

PULSE

A PUBLICATION for ALUMNI & FRIENDS of TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER SUMMER 2018

THE *Kasana of Uganda*
RESHAPES A CENTURIES-OLD CULTURE WITH
Love and Service.

INSIDE



DEPARTMENTS

2-3 | **PRESIDENT'S MESSAGE**

4 | **ROUNDS** *Grand*

16 | **RESEARCH**

38 | **ROUNDS** *Alumni*

47 | **ALUMNI PROFILES**

FEATURES

16 | **GET OUT OF THE LAB!** *Great research is done in the lab; however, moving great research into the marketplace for societal use sometimes requires a change of environment and mindset.*

22 | **COVER: THE KASANA OF UGANDA** *San Juanita Dominguez loves people. Given a chance to travel to Uganda, she carried that love to a foreign land and became an incredible inspiration.*

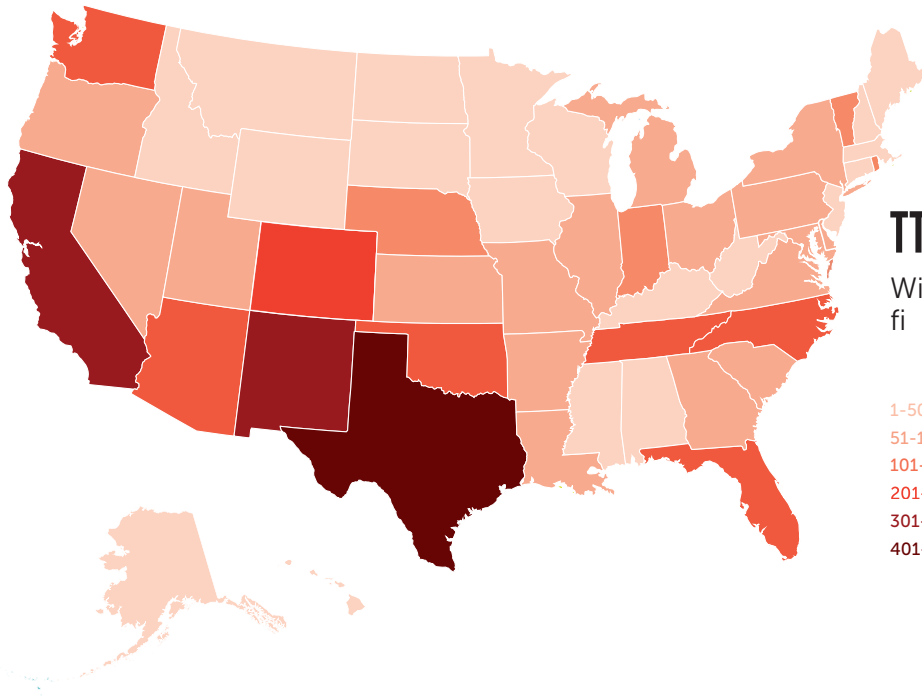
28 | **THE REAL CINDERELLA STORY** *The old saying holds true: don't judge a book (or an assistant professor in the School of Health Professions) by its cover.*

34 | **CANCER RESEARCH AND PREVENTION PROGRAMS GAIN MOMENTUM AT TTUHSC EL PASO** *State funding helped TTUHSC El Paso recruit a renowned cancer researcher to join in the fight of this deadly disease, the leading cause of death for Hispanics.*

36 | **WHEN WORLDS COLLIDE** *When she suspected maltreatment of a 2-year-old boy in the emergency room, Patti Patterson, MD, MPH, (Family Medicine Resident '83) made a difference in more lives than just his. He became the "why" for her career focused on abused and neglected children.*

**Have a story you'd
like to see in PULSE?**

send it to
kara.bishop@ttuhsc.edu



TTUHSC Alumni Around the USA

With over 24,000 alumni, you can find TTUHSC graduates in every state

- 1-50 ALUMNI
- 51-100 ALUMNI
- 101-200 ALUMNI
- 201-300 ALUMNI
- 301-400 ALUMNI
- 401+ ALUMNI

50th Anniversary

TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER

The 100+ pages of a commemorative 12"x12" coffee table book brings to life TTUHSC's rich history through photographs and stories.

Published by the Texas Tech University Press.

Preorder

YOUR COPY TODAY AT

GIVETOTTUHSC.COM

SELECT "LUBBOCK CAMPUS" AND
"OTHER" AND TYPE IN **50TH BOOK**

\$50.00

INCLUDES FREE SHIPPING*

Proceeds will benefit TTUHSC students on all campuses through the TTUHSC Presidential Endowed Scholarship.

*BOOKS WILL BE SHIPPED IN THE SUMMER OF 2019



VISIT US ONLINE



TTUHSC Alumni Association
ttuhscalumni.org

Pulse Online
ttuhsc.edu/alumni/pulse

TTUHSC Institutional Advancement
giving.ttuhsc.edu

TTUHSC El Paso Institutional Advancement
elpaso.ttuhsc.edu/ia/

The Campaign for Your Life, Our Purpose
yourlifeourpurpose.com



TTUHSCAlumniAssociation



ARTIE LUMMER

TAKING HEALTH CARE TO HEART

In the late 1960s, West Texas had a physician-to-patient ratio of one to 1,366. That's why the Texas Legislature established TTUHSC: to provide health care professionals for this region. Over the course of almost 50 years, we've decreased that ratio roughly by half and enhanced the workforce in several other health care professions.

Regardless of where our alumni work, they are recognized for their excellent educational experience and their extensive training in service sites. Part of that is by design with our institution's focus on patient care/outreach services, and part is by selfless generosity. On a weekly basis, you'll find TTUHSC students, faculty and staff giving back to help those who live in our campus communities.

Most recently, I was honored to serve alongside them at events including Lubbock's March for Babies walk and the Mayor's Marathon. Here's a condensed list of TTUHSC's volunteerism over the past six months:

- Providing no-cost preventative screenings for chronic diseases and conditions such as skin and colon cancer, blood pressure, and diabetes;
- Conducting health awareness fairs;
- Assisting in the safe disposal of expired and unused medications;
- Providing boots on the ground and raising money for medical supplies to aid in Hurricane Harvey relief efforts;
- Working evenings to offer free health services for those who have no access to care; and
- Volunteering at the local food bank so others can eat healthy meals.

On all five of our campuses—and through global efforts—you will find this spirit of community and giving ingrained in our TTUHSC faculty, staff and students. Why? Part of it, I think, is inherent in those who choose health care as a profession and those who choose to work for an institution that has, at its very core, a mission to improve the health of the communities in which we live and learn.

I'm especially proud of the efforts made by each member of our TTUHSC family. Thank you for being a positive ambassador for our university and for choosing to make a difference. It does indeed take a village!

Tedd L. Mitchell, MD
TTUHSC President

 @TeddLMitchell  @TTUHSCPresident

PULSE

SUMMER 2018 • VOLUME 28, NUMBER 2

Texas Tech University System Chancellor
ROBERT L. DUNCAN

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

President
TEDD L. MITCHELL, MD

Vice President, External Relations
KENDRA BURRIS

Assistant Vice President, External Relations
ASHLEY HAMM

Chief Advancement Officer
CYNDY MORRIS

Managing Director, Development
MATTIE BEEN, Amarillo

Gift Officers
PEYTON BIVINS, Amarillo
SMILEY GARCIA, Lubbock
CLIFFORD WILKES, Lubbock
JESSICA ZUNIGA, Permian Basin

Senior Director of Alumni Relations
JULIE DOSS

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
EL PASO

President
RICHARD LANGE, MD, MBA

*Associate Managing Director,
Institutional Advancement*
VERONIQUE MASTERSON

Alumni Relations
BRIANNA HUFFMAN

2018: A YEAR OF MILESTONES

TTUHSC El Paso has marked many milestones in 2018. This year, we welcomed a new provost, new nursing dean and our first class of Master of Science in Nursing students. We saw our inaugural class in the Graduate School of Biomedical Sciences (GSBS) graduate; hosted the Texas Tech University (TTU) System Board of Regents meeting; and made history as the first health sciences center in the TTU System to receive a multimillion-dollar new investigator grant from the Cancer Prevention and Research Institute of Texas (CPRIT). We also successfully completed the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) institutional accreditation process and were formally commended by the SACSCOC Application Committee for a “culture of excellence.”

We started 2018 strong thanks to the arrival of two new leaders: Paul E. Ogden, MD, as provost, and Stephanie Woods, PhD, MSN, as dean of the Gayle Greve Hunt School of Nursing (GGHSON). Ogden, who brings 30 years of experience to our institution, is focusing on academic planning, growing our academic programs and developing academic policy. Woods, who brings more than 35 years of nursing experience, is promoting the growth of our burgeoning nursing school. With the first cohort of master’s students starting this year, the GGHSON is making headway in advancing the profession, helping nurses become health care leaders alongside physicians and administrators.

Just two short years ago, the GSBS officially became our third school. Formerly a satellite program of TTUHSC, the GSBS at TTUHSC El Paso graduated its 23-student inaugural class in May, alongside five students in the Post-Baccalaureate Certificate Program—three of whom will join the MD program in the Paul L. Foster School of Medicine.

To keep up with enrollment growth, our campus infrastructure is expanding—a focal point of the regents’ visit in March. We were honored to showcase our facilities, cutting-edge research, evolving campus landscape and—most importantly—thank our regents and community stakeholders. TTUHSC El Paso exists because of these visionaries and continues to thrive today through their support.

During the visit, the regents got a first-hand look at the construction of our new five-story, 219,900-square-foot Medical Sciences Building II, slated for completion early next year. Other highlights included a tour of our state-of-the-art simulation labs, which, thanks to a faculty development partnership with two institutions in Vietnam, are making a name for TTUHSC El Paso across the Pacific.

In research, we also made history this year with a \$2 million new investigator grant from CPRIT, which you can read about on page 34.

Thanks to our world-class faculty, staff and students, TTUHSC El Paso is changing health care on the border and beyond. We have so much to celebrate and even more to look forward to. It’s a great time to be part of TTUHSC El Paso!

Richard Lange, MD, MBA
TTUHSC El Paso President



TOMMIE MORELOS

 @TTUHSCEP  @PresidentLange



Stay up-to-date with the latest research in medicine and science with PodMed TT.

PodMed TT is a 10-minute medical podcast hosted by TTUHSC El Paso President Richard Lange, MD, MBA, and Johns Hopkins Medicine Director of Audio Production Elizabeth Tracey, MS.

 Visit TTUHSC El Paso's PodMed TT archive or subscribe on iTunes.

PULSE EDITORIAL

Editor
DANETTE BAKER

Senior Editor
KARA BISHOP

Contributing Writers
ABBI BRICKEY, SUZANNA CISNEROS,
MARK HENDRICKS, JO GRANT LANGSTON,
RACHAEL PAIDA, DAVID PEREGRINO,
JAY KOESTER, GLENYS YOUNG

Contributing Photographers
AMARILLO VA, JOHN T. CONSOLI, NEAL HINKLE,
KAMI HUNT, KEN KOSUB, ARTIE LIMMER, MARIA
LOZANO/MARIALOZANO PHOTOGRAPHY, TOMMIE
MORELOS, ANGELYS OCANA, ASHLEY RODGERS

Designer
AMANDA SNEED, HARTSFIELD DESIGN

Printer
CRAFTSMAN PRINTERS INC.



You can share Pulse with your colleagues, family and friends.
Visit ttuhsc.edu/alumni/pulse

A Celebration for the Decade



Power of the Purse event co-chairs Charlotte Rhodes and Sharon Oeschger with former first lady Laura Bush (center).

More than 1,000 people packed the Heritage Room at the Amarillo Civic Center in April for the annual Power of the Purse event and to celebrate the 10th anniversary of the Laura W. Bush Institute for Women's Health (LWBIWH).

The featured speaker was the institute's namesake whose message eloquently illustrated her passion for women's health.

The purse auction featured the Laura Bush Institute Exclusive Collection—10 bags dedicated for the anniversary celebration. The collection brought nearly \$20,000 from the top 10 bidders. Additionally, nearly 100 purses on tables at “buy it now” prices were sold. The prices ranged from \$25 to \$6,500.

A portion of the event's \$426,290 in proceeds will be used to purchase a transcranial magnetic stimulation machine (TMS) for TTUHSC at Amarillo. The TMS machine is the “first of its kind in the Texas Panhandle,” according to Tim Bowles, senior administrator for the School of Medicine

Department of Psychiatry at Amarillo. He added the machine is primarily used in the United States for treatment-resistant depression; however, TMS is effective in treating other mental health conditions as well. Evidence suggests TMS can create new neural pathways that lead to better cognitive functioning.

LWBIWH has come a long way in 10 years spearheading a unique and monumental impact on women and young girls of Texas.

“What started in early 2008 in Amarillo, now boasts outstanding programs across seven locations in Texas and messages that reach far and wide nationally,” said Angela Knapp, senior director for the LWBIWH at Amarillo. “Our message? That differences matter. Through scientific investigation, the institute is proving that sex- and gender-specific health matters in personalized health care, as the institute has raised and allocated more than \$4 million to effective research and programs across (TTUHSC).

“The first-of-its-kind sex and gender curriculum for medical students is paving the way for individualized practices for future health care providers, and effective research and community outreach events have reached women and young girls across Texas, with important messages ultimately improving their awareness in personalized care and better results for their families.”



(left to right) Jessica Sylvia, Bria Brooks, Anthony Bray, Christie Baker, Sarah Leubbert and Andrea Paris

Award-Winning Students Congratulations to TTUHSC at Abilene's Kappa Psi-Epsilon Tau chapter for receiving the prestigious 99 Hands Award. The award recognizes the best philanthropic event from the region, which includes Colorado, New Mexico, Oklahoma and Texas.

The event, Veteran's Day Health Fair, consisted of blood pressure and high glucose screenings; veteran suicide education materials were provided as well. The event was the second largest patient encounter event on the Abilene campus with a total of 217 patients reached.

Loving the New Student Center on Amarillo Campus



"We like this because we have this size of a space and all the booths so we can still have our small groups and talk through things. This pool table is also really nice for when we take our study breaks. This place is always open at any time, so we can come in here and it is easy."

-KELSEY OGLESBY, SECOND-YEAR PHYSICAL THERAPY STUDENT

A special thank you to the Amarillo Area Foundation and the David D. and Nona S. Payne Foundation for making this new student center possible. If you are interested in how you can help impact student education, contact the Institutional Advancement team at GivingInfo@ttuhsc.edu

Matching Magic

Dreams came true in March for Suzanne Alkul, MD, and Teryn Perkins, MD, who, along with medical students nationwide, learned where they matched for their residencies. They shared their stories from Match Day.



"Match Day was so surreal! You have all these expectations and dreams in your head and, for a minute, you forget that it's already an enormous accomplishment that you have an envelope in the first place. I was so grateful to be there, and when

I opened my envelope, I was filled with pure joy. It felt like I had been holding my breath since I submitted my rank list, and I could finally breathe once I opened it! I am going to be a dermatologist—a goal I've been working toward for four years! Match Day was a dream come true."

-SUZANNE ALKUL, MD, (MEDICINE '18)

Alkul matched with TTUHSC for her preliminary year in internal medicine, which she began in July. She matched to Baylor College of Medicine in Houston for dermatology and will begin her residency July 2019.



"As I fumbled nervously to open the envelope, I looked up at my parents before I read the letter. I jumped, screamed, laughed and even broke down in tears from the pure joy of opening the envelope to read the name of my top choice for residency, Baylor College of Medicine."

-TERYN PERKINS, MD, (MEDICINE '18)

Perkins went to Houston in July for her pediatrics residency at Baylor College of Medicine/ Texas Children's Hospital.



To see a full list of Class 2018 members who matched, visit Pulse online: ttuhsc.edu/alumni/pulse

TTUHSC RECEIVES MILITARY FRIENDLY STATUS

TTUHSC has earned Bronze-Level status from Military Friendly, a division of Victory Media, a veteran-owned business and publisher of G.I. Jobs.

Rankings are based on survey results and ratings—determined by combining an institution’s survey scores with the assessment of its ability to meet minimum thresholds for student retention, graduation, job placement, loan repayment and loan

default rates for all veteran students. The benchmark is set by the score of the leading institution and the designated schools are listed in the Guide to Military Friendly Schools.

“The Guide to Military Friendly Schools has a wide distribution across the military community and is provided to transitioning service members and their families as they are making critical life decisions regarding their education,” said Sara Henley, TTUHSC veterans and military advisor and school certifying official. “Our Military Friendly designation will show TTUHSC’s dedication to building veteran- and military-friendly programs and ensuring student success. We are already working on things for next year that will help us achieve Gold-Level status, such as establishing a TTUHSC Student Veterans of America chapter.”



“Dr. Corwin, you’ve given so much to this program, and now it’s our turn to give back to you. You have developed and nurtured this community—friends, families and students, survivors and their caregivers—for 20 years. To honor you, we have established a scholarship in your name, which will be given to students who want to work with survivors so that your gift can be shared for years and years to come.”

**CAROLYN PERRY, MS, CCC-SLP, (HEALTH PROFESSIONS '93, '91) AND
MELISSA WHITAKER, MS, CCC-SLP, (HEALTH PROFESSIONS '04, '02)**

Scholarship Surprise

The School of Health Professions Department of Speech, Language and Hearing Sciences surprised long-time faculty member, Melinda Corwin, PhD, (Health Professions '89, '87) with a scholarship honoring her service to the school’s SStroke/Aphasia Recovery (STAR) program. The scholarship was announced at the STAR end-of-year luncheon.



5 minutes with the faculty...

Q&A WITH SHAILESH “BOBBY” JAIN, MD | By Jo Grant Langston



Shailesh “Bobby” Jain, MD, is regional chair and associate professor in the School of Medicine Department of Psychiatry at the Permian Basin. He also supervises the residency program in adult psychiatry and the fellowship in child psychiatry.

WHAT IS YOUR RESEARCH INTEREST?

We are looking at the effect of antidepressants on children and adults. We are specifically looking at what makes some patients respond to the treatment, drop out of

treatment programs or show suicidal tendencies. The Food and Drug Administration has been warning us for 25 years that a correlation may exist between these drugs and suicidal tendencies. That information is part of the foundation of our work.

Suicide is an increasing problem and one that I consider to be a public health issue. We see many of these instances in West Texas, and hopefully our research will help us find warning signs in these patients taking antidepressants.

WHAT INTERESTED YOU IN PSYCHIATRY?

While I was growing up, I had friends and family experiencing mental issues, so I had a connection. I knew it was a challenging field and was one where I could make an impact. I began researching depression while working on my medical degree from Calcutta National Medical College (in Kolkata, West Bengal, India.) As I completed my residency in psychiatry at the University of Texas Medical Branch and a fellowship at Baylor College of Medicine, I knew I wanted to specifically impact child psychiatry.

WHY CHILD PSYCHIATRY?

In children, we have a unique opportunity to intervene earlier in the treatment process. Children usually have fewer additional medical issues to address, so we can get to the root of the psychiatric problem earlier. I think of children as blank slates, and my hope is to clear that slate of scars and marks their issues are leaving. Treating children is challenging, and the rewards are immense.


ARE PSYCHIATRIC ISSUES IN CHILDREN A LOOMING PROBLEM IN OUR AREA?

The need is great here. We have families that are very mobile, so many times the issues a child might be having do not rise to the top as the family moves from place to place. I feel this area is more conservative than other parts of the country with parents reluctant to seek out immediate treatment for their children. What is classified as “bad behavior” may indeed be underlying psychiatric issues that are overlooked. Those problems become worse as the child moves into adolescence and adulthood.

AND YOUR BROTHER IS ALSO A PSYCHIATRIST?

Yes, Rakesh Jain, MD, practices in Austin and also is a clinical professor for TTUHSC. His research focuses on ADHD and its treatment.

HOW DO YOU RELAX AWAY FROM YOUR WORK?

This is my hobby. It is fun! What could be more fun than finding out how these drugs work? More fun than helping children get better? 

GRANT-ed!

Congratulations to these TTUHSC faculty members who have received extramural research funding this year.

Lan Guan, PhD, received a two-year R21 grant for \$420,750 and a four-year R01 award for \$1.3 million from the National Institutes of Health.

Luis Cuello, PhD, received a three-year Welch Foundation Award of \$195,000.

Vani Selvan, MD, received a three-year \$80,000 grant from the Cancer Prevention Research Institute of Texas for the Southwest Coalition for Colorectal Cancer Screening Program.

Natalia Schlabritz-Lutsevich, MD, received a six-month \$60,917 National Institutes of Health Small Business Innovation Research Grant, Phase I.



Brendan Mackay, MD, received a one-year \$27,000 award from AxoGen, Inc.

Linda McMurry, DNP, RN, (Nursing '10, '04) received \$20,000 from March of Dimes for the 2019 Stork's Nest project.

Volker Neugebauer, MD, PhD, received a five-year \$2.7 million grant from the National Institutes of Health Neurological Disorders and Stroke Institute.

P. Hemachandra Reddy, PhD, received a five-year R01 grant for \$1.9 million from the National Institutes of Health Neurological Disorders and Stroke Institute.



For more information on each grant, visit the Pulse website: ttuhsc.edu/alumni/pulse



VARMA RECEIVES HIGHEST HONORS

Surendra K. Varma, MD, executive associate dean of graduate medical education and resident affairs in the School of Medicine was honored with the 2018 TMA Distinguished Service Award, the highest honor presented by the Texas Medical Association. Varma is the first TTUHSC faculty to receive this designation. He holds the Ted Hartman Endowed Chair in Medical Education and is vice chair of pediatrics.

MATTERS

of the heart

BY SUZANNA CISNEROS

Michael Song, MD, PhD, PharmD, leads initiative to open pharmacy component of The Free Clinic

At the age of 19, Michael Song, MD, PhD, PharmD, (Medicine '18; Biomedical Sciences '16) considered heading to medical school, but he took a very nontraditional path. He had acquired enough college credits to apply to medical school; however, with loving encouragement from his family and mentors, he first explored other pursuits. He received his bachelor's degree in sociology and a Doctor of Pharmacy from the University of Texas at Austin, worked in a research lab during his undergraduate and pharmacy school years, and then worked as a clinical pharmacist at the Dallas County Hospital District for nearly eight years, before beginning medical school.

"I loved being an oncology pharmacist," Song said. "I loved working with cancer patients who would not have a place to go otherwise, but I missed the research component in my clinically focused practice. I wanted to get into cancer therapeutics research. So, I came to TTUHSC and started in the joint MD/PhD program."

In 2010, when Song began at TTUHSC, he heard about The Free Clinic and wanted to volunteer.

"Dr. Kelly Bennett (assistant director of The Free Clinic) took me aside and said, 'I hear you were a pharmacist. We could really use your help in putting a pharmacy in the clinic,'" Song said. "I couldn't think of anything more worthwhile to do."


Establishing a pharmacy at The Free Clinic was a complex process. Song went through meetings with legal teams, communicated with the State Board of Pharmacy and started everything from scratch. He wrote grants to secure funding, wrote policy and procedures for the clinic and pharmacy, worked on legal documents for pharmacy licensure, designed the physical facilities, wrote other grants to secure the starting inventory, and recruited and trained the pharmacy volunteers. The process took three years of time-consuming work.

"I had completed my first two years of medical school and was in the first year of my PhD program when we received the licensure for the pharmacy and opened its doors," Song said. "One of the biggest needs was to provide basic medications and education to keep The Free Clinic patients healthy. Now with the pharmacy in-house, we are able to do that.

"It speaks to how God works, by having the right person at the right place at the right time. The true beauty of The Free Clinic is all of the volunteers from TTUHSC and the community and their genuine care and concern for the patients."

In March, Song learned he matched at the University of Texas Health Science Center at San

Antonio to complete his residency in internal medicine. His PhD was in biochemistry, cellular and molecular biology, and his work focused on cancer molecular biology. Song worked in the laboratories of Patrick Reynolds, MD, PhD, director of the School of Medicine Cancer Center, and Ming Kang, PharmD, associate professor in the school's Department of Cell Biology and Biochemistry, characterizing cell and xenograft models and utilizing them to study molecular mechanisms of drug resistance.

"The key component is patient care," Song said. "I very much look forward to working with each patient under my care, but I also want to continue my research work and develop new treatment modalities, which will benefit a hundred other patients who may be fighting a similar disease. I am in a unique position with my pharmacy education and experience. I had outstanding training through my PhD education. My medical experience and training put me in a good position to be a successful clinician-scientist. I hope to have the opportunities that will allow me to help a lot of patients in the future." 




To learn more about The Free Clinic, visit: ttuhsc.edu/student-services/free-clinic.



JUST *the facts*

SCHOOL OF PHARMACY BRINGS FOUR-YEAR PROGRAM TO DALLAS



Students in the School of Pharmacy four-year program obtain **2,320** clinical training hours each, which is more than any other pharmacy school in Texas and most nationwide.

An estimated **40 to 45%** of all School of Pharmacy enrollees come from the Dallas/Fort Worth area.

The School of Pharmacy ranks in the **top third** of the country's 140-plus accredited pharmacy programs.



"The opening of a full four-year campus in Dallas will increase campus resources and infrastructure bringing all Metroplex components of TTUHSC together at a focused site."
- SENIOR VICE PRESIDENT FOR RESEARCH AND SCHOOL OF PHARMACY DEAN QUENTIN SMITH, PHD



40 first-year students will be admitted August 2018.

Roughly 40% of all new registered pharmacists licensed to work in Texas earned their degrees outside of the state, leading TTUHSC leadership to establish the four-year program in Dallas.



University Medical Center of El Paso Stroke Program Medical Director Alberto Maud, MD, an associate professor of neurology at TTUHSC El Paso, addresses attendees at an event celebrating the hospital's designation as a Comprehensive Stroke Center by The Joint Commission.

UMC, TTP El Paso Physicians Make History with Borderland's First Comprehensive Stroke Center

For the first time, El Pasoans can access the highest-level stroke treatment available without having to leave the city. Earlier this year, University Medical Center of El Paso (UMC), a teaching hospital and affiliate of TTUHSC El Paso and the only Level I Trauma Center in the region, was designated as a Comprehensive Stroke Center by The Joint Commission (TJC). UMC is the first and only hospital in El Paso with this designation, with the next nearest certified hospitals located in San Antonio and Phoenix.

This designation, which takes years to accomplish, requires hospitals to demonstrate the ability to provide 24/7 neurointervention, stroke, neurocritical care and neurology coverage.

“Designation as a Comprehensive Stroke Center by The Joint Commission means that our institution has the technical and medical capabilities to care for complex stroke patients,” said Salvador Cruz-Flores, MD, chair of TTUHSC El Paso’s Department of Neurology and UMC’s neurocritical care medical director.

“From a training and education standpoint, this designation exposes learners, such as residents and students, to the diagnosis and treatment of these patients,” he said. “In addition, TJC designation requires involvement in clinical research—that is, the advancement of knowledge in cerebrovascular disease, which can only benefit the community.”

UMC’s new designation will provide TTUHSC El Paso students and residents with the opportunity to train in state-of-the-art facilities, exposing them to unique cases and educational opportunities.

TTUHSC EL PASO STUDY TO FIND BEST FIT TEST FOR COLORECTAL CANCER DETECTION

Faculty at TTUHSC El Paso and a team of scientists from across the U.S. were recently awarded \$4.5 million by the National Cancer Institute at the National Institutes of Health to study the accuracy of fecal immunochemical tests (FIT tests) in detecting colon cancer. The noninvasive tool promises to detect blood in the stool—often an early sign of cancer—allowing patients to skip the colonoscopy if test results are negative.

“There are 16 FIT tests currently on the U.S. market,” said Navkiran Shokar, MD, MPH, MA, who will lead the local effort with \$1 million of the award. “But there are no data on which of these is the best—or worst—for detecting colorectal cancer.”

She added, “That could be a problem for patients who think they are all clear after getting false negative results. This is also why it is recommended to repeat the test every year.”

With the funds, Shokar will recruit 1,200 men and women between the ages of 50 and 85 who are already scheduled for a colonoscopy. Participants will be given four different FIT tests for use. After

completing a colonoscopy to definitively diagnose any colorectal cancer or polyps, the results will be compared to their four FIT test results.

With colonoscopies costing between \$1,000 and \$6,000, FIT tests can save patients more than discomfort and embarrassment. According to Shokar, a FIT test can cost as little as \$25, which she hopes will ultimately encourage regular screenings.

The American Cancer Society and the National Colorectal Cancer Roundtable have challenged the U.S. to have 80 percent of adults ages 50 and older screened for colon cancer.

Shokar said, “The only way to reach this goal is to offer less invasive and less expensive tests for those who do not want to undergo a colonoscopy. FIT tests need to become mainstream for colorectal cancer screening in the U.S.”



Navkiran Shokar, MD, MPH, MA, vice chair for research in the Paul L. Foster School of Medicine Department of Family and Community Medicine and director for Cancer Prevention and Control

GGHSON Welcomes First Cohort of MSN Students

The newest degree program to be offered at TTUHSC El Paso prepares students to assume leadership roles in health care organizations. The Master of Science in Nursing (MSN) offered through the Gayle Greve Hunt School of Nursing provides courses in business, finance and policy. A major goal of the MSN program is to ensure that nurses have a seat at the table in a health care system that is increasingly focused on interprofessional collaboration.

The MSN is a hybrid program; students will learn in online, classroom and community settings (as part of their practicums). Throughout the program, students will learn from faculty in TTUHSC El Paso's nursing, medical and biomedical sciences schools—an opportunity that can only be provided at a health sciences center.

The first class of MSN students is expected to graduate in 2020.



The first class of five students in the new Master of Science in Nursing program.



Medical and nursing students from TTUHSC El Paso and pharmacy students from the University of Texas at El Paso participated in training exercises that tested their ability to communicate for the good of the patient.

TTUHSC El Paso Trains Students on Health Care Teamwork, Communication

More than 150 medical, nursing and pharmacy students participated in an all-day interprofessional education session during the spring semester. The exercise brought together medical and nursing students from TTUHSC El Paso and pharmacy students from the University of Texas at El Paso to test their ability to communicate for the good of the patient.

The training took place in TTUHSC El Paso's two simulation centers: the Regional Simulation and Training Center and the Center for Advanced Teaching and Assessment in Clinical Simulation.

The exercise used a training model for improving team performance known as Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS). TeamSTEPPS provides students with the communication tools needed to navigate different clinical situations.

"If I'm a nurse or pharmacist, there will be times, depending on the situation, when I need to lead the team," said Manny Santa Cruz, DNP, RN, MBA, assistant dean of undergraduate education in the Gayle Greve Hunt School of Nursing. "The team leader is not necessarily based on expertise. It's not based on hierarchy. It's based on the situation and who knows the information best."

First-year medical student Jourdan Harper said these lessons will help him as he progresses in his career.

"It really needs to be a team effort where everybody is on an equal playing field working together," Harper said. "All of the scenarios have put me in uncomfortable situations and shown me that I need to be able to adapt more. I need to be able to think on the fly and interact with people to get the information I need to help the patient."

SYMPOSIUM HIGHLIGHTS PLFSOM'S *Philosophy of Service*



“Service learning is a tradition of not only doing volunteer work but also of reflecting on your volunteer work and thinking deeply about your own professional identity, about your personal identity, and about the population and community that you serve.”

The Paul L. Foster School of Medicine (PLFSOM) hosted its eighth annual Service Learning Symposium in February. The event showcases the school's philosophy of service education, a form of teaching that encourages meaningful community service.

“Service learning is a tradition of not only doing volunteer work but also of reflecting on your volunteer work and thinking deeply about your own professional identity, about your personal identity, and about the population and community that you serve,” said E. Lee Rosenthal, PhD, MS, MPH, a faculty member for the PLFSOM's Society, Community and the Individual course and a key event organizer.

PLFSOM students who had completed at least 100 hours of community service were honored and inducted into the school's 100-Hour Club. Several were also honored for completing 250 and 500 hours. Second-year PLFSOM student Eric Potter, who helped to conceptualize the 100-Hour Club, shared that first-, second- and third-year students together had contributed more than 12,000 service hours.

Magic Word on Match Day

“I was a nervous wreck all week; I couldn't sleep last night. When I finally got to open the envelope, my hands were shaking, so I had some trouble opening it. But then I saw the words 'El Paso,' and I just felt a huge relief.”

**-TAYLOR BRAMBLETT, MD, (PLFSOM '18)
BEGAN HER INTERNAL MEDICINE RESIDENCY
AT TTUHSC EL PASO IN JULY.**



To read more about Match Day at TTUHSC El Paso, visit: <https://bit.ly/2Lb46Sz>



VIETNAMESE FACULTY COMPLETE MEDICAL TRAINING AT TTUHSC EL PASO

TTUHSC El Paso graduated 52 faculty from its Collaborative Educational Program in February. The program is a partnership with two Vietnamese institutions in Ho Chi Minh City—the University of Medicine and Pharmacy and Pham Ngoc Thach University of Medicine—to advance the universities' training and education.

Faculty members from both institutions visited TTUHSC El Paso last year to train in faculty and curriculum development, standardized patient programs, medical informatics, and clinical simulation. At the end of the intensive training session, the faculty members took a test evaluating their new skills.

Hoi Ho, MD, director of TTUHSC El Paso's Collaborative Educational Program, has been recognized for his efforts in improving medical education in Vietnam.

"Dr. Ho won the outstanding faculty award for 17 consecutive years," said TTUHSC El Paso President Richard Lange, MD, MBA. "He won the faculty award for 15 years of clinical excellence. He won the President's Excellence award three times, and he received a lifetime teaching award four times. That's four lifetimes of teaching. He retired from TTUHSC El Paso because he wanted to go back to Vietnam.

"We were very proud of what he did here and what he is doing now. We want our thoughts to be worldwide thoughts, and what Dr. Ho is doing is changing Southeast Asia."



Paul L. Foster School of Medicine Welcomes Two New Department Chairs



ATTILIO ORAZI, MD

Chair, Department of Pathology
Paul L. Foster School of Medicine

Attilio Orazi, MD, has been named chair of the Department of Pathology in the Paul L. Foster School of Medicine. Orazi earned his medical degree from the University of Milan School of Medicine. He completed residencies in clinical hematology and pathology and a fellowship in pathology. In addition to his new role at TTUHSC El Paso, he is the associate director of the Tutorial on Neoplastic Hematopathology, the longest continuously running educational program in hematopathology in the world. His work has been published in over 250 peer-reviewed journal articles and 72 book chapters. Orazi is board certified in clinical hematology, anatomic pathology and hematopathology. Orazi will join TTUHSC El Paso in August.

TTU System Board of Regents Sees Growth at TTUHSC El Paso

The Texas Tech University (TTU) System Board of Regents held its spring meeting at TTUHSC El Paso, visiting the campus for the first time in six years. The regents had an opportunity to see the progress of construction on the Medical Sciences Building II (MSB II) and tour innovative academic and research activities across campus, including the Regional Simulation and Training Center and the Center for Advanced Teaching and Assessment in Clinical Simulation.

“It’s really exciting to see the innovations that Dr. Lange has implemented into the curriculum and the innovations this faculty has implemented in the way they are training health care professionals,” said TTU System Chancellor Robert Duncan. “It’s transformative for this region.”

After the tour, the regents’ meeting was officially called to order. Lange shared information on the university’s development and future opportunities. The MSB II will double TTUHSC El Paso’s research capacity, he said. Additionally, the university has an aggressive goal to increase the nursing school’s class size from 200 in 2017 to 600 by 2020 or 2021.

“We’re the only health sciences center in the United States on the [southern] border,” Lange said during a news conference before the meeting. “We’re in a severely underserved area. We have about a 70 percent shortage of dentists, a 50 percent shortage of physicians and a 20 percent shortage of nurses. These educational programs help to meet the needs here.”

El Paso Mayor Dee Margo said TTUHSC El Paso is a critical component to El Paso’s success and that having the board of regents in town was an opportunity to showcase the city.

At the conclusion of the regent’s visit, Chairman Rick Francis thanked TTUHSC El Paso for a “wonderful three days.”

“It’s an honor for me to be able to host and show my fellow regents this amazing campus that—through the support and commitment of our community—we’ve been able to build and nurture,” Francis said.



In March, the Texas Tech University System Board of Regents visited El Paso for the first time since 2012. Highlights of the visit included tours of TTUHSC El Paso’s Medical Sciences Building II construction site—slated for completion in 2019—and its two simulation centers.



DAN SCHULLER, MD

Chair, Department of Internal Medicine - Transmountain
Paul L. Foster School of Medicine

Dan Schuller, MD, joins TTUHSC El Paso as chair of the Department of Internal Medicine - Transmountain. After earning his medical degree from the National Autonomous University of Mexico, he completed a residency in internal medicine at Detroit Medical Center with Wayne State University and a fellowship in pulmonary disease at Barnes-Jewish Hospital with Washington University. Schuller brings over 20 years of experience in academic medicine to the PLFSOM, with research in the areas of pulmonary arterial hypertension, venous thromboembolic disease, chronic obstructive pulmonary disease, ICU outcomes and pulmonary critical care. He is board certified in internal medicine, pulmonary medicine and critical care medicine. Schuller started his new role in April.

Get Out of the lab!

TTUHSC RESEARCHERS ARE TURNING “GREAT” RESEARCH INTO BUSINESS VENTURES THAT PROVIDE LIFE-CHANGING PRODUCTS

School of Health Professions Associate Dean for Research Phil Sizer, PhD, PT, is passionate about research, obviously, and finds value in acquiring knowledge and translating it to a product that helps people. The problem? He wasn't quite sure how to transcend the gap between the two.

“There's a lot of ‘great’ research out there that makes great papers,” Sizer said. “However, translating the ‘great’ research into a tangible, commercialized product for consumers is an entirely different matter.”

The National Science Foundation (NSF) agrees. When taxpayers asked where their grant money was going and what it was doing for society, there wasn't really a sufficient answer. To provide answers and bridge the gap between research and commercialization, NSF created the I-Corps initiative in 2011.

BY KARA BISHOP
PHOTOS BY NEAL HINKLE





THE BOOT CAMP “You want to talk about academics feeling like ducks out of water,” said Sizer, who participated with a team representing TKQuant—a commercialized venture measuring tissue integrity for the obstetrics-gynecology and sports medicine industries. “The I-Corps program is intense. They throw you into the ‘business’ world, and you either sink or swim. I compare the boot camp portion to drinking from a fire hydrant.”

NSF created a funding mechanism, derived from training models at Silicon Valley where, up to four times a year, they create cohorts of people in teams comprised of a principal investigator, an entrepreneurial lead and an industry mentor. They fund each qualified team \$50,000 to come and work with NSF in a seven-week program, Sizer’s “boot camp.” The teams then travel across the country validating their “customers” by conducting open-ended, qualitative research-based interviews.

The goal is for the data collected to support the original hypotheses made by the team based on what their product can accomplish; thus, crafting a strategy for translating the concept from bench research to market.

“You’re trying to figure out where their pain is and if you have a solution for it—all without biasing them toward your product,” Sizer said. “You leave the product out of it, which is a novel concept to most.”

To be accepted into a national I-Corps cohort and funded, teams have to first establish legitimacy through a regional I-Corps program, a training taught at the Texas Tech University Innovation Hub at Research Park (The Hub). Teams spend two to three weeks in classes with mentors and I-Corps veterans, followed by a final session with NSF senior mentors who evaluate their work. While in class, they also conduct local and regional interviews that begin validating their potential customer segment and identifying the ecosystem where their customers operate. Finally, they present their findings at the end of the regional I-Corps session. If they’re postured well enough, the NSF faculty instructors will endorse their applications to the national I-Corps program, which is funded by NSF.

The TKQuant team application to the national I-Corps program was accepted for the October through December period, committing them to join the Houston I-Corps cohort. They met Oct. 18-20, for a three-day meeting to kick off “boot camp.”

“You go to class (every day) from 7:30 a.m. to 10:30 p.m.” Sizer recalls. “You conduct interviews every day of the meeting and then report back to the NSF mentors where they use different strategies to expose different team members to the business world. They’re doing this to imitate the business/industry environment, thus readying the presentations for the commercial world. It’s similar to the cutting-edge, technology-based industry market, so that’s the intensity they’re trying to emulate. It was a culture shock moving to this model from the academic world. You really have to jump out of your comfort zone.”

Once the first meeting is completed, teams have roughly six weeks to obtain as many interviews as possible, with the NSF requiring a minimum of 100.

“It’s really all about the number of interviews you get,” Sizer added. “Data collection is very important to establishing a track record of legitimacy for your product. At the time, our team held the record for most interviews conducted with over 155 total interviews collected across 14 cities in the U.S.” **(A new team holds the record now—refer to Exhibit A.)**

MOVING FORWARD As their national interviewing came to a close, the team traveled again to Houston to meet with the cohort from Nov. 30 through Dec. 1. There they presented their findings and participated in lectures/discussions with the national I-Corps program director, Steven Konsek, PhD. Finally, the NSF mentors advised them regarding further validation and next steps toward commercialization. This process served as a springboard for seeking commercialization success.

Teams can count on two main mantras of the I-Corps program, Sizer added. One, fall forward: you may feel way off balance, but at least you're moving forward. Two, get out of the lab.

"You can't solve your commercial dilemmas in the lab," he said. "You need to get out and meet with people. You have to immerse yourself in the ecosystem where your customers live." **(Your customers' ecosystem may be abroad—refer to Exhibit B.)**

YOU'RE NOT ALONE Leaving the lab behind is comparative to moving to a foreign country and not knowing the native language. It can be a daunting task without guidance, however, Kimberly Gramm, senior managing director of The Hub, helps faculty members translate their work into this new "language."

The Hub opened in late 2015 with the mission to "be a major center for entrepreneurialism and innovation serving the Texas Tech University System (TTU) and the West Texas region," according to their website. The Hub assists in the formation of technology startup companies critically relevant to today's local and regional economy, with the goal of bringing more industry—jobs, talent and other resources—to the West Texas region. Gramm joined the TTU System in 2016 and believes in the integration of research and entrepreneurship as a way to truly serve surrounding communities. **(To see this integration and entrepreneurship put into practice, refer to Exhibit C.)**

"Entrepreneurs and academic researchers aren't so different. They just speak different languages," she said. "They have more in common than one might think. They're both trying to make an impact on the world and create something of value. Faculty members don't often think of themselves as entrepreneurs, which is why I work with them, and the transition process is fascinating to watch. It's something special."

Gramm and her team guided TKQuant through the process from start to finish and even helped them after I-Corps to enroll in an accelerator program through The Hub, where they received a \$25,000 grant.

Sizer said the support from Gramm and her team has been critical to TKQuant's success in the I-Corps program and beyond.

"The staff at The Hub are just awesome, and they want to see more of this kind of activity from the TTU System's research core. They want to make a win-win for all parties."

THE REWARD While the I-Corps program may be intense and hard work, Sizer emphasizes the reward.

"This program totally realigned and inspired my thinking," he said. "It was fun. It was hard, but I craved it. In many ways, the program reshaped my world view. It helped me as an academic guy to see things a lot differently and has changed how I spend my day. It was that impactful and transformative for me. I can name six things I've done in my life that were at the same level—dissertation defense, getting my clinical fellowship, etc.—and out of all the great events in my life, participating in the I-Corps program is in the top six."

"It's not even typical research thinking or lineage. It is absolutely revolutionary, so while we may have had to drink from a fire hydrant so-to-speak, it was worth it to become part of something that closes the gap between research and viable products that serve society."

From embryo selection technology to the first-ever vaccine license agreement for TTUHSC, representatives of our institution are jumping head-first into the commercialization of their research. Here are abstracts of three such projects and how the researchers are moving their work from "great" papers to valuable services.

TKQUANT PARTICIPATED IN THE HUB'S ILAUNCH COMPETITION IN APRIL, WINNING SECOND PLACE AND \$3,000. THEY ALSO RECEIVED THE PRESIDENT'S INNOVATION AWARD FROM TTU PRESIDENT LAWRENCE SCHOVANEC, PHD, AND TTUHSC PRESIDENT TEDD L. MITCHELL, MD, FOR \$25,000.

Exhibit A

“I knew that this technology could save producers time and money, I just hadn’t thought past that in terms of providing a marketable product for them to use.”

Embryotics, LLC

Project Description: Embryo selection technology produces noninvasive embryo and oocyte assessment techniques to determine embryo quality, viability, oocyte competency and cell survival of cryopreservation using a novel specific gravity device. Embryotics LLC was formed in February 2017 and licensed the following November. There are four patents pending on the technology.

Organization Background: Cara Wessels, PhD, a graduate from the Texas Tech University (TTU) Department of Animal and Food Sciences, conducted research under Samuel D. Prien, PhD, a professor with dual appointments in the TTUHSC School of Medicine and TTU College of Agricultural Sciences and Natural Resources. Her dreams of a career in veterinary medicine quickly changed as she became fascinated with research at TTUHSC. With Prien’s mentorship, a bulky, expensive microscope and a stopwatch, Wessels discovered a method of determining embryo viability. The potential for field application was there, she just didn’t know what to do with it. Thankfully, The Hub was there to help.

Project Information: The TTUHSC Embryotics team was accepted into the national NSF I-Corps program and currently holds the record for number of interviews obtained (231) program wide, beating schools like MIT.

Impact: The ability to select for embryo quality and viability will reduce the transfer of non-viable embryos into the recipient. This maximizes efficiency because it will improve the pregnancy rate after embryo transfer and save money by not paying to transfer nonviable embryos, which will not establish pregnancies.

Animals: Using this technology to determine embryo survival of cryopreservation will both increase pregnancy rate of frozen/thawed embryos and maximize the effectiveness of current genetic screening techniques, which require cryopreservation. Additionally, if this technology demonstrates effectiveness in predicting embryo sex, this would be economically advantageous to the producers’ practice (e.g., dairies want females for milk production).

Humans: This technology has the potential to not only save money for human infertility patients but also reduce the stress associated with negative pregnancy results. Safety is also optimized with fewer results of multiple pregnancies. “If we can determine viable embryos, then patients theoretically wouldn’t have to implant multiple embryos at a time, resulting in a possible octuplet situation, as seen in previous years,” Wessels said. “Patients would also have much higher odds for conceiving by implanting one embryo, one time, which would be an incredible thing for both science and our society.”

Contact Information:

Cara Wessels, PhD, Embryotics President/Founder and Chief Scientific Officer

✉ cara.wessels1991@gmail.com

f @Embryotics

🖱 embryotics.com



The Embryotics Team: Charlie Baker, chief scientific officer, Justin Wells, chief technical officer, Robert Rangel, chief executive officer and Cara Wessels, president/founder and chief scientific officer.

EMBRYOTICS WON THE \$25,000 PEARLAND ECONOMIC DEVELOPMENT CORPORATION SPIRIT OF ENTREPRENEURSHIP PRIZE AND THE \$15,000 POLSINELLI INNOVATION PRIZE AT THE RICE BUSINESS PLAN COMPETITION IN APRIL. THE COMPANY PLACED EIGHTH OUT OF MORE THAN 750 TEAMS. THEY ALSO WON FIRST PLACE IN THE HUB’S ILAUNCH COMPETITION AS WELL AS THE PEOPLE’S CHOICE AWARD DURING THE EVENT, FOR A CUMULATIVE AMOUNT OF \$11,000 IN PRIZE AWARDS.

Exhibit B



Samra Lazarus, medical research technician, is part of the research team developing the SchistoShield vaccine.

SchistoShield Vaccine

Project Description: Schistosomiasis—a parasitic infection—is endemic in 78 different countries and contributes to many different diseases and problems. In Africa, schistosomiasis causes liver and spleen disease, bladder issues, and infected women are more susceptible to HIV. In Latin America, the parasite causes hepatic disease. In China, livestock and humans are affected. The vaccine SchistoShield was developed to protect every manifestation of the parasitical infection, both in humans and animals.

Organization Background: TTUHSC’s Center for Tropical Medicine and Infectious Diseases, led by Afzal Siddiqui, PhD, Grover E. Murray Professor, consists of postdocs, assistant professors, medical students and graduate students—some whom have been with him for a decade.



To meet the team behind the vaccine, visit Pulse online: ttuhsc.edu/alumni/pulse

Project Information: On Feb. 22, Siddiqui signed the first-ever license agreement for TTUHSC on behalf of SchistoShield. The vaccine was signed over to PAI Life Sciences Inc., a biotechnology company based in Seattle, Washington. “I’ve had a collaborative relationship with them for almost 10 years now,” Siddiqui said. “We have obtained funding together, and they have experience in neglected tropical diseases, having developed other vaccines in this area. They also understand that this is not a money-

making machine. I wanted it to be a humanitarian effort, and they will honor my wishes in this way.” To maintain the humanitarian effort, SchistoShield has been patented in several countries. The vaccine is scheduled to begin clinical trials within the next year and is “fast-tracked” to become marketable in the next 10 years.

Impact: Vaccinating people and livestock will dramatically reduce potential infection and the rippling effect of other complications and illnesses around the globe. The economical availability of the vaccine will be an exemplary example of the importance of humanitarian service for vaccine licenses as well.

Contact Information:

Afzal Siddiqui, PhD, director, Center for Tropical Medicine and Infectious Diseases



afzal.siddiqui@ttuhsc.edu



ttuhsc.edu/centers-institutes/tropical-medicine-infectious-diseases

AN ESTIMATED
800 MILLION MORE
PEOPLE ARE AT RISK
OF CONTRACTING
SCHISTOSOMIASIS,
WITH AN ESTIMATED
200 MILLION PEOPLE
CURRENTLY INFECTED.

Roadmap for Sm-p80 vaccine (SchistoShield)

1991-2015
Discovery Phase/
NonClinical Development
[NIH/NIAID, Thrasher
Foundation, and Bill &
Melinda Gates Foundation]
\$10.07 million

2017
Vaccine Licensed to
PAI Life Sciences for
Humanitarian Use

2019-2020
Clinical Trials in USA
[NIAID/VTEUs]
\$4 million

2025
Licensing/
Marketing
of Vaccine

2015-2017
Pre-Clinical
Development
[NIH/NIAID - SBIR]
\$4.45 million

2018
Pre - IND Toxicology
[NIAID/VTEUs]
\$1 million

2019-2020
Clinical Trials in Africa
Funding in Process [GHIT, EU, NIAID,
Bill & Melinda Gates Foundation]
\$15 million

Exhibit C

BrainScope One at TTUHSC El Paso

Project Description: TTUHSC El Paso is using a cutting-edge biomedical technology, BrainScope One, which has the potential to improve the assessment of brain injuries. The technology has the ability to rule out brain bleeding without a CT scan. The device is currently approved for use in patients 18 to 85 years of age within three days of injury.

Background of Organization: Edward A. Michelson, MD, professor and chair of the Department of Emergency Medicine at TTUHSC El Paso, began his journey with BrainScope One almost 10 years ago. "I have served on the medical advisory board and have done research with the device for almost a decade," he said. "When I came to TTUHSC El Paso two years ago, I knew this device could serve this community in a big way." Michelson informed administrators at one of the university's two teaching hospitals, University Medical Center of El Paso (UMC), and they became the second hospital in the nation—and the first hospital in Texas—to integrate BrainScope One technology into their emergency department.

Project Information: The device is simple to use. A disposable electrode headset is attached to a patient's forehead to measure electrical activity in the brain and detect if anything is wrong—the electrical waves in your brain flow differently when the head experiences trauma. The headset is connected to a smartphone-like handheld device equipped with BrainScope One's proprietary software.

Impact:

Economic: BrainScope One's technology promises positive economic changes for El Paso patients. "Over half of my patients are self-pay," Michelson said. "So, omitting the need for a CT scan has great significance for them." One CT scan can cost anywhere from \$825 to \$4,800, (compared to) the BrainScope One test estimated at a cost of \$250 to \$350 per patient. Also, generally, urgent care centers have to send people with potential brain injuries to the emergency room to be scanned, creating an additional bill. With BrainScope One, patients could avoid the emergency room and the cost of the CT scan itself if it's determined they have a nonserious brain injury.

Health/Education: The radiation from CT scans is high and poses risks to all, so omitting nonserious brain injuries from exposure is ideal—one CT scan delivers the equivalent of 200 chest X-rays in radiation, Michelson said. "When you have children playing sports, like I do, you want to prevent this exposure to radiation whenever possible," he added. "The device isn't FDA approved for this age range (younger than 18) yet, but we are making steps to qualify this group. The impact for student athletes is a great, positive change." BrainScope One also impacts TTUHSC El Paso's education and training of residents. "Our university's emergency medicine residents can now order BrainScope One tests for their patients as well," Michelson said. "This gives them valuable training on how to weigh evidence to make informed decisions about patient care."

Efficiency: Not only do CT scans impact cost and health, but they also consume time. Patients with brain injuries can be quickly scanned with BrainScope One technology by a nurse or paramedic without having to wait for a doctor and without having to rely on intuition or general guidelines. "Other tests can give you false positives because they lean more toward sensitivity than specificity," said Nick Reiter, MD, first-year emergency medicine resident at TTUHSC El Paso. When every head trauma patient presents differently and immediate detection of brain bleeding is crucial, guesswork isn't a desired option. Now, with BrainScope One, "the number of CT scans is reduced, expediting those who actually do need CT scans to the top of the list," said Eric Johansen, MSN, RN, director of the UMC emergency department.

Contact Information:

Edward A. Michelson, MD, professor and chair of the Department of Emergency Medicine at TTUHSC El Paso

✉ info@brainscope.com

🖱 brainscope.com 



A disposable electrode headset is attached to the forehead to measure electrical activity in the brain. The headset is connected to a handheld device equipped with BrainScope One's proprietary software.

**"OUR UNIVERSITY'S
EMERGENCY MEDICINE
RESIDENTS CAN NOW
ORDER BRAINSCOPE
ONE TESTS FOR THEIR
PATIENTS AS WELL.
THIS GIVES THEM
VALUABLE TRAINING
ON HOW TO WEIGH
EVIDENCE TO MAKE
INFORMED DECISIONS
ABOUT PATIENT CARE."**

Rachael Paida and the TTUHSC El Paso Office of External Communications contributed to this exhibit.



The Kasana OF UGANDA

One TTUHSC Student
Brought Sunshine to a
Ugandan Village and
Helped Transform
a Centuries-Old Culture

By Glenys Young | Photos by Neal Hinkle

As San Juanita Dominguez introduces herself, she immediately comes across as full of life—the kind of person who is brimming with enthusiasm, optimism and a heartfelt desire to better the world.

But the 30-year-old wasn't always as outgoing and vivacious. At 19, just after her sophomore year at Texas Tech University (TTU), Dominguez went on her first international service trip—a two-month stay in Peru with the Salvation Army—as a shy, scared, skeptical teen.

“I was like, ‘I don't want to talk to anyone, I don't want anybody to look at me, don't ask me questions,’ and I just remember thinking, ‘I am crazy. I am crazy going to this country.’ (But) my heart has always been for serving people, and my mom raised me to help whenever you can.”

By the end of the trip, the experience had been so transformative that her peers unanimously agreed she had changed the most of anyone in the group.

“There was this shift in my personality of being more outgoing and seeking out opportunities to learn about others, their culture and their language,” said Dominguez, who just completed her first year as a graduate student in the Department of Speech, Language and Hearing Sciences Speech-Language Pathology Program. “It was suddenly, ‘How can I help you? How can I serve you?’ It was this click and, ‘OK, well that's it—I'm going to keep doing this.’”

And she has.

Continued on page 26...

BEN



"I am so grateful that I met Kasana. She changed my understanding of how I was seeing Ben as a disadvantaged child. I always saw Ben as someone who won't be able to do anything. Our society has a negative view of persons with disability. San is a good person. She is amazing, incredible, nice, and she is all good."

FLORENCE, A WOMAN WHO LIVES IN MASAKA WHO HAS A DISABLED CHILD NAMED BEN

MASAKA



How can I help you?

TONNIE



"Sister, you opened my eyes wide. Our society sees us as a curse. They call us by our disability, yet we have name(s). People consider us in a different negative way. Society denies us opportunities and people put us down. But, sister, you're different. You inspired me. Changed my mindset. You opened my eyes. Your words, your love, your attitude, your belief in me changed me completely. San, I remember I told you that you have a big heart. I thank and praise the Most High that I got to meet you. May you be blessed beyond measure.

I love you my dear sister, San Juanita Dominguez-KASANA"

TONNIE WASAJJA, SON OF THE VILLAGE CHAIRMAN IN MASAKA

How can I
serve you?

JUMBA



JUMBA



"My sweet Jumba. He was made fun of for not being able to use the restroom on his own and having to use a tube. He LOVED school so much. When he passed away, he asked his parents to bury him in his school uniform.

A few days before heading to Uganda this year, I was notified that Jumba had died. He was born with a kidney condition which got worse over the years. After being in the hospital for three months, his kidneys and heart failed. I was so heartbroken. Today, we visited his home and I missed Jumba meeting me at the road as he saw the car approaching like he did so many times before. As soon as his mother (Sophia) saw us, she began to weep uncontrollably. We wept with her. We listened. We held her. We encouraged her. Jumba impacted many lives in the short six years he had. Jumba, we will miss you greatly.

So a told me Jumba asked her to give me a message because he knew he was going to die: 'Tell her I said goodbye and that I loved her very much.' I love you, too, sweet boy. I love you, too."

...continued from page 23

She's since been to Peru two more times, China, Cuba, Guatemala twice and Spain. She also visited El Salvador, where she helped build a well. After digging for four days with no luck, her team finally found water.

"When the people in the village heard the water bursting out from the ground, everyone ran to where the water was," Dominguez remembers. "We ended up soaking in it as we laughed and thanked God for allowing us to find the water. The children laughed and ran around as they got wet. They kept saying, 'We have clean water now!'"

Stories like that are equal parts inspiring and heartbreaking—both for her efforts to improve conditions for those in less fortunate parts of the world and for the vital importance of things many Americans take for granted.

In 2013, Lubbock radio station, K-LOVE, was promoting mission trips and, while listening, Dominguez heard about a service opportunity in Uganda.

Throughout her travels, she had never yet made it to Africa, so Dominguez applied to join the team and

was accepted. While she was there, something happened that would leave her forever changed. On the second-to-last day of the trip, Dominguez and the other 60 people in the group visited an orphanage in Masaka, a tree-covered, red-dirt city surrounded by smaller villages. The woman charged with caring for the orphaned children with special needs had special needs herself.

"In Uganda, children who are born with any kind of disability are seen as curses," Dominguez explained. "A lot of times, they are abandoned or hidden by their family members and they are treated like animals, basically."

For Dominguez, who had worked four years at TTU's Child Development Research Center, the difference in how these children were treated was especially striking. She and a dozen other members of the group went to their leader, Andy Andrado, and proposed helping the woman running the orphanage but, ultimately, there were too many trust issues.

"We're from America," Dominguez explained. "A lot of people from America go to Africa and promise things, and then they never return."

Still wanting to help but unsure how to proceed, Dominguez and her group visited the chairman of Masaka. They told him of their desire to help children with special needs and asked him if there was a need in his village.

"He started crying and said, 'My child has special needs,'" Dominguez recalls.

The chairman didn't know if any other families had children with special needs because they would have hidden them from society, but he and the group members began asking around. Ultimately, 70 families came forward, and Dominguez, with a smaller group, visited them the following year.

For these children with intellectual and/or physical disabilities, Dominguez

and her 15-member group have been lifesavers—in many cases, literally.

"We work with them and see what the need is, (and) then we try to find people to share their expertise in that area to help them," she said.

Now, several years later, she is known by villagers as *Kasana*, which means sunshine in the native language. Working with the people is an ongoing effort, reinforced by the relationships Dominguez and her peers continue to build with each successive return to Uganda. The group is working to build a facility outside Masaka, the Shupavu Community Center, for which each member fundraises \$1,000 annually, in addition to the cost of his or her own travel expenses.

In the local language, *shupavu* means courageous, and, true to its name, Dominguez's group plans to train Ugandans to serve their own people, empowering them and providing them with resources. To make it self-sustaining, they planted bamboo and avocados.

"We didn't want to start building without having the trust of the villagers and families," Dominguez said.

"Usually when you start an organization, you have the building, the offices, the board members and all this stuff in place before you do anything. We did it backward. To us, it was very important to gain the trust of these families, especially in such a delicate situation, so we just went back for three straight years—and we're still doing it—to visit these families.

"Now they know our names. They expect us every summer. They know we're not just making promises, we're going to actually do something."

Even while the facility is under construction, word about the group's plans has spread. As it approaches its fifth birthday, the community center project now includes about 100 families, with whom Dominguez and her group members have become friends. She tells the story of one little girl whose father had just died when the group saw her in 2016. She was doing

Now they know our names. They expect us every summer. They know we're not just making promises, we're going to actually do something about it.

well, but the mother needed to move closer to her own parents for financial reasons. During the process, Dominguez's group lost contact with them. At the end of 2017, the group finally found the family again and, to their dismay, the girl was obviously malnourished. But after reconnecting, they were able to develop a program to provide the nutrition she needed to recover. She's now home with her family and "looks like a completely different child," Dominguez said.

Even more impressive are the reactions Dominguez has seen in the community that once shunned kids with special needs.

"People are starting to embrace these children," she said. "One of the things we've been working on is education."

In many cases, schools will not accept children with special needs because they believe they don't know how to teach them. But last year, team members went into a school and advocated for one child, a little boy named Paul, who uses a wheelchair. They argued that just because Paul has physical disabilities doesn't mean he isn't able to learn. To their surprise, the teachers agreed to take him for one probationary semester.

It's been well over a year now, and he's still in school.

"They love helping him, they love having him, they love empowering him," Dominguez gushed. "He is very developmentally delayed because he hadn't been in school, but he's doing well. He's constantly wanting to learn."

At the end of every school year, the students perform a program for their parents. Despite the teachers' concerns about parents' reactions, Paul was chosen to sing during the event, wheelchair and all.


"As soon as he started singing, parents started talking: 'Oh my goodness, he actually knows the song, and he's able to do something besides just sit there,'" Dominguez said, smiling.

"A little girl with a cleft foot went up and started dancing, and it was an opening for them to say, 'Children with disabilities are still able to be educated, to learn how to sing songs, to learn how to dance, and be part of our culture and society.' We want to provide for these children's needs and bridge the gap between society and them."

And miraculously, it's working. The very families who once hid their children away from the rest of the community are now vitally interested in seeing Dominguez's efforts realized.

"They have taken such ownership of our center," she said. "They have taken ownership of, 'How can we contribute to the education of our children, to the empowerment of our children, and how can I advocate for not only my family but also other families with special needs children?' They're starting to care for each other and be a community to open the eyes of other people. They're saying, 'My children are valuable, they are worthy, and they can learn—they can do things, they can contribute.'"

When asked how she's been able to do so much at such a young age, Dominguez laughs.

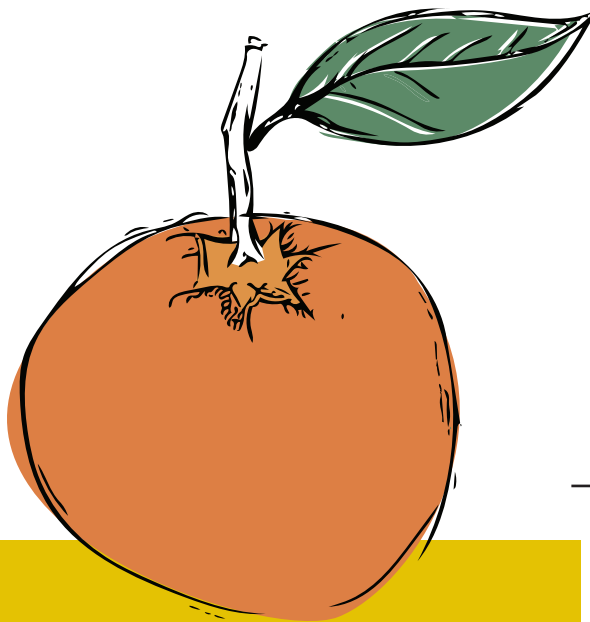
"I'm nothing special. I'm just a human being who wants to make the world a better place." 



"These children had never held a mirror before and had no idea what they looked like. It was incredible to watch their sense of wonder at looking in a mirror."



To read more stories, as told by San Juanita, visit: ttuhsc.edu/alumni/pulse



THE Real Cinderella Story

HOW A MAN'S LOST "SHOT AT GLORY"
KEEPS OTHERS IN THE SPOTLIGHT

I call myself a "root causer." I am always trying to find the root cause behind a symptom or problem. After stumbling upon a Facebook ad for reducing cellulite, (social media algorithms are scary) I discovered fascia. I'd never heard of this connective tissue before and had no idea that it permeates every organ, ligament and muscle in the body—it's everywhere. Usually on anatomical diagrams the fascia is cut through and removed so only the muscles, ligaments, tendons and organs are visible. However, it's fascia that keeps all of these things in place, intact and connected to the human skeleton.

Known as the "Cinderella Tissue" for its under-the-radar anatomical significance, fascia has been called the "most ignored of all tissues in the body," by Thomas Meyers, anatomy expert and author of the book, "Anatomy Trains." It's been studied by the likes of Leonardo da Vinci and Andrew Taylor Still, the 19th century founder of osteopathic medicine, yet I'd never heard of it. Wanting to know more about this tissue that has been compared to the white fuzz inside an orange, I decided to find a TTUHSC expert on the subject.

That's how I met Larry Munger Jr.

BY KARA BISHOP | PHOTOS BY NEAL HINKLE
ILLUSTRATIONS BY AMBER ALLEN

WANTING TO KNOW MORE ABOUT THIS TISSUE THAT HAS BEEN COMPARED TO THE WHITE FUZZ INSIDE AN ORANGE, I DECIDED TO FIND A TTUHSC EXPERT ON THE SUBJECT.

Munger, PhD, ATC, assistant professor in the School of Health Professions Athletic Training Program, was not exactly what I expected. I've been told I'm a bit of a "barn burner," so I get surprised when I meet someone who is more methodical and quiet. And, after I fell into a chair in his office and said it was really stupid to wear high heels that day, I don't think he expected me, either. Though opposite personalities, I immediately picked up on one thing we had in common. Munger is also a "root-causer."

"I injured my back in high school playing basketball in Kansas City," he said. "I had scholarship offers to play college basketball and attempted to play at a junior college, but my back just kept bothering me. And we didn't have athletic trainers back then at my school. Athletic training in high schools and colleges just wasn't as prevalent. I still think I gave up too soon, but I just didn't have anyone to guide me through the journey to recovery to keep me on the court."

It bothered him. Not having the answer to something, that meant everything at the time, haunts him. I began picturing him in my head as a teenager who wasn't able to live out his dream.

As Close to the Sport As Possible

In an effort to stay close to sports, even though he could no longer play, Munger enrolled in the athletic training program at the University of Kansas in 1993. It was in this realm of athletic training that Munger discovered fascia.

"There's a lot of manual therapy that goes on in sports medicine, and it was while studying manual therapy that I learned about the Graston technique," he said. "I decided to become trained in this method. It uses instruments for soft tissue mobilization that help you detect fascial adhesions or distortions and then correct them. This is an entire approach. You examine, treat and prescribe exercises to facilitate healing of injured tissues."

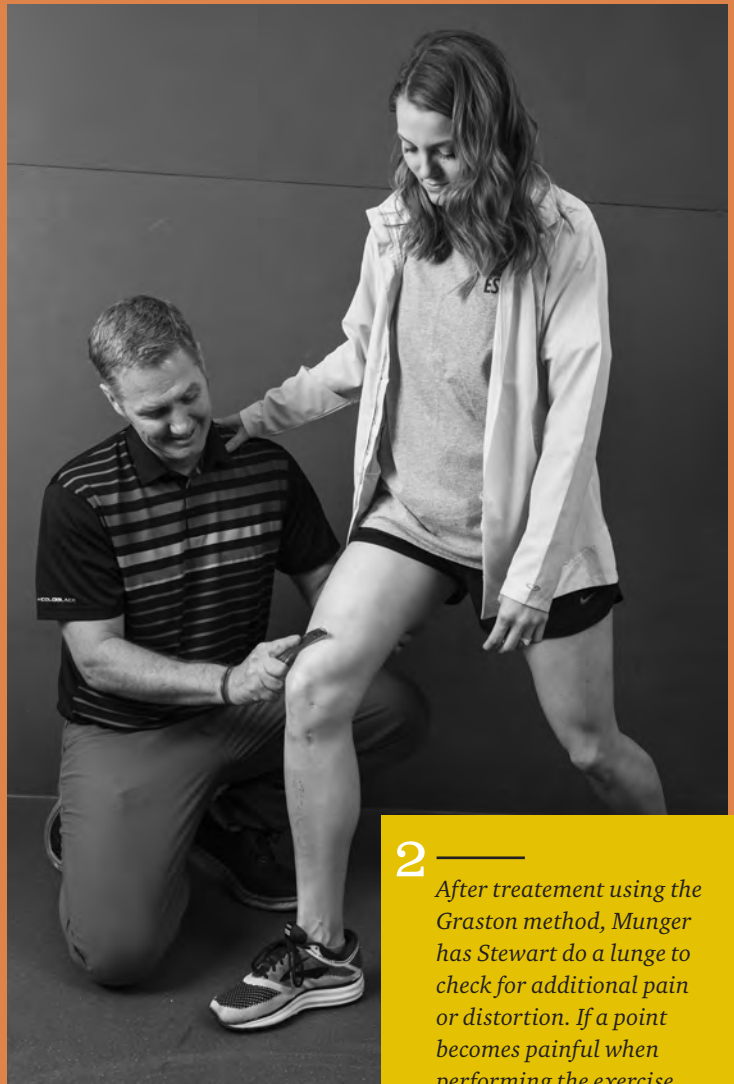
The "entire approach" piqued my interest. Munger went on to say that fascia isn't one component of a whole. It is the whole. It's an entire connective tissue system, which might be why David Graston manufactured six stainless steel instruments for the process after he suffered an injury. (Munger admits they look a little scary upon initial inspection and told me they're fascinatingly called Graston instruments one through six.)

It's not difficult to understand why Munger chose this technique. David Graston suffered a knee injury in 1987 while water skiing and was frustrated by the lack of rehabilitation progress following surgery and therapy. Coming from a background in machinery, he created these instruments to treat his knee, and they worked. Munger now teaches the technique to his students and guides them through the certification process to become providers. He also treats high school and college athletes using this method.



1 ———
**GRASTON
 TECHNIQUE**

Athlete Channing Stewart tore her ACL twice, so Larry Munger, PhD, ATC, uses the Graston Technique, which is a method used to break up scar tissue and smooth out fascial adhesions and/or distortions using the Graston tools.

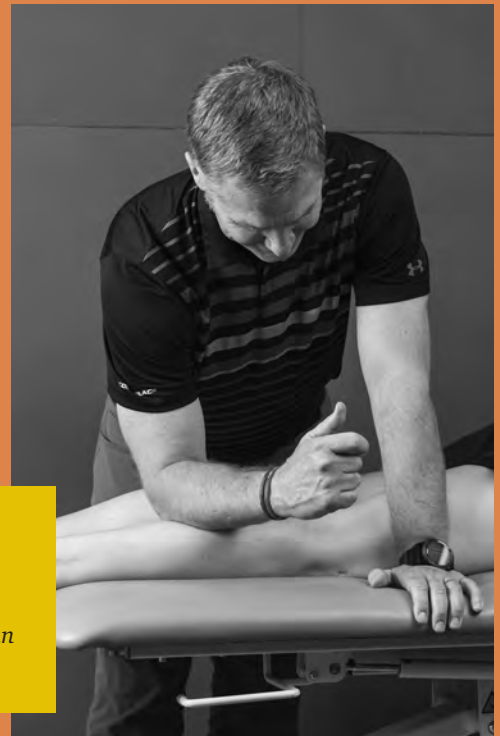


2 ———
 After treatment using the Graston method, Munger has Stewart do a lunge to check for additional pain or distortion. If a point becomes painful when performing the exercise, Munger loosens up tight fascia with a Graston tool.



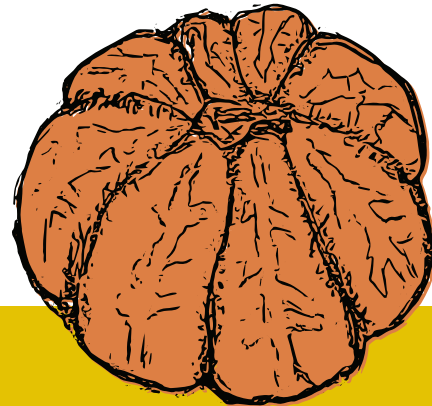
3 ———
FASCIAL MANIPULATION

In this method, points of densification in the connective tissue (fascia) are found and rubbed out with either a knuckle or elbow. This method can complement the Graston technique or be used as stand-alone treatment.





Watch videos of Larry Munger, PhD, ATC, demonstrating technique and why Channing Stewart chose the Doctor of Physical Therapy program online: ttuhsc.edu/alumni/pulse



Perks of the Training

“I tore my ACL twice while playing volleyball at Lubbock Christian University,” said Channing Stewart, a student in the School of Health Professions Doctor of Physical Therapy program and whose rehabilitation was conducted by Munger. “Larry did an amazing job rehabbing me, and my entire injury and rehabilitation experience has inspired me to become a physical therapist. My quality of life has been brought back to where it was before my injury, and I’m so grateful for that.”

Munger also studies and specializes in fascial manipulation, which he has used to treat Stewart, as well as his wife, who he deems, “his best customer!”

“My wife (Katie) has had three cesarean sections, and she’s a strength coach for the Texas Tech (University) soccer and volleyball teams, so she often has pain,” he added. “It’s good practice for me to try some of these techniques on her, and there’s nobody more honest than your wife about what’s working and what isn’t.”

It benefits Katie, too.

“I’m trying to keep up with 18-year-old girls, and it takes a toll on my body,” she said. “And every time he does (fascial manipulation), I feel better. It’s pretty amazing actually.”

Fascial manipulation involves a manual therapy technique focused on treating musculoskeletal dysfunction, at specific points when muscular fascia no longer slides, stretches or adapts correctly during movement.

“It’s (fascial manipulation approach) based off the movement pulls, which are identified points of convergence of the vectoral and muscular forces that act on a body during precise movements,” Munger said. “That’s where we get the densification within the tissue. Where the fluid between the muscles (ground substance and hyaluronic acid) gets more viscous all through the external cellular matrix. In fascial manipulation, we’re identifying those ‘points’ of densification, and we’re using either our knuckle, elbow or fingertips on those points to create localized heat by friction—trying to warm up the fluid to make it less viscous, restoring glide to the points again, and then the body will hopefully balance itself.”

Munger has aspirations of becoming a fascial therapist eventually, but insists he needs more practice and training first.

“Keeping an athlete on the court or field is a big deal,” he said. “I want to make sure I am my absolute best, so that I can help athletes fulfill their

“KEEPING AN ATHLETE ON THE COURT OR FIELD IS A BIG DEAL. I WANT TO MAKE SURE I AM MY ABSOLUTE BEST, SO THAT I CAN HELP ATHLETES KEEP FULFILLING THEIR DREAMS. I HAVE TO KNOW WHY THESE TECHNIQUES WORK FOR ME TO USE THEM, AND I CONTINUALLY REITERATE THIS TO MY STUDENTS WHEN I’M TEACHING THEM. KNOW WHY SOMETHING WORKS.”

dreams. I have to know why these techniques work for me to use them, and I continually reiterate this to my students when I’m teaching them. Know why something works. Don’t just do it because others have done it or because you read some advertisement or watched some YouTube video about it—really do your research. You’re helping athletes pursue their dreams and that needs to be taken seriously.”



THE TEENAGER
WHO DIDN'T GET
HIS DREAM IS
MANIFESTED IN
A NEW DREAM:
TO KEEP OTHERS
LIVING THEIRS.


The Teacher

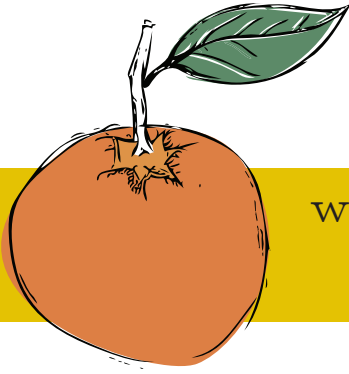
You can see Munger's serious intention when you walk in his office. Books upon books of fascia research from world-renowned experts are stacked everywhere, along with posters and illustrations. According to his wife, he's been a questioner of everything since she's known him. Always needing to know why something does what it claims to do or why it doesn't do something. The teenager who didn't get his dream is manifested in a new dream: to keep others living theirs. And that's not just limited to student athletes. He brings this into the classroom for his athletic training students and anyone interested in learning. I know because I basically became one of them for an hour. He taught me using several interesting techniques, at one point, even stretching like a dog—his words, not mine.

"Have you ever seen a dog when it wakes up?" he asked. "What's the first thing a dog or cat does after a nap? They stretchhhh. They're preparing their bodies for movement, like this." We both start stretching at this point. "Why do we not prepare for movement just like the animals? We expect to just jump up and go; our body, and more importantly our fascia, has to compensate for that. We come home after a day of work where we sat at the computer for six to eight straight hours and wonder why our neck and shoulders are killing us. Some people say that sitting is the new smoking, but the actual 'cigarette' is more likely the lack of movement. So, when you schedule a meeting with someone at work, why not make it a 'walking' meeting? Move instead of sitting down in someone's office."

He's gotten pretty animated at this point, and I can tell he's in his teaching element.

"Let's talk about the kangaroo," he added. "The kangaroo doesn't jump high because its muscles are that strong; the kangaroo can jump that high because its elastic tissue is that strong and reactive. Put your palm on your leg and start tapping your leg with your middle finger as hard as you can. Go ahead—do it (I wasn't following instructions). See how you get tired after a while? It puts a lot of strain on your muscles and you are not producing that much force. Now take your other hand and pick up your middle finger and let it spring back down onto your leg. See how much more force you're able to put down on your leg without as much effort? The elastic tissue produces more power than the muscle."

While Munger isn't a basketball star, he dedicates his research and career to ensuring other student athletes get their shot at stardom with a root-cause approach that he wasn't able to take advantage of. And, as he appropriately, albeit jokingly, said, "Fascia is fascinating." 



WHAT DO YOU KNOW
ABOUT FASCIA?
Take the quiz below!

- 1. Define "fascia"**
 - a. Slang for "fascinating" i.e. "That's so fascia."
 - b. Connective tissue
 - c. Name of famous celebrity's baby
 - d. Face acne
- 2. True or false:** fascia can form distortions and/or adhesions.
- 3. Where is fascia located in human anatomy?**
 - a. Feet
 - b. Head/brain
 - c. Organs
 - d. All of the above
- 4. Which method is associated with fascia treatment?**
 - a. Graston Technique
 - b. Meditation
 - c. Playing sports
 - d. Sleeping
- 5. True or false:** Each Graston instrument is named after a renowned physical therapist.
- 6. Which of the following famous people studied fascia?**
 - a. Wolfgang Mozart
 - b. Michelangelo
 - c. Leonardo da Vinci
 - d. Socrates
- 7. True or false:** Kangaroos jump high because of strong muscles.
- 8. Which treatment technique involves stretching, pulling and rubbing out densification points?**
 - a. Graston Technique
 - b. Yoga
 - c. Foam rolling
 - d. Fascial Manipulation

Cancer Research and Prevention Programs Gain Momentum at TTUHSC El Paso

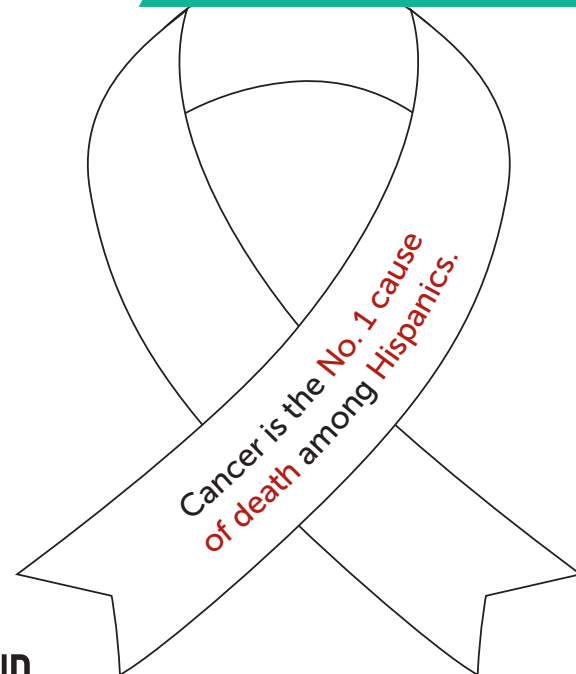
by David Peregrino
Photos by Tommie Morelos

ABSTRACT

Heart disease is the leading cause of death for all Americans. But specific to Hispanics, cancer ranks first as the cause of death, followed by heart disease, according to the Centers for Disease Control and Prevention.

Understandably, cancer prevention programs and research on cancer treatment have a high priority in far West Texas, where Hispanics make up about 80 percent of the population in El Paso County and neighboring Hudspeth County.

Recent multimillion-dollar grants from the Cancer Prevention and Research Institute of Texas (CPRIT) are helping fund the war on cancer at TTUHSC El Paso. In April, the university announced a \$2 million CPRIT Scholar grant that will establish a new laboratory to research novel treatments for breast cancer.



Shrikanth Gadad, PhD

BACKGROUND

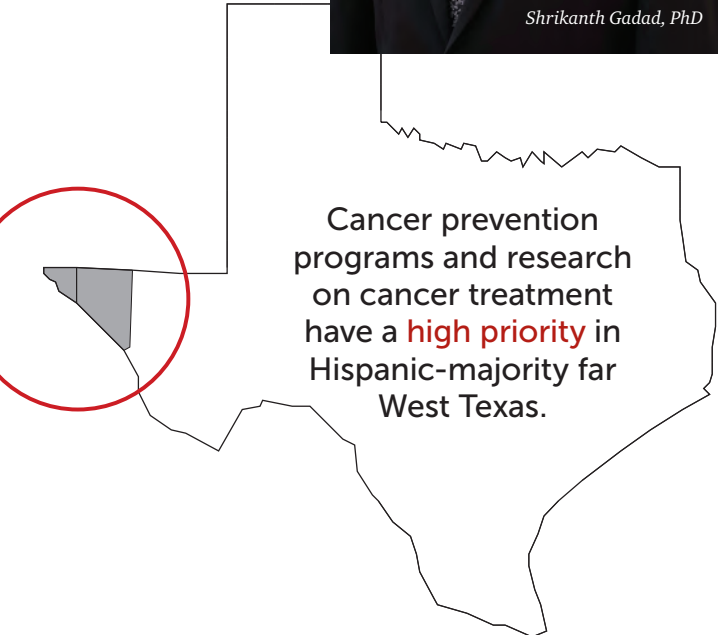
The CPRIT Scholar grant, designed to help in recruiting talented first-time, tenure-track faculty, brings researcher Shrikanth Gadad, PhD, to TTUHSC El Paso. It's a milestone for the Texas Tech University (TTU) System, and the first time the grant has brought a cancer researcher to El Paso, according to CPRIT officials.

Gadad's research will fall under the umbrella of TTUHSC El Paso's Center of Emphasis in Cancer, led by Rajkumar Lakshmanaswamy, PhD, center director and dean of the Graduate School of Biomedical Sciences.

"The concept that Gadad is bringing in is really new, and it will help us understand the process of cancer growth and how it becomes aggressive," Lakshmanaswamy said. "Using that, we can actually come up with some strategies to prevent the growth of these cancers."

El Paso Mayor Dee Margo, who also serves as assistant presiding officer of the CPRIT Oversight Committee, said Gadad's recruitment is important for El Paso and the Texas border region.

"Having CPRIT Scholar Shrikanth Gadad recruited to TTUHSC El Paso demonstrates our city's status as a serious player in life-sciences research," Margo said. "Cancer disproportionately affects Texans on the border, and this requires us to build a stronger cancer-fighting ecosystem right here to study how best to address these disparities. I congratulate Dr. Gadad and the entire team at TTUHSC El Paso on this milestone in developing a world-class cancer research program."



Cancer prevention programs and research on cancer treatment have a **high priority** in Hispanic-majority far West Texas.



METHODOLOGY

In pursuing new treatments for breast cancer, Gadad has been studying genes known as long noncoding RNAs. His research has shown that certain types of these biomolecules appear to function as tumor growers or tumor suppressors.


“This is a very fascinating subject for me—examining the less-studied elements of the human genome to uncover possible treatments for cancer,” said Gadad. “We want to know if we can use these elements of the genome as cancer biomarkers or therapy targets. This is the focus of my lab in El Paso.”

Nearly **20,000** new cases of breast cancer are diagnosed in **Hispanic women** each year.

CONCLUSION

TTUHSC El Paso has put breast cancer in its crosshairs because it is the leading cause of cancer death for Hispanic women. Nearly 20,000 new cases of the disease are diagnosed in Hispanic women each year, according to the American Cancer Society.

Gadad’s lab will complement the work of Navkiran Shokar, MD, MPH, MA, vice chair for research and director for Cancer Prevention and Control at TTUHSC El Paso. Shokar is responsible for bringing \$14.7 million in CPRIT grant funds to the university since 2011 as principal investigator of several cancer prevention programs.

“This kind of funding for services is incredibly important for our West Texas communities that suffer significant disparities in socioeconomic status, access to care and health insurance,” Shokar said. “Furthermore, through developing and implementing these programs we are also able to learn how best to promote behaviors that improve health.” 

ADDITIONAL GRANT FUNDING

In addition to the CPRIT Scholar grant, CPRIT awarded Navkiran Shokar, MD, MPH, MA, vice chair for research in the Paul L. Foster School of Medicine Department of Family and Community Medicine and director for Cancer Prevention and Control at TTUHSC El Paso, a \$1.5 million cancer prevention grant to support the Breast Cancer Education Screening and Navigation (BEST) program for El Paso and West Texas. The grant will help expand BEST program services to over 20 counties in the region. In collaboration with community health organizations, BEST offers culturally-tailored breast cancer education and no-cost mammograms to eligible participants. Program navigators also assist women through the often-complex processes of obtaining health insurance coverage and accessing screening, diagnostic and treatment services. Funds of \$1.5 million for the *De Casa en Casa* (house to house) program were also awarded, which helps uninsured or underinsured Hispanic women access free cervical cancer screenings.

CPRIT was established in 2007 by the state of Texas to expedite innovation and expand the capacity for cancer research at Texas universities and other organizations. Since 2009, the agency has awarded more than \$58 million to the TTU System.



when worlds collide

for Patti Patterson, MD, MPH, (Family Medicine Resident '83) a professional life dedicated to the needs of children who have been abused mentally, physically and sexually began with a small boy on an emergency room stretcher. While serving a clinical rotation as part of her pediatric residency at the University of Texas Medical Branch in Galveston, Patterson met Thomas "Tommy" Triveno (now Thomas Freeman), a fragile patient under her care.

Though he was 2 years old, Tommy looked closer to a 9-month-old. He had a dozen broken bones. And he was covered in bruises.

"I remember vividly when I realized this was a case of child abuse," Patterson said. "I approached him to draw blood, to 'stick' him, which makes most children cry and scream. Tommy didn't cry or scream. He just took it. Without tears." She realized that hurt and pain must be regular occurrences for this tiny child.

Tommy stayed two weeks as his body healed. Patterson visited him frequently. "He was having trouble walking because of his failure to thrive and his malnutrition. He certainly wasn't doing things most 2-year-olds do. We spent many hours in the rocking chair. He wanted to 'hold me.'"

Patterson last saw Tommy at a follow-up doctor's appointment after he was discharged from the hospital. She remembers him hiding behind his new foster mother and hoping, finally, he had an adult to cling to and to hold.

BY JO GRANT LANGSTON
PHOTOS PROVIDED BY THOMAS FREEMAN

The Spark to Save Children Patterson, professor in the School of Medicine Department of Pediatrics and director of child abuse pediatrics, found her passion for abused children when she met Tommy. This passion inspired her to create the Center for Superheroes, the only mental health clinic in West Texas or eastern New Mexico providing specialized care for children and adolescents like Tommy. She wanted a solution for these children.

“We needed specialized healing treatments for them,” she added. “As children, their needs are unique and require a different kind of intervention. Children don’t have the tools to fight abuse when it happens to them, so they learn to cope with the physical and mental hurt. They are often abused by those whom they love and depend on, creating major issues of trust.”

Once in 30 Years Patterson still remembers locking eyes with Tommy 33 years ago. “He so touched my heart. I was drawn to finding a way to help these children,” she said.

But there is more to their story.


In April of this year, Tommy called Patterson. He was trying to find his birth parents. He had his medical records from the emergency room in Galveston. Patterson’s name was in those charts as a member of his care team. So, he searched and found this very special doctor.

She explained to Tommy the enormous impact he had on her life. She told him how his case led to her calling—to take care of kids who had experienced what he went through and to advocate for those who, many times, have no voice.

Patterson was amazed when Tommy said she saved his life. “He thanked *me*. I was flabbergasted,” she said.

Today, Tommy is happily married, with three children and a wonderful job, Patterson said. She also received a text near the end of April from Tommy sharing the news of his new baby daughter’s birth.

Patterson smiles as she recounts his story. “Every 30 years, you get something right in child abuse. Knowing that this boy who impacted me so importantly is doing well makes all the difference to me. It’s why I am so dedicated to caring for these children.”

That chance encounter in a Galveston hospital saved a child and laid the groundwork for Patterson’s dedication and passion. Worlds collided in a most wonderful way. 



Thomas Freeman with his new baby daughter.

MY SUPERHERO, DR. PATTI PATTERSON

Dr. Patterson is my superhero because she was my pediatric doctor and cared for my well-being when I arrived at UTMB Galveston on April 10, 1984.

She did a medical overview of my condition and health and saw fit to act immediately. Without her professional expertise and knowledge, I would have most definitely ended up dead. I needed extensive medical care and support, and she, along with the rest of the pediatric staff, cared for me around the clock while I was in PICU (pediatric intensive care unit). Patti would come visit me and hold me before and after her shifts and would even visit me on her days off.

I found her this year (I Googled her) working in Lubbock and got in touch with her.

In my baby book I have a photo of Dr. Patterson holding me while I held a toy toaster. This photo has always held a special place in my heart.

Without her love and caring heart, I would not be here today, and I thank her for taking care of me.

I feel honored that I have impacted her life as she has mine, especially now that she has opened/helped open the Center for Superheros and that her expertise is now focusing on abused/neglected children.

Thank you from the bottom of my heart for protecting me Dr. Patti Patterson.

Sincerely,
Thomas (Tommy) Lee (Triveno) Freeman

The Scenic Route

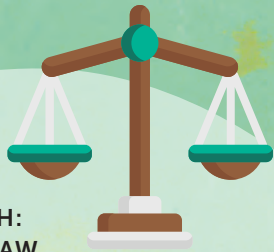
Navigating the Twists and Turns of a Dedicated Public Servant

BY KARA BISHOP



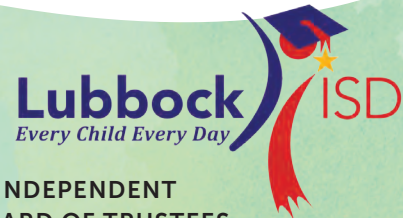
Nancy Neal, RN

"You may start out on a path, but if you're willing to take detours you can have some amazing experiences in life," said Nancy Neal, RN, (Nursing '85). As this year's Presidential Distinguished Alumni Awardee, Neal takes us down some monumental detours in her life as a public servant.



INTENDED PATH: ATTORNEY AT LAW

She wanted to go to law school, after nursing school, with a passion for education and health care driving her to be the voice for those who couldn't speak for themselves. However, a decision by the Lubbock Independent School District board of trustees sent her off course.



DETOUR 1: LUBBOCK INDEPENDENT SCHOOL DISTRICT BOARD OF TRUSTEES (1986-1992)

"I was very active in the PTA for my children's schools and was annoyed at a decision made by the school board, so I decided to run," Neal said. "If you don't like something, you should try to solve the problem—not just complain about it."

She served on the board for six years and was the first female president. During her tenure, a monumental piece of history still brings tears to her eyes.

"I was elected in April 1986, and in May, the Lubbock public schools were notified about the first child with HIV/AIDS who wanted to attend school (in the district)," she recalled, choking back emotion. "I was the first and only nurse to be elected and a fellow board member was a pharmacist, so we led the charge in seeing what we could do for this child. The child was either in second or third grade and HIV positive. We couldn't hide it from the community—all we could do was protect the child's name. Fortunately, we were able to find a way for the child to attend school for two full semesters before he died. I'm glad I had the nursing background ... it was just so important that there were people on the board who wanted this to happen ... It was a great moment in health care for Lubbock public schools."

Then Margaret La Montagne Spellings (named U.S. Secretary of Education under President George W. Bush), who Neal worked closely with while on the LISD board, asked Neal if she'd ever considered serving as a university regent. "The governor wanted people to serve who didn't have a tie to the university system, so Margaret gave him my name," Neal added, thus beginning her detour into higher education.

TEXAS STATE UNIVERSITY

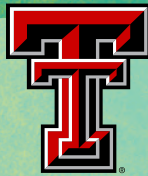
The rising STAR of Texas

DETOUR 2: TEXAS STATE UNIVERSITY SYSTEM BOARD OF REGENTS (1997-2004)

“This is where I fell in love with higher education, to be honest,” said Neal, with a smile in her voice. “I was not a big donor to Gov. George W. Bush. That’s not how governors work. They wanted someone to serve as a regent who had something to offer. I was the first nurse to serve as regent—there had been physicians but no nurses.”

She served on the TSU System board eight years, and, yes, was president for some of them. She was then appointed to The Higher Education Coordinating Board by Gov. Rick Perry for three years where she helped approve the Doctor of Nursing Practice degree for Texas nursing schools.

Then, the governor called her again.




DETOUR 3: TEXAS TECH UNIVERSITY SYSTEM BOARD OF REGENTS (2009-2015)

“This was one of the most tremendous volunteer jobs for me, to say the least,” Neal recalled. “I was the first nurse to be selected for this board as well. During my six years, I’m pretty sure I hold the record for ‘person on the most search committees for the system!’”

She never did get that law degree; however, that didn’t stop her from serving the Texas Tech University System and her community. Neal may not have achieved that initial dream, “but I wouldn’t have missed the alternate paths I took for the world.”

“Service is a component we all need to have in our lives,” she adds. “I could stay at home, but my blessings have driven me to do something with my life ... not a J-O-B but an impactful purpose that serves others.”

Congratulations Nancy on being selected for the 2017 Presidential Distinguished Alumni Award. You deserve it. 

[DISTINGUISHED ALUMNI 2017]



Graduate School of Biomedical Sciences

T. CELESTE NAPIER, PHD, ('82)



School of Health Professions

MATT BARKER, AUD, ('04, '00)



RYAN BREWSTER, MS, ('17)



TOMMY HIGGINS, CRC, ('06)



MINDY HOFFMAN, ATC, ('06)



ELY PEREA, MBA, MSMP, ('08, '07)



School of Medicine

TIMOTHY BENTON, MD, ('94)



JOHN GRISWOLD, MD, (RESIDENT '86)



AMY THOMPSON, MD, ('04)



School of Nursing

GAIL ACUNA, DNP, ('16)



JAMES DICKENS, DNP, ('12)



MICHAEL MOON, PHD, MSN, ('87)



Full biographies for the 2017 Distinguished Alumni Award winners can be found online: ttuhsc.edu/alumni/distinguished-awards





1 TTUHSC El Paso hosted a blood drive in January in partnership with United Blood Services. According to United Blood Services, a single blood donation can save up to three lives. **2** In January, hundreds of sixth-, seventh- and eighth-graders from throughout El Paso County got a taste of careers in STEM fields at the seventh annual Adventure for Your Future health sciences fair. **3** Seventy-five TTUHSC El Paso students spent Martin Luther King Jr. Day volunteering at five community service events in and around El Paso County. **4** The latest graduating class of BSN students was honored during a commencement and pinning ceremony at the Plaza Theatre in Downtown El Paso May 19. Fifty students completed the Accelerated Bachelor of Science in Nursing track, alongside seven registered nurses who completed the RN to BSN track. **5** The TTUHSC Alumni Association invited area alumni to the Texas Tech University versus West Virginia baseball game in March. **6** The TTUHSC Alumni Association held alumni receptions in Abilene, Dallas, El Paso (pictured), Fort Worth, Houston (pictured), Lubbock, Midland and San Antonio (pictured). Follow the association on Facebook for news and upcoming events. **7** TTUHSC President Tedd L. Mitchell, MD, served as the 2018 Lubbock March for Babies chair. The event, hosted by the March of Dimes, took place in April. More than 1,000 participants registered, raising an estimated \$200,000. **8** Medication Cleanout completed a successful spring cycle with an event hosted by TTUHSC at Amarillo. Events were also held on TTUHSC campuses in Abilene and Lubbock. In total, more than 3,600 pounds of unused and expired medications were dropped off for appropriate disposal.

Reading Nook

Looking for a book to read?
Support TTUHSC alumni!



“A Hero in Time” by Peter Rappa, MD
(Medicine '89)

Story abstract: “A Hero in Time” offers readers a love story and an adventure with an unexpected ending wrapped in an inspiring message. A medical theme and a complex plot take the reader back in time to the inception of young love while moving forward in time to touch the concepts of selfless love, integrity, dedication and soul work.

Purchase on Amazon

“The Blow-up Man” by Nina Blakeman, PhD
(Biomedical Sciences '14)

Story abstract: West Texas is not a place for the weak ... or a naive, young woman with a head full of fantasy. Inside the hallowed halls of Cullen State University is where Faye Brady falls in love with Todd Davis, a well-respected researcher in the area of pharmaceutical sciences. Faye's mother, Madeline Brady, is concerned about her daughter's new relationship. Does Faye have what it takes to overcome the toxic mistakes of Todd's past and the nightmare that is about to come true?

Purchase on Amazon



Expert Corner

ASHLEY STURGEON, MD

Ashley Sturgeon, MD, (Medicine '10) assistant professor in the School of Medicine Department of Dermatology, stresses the importance of taking care of your skin.

Put sunscreen on exposed skin first thing in the morning EVERY DAY. Even when walking to and from your car, the sun's exposure takes a toll on your skin. Use an SPF of 30 or greater with broad spectrum coverage. Reapply every hour if you are outside—even more often if you are sweating or in water.



Wear sunglasses to protect the skin around your eyes.



Wear clothing with a UV protective factor of 50, which protects your skin from 99 percent of UV rays. (A regular T-shirt only protects you from 5 percent of UV rays.) Stay in the shade as much as possible.

Don't forget your head! It can be challenging to discover skin cancers in the scalp because hair can hide them. Unfortunately, hair doesn't always protect your scalp or ears from the sun. Wear a broad-brimmed hat that covers your scalp, ears, face and neck.

READERSHIP SURVEY RESULTS

We asked and you answered. Here's what you told us.



80 percent of you like to read about new programs/curriculum and scientific discoveries/scholarly activities.



Most of you spend 11 to 30 minutes total time with an issue.



Over half of you read most of the articles.



Most of you hold Pulse in high esteem with an average score of 4.9 (highest = 5) for excellent overall impression.

When asked what you like most about Pulse, you said:

- Information
- Attractive piece with a good range of content covered
- Seeing our school in action

And our favorite:

"It makes me proud to be an alumnus. It is also a very professional looking publication."

What do you like least?

"You should occasionally spotlight an alumnus who is not the glitzy rock star, but the silent giant." (*Send us your "silent giant" nominations!*)

Improvements?

"More summary-like articles with bullet points for easier reading." (*We are putting this into action!*)

You are extremely interested in reading about alumni success stories (and we LOVE to write about them!)

Most of you said that Pulse strengthens your connection to TTUHSC by: **"Making me proud to be a graduate of TTUHSC."**

Actions taken as a result of reading Pulse?

(top three responses)

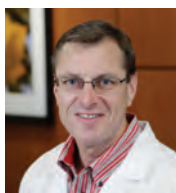
- Shared an article with a friend, colleague, family member or other;
- Downloaded the TTUHSC Alumni Association App; and
- Attended an event, made a donation to TTUHSC or recommended TTUHSC to a potential student or family member

Congratulations!

Courtney Sherman, MSHA, DNP, ('17, '15) is the winner of the iPad Mini offered as an incentive for participating in the survey.

We appreciate your feedback – keep it coming!

Awards & Accolades



JOHN K. BINI, MD, FACS, (Medicine '99) trauma surgeon at Wright State Physicians—Surgery and affiliated with Acute Surgical Associates in Dayton, Ohio, was named a 2018 Top Doctor.



BRANDON "KIT" BREDIMUS, MSN, RN, (Nursing '15) won the 2018 American Organization of Nurse Executives Pamela Austin Thompson Early Careerist Award. Bredimus is the director of emergency services for Midland Memorial Hospital in Midland, Texas.



ADAM BOROWSKI, MD, (Medicine '91) was awarded fellowship in the American College of Radiology. This prestigious honor is awarded to less than 8 percent of all practicing radiologists. Borowski is a neuroradiologist for Waco Radiology in Waco, Texas.



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

A Tribute to Ted Hartman, MD

The last time I saw Ted Hartman, MD, was in October 2017 at a Texas Tech University sponsored ceremony to honor World War II liberators and Holocaust witnesses. Hartman died Feb. 2, 2018.

A tank commander from 1943 to 1946, Hartman chronicled his experience as a 19-year-old with the 11th Armored Division in the book, “Tank Driver” (Indiana Press). For Hartman, the danger and challenge of being a tank driver, the spectacle of the German defeat, and his role as a concentration camp liberator made him the outstanding person and physician that he became. He graduated from Iowa State in 1949 and from Northwestern Medical School in 1952. He wasted no time becoming a doctor and then an orthopedic surgeon. He left his practice at the Cleveland Clinic in 1971 to become the founding chair of orthopaedic surgery for the School of Medicine. He served in that role until 1982 when he became dean.

That night at the liberators’ ceremony, I joked with Hartman that he must have been very comfortable in the School of Medicine dean position because it was like being a tank driver: Both jobs were less fun than they first appeared; both were jobs that you didn’t expect to stay in for very long; and in both jobs, everything can explode around you. Well, he thought that was all very funny.

From 1982 to 1988, Hartman moved the School of Medicine forward at a critical time in its development. What better judgment for a dean’s work than that of the austere accrediting body for medical schools called the Liaison Committee on Medical Education (LCME).

In 1988, the last year of Hartman’s tenure, the LCME evaluated the medical school and stated that Ted Hartman “was a dedicated leader who had the great respect of all of his faculty.” There had been major progress in communication including from one campus to another. (There were four campuses by then—Amarillo, El Paso, Lubbock and the Odessa Regional Academic Health Center, now TTUHSC at the Permian Basin, which Hartman established.)

The accreditation committee reported that the enthusiasm of the students had grown under Hartman’s administration. The physical facilities had improved and were contemporary. Research funding had increased including a \$1.6 million Kellogg grant and a \$1.2 million area health education grant, and all chair positions were filled. Hartman had taken the dean’s baton and run hard and fast to improve the School of Medicine.

The only criticism of the LCME was suspect. “Excessive uncompensated care as a mandated mission can become a drain on resources, which could threaten the educational mission and discourage scholarly activity.”



Hartman maintained that the mission to provide care for the indigent would not change at this School of Medicine regardless of who made the recommendation to change it.

Long after his retirement, Hartman continued to make important contributions to the medical school and was a frequent visitor to orthopaedic resident rounds and other medical school events. UMC Health System honored him with an endowed chair in medical education, now held by his longtime friend Surendra K. Varma, MD, (University Distinguished Professor of Pediatrics and executive associate dean for Graduate Medical Education and Resident Affairs in the School of Medicine).

We held a memorial service for Hartman here at TTUHSC in March, where he was eulogized by Tom McGovern, MD, (retired professor in the Department of Psychiatry) and many others who had decades of ties to the medical school. The audience was filled with so many old timers, but it also included young orthopedic residents who had never met Hartman. They were there to honor the founder of their department.

And of course, representing all recent deans, I had the privilege of expressing our thanks by reciting Isaac Newton’s quote, “If we have seen further than others, it is by standing on the shoulders of giants.”

James Theodore “Ted” Hartman, MD, is survived by his wife, Jean, of 63 years, three children and four grandchildren.



By Steven L. Berk, MD, TTUHSC Executive Vice President and Provost and dean of the School of Medicine



GSBS GRADUATES INAUGURAL CLASS

In May, TTUHSC El Paso graduated the first class from the Graduate School of Biomedical Sciences—23 students in the master's program and five students in the Post-Baccalaureate Certificate Program.

Two years ago, the Graduate School of Biomedical Sciences (GSBS) became the third school to comprise TTUHSC El Paso. In May, the 23-student inaugural class proudly donned their caps and gowns for graduation, alongside five students in the school's Post-Baccalaureate Certificate Program.

With approval from the Texas Higher Education Coordinating Board, the Master of Science in Biomedical Sciences was added to TTUHSC El Paso's degree offerings in January 2016. Before that, TTUHSC El Paso's graduate students completed their coursework in El Paso but officially earned their degrees from TTUHSC.

Because TTUHSC El Paso is a health sciences center, students in the graduate degree program benefit from an interprofessional education model. "The GSBS is the only school of higher education in El Paso to offer an interactive and collaborative environment for students to learn alongside future physicians and nurses," said Rajkumar Lakshmanaswamy, PhD, dean of the GSBS. "These collaborations provide a framework that can continue after graduation and will make our students exceptional health care professionals, educators and researchers."

Students in the master's program are prepared for a spectrum of health professions, including biomedical research, but also medical and veterinary school and doctoral programs. Throughout the curriculum, students participate in hands-on research related to prevalent border health issues, such as diabetes, cancer and infectious diseases and neurological disorders, which have some of the highest incidence and mortality rates nationwide.

"As the only health sciences center on the U.S.-Mexico border, we have a unique opportunity to lead the nation in research that will inform tomorrow's treatment strategies," said Richard Lange, MD, MBA, president of TTUHSC El Paso and dean of the Paul L. Foster School of Medicine (PLFSOM). "Through our hands-on educational model, our students are prepared to make the next big discoveries in health research that go far beyond the border."

In addition to its master's program, the GSBS offers a Post-Baccalaureate Certificate in biomedical sciences, a potential pipeline for students looking to increase their competitiveness for medical school.

Most of this year's graduates will be going to medical school—three of whom have been accepted to the PLFSOM. Others are pursuing careers in the biotech industry, science writing, medical and scientific research, MBA and PhD programs, and teaching.

Meet one of the new
GSBS alums on page 52.



In February, more than **250** El Pasoans attended the eighth annual Students United Para Nuestra Salud Health Fair. The fair, hosted by TTUHSC El Paso's medical and nursing students, provides free health services such as HIV and STI tests, blood pressure, diabetes, dental, eye, glaucoma and back screenings, and EKG readings.

JUST the facts



TTUHSC El Paso provided **\$35 million** in uncompensated care to the El Paso community in 2017.

TTUHSC El Paso will educate nearly **1,000** health care professionals this year, including 265 residents and fellows.

National Advisory Board Meets in El Paso

The TTUHSC Alumni Association National Advisory Board convened in El Paso May 11 for their spring meeting. From scholarships to memberships, much was accomplished.



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™

Alumni Association

2,371 TOTAL TTUHSC ALUMNI ASSOCIATION MEMBERSHIPS

14 purchased with the "Five for the Price of Four" package

10 purchased lifetime memberships

The board passed a motion to establish a \$1,000 scholarship for each school from membership dues.
The board voted to support the Our Legacy Now Student Foundation with a \$1,000 gift.



GOALS

- ▶ Increase alumni association memberships by **5%** each year.
- ▶ Continue to provide **\$1,000** to each school annually—eventually increasing to **two \$1,000** scholarships per school.



ALOK RANJAN, PHD

Postdoctoral Fellow

National Institutes of Health/National Cancer Institute Center for Cancer Research, Bethesda, Maryland

Graduate: 2017

FOLLOWING A DREAM: Alok Ranjan, PhD, first became interested in cancer research after completing his undergraduate degree. “I was fascinated by the power of cancer and how normal cells of the body overcome the death cycle to become cancerous.” Originally from India, Ranjan moved to the United States in 2012 to pursue graduate opportunities in cancer research. The work of Sanjay Srivastava, PhD, who became his mentor, led Ranjan to TTUHSC at Amarillo and the Graduate School of Biomedical Sciences.

ADJUSTING FOR SUCCESS: The greatest obstacle Ranjan faced after moving abroad for his graduate studies was adjusting to a new environment after working for two years in an industrial setting in India. “It took me a month to balance the lab and the class work. After that, it was fine; it was very easy going forward,” Ranjan said about the cultural and academic adjustments he overcame.

Ranjan’s efforts soon paved the way for his success in breast cancer research. One of his most memorable moments at TTUHSC was receiving grant funding from the Society of Toxicology Syngenta Fellowship Award

in Human Health Applications of New Technologies. The grant provided funding to further his breast cancer research. Ranjan was also honored by the American Association of Cancer Research with the Scholar in Training Award and by TTUHSC as a co-recipient of the 2017 Outstanding Graduate Student Award.

Ranjan credits Srivastava with much of his success. “He encouraged us to do good research and to work hard,” Ranjan said about spending many hours, including nights and weekends in the lab. “He was a good source of inspiration.”

CONTINUING THE CANCER FIGHT: Ranjan continues his cancer research as a postdoctoral fellow in the Thoracic and Gastrointestinal Oncology Branch at the National Cancer Institute Center for Cancer Research. His long-term goal is to become an established cancer researcher with a specific interest in chemo-preventive measures to avoid cancer metastasis versus fighting it.

Behind this driving passion to expand his research and help cancer patients, Ranjan recognizes two key influencers. “I am extremely thankful to my brother, Ravi Kumar, and my family for their support during my studies. And a tribute to a great soul, my mother, who passed away in January 2017.”

BY ABBI BRICKEY



ELY PEREA, MBA, MSMP

Chief Executive Officer

Covenant Specialty Hospital, Lubbock, Texas

Graduate: 2008, 2007 (Molecular Pathology, Clinical Lab Sciences)

SEEING BOTH SIDES: Now that he's working in hospital administration, Ely Perea, MBA, MSMP, can appreciate the value of starting out on the clinical side.

"There are times where the clinical side is extremely complex and has a whole set of its own issues; usually when those occur, those aren't the same things happening on the (administration) side and vice versa," he said. "Seeing both sides really helps in this role and understanding what's going on."

FINDING HIS WAY: Perea recalls that when he started his bachelor's degree in clinical laboratory sciences, what piqued his interest was correlating lab results with the clinical pathology he was learning in the classroom. But when he started his clinical rotations, the business aspects of the laboratory drew his attention. He began working as a medical technologist, and it wasn't long before he realized he was more interested in running the lab than running tests. Now he's in charge of an entire hospital, with all of its ins and outs.

"I enjoy the complexity and diversity of the different areas you have to be responsible for," he said. "With this job, you have the entire business: your own board, your operations, your marketing, your revenue cycle, your finances. It's a more complete picture. That makes it more complex and sometimes frustrating but, at the same time, keeps it interesting."

THE BUSINESS OF LEARNING: Perea recalls two specific things he learned at TTUHSC that have since become invaluable to him: scheduling and hospital composition.

"As soon as you jump into scheduling, you realize there are a lot of variables no one ever talks about: watching your overtime and hours, PTO, and coverage. It (TTