing the highest level of breast care.

"Accreditation keeps us in check," said Karinn Chambers, MD, FACS, center director and assistant professor in the Paul L. Foster School of Medicine (PLFSOM) Department of Surgery. "We don't have to be accredited; it's voluntary to undergo the process. We do it for the patients – to make sure they're receiving the highest standard of care."

Multiple physicians at Texas Tech Physicians of El Paso, which is part of TTUHSC El Paso, review each breast cancer case. Oncologists, radiologists, surgeons, radiation oncologists and pathologists gather twice a month to discuss and brainstorm every patient's situation.

Having this team of experts collaborate under one roof is a big advantage to patients, Chambers said. "It ensures that all aspects of care are considered and that we don't miss any of the many components involved in breast cancer care."

Breast cancer patients typically juggle multiple appointments, rushing to various specialists across the city – or state – for treatment. But because of TTUHSC El Paso's multidisciplinary approach, the full-range of medical services necessary to treat breast cancer, from mammography to breast reconstruction, are available at one location.

In 2012, patients even began to have access to clinical trials through TTUHSC El Paso's Cancer Clinical Research Core. With the support of a \$1.5 million grant, Zeina Nahleh, MD, professor of medicine and chief of the division of Hematology/Oncology PLFSOM, established the center's research division, which offers patients cutting-edge options to treat, diagnose, prevent or manage symptoms related to cancer and the side effects of treatment.

Patients have had the opportunity to participate in more than 25 clinical trials since the center opened. Each year, more than

“We don’t have to be accredited; it’s voluntary to undergo the process. **We do it for the patients** – to make sure they’re receiving the **highest standard of care.**”

90 patients opt to participate in trials, Nahleh said. “That’s impressive. That number far exceeds the number of people who typically participate at other health care centers, meaning many of our patients are receiving pioneering treatment,” she said.

But services don’t stop in the doctor’s office. Texas Tech Physicians of El Paso Breast Care Center offers emotional support through a free survivorship support group. The group meets once a month for patients to connect and share their experiences.

“We’re not limiting this [group] to current patients; it’s open to everyone in El Paso who has, or has had, breast cancer,” said Chambers, who started the survivorship meetings. “A patient who’s just finished treatment might find solace in the experience of a 15-year survivor, while a 15-year survivor could bring strength to current patients.”

During a session, patients also receive valuable cancer education, like how to keep fit during treatment and the short-and long-term side effects of chemotherapy.

“One of the biggest sources of anxiety for our patients is fear of cancer recurrence,” Chambers said. “The group explores this difficult topic, and many others, to help patients find life after cancer.”

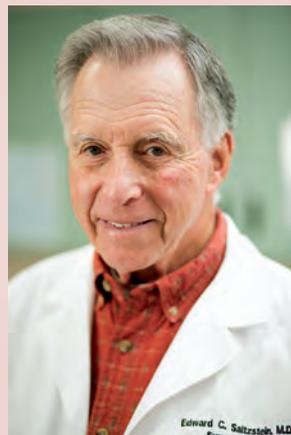
Chambers joined the center as its director in 2015, moving from Charlotte, North Carolina, to El Paso after her exceptional resume caught the eye of administrators in the PLFSOM Department of Surgery. She is one of only a handful of surgeons in the U.S. who has studied breast surgical oncology.

This niche specialty means a surgeon has training and experience in every aspect of breast care: pathology, imaging, biopsy, genetics, radiology, medical oncology and breast surgery. Though the specialty took her six years to master, the assistant professor is proud to be able to help patients with her knowledge.

“I love the patients. They are such a strong group of women,” Chambers said. “It amazes me every day, watching them go through the transitions – from diagnosis through surgery to chemotherapy, all the way to becoming a lifelong survivor.” 



The Texas Tech Physicians of El Paso Breast Care Center provides patients with a holistic approach to battling the disease.



EDITOR’S NOTE: Edward Saltzstein, MD, founded the Texas Tech Physicians of El Paso Breast Care Center in 1996. He served as the director of the center until his retirement in January 2016. It was with great sadness that TTUHSC El Paso learned of Saltzstein’s passing in March 2016; he will be missed by students, staff, faculty and the residents he mentored.



Mike Russell:

Master Puzzle Solver

That realization, coupled with extensive experience watching his physician-parents provide health care overseas, brought him to the study of medicine and to his passion, global medicine.

Fresh from the box, a new jigsaw puzzle is piled on the table, looking the jumbled mess of pieces that puzzle solvers love. Like pieces are gathered in little piles. These look like the tree. Those look like the sun. Maybe this is the boat?

Mike Russell's pieces reflect his work in student government, business and health care for developing nations. Russell is a fourth-year medical student in the MD/MBA program, a joint degree between the TTUHSC School of Medicine and TTU Rawls College of Business. He also is a graduate student in the TTUHSC Graduate School of Biomedical Sciences master's program in public health. And, Russell was the 2015-2016 TTUHSC Student Government Association president.

A native of Tunkhannock, Pennsylvania, Russell earned a degree in chemical engineering from Kettering University in Flint, Michigan, and worked three years for General Motors in alternative energies research. Slowly he began to realize there were pieces missing from his puzzle.

As an engineer, Russell liked to fix things ... to put broken pieces back together. That realization, coupled with extensive experience watching his physician-parents provide health care overseas, brought him to the study of medicine and to his passion, global medicine.

"I watched my parents work with patients in Africa, Haiti and the Middle East," he said. "Our family vacations were never Disneyland. They were Africa or somewhere else in the world that needed my parents' care."



By Jo Grant Langston | Photos provided by Mike Russell



A Tipping Point A trip to Haiti in 2010 to treat earthquake victims revealed a missing piece in Russell's puzzle. "I fell in love with what medicine is supposed to look like," he said. "These people were dying from preventable diseases."

And in the long lines of patients and the overwhelming poverty of that trip, Russell had an encounter that solidified his purpose.

"A 12-year-old boy asked us for water, but he was blind and couldn't see the bottle in my hand," he said. "He was blinded by a parasite, one that could have been treated. He was blinded because he had no access to basic medical care."

Working in Kenya yielded another puzzle piece, a desire to train as a surgeon. He saw the astronomical number of trauma cases from motor vehicle accidents in a country with minimal safety regulations and poor road conditions. Coupled with his experience teaching fourth graders in the Middle East, Russell felt drawn to orthopedic surgery.



Business and Public Health Pieces to the Puzzle

Russell plans to establish health clinics, hospitals and residency programs in the developing world, hence his pursuit of graduate degrees in public health and business, in addition to medicine.

“I am learning how providing health care is very much a business,” he said. “The organization must remain viable in order to provide the care. Faculty and staff must understand the financial information so they can see the best way to deliver the care.”

The final piece of his puzzle has been serving as SGA president. “I love the Health Sciences Center,” he said. “Our school is exceptional. I meet new people everyday and can engage students in world issues involving medicine.”

“Our school is exceptional. I meet new people everyday and can engage students in world issues involving medicine.”



Fueling His Passion

Russell quickly lists three things that have fueled his passion: luck, mentors and work ethic.

He calls his global experiences “luck,” or the product of good parenting, and they provided him a way to experience cultures, political institutions and the beauty of the people around the world from a very early age.

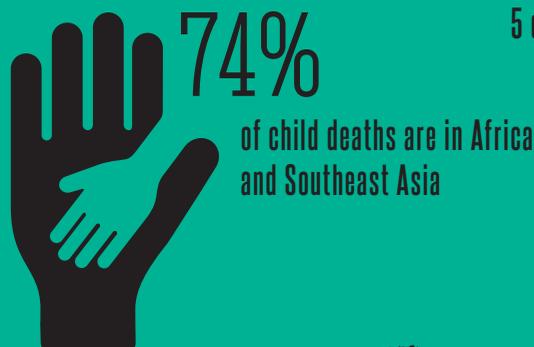
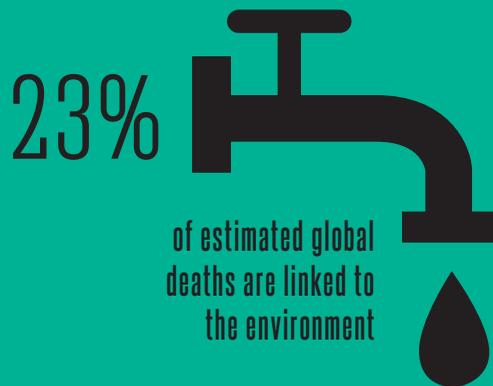
As mentors, he counts his parents Gary and Susan Russell, MD, church friends, and School of Medicine faculty members, Surendra K. Varma, MD, professor of pediatrics; John Fitzwater, MD assistant professor of surgery; and Dixon Santana, MD, associate professor of surgery.

And lastly is his work ethic, experiencing as much as he possibly can to fulfill his global medicine passion.

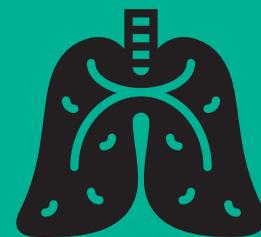
The next pieces of Russell’s puzzle include the completion of his public health degree, travelling to India and Vietnam to observe orthopedic and rural surgery and the start of his third year of medical school, all this summer.

The pieces are fitting together nicely. Russell has knit together his experiences to make a stand for the health care needs of his global neighbors. Each experience yields a new piece, a new puzzle, a new solution. 

Global Health STATISTICS



Africa leads the world in largest percentage of deaths from these conditions: **communicable, maternal, neonatal and nutritional conditions • non-communicable diseases • injuries**



9.6 million new tuberculosis cases in diagnosed in 2014



The leading causes of death worldwide: **Heart disease • Stroke • COPD • Respiratory infections • Trachea, bronchus, lung cancer • HIV/AIDS • Diabetes • Road injuries • Hypertensive heart disease**

< Source: www.who.int >

forward thinking

RESEARCH BRINGS NEW CONCEPTS TO SPEECH THERAPY



The ‘aha’ moment was evident as the speech pathology master’s students not only heard the right sounds emulated by their classmates, they were able to guide them in making the sounds via ultrasound imaging.

Using ultrasound for speech treatment is a relatively novel concept but an area Sue Ann Lee, PhD, associate professor in the School of Health Professions Department of Speech, Language & Hearing Sciences, has studied extensively as part of technology in teaching and clinical practice. She introduced the course “Clinical Instrumentation Technology for Communication Disorders,” as a master’s level requirement in 2012, two years after joining the TTUHSC faculty.

In doing so, Lee created unexpected learning opportunities, said Wendy Kissko, MS, CCC-SLP, (Health Professions ’16, ’14).

“This course provided an entirely new side of speech-language pathology that I had never experienced before,” she said. “When one thinks of a speech-language pathologist, they might not picture a person working with complicated computer software or operating an ultrasound machine. Like most areas of health care, speech-pathology is constantly changing and progressing and this includes the increased use of technology to assess and treat our patients.”

Traditionally, the curriculum had focused strongly on theory, but with technological advancements, Lee believed it pertinent to update learning modalities. She began taking her students into the F. Marie Hall SimLife Center to utilize the ultrasound equipment as a way to not only help them understand the concepts but also introduce them to their future.

“Dr. Lee really emphasized that as our field progresses, it is so important that students from our program bring our new skills and knowledge to our future colleagues and patients to employ best practices in our communities,” Kissko said. “Because of the hands-on experiences gained in this class, I would feel competent bringing these skills to a future employer and confidently sharing them with others in my field.”

Lee became intrigued with the technology about four years ago after visiting the University of British Columbia, where a colleague introduced her to the concept of ultrasound for speech therapy.

Since then, she has not only shared the knowledge with her students but also with colleagues through multiple publications in peer-reviewed journals and at professional conferences. She is one of a very limited number of university faculty in the western U.S. using technology in this manner.

BY DANETTE BAKER / PHOTOS BY NEAL HINKLE



Lee introduces students to ultrasound equipment in dual modalities. A paper, co-written with Sherry Sancibrian, MS, CCC-SLP, BCS-CL (Health Professions, Speech Pathology '78), program director for the School of Health Professions' Speech-Language Pathology graduate program and professor in the Department of Speech, Language Hearing Sciences; and Alan Wrench, PhD, of Queen Margaret University in the UK, provides basic information about equipment selection and application of the ultrasound for visualizing tongue placement for specific speech sounds.

In the *SimLife* Center, students have the opportunity to view the anatomy and physiology of the oral cavity in real-time, which gives them hands-on knowledge for clinical speech therapy and patient education.

"Something I really enjoyed about the techniques we learned in this course was that they could be used with a wide patient demographic. This ranges from using ultrasound imaging as a visual feedback tool to help a child produce the 'r' sound to using audio recording software to accurately diagnose an adult patient with a specific kind of voice disorder," Kissko said.

Lee's research focuses on speech characteristics in children with and without speech sound disorders and examines speech therapy efficacy using technology such as ultrasound and telepractice. For the latter, she has received local funding from the South Plains Foundation and The CH Foundation and federal support from the National Institutes of Health.

"After joining TTUHSC, I learned about the number of patients in our clinic who were canceling because of the distance. For some, it's a two-hour drive one way for 45 minutes of therapy," Lee said. "Telecommunications has been used successfully to address this issue in other areas of health care, and I believed it had positive implications in our area too." 

Five Facts about Sue Ann Lee, PhD

1 Received a Chancellor's Council Distinguished Research Award, 2014;

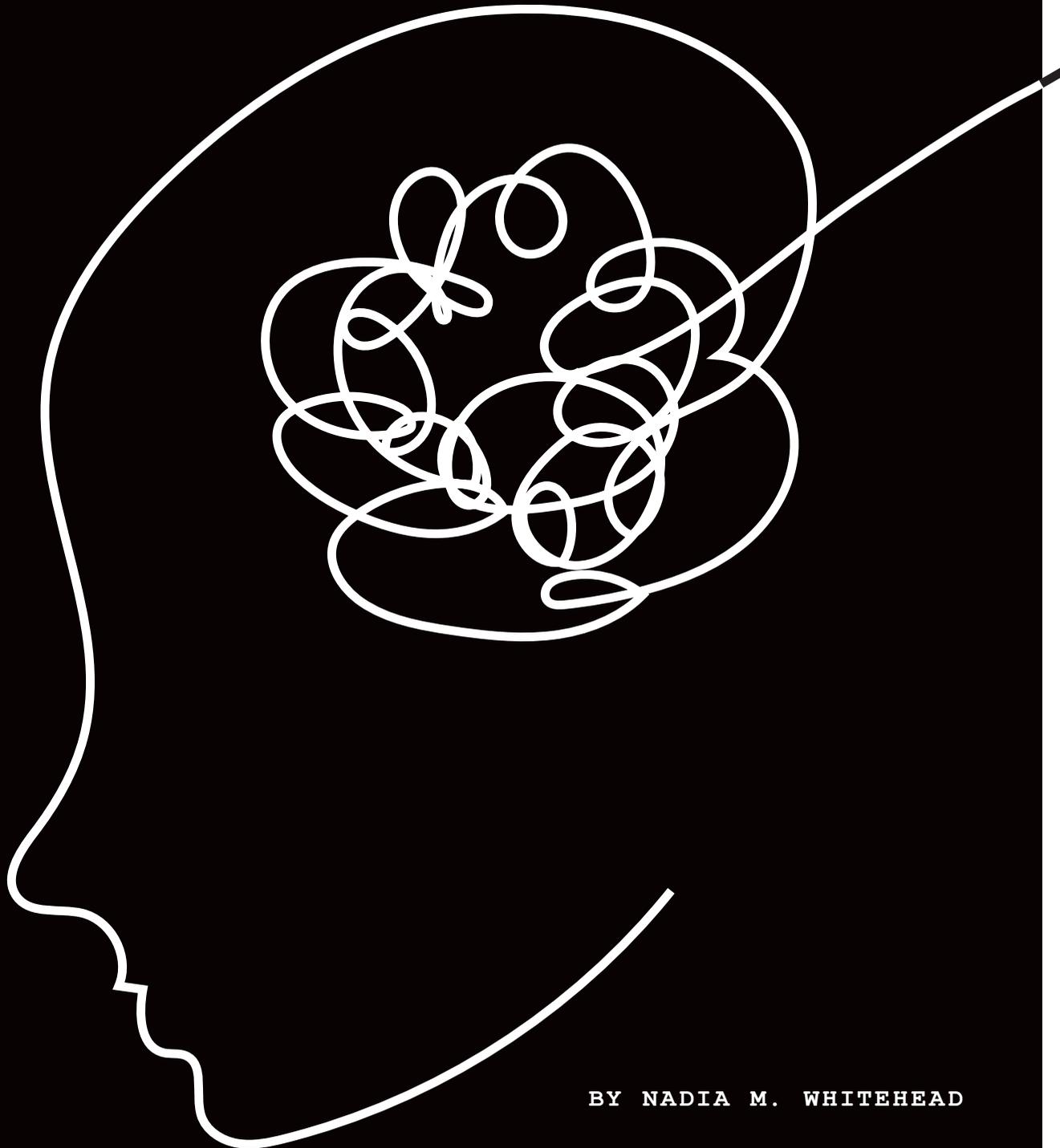
2 Serves on the editorial boards of two peer-reviewed journals: ASHA (American Speech-Language-Hearing Association) Special Interest Group 14: Communication Disorders and Sciences in Culturally and Linguistically Diverse Populations and the e-journal, Evidence-Based Practice (EBP) Briefs, published by Speech and Language.com (Pearson Education);

3 Earned an undergraduate degree from Ewha Womans University in Seoul, South Korea; master's from The Ohio State University; doctorate in speech pathology from The University of Texas at Austin;

4 Published author in multiple high-impact journals including the *Journal of Child Language*, *Journal of Speech-Language and Hearing Research*, *International Journal of Bilingualism*, and *Speech Communication*; and

5 Member of the TTUHSC Lubbock-Odessa Institutional Review Board.

Brain Bank Seeks to *change*



BY NADIA M. WHITEHEAD

the Face of *Mental Health*

**You've probably heard this stigma before:
People with mental illness aren't really
sick; if they just tried harder, they could
snap out of it.**

But Peter Thompson, MD, who works with the mentally ill on a day-to-day basis, knows better.

"When the brain's chemicals aren't firing at the right place at the right time, you can't snap out of it," Thompson said. "These people aren't exaggerating or 'making believe.'"

Dispelling this negative stereotype about mental illness is what drives Thompson, a psychiatrist, professor and chief of the Mood Disorders Division in the TTUHSC El Paso Paul L. Foster School of Medicine Department of Psychiatry. He treats and studies patients with mental disorders – their behaviors, their characters and their brains.

"Mental illnesses stem in the brain," said Thompson, who specializes in molecular psychiatry. "I'm trying to understand how the brain changes when someone has a mental disorder."

To carry out this research, Thompson founded the Southwest Brain Bank at the University of Texas Health Sciences Center at San Antonio in 2002. But when he accepted a position at TTUHSC El Paso this past fall, leaving the brains behind – all 250 of them – was unthinkable.

When considering the job, he said, jokingly, "It's me and the brain donations; not just one or the other."

As the new home of the Southwest Brain Bank, TTUHSC El Paso can offer faculty and students new opportunities to conduct impactful research, said Vice President of Research Peter Rotwein, MD.

"The Southwest Brain Bank is a potential resource for investigators at TTUHSC El Paso and elsewhere who study neurological and psychiatric disorders," Rotwein said. "It could be particularly valuable for scientists interested in the genetic underpinnings of such complex diseases as autism, depression or schizophrenia."

University researchers now have the chance to collect and study donated brain tissue from individuals who had bipolar disorder, schizophrenia or major depression, or who committed suicide. The bank recently expanded to include studies on alcoholism, and future expansion looks to include brains with Parkinson's and Alzheimer's.



Peter Thompson, MD, studies the brain to understand the biology behind mental illness.

Opportunities to study the brain at such an intimate level are rare. According to Thompson, there are only about 10 brain banks in the U.S. that focus on studying mental illness. Thomas adds that while the research might sound gruesome to some, it's necessary to find new cures for mental disorders and other diseases of the brain.

Reaching out to families just hours after their loved one has passed away is one of the first steps in conducting this crucial research. It may seem inappropriate, but families are typically very responsive and willing to donate their loved one's brain to the bank, said Thompson.

"If you've had a family member who is bipolar, schizophrenic or an alcoholic, you've probably been through a lot, so much so that you'll do anything to help others that are going through the same thing," he said.

Each donated brain receives delicate treatment. After an individual passes, the brain must be preserved quickly, or risk decay. Medical examiners rush to protect the organ in ice before shipping it to the bank. Once on campus, the brain is preserved in formaldehyde or stored in a minus 79-degrees Fahrenheit freezer.

A full medical record detailing who the individual was and what he or she suffered from accompanies the brain. Thompson also conducts in-depth interviews with family members of the deceased to identify any psychiatric disorders that may have been left undiagnosed, or that were diagnosed incorrectly.

Once the brain is properly preserved and the medical records are finalized, researchers can access it for various studies. Thompson's own analyses of the brain have been insightful.

One of his studies revealed that there are abnormalities in the schizophrenic brain. His research was one of the first to identify that the protein SNAP-25

is reduced in the frontal lobe of schizophrenia patients compared to healthy brains. Scientists around the world are still unsure about the significance of SNAP-25, but some, including Thompson, suspect its reduction in the brain may impede how well neurons talk to each other, subsequently affecting an individual's cognitive functioning abilities.

Mental illness is very complex, and as a result, most psychiatric studies do not lead to an immediate cure. However, Thompson says that each step in research gets us closer to understanding the biology of schizophrenia, bipolar disorder and other destructive mental disorders. And centers such as the Southwest Brain Bank help shed light on the fact that mental illness is not a character flaw, but a disease of the brain. 

If you're interested in learning more about brain donation, contact Peter Thompson, MD, at pm.thompson@ttuhsc.edu.

FAMILY EMERGENCY

Zeballos brothers' paths cross during medical school, residencies on way to successful careers

BY DANETTE BAKER

For the Zeballos brothers, choosing careers in medicine was somewhat expected, they said. What three of the brothers didn't plan for, however was to chose the same specialty – emergency medicine – and have intersecting paths during medical school and residencies.

The Zeballos family, native Peruvians, moved to El Paso, Texas, in 1985 from Denver, Colorado, when the family patriarch, Jorge S. Zeballos, MD, DMSc, was recruited to co-lead the Exercise and Pulmonary Function Testing lab at William Beaumont Hospital at Fort Bliss. Being a close-knit family, Jorge Zeballos, MD, (Resident, Emergency Medicine '01; Medicine '98) wanted to attend medical school near home. TTUHSC School of Medicine offered him the opportunity to study the first two years in Lubbock, Texas, and then return to El Paso for the last two years of clinical rotations. Knowing that would make his mother, Lucia Zeballos, very happy and given TTUHSC's reputation in emergency medicine training made the decision easy, said Jorge, now a founding partner of Priority Emergency Room in the Houston area and a physician in the Emergency Department at St. Luke Hospital in The Woodlands, Texas.

Like his older brother, Alvaro Zeballos, MD, (Medicine '98) also found the opportunity to attend TTUHSC when he was ready for medical school too good to pass up. He was attracted by the reputation TTUHSC had to produce clinically strong physicians. For personal reasons, Jorge delayed his education for two years after initially starting medical school and then re-entered in the same class as Alvaro, and they became partners in the gross anatomy lab.

continued on page 42 ...



Jorge Zeballos, MD, (Resident, Emergency Medicine '01; Medicine '98); Claudio Zeballos, MD, (Medicine '00); Alvaro Zeballos, MD, (Medicine '98)

“We grew up close as brothers, but were at different points in our lives. He was married and more settled, and I was just a year out of undergraduate school but he was the rock for us both,” said Alvaro, a clinical attending at the Medical College of Virginia in Richmond, Virginia, and medical director of the Emergency Department at Southside Regional Medical Center in Petersburg, Virginia. In addition, he is the Chief Growth Officer of BetterMed Urgent Care, a chain of urgent care facilities in Virginia, which he co-founded with four partners.

Fast forward four years, and Claudio Zeballos, MD, (Medicine '00), the youngest brother, was a third-year medical student at TTUHSC at El Paso School of Medicine. “Naturally, I looked up to them, and so I wanted to follow in their footsteps,” said Claudio, a partner in the Greater San Antonio Emergency Physicians. His primary appointment is at Methodist Specialty Transplant Hospital, one of the largest transplant facilities in South Texas.

Claudio’s introduction to emergency medicine came at the hands of Jorge, then a resident at Thomason Hospital, the former teaching hospital for TTUHSC at El Paso. On his way to a trauma case, Jorge recalls briefing Claudio, who was at Thomason for his ER rotation. When the supervising instructor walked through the Emergency Department, Claudio calmly gave him the patient update and protocol for treatment without missing a beat.

“I found the chaos that day, and what often is emergency medicine, suited me,” Claudio said. “It was the sheer variety of illnesses, age groups and pathology that you encounter in the emergency department that I found absolutely stimulating and fascinating.

“It was like folding all the other rotations into one simultaneously.”

Claudio then matched for a residency at the University of Buffalo, where Alvaro was chief resident. “The first gift Alvaro gave me when I arrived in Buffalo was a pair of gloves and a snow shovel, which served me well,” Claudio recalls. “Those were some fun times. I was excited about working alongside another one of my older brothers. There was such a respect between us, but then again we still saw each other as the same knucklehead kids we were growing up. We often could just glance across the room and know what one another was thinking.”

Each of the brothers describe themselves as high energy and say the fast-paced environment of emergency medicine was a huge draw.

For Jorge, stories from one of his father’s colleagues painted the profession as an opportunity to balance work and play. Jorge says his career has delivered all he ever hoped for

“There were so many who helped us grow from those young bright-eyed students, imparting wisdom and inspiring a desire to be better every day.”

and more. His dual roles in the free-standing ER and hospital environment allow Jorge to provide individualized care as well as treat acute cases. He has also taken sabbaticals and ridden across Africa on motorcycle, crossed the continental U.S. by train and climbed Mount Kilimanjaro, sharing several of these adventures with his son.

Claudio was initially drawn by the thrill of emergency medicine and still enjoys the “high” but with experience discovered also the satisfaction in helping patients as they face uncertain, and often stressful, health issues.

Alvaro says he found the appeal in academic medicine and enjoyed seeing future physicians find their place in the specialty.

And their brother? Pablo Zeballos’ siblings affectionately tease him about being the family outcast. He too is a physician, an interventional pain specialist, and his wife is a family medicine physician.

“We do joke around a lot,” said Jorge. “But he is a respected expert in his field, and we are all so proud of him.”

The brothers’ influence in health care and their support of all things Texas Tech extends to their spouses as well. Jorge’s wife, Gunilla Zeballos, is a speech pathologist, as is Alvaro’s wife, Ericka Zeballos, a SUNY-Fredonia graduate. Gunilla earned her undergraduate degree from Texas Tech University, where she competed for the Red Raiders in track. Pablo also earned his master’s in microbiology from Texas Tech. And Claudio’s wife, Margaret Zeballos, MD, (Medicine '00) is an associate residency director at UT San Antonio Health Sciences Center Department of Family Medicine.

“I think I speak for all of us, we have very fond memories of Texas Tech,” said Alvaro. “There were so many who helped us grow from those young bright-eyed students, imparting wisdom and inspiring a desire to be better every day.

“We’ll always be proud to be graduates of TTUHSC.” 

PAIN under the kneecaps, along the outside of the hips as well as a few other areas of the lower extremities are common complaints for women and it may have to do with **how they sit.**



Areas of a woman's body affected by sitting too ladylike



What you can do

SIT LIKE A MAN



How To Sit: 2 Simple Steps for a Healthy Technique

Place your feet flat on the ground
Your legs should be slightly apart



Your thighs should be angled pointing to the 11:00 and 1:00 position on a clock, or greater



Women's health movement encourages alternative to sitting pretty

Barbara Bergin, MD, (Resident/Orthopaedics '86; '81) has launched a new women's health movement encouraging the female population to take a few cues from their male counterparts – at least when it comes to sitting.

SLAM™ or Sit Like A Man is a self-discovered practice that shows much promise for those, especially women, with conditions related to biomechanical stresses involving the knees, hips, ankles and feet.

Simply by sitting in a more relaxed pose, women can alleviate many of the painful symptoms associated with these conditions, says Bergin, an orthopedic surgeon in Austin and co-founder of Texas Orthopedics, Sports and Rehabilitation Associates.

Throughout the past three decades, Bergin has noticed about 90 percent of her patients with pain under their knee caps or along the outside of their hips are women. On average, she sees about two to three women daily for knee cap pain and the same number for hip bursitis, not to mention those who come to her with other stresses across the knees, hips, ankles and feet.

The usual treatment for these problems is strengthening or stretching the muscles involved, prescribing non-steroidal anti-inflammatories, braces or orthotics, and modifying activities, which cause or exacerbate the pain. Surgery may rarely be an option, but for most of these conditions, it is not a practical option.

Women's lower extremities are mechanically aligned in a way that rotates the femur inward and knees into a kind of knock-kneed position, so alignment is partly to blame for these conditions, Bergin said. Additionally, girls are taught to sit 'like a lady' with their legs together or even crossed.

Little can be done to change leg alignment, so Bergin focuses on what her patients can change – how they use their legs. Bergin encourages women to strengthen and stretch the muscles involved, and to SLAM, appropriately, such as sitting at your desk or when relaxing at home.

Bergin shares more information about SLAM™ on her blog.



Visit **TTUHSC Alumni Insider**
www.ttuhs.edu/alumni/blog.aspx
for a link to Bergin's blog and a library of other blogs written by alumni.



Thompson



Harris

TTUHSC Alumni Association National Advisory Board Elects Leadership

In April, TTUHSC Alumni Association National Advisory Board selected Gregory Thompson ('02) as chair and W.H. Harris, MS, BSN, ('13) as chair-elect.

The board is comprised of two representatives from each of the TTUHSC and TTUHSC El Paso schools. Thompson is a School of Health Professions alumnus and Harris graduated from the Gayle Greve Hunt School of Nursing.

For more information about the National Advisory Board, visit www.ttuhs.edu/alumni.

friends we'll miss

John C. Baldwin, MD, died April 3, 2016. He served as president of TTUHSC from 2007 to 2009 and then was a professor of internal medicine and surgery.

James Edward Heavner, DVM, PhD, died May 18, 2016. He was professor emeritus of anesthesiology and clinical professor. Additionally, Heavner was founding director of the anesthesiology research program. Heavner joined TTUHSC in 1983.

Noel Walter Lawson, MD, died March 19, 2016. He was professor of anesthesiology from 1981 to 1983.

J'Lyn Robinson, MPT, (SHP, Physical Therapy '99) died July 17, 2016.

Edward Saltzstein, MD, died March 9, 2016. He served as regional chair for TTUHSC at El Paso School of Medicine Department of Surgery from 1977 to 2002. He also is credited for the plan and establishment of the Texas Tech Physicians of El Paso Breast Care Center and served as the director from inception until his retirement.

J.O. Stewart Jr., died January 27, 2016. He and his wife, Marlene, were key players in the establishment of TTUHSC's four-year medical school in El Paso, including donating land for the campus.

Gifts in memory of or in honor of are routed to the desired location of the donor through the TTUHSC Office of Institutional Advancement, 3601 Fourth Street, Stop 6238, Lubbock, Texas 79430.

Jumper re-elected to AMA House of Delegates Cynthia Jumper, MD, MPH, (Resident '91, '88) was re-elected to serve as a Texas alternate delegate in the American Medical Association (AMA) House of Delegates.

In this role, she will represent TMA policy, promote Texas physicians and medical students for AMA elected and appointed positions and awards, and support association resolutions presented to the AMA.

Jumper, chair of the department of internal medicine and vice president of health policy in the TTUHSC School of Medicine, has been an active TMA member for more than 30 years. She was first elected as an alternate delegate in 2014.



TTUHSC medical students were part of the nearly 20,000 nationwide participating in the annual Match Day celebrations. TTUHSC students were matched with residencies in 31 different states in 27 different specialties. Almost 50 percent of them will stay in Texas and 14 percent will be at TTUHSC.



Visit PULSE online at www.ttuhs.edu/communications/pulse to view the full match list.



TMA Group Recognizes Siler Fisher for Service to Young Physicians

Angela Siler Fisher, MD, ('01) was named 2016 Texas Medical Association (TMA) Young at Heart Award recipient. She received the award in May from the TMA Young Physician Section.

The Young Physician Section, a group of TMA physicians under the age of 40 or in their first eight years of medical practice, chose Fisher for her commitment and willingness to help young physicians become tomorrow's leaders in the association.

Fisher is the founder of MaverRx, a leadership consulting firm. She is a former associate chief of operations for the Section of Emergency Medicine at Baylor College of Medicine, and a founding member of the Emergency Medicine Section and residency training program. She also served as the medical director of the Ben Taub Hospital Emergency Department.

TMA and other physician groups previously have honored Fisher for mentoring young and aspiring physicians. In 2011, the TMA Medical Student Section awarded her the C. Frank Webber, MD, Award. She also has received the Emergency Medical Residents' Association Joseph F. Waeckerle Founder's Award, the American Medical Association Women Physicians Congress Physician Mentor Recognition, and the American College of Emergency Physicians Council Teamwork Award.

Fisher is a member of the TMA House of Delegates (the association's governing body) and served on TMA's Committee on Emergency Services and Trauma.

Mother-Daughter Duo Share Love of Nursing

BY ADAM DEVER

The Gayle Greve Hunt School of Nursing (GGHSON) has pinned students in three nursing classes since becoming a freestanding school in 2013.

Forty-six nursing graduates, all Bachelor of Science in Nursing (BSN) recipients, celebrated with friends and family in the traditional ceremony last December in which the students receive a nursing pin, signifying the end of their schooling.

The TTUHSC El Paso event was particularly meaningful for one mother-daughter duo.

Norma Avila, a licensed vocational nurse at William Beaumont Army Medical Center in El Paso, could barely hold back the tears as she gave her daughter, Monika Avila, BSN ('16), her nursing pin.

"It was one of my proudest moments as a mother to see my daughter achieve her goal," Norma said.

And with Norma working on her own BSN at the GGHSON, soon Monika will have the chance to pin her mother.

"My mother was my inspiration," Monika said. "At a young age, I would visit her at what is now The Hospitals of Providence Memorial Campus where she worked as a pediatric nurse. I admired the compassion she would have with every single person she cared for."

That compassion seems to be a family trait. Monika is now a full-time registered nurse in the pediatric intensive care unit of Las Palmas Medical Center in El Paso, though Monika does admit to an ulterior motive. "I hope to become my mom's boss one day," she said.

Until that day, though, they continue to support each other in their professional and educational pursuits. When she earns her BSN, Norma plans to continue her work in pediatrics.

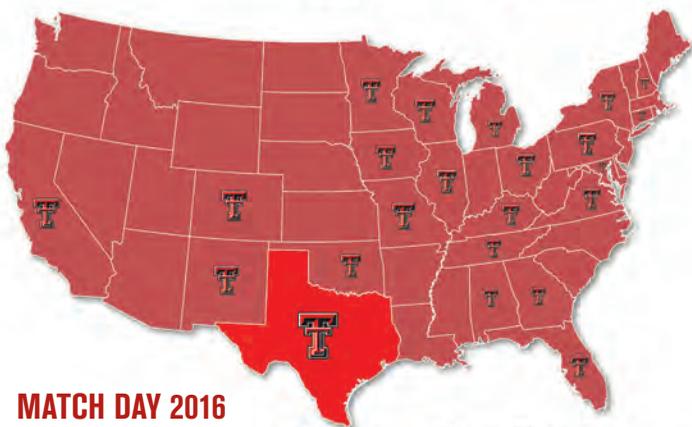
"Pediatrics is where my heart is," she said, but then quickly added, "I just hope my daughter doesn't become my boss."



Norma Avila, LVN, pins her daughter, Monika Avila, at the Gayle Greve Hunt School of Nursing December ceremony.



Monika Avila and her mother, Norma Avila, who is pursuing her BSN through the GGHSON.



MATCH DAY 2016

TEXAS 37

Alex Maya
Matthew Black
Timothy Bullock
Joel Chacko
Kati Choi
Monica Chung
Linh Do

Cam Duong
Jon Floresca
Alexander Goldstein
Merlyn Jacob
Joshua Lampley
Susana Lampley
Susan Lee
Michael Mattingly

Michael Mcbath
John Mistrot
Rebecca Morton
Huy Nguyen
Victoria Nunez
Lindsay Page
Monisha Parikh
Jon Payne

Saul Ramirez
Rene Roberts
Kevein Salire
Chintan Shah
Leigha Sharp
James Showery
Sarah Slief
Dat Tran

Nathan Valenti
Erica Villalobos
Allison Wells
Pedro Zavala

CALIFORNIA 5

Jon Floresca
Pradyumna (Preet)
Gurusamy
Gloria Lee
Huy Ly
Joshua Speirs

PENNSYLVANIA 3

Komola Azimova
Kimberly Chou
Jacob Smith

GEORGIA 3

Christine Dahlhausen
Tarrahh Folley
Joshua Kallman

MASSACHUSETTS 2

Amand Poe
Jose Santiago

MISSOURI 2

Ashley Chapel
Christa Soekamto

COLORADO 2

Raleigh Anderson
Daniel Varela

FLORIDA 2

Travis Corgan
Tamanie E. Yeager

TENNESSEE 2

James Gaulding
Jennifer West

OHIO 2

Huy Ly
Matthew Lyons

WISCONSIN 2

Catherine D'Krafka
Jessica Phillips

MARYLAND 1

Astin Powers

KENTUCKY 1

Kevin Lowder

WASHINGTON, DC 2

Meredith Trubitt
Arianna Nassiri

VIRGINIA 1

Mark Girtan

OKLAHOMA 1

Roxana Button

NEW MEXICO 1

David Rafferty

IOWA 1

Albert Pai

MICHIGAN 1

Cory Rasmussen

NEW HAMPSHIRE 1

Amey Seegers

NEW YORK 1

Cynthia Reyes-Barron

NEVEDA 1

Jordan Salmon

ALABAMA 1

Borna (Ethan) Tabibian

MINNESOTA 1

Kunda Verma

ILLINOIS 1

Daniel York





1 Adventure for Your Future 2016 at TTUHSC El Paso saw record turnout as more than 350 students, grades 6-8, and their parents discovered the health sciences through interactive workshops. **2** The Office of Alumni Relations gave TTUHSC El Paso residents and fellows a little "spare" time to relax and have fun with their families and co-workers this spring at the 2016 Bowl-A-Rama. **3** TTUHSC El Paso Gayle Greve Hunt School of Nursing alumni gathered at their annual mixer. **4** & **5** Annual graduation ceremonies were held in May for all TTUHSC and TTUHSC El Paso schools with more than 1,000 students receiving degrees. Pictured are graduates from the Paul L. Foster School of Medicine and the Gayle Greve Hunt School of Nursing. **6** Alumni, students and their family cheered on the Red Raiders after a VIP tour of the United Supermarkets Arena, sponsored by the Office of Alumni Relations. **7**, **8** & **9** Alumni and friends gathered for receptions this spring and summer in Abilene, Amarillo, El Paso, Fort Worth, Dallas, Lubbock, Midland and San Antonio. **10** Students received their TTUHSC rings during the Official Ring Ceremony, held annually in the spring. **11** Sixtus Atabong, PA (Health Professions '05, '02), far right, gave the keynote speech at the annual Graduation Dinner. His wife, KyuMee Kim, PharmD (Pharmacy '09), second from right, joined him at the dinner.

MIGUEL LOPEZ



THEN AND NOW: The Paul L. Foster School of Medicine at TTUHSC El Paso graduated its inaugural class of medical students in 2013. Among those in this milestone class was Travis Cosban, MD, a Texas transplant from Houston and native of Louisiana.

While completing his undergraduate education, Cosban found challenge, inspiration and reward working as an educational coordinator at Camp John Marc, a Texas summer camp for children with chronic and terminal illnesses. After receiving his liberal arts degree, Cosban's experience at Camp John Marc inspired him to attend medical school.

Now a senior resident at the University of Chicago, Cosban is a firsthand witness to the challenges of working in one of the most medically underserved regions in America. He sees the results of gang violence almost daily, and in a region where health care providers are outnumbered 3,000 to one, many elderly and chronically ill patients use the emergency room as their primary care provider.

LIFE IN THE ER: But for Cosban, the ability to impact a life so quickly is one of the reasons that drew him to emergency medicine.

"People in the ER are often scared and in a lot of pain," he said. "I get to see the instant effect on the person with new symptoms when I tell them, 'You're not having a heart attack or something life threatening.' The ability to relieve those fears is very rewarding."

ROUND TRIP TICKET: And it's not just the ER where Cosban shares his passion and dedication. For the past three years, he has also worked as an international medical transport physician with AXA Travel Insurance. In this position, he has escorted patients around the world.

Sometimes it's to other treatment facilities, other times it's just to get a patient home. Patients with brain tumors, brain bleeds and even schizophrenic flairs have been cared for by Cosban while in transit to such countries as Germany, Brazil and Israel.

Next for this doctor will be a return trip to El Paso, to enter the ER at Las Palmas Del Sol hospital and help another medically underserved community. He looks forward to bringing his diversified skill set back to his new home. "It feels like a new community," he said. "It's really easy to find something that lets you give back to El Paso."

BY ADAM DEVER

TRAVIS COSBAN, MD

Senior Resident

University of Chicago

Chicago, Illinois

Graduate: 2013

RAUL DE LA CRUZ

NURSING AS A SECOND CAREER: Until 2009, Ricardo Aldana, BSN, RN, CCRN, worked in the financial services sector, dabbled in the restaurant industry and was part of a handful of other small business ventures. Then he met his future wife and decided to switch career paths.

"My wife has been a NICU (neonatal intensive care unit) nurse for over 12 years, and her stories and passion for her work just inspired me to make a change in my own career," Aldana said.

A NEW BEGINNING: Today, Aldana is a critical care registered nurse (CCRN) in the ICU at The Hospitals of Providence Sierra Campus in El Paso, but his career path is just beginning.

Aldana's goal is to complete his Doctor of Nursing Practice in anesthesia at Texas Christian University (TCU) and to become a certified registered nurse anesthetist. He then wants to return to El Paso and continue to serve the community with his advanced skills.

"El Paso has been my home for 19 years," he said. "I was born and raised in Mexico. I want to give back to the community that has embraced me and made me feel like one of their own."

Aldana laid out his goals before he fully committed to becoming a nurse. He said choosing TTUHSC El Paso's Gayle Greve Hunt School of Nursing was strategically beneficial.

ALL IN THE NAME: "I knew I wanted the backing of a strongly recognized university," Aldana said. "My plan from the beginning was to advance in my career, and I knew having the name of Texas Tech behind me was going to make a difference. I truly believe having graduated from TTUHSC El Paso was a factor in my acceptance to TCU."

After he earns his DNP, Aldana will have two prestigious institutions behind his name, but it's the opportunity to serve and care for patients that carries the most value for him.

"I love the opportunity to make a difference in a person's life," Aldana said. "The moment you look at a patient's eyes and they thank you for their care, sometimes after having a rough day, it makes it all worthwhile."

Aldana chose to return to school at the age of 41 and credits two factors for his success: the love and support of his wife and daughters, and the old Spanish adage, *renovarse o morir*: Simply put, reinvent yourself or die.

BY ADAM DEVER

RICARDO ALDANA, BSN, RN, CCRN

Registered Nurse

The Hospitals of Providence Sierra Campus

El Paso, Texas

Graduate: 2013



SIDNEY P. PHILLIPS, PHARMD, MBA

Division Director of Pharmacy, Baylor Scott and White North Texas

Director of Pharmacy, Baylor Scott and White Medical Center

Carrollton, Texas

Graduate: 2001

FINDING THE RIGHT PATH: Originally a petroleum engineering major, Sidney Phillips, PharmD, RPh, MBA, switched to pharmacy when the oil boom ended and because he enjoyed chemistry. While attending the School of Pharmacy, Phillips discovered he wanted to work in a hospital setting, and it was during his first residency that he decided he wanted to go into management.

WEARING MANY HATS: Phillips oversees operations for all Baylor Scott and White hospital pharmacies in the North Texas division. In addition, he serves as the Director of Pharmacy at Baylor Scott and White Medical Center in Carrollton. He also became the acting director at Baylor Scott and White in April of this year.

Additionally, he serves as president of the Texas Society of Health-System Pharmacists (TSHP). Former president and classmate Traci (Metting) Holton, PharmD, ('01) presided at his installation. Serving a four-year commitment, Phillips will focus on continuing the society's legacy of being a membership-driven organization. "It brings together all of the health care professions and really speaks for all of them."

Phillips has served various positions with TSHP and with other pharmacy professional organizations including the American Society of Health-System Pharmacists, where he was a board delegate. "Many of my mentors have served in these roles and stressed the importance of committing time to these organizations," he said.

LEADING THE ALUMNI: Phillips was also instrumental in the formation of the pharmacy school's alumni association, a division of the TTUHSC Alumni Association. In 2007, Associate Professor of Pharmacy Practice Sherry (Luedtke) Laurent, PharmD, started contacting alumni from the first and second graduating classes to form the school's alumni association. Phillips served on the board for four years and continues to be an active member.

BY LAURA RAY



MIRIAM (CHACON) BOESCH, PHD

Professor, University of North Texas, Denton, Texas

Graduate: 2002, Communication Disorders

WHAT SHE DOES: Miriam (Chacon) Boesch, PhD, is an assistant professor in the Autism Intervention Concentration within the Department of Educational Psychology at the University of North Texas in Denton, Texas. She prepares practitioners to work with individuals with autism. Her research focuses on the use of augmentative and alternative communication strategies for individuals with autism.

“Students with autism are an intriguing population that has challenges,” she said. “Some may have the intellectual capability to communicate, but are limited if they do not have functional communication skills. I help practitioners find the best strategies to increase those skills.”

HOW SHE GOT THERE: Her career path to UNT began in Lubbock, but also in Baghdad as an enlisted person in the U.S. Army Reserve in support of Operation Iraqi Freedom.

“I was in the middle of my doctoral studies at Purdue when I received word of my deployment. I deployed as a combat medic to support the Civil Affairs Division. In this role, I served as a medic for my company, but we also conducted medical missions to help the welfare of the Iraqi civilians as they had limited resources

due to years of warfare. We also helped them with educational needs, municipal needs such as sewer and waste, and health needs.”

Given her knowledge in communication, Boesch served at the battalion level of the Army, using her skills as a communicator with those who did not understand English.

“My education taught me how to work with a variety of individuals and communication issues. In Baghdad, we had to learn how to use other forms of communication instead of spoken English. This included nonverbal communication skills such as reading body language, using gestures and drawing.”

BY JO GRANT LANGSTON



CYNTHIA POWERS, DNP, MSN, RN

Director of Ambulatory Work Standardization

The University of Texas MD Anderson Cancer Center, Houston, Texas

Graduate: 2014, Doctor of Nursing Practice, Executive Leadership

TTUHSC Alumni Association National Advisory Board member

WHAT SHE'S DOING NOW: On the backside of a groundbreaking initiative to streamline care and increase efficiency, Cynthia Powers, DNP, can say the system change was worth the challenge. In a seven-month period, she brought together the operations of MD Anderson Cancer Center's 36 ambulatory clinics under one office, helping to reduce gaps in services as patients transition between the clinics and inpatient care.

Previously, each clinic and the programs within each often operated as silos, Powers said. Through standardization of operations, the medical practice not only can better manage the 1.5 million annual visits to its clinics, but also increase the quality and consistency of patient care.

BALANCING ACT: Powers, herself, understands the need for paradigms shifts. In the midst of her new role at MD Anderson, she was completing her doctoral degree. To her servitude philosophy of nursing, Powers said she expanded her understanding of nursing from a perspective that

incorporated politics and informatics, both areas "quintessential to being a leader in health care today," she said. "It brought me to another level where I felt more knowledgeable in all areas of nursing. I felt like I finally had all the tools in my tool belt."

GIVING BACK: She also provides pro bono nursing care and legal support to combat human trafficking — an area of interest she gained during a public policy project for her graduate work. Houston is one of three central hubs in the U.S. for human trafficking. Powers said this gave her a better understanding of nursing's role in politics that now impacts her work at MD Anderson and the greater Houston community.

BY DANETTE BAKER



DOUG HODEL

WHAT HE DOES: As a medical student, Jason Acevedo, MD, became intrigued about the ear, nose and throat (ENT) specialty during an elevator conversation with an ENT faculty member.

“The variety of what I see is amazing. Most people think we mainly see ear and sinus problems. It is so much more than that. It is very in-depth and includes everything above the collarbone except the eyes and brain. My patients range in age from infants to those in their 90s.”

Acevedo recently performed the first bone-anchored hearing aid procedure in Abilene, restoring hearing to a 15-year-old who had extreme hearing loss because of chronic ear infections.

HOW HE GOT THERE: Acevedo matched to the Health Professions Scholar Program of the U.S. Army for his ENT residency. He finished that program in 2010 at the Walter Reed National Military Medical Center in Bethesda, Maryland, and completed his Army contract at Fort Sill in Lawton, Oklahoma.

“When I began that residency, I quickly realized how well TTUHSC trained me. Because of our rotation system, I completed my didactic training in Lubbock and then went to Amarillo for the clinical component. When I began my residency in D.C., I felt better prepared than many of my peers. I spent those last two years rounding with attending physicians, reading and interpreting reports, and seeing many, many patients.”

AND NOW: After he finished in Lawton, Acevedo and his wife, Stacey, knew they wanted to return to Texas, somewhere west of the I-35 corridor. Abilene was their last visit, and where they wanted to call home. The Acevedo family, which includes sons, Isaac and Luke, spend time at their seven-acre home, “loving life in West Texas,” Acevedo said.

“I love Texas Tech (University Health Sciences Center), and Abilene loves Texas Tech as well. It is a great place to be a Red Raider.”

BY JO GRANT LANGSTON

JASON ACEVEDO, MD

Otolaryngologist

South Abilene Ear, Nose & Throat, Abilene, Texas

Graduate: 2005



JOSEPH HOWELL / VANDERBILT UNIVERSITY

CONTRIBUTING TO THE CURE: When it comes to DNA replication and cancer research, Huzefa Dugrawala, PhD, has worked persistently alongside developing technology in hopes that his research will help treat cancer patients around the world. Throughout his career, Dugrawala has been a team player in the lab. However, as cancer research technology continues to develop, Dugrawala finds himself at the forefront of significant breakthroughs in his research of cancer cell formation in DNA.

ENTERING THE LAB: Dugrawala works in the lab of David Cortez, PhD, in the Department of Biochemistry. Using both genetic and molecular research tools, he investigates the process of DNA replication and the possible disruptions that cause various types of cancer.

NEW PLACE TO CALL HOME: Originally from India, Dugrawala moved to Lubbock, Texas, to attend TTUHSC and then to Nashville, Tennessee, to continue his research at Vanderbilt. During these transitions, Dugrawala learned to adapt to each places' different customs and cultures. One thing that remained the same, however, was his passion for molecular biology.

HUZEFA DUNRAWALA, PHD

Post-Doctoral Fellow

Vanderbilt University School of Medicine,
Department of Biochemistry

Nashville, Tennessee

Graduate: 2012, 2009 Biotechnology

During these periods of transition, friends and family urged Dugrawala not to move so far from home and to avoid places that were unfamiliar. Despite the caution, Dugrawala chose to follow his passion and persist through the challenges set before him.

"The mixed opinions were there, but I wanted to pursue my interests, and I am always ready for a challenge, and that is what I ended up doing."

BY MARIA CORTE



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™
EL PASO

PHILANTHROPY. IT'S IN OUR DNA.

At TTUHSC El Paso, it's our alumni, students, staff, faculty and community, each giving of their own talents, who make us who we are as an institution. Our public awareness campaign, launched this spring, celebrates who we are at our very core. **EXCELLENCE. IT'S IN OUR DNA.**

AT TTUHSC EL PASO, **EXCELLENCE** IS THE
RESULT OF **SUCCESS, RESEARCH AND PHILANTHROPY.**

Other than molecules and nucleotides, *what's in your DNA?*



Visit elpaso.ttuhscc.edu to learn more.

New Strategies for Population Health

INTERNATIONAL RESEARCH COLLABORATION STUDIES USE OF SOCIAL MEDIA TO FILL HEALTH IT GAP

Healthy People 2020 indicates consumer engagement in health technology is critical to the U.S. population prioritizing a goal to “use health communication strategies and health information technology (IT) to improve population health outcomes and health care quality, and to achieve health equity.”

The U.S.’s strategies to engage communities and health care consumers have focused primarily on the use of patient portals and electronic health records. While patient portals are showing promise and creating value for health care consumers in access to their health information, there are also complementary modalities of health IT communications that can be used to reinforce and strengthen informing and engaging communities and targeted populations to improve health.

Social media (e.g., Facebook, Twitter, LinkedIn, etc.) is increasingly used in health care and by government agencies to engage citizens. Governments and health care sectors have identified social media as an important priority in emerging national health policies^{1,2}. As a subset of traditional ehealth innovations (e.g., electronic health records), social media has been defined as a collection of Internet-based applications that provide people the ability to create, exchange and modify user-generated content³. Currently, social media tools and processes have been infused into all areas of the health care system for use (and not limited to) in health promotion⁴, surveillance⁵, education⁶, population health alerts⁷ and knowledge exchange activities⁸. Without a deeper understanding of best practices and meaningful evaluation approaches, the value and effectiveness of social media tools for population health practice as a population-level intervention cannot be understood.

To address this gap in available health IT tools, TTUHSC partnered with other major universities within the state and within Canada to convene subject matter experts from a broad cross-section of health care professionals. The goal was to document and develop a “Roadmap for Implementation of Best Practices for Use of Social Media in Population and Community Health Initiatives.”

The 2016 International Symposium, held earlier this year in Austin, was an international collaboration designed specifically for professionals in informatics, health communications and public/community health. TTUHSC School of Nursing co-hosted the event with the University of Texas at Austin in partnership with Western University, Ontario, Canada. This event brought together more than 350 health professionals, content experts, and students from Canada and the United States to develop a better understanding of the current state of best practices for using social media in population health.

There was consensus established that social media is beyond likes and re-tweets. Social media is a vital forum for information sharing to the general public and can be a significant tool for improving population health when programs are well managed.

For social media programs to be effective, interprofessional teams and valid program implementation and evaluation methods need to be applied within a public health framework. Our next steps are to convene working groups to finalize the roadmap. 



Susan McBride, PhD, RN-BC, is a professor in the School of Nursing and program director for the master’s degree in Nursing Informatics. She also holds certification as a professional in Healthcare Information and Management Systems.



To learn more about the questions addressed and major themes from the conference and next steps toward building the roadmap, visit PULSE online at www.ttuhsu.edu/communications/pulse.

References

1. Healthy People.gov. Government of Canada. Stay connected. 2014. Available at: <http://healthycanadians.gc.ca/connect-connectez/index-eng.php>.
2. Public Health Agency of Canada. Our Health Our Future – A National Dialogue on Healthy Weights Dialogue Report. 2012. Available at: <http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/ohof-nsna/02-eng.php>.
3. Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of Social Media. *Bus Horiz*. 2010;53(1):59–68. doi:10.1016/j.bushor.2009.09.003.
4. Neiger BL, Thackeray R, Van Wagenen S a, et al. Use of social media in health promotion: purposes, key performance indicators, and evaluation metrics. *Health Promot Pract*. 2012;13(2):159–64. doi:10.1177/1524839911433467.
5. Chew C, Eysenbach G. Pandemics in the age of Twitter: content analysis of Tweets during the 2009 H1N1 outbreak. *Sampson M, ed. PLoS One*. 2010;5(11):e14118. doi:10.1371/journal.pone.0014118.
6. Tower M, Latimer S, Hewitt J. Social networking as a learning tool: nursing students’ perception of efficacy. *Nurse Educ Today*. 2014;34(6):1012–7. doi:10.1016/j.nedt.2013.11.006.
7. Denecke K, Krieck M, Otrusina L, et al. How to exploit twitter for public health monitoring? *Methods Inf Med*. 2013;52(4):326–39. doi:10.3414/ME12-02-0010.
8. Ferguson C, Inglis SC, Newton PJ, Cripps PJS, Macdonald PS, Davidson PM. Social media: A tool to spread information: A case study analysis of Twitter conversation at the Cardiac Society of Australia & New Zealand 61st Annual Scientific Meeting 2013. *Collegian*. 2014;21(2):89–93. doi:10.1016/j.colegn.2014.03.002.



XCEL ENERGY FOUNDATION
is helping the Amarillo community
stay clean
with its support of the
TEXAS PANHANDLE POISON CONTROL CENTER'S
MEDICATION CLEANOUT PROGRAM.

LEARN MORE ABOUT THE
FOUNDATION'S SUPPORT

[and how your gift can impact TTUHSC]

giving.ttuhscc.edu



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™



TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER™

MS 6238 → 3601 FOURTH STREET → LUBBOCK, TEXAS 79430

A Publication for Alumni & Friends

Non-Profit Org
U.S. Postage

PAID
Permit No. 49
Lubbock, Texas

ADDRESS SERVICE REQUESTED



TTUHSC graduates more health care professionals than any other university in Texas.

We keep 'em all connected.

Introducing your TTUHSC Alumni Association, a worldwide network of elite health care professionals. When you become a member of this newly formalized organization, it's easier than ever to stay connected and inspired. You get an all-access pass to continuing education resources. You build relationships that last a lifetime. You join a tight-knit family of TTUHSC alumni, all dedicated to advancing health care around the world.

Take your career and camaraderie to the next level.

Join the family: **TTUHSCAlumni.org**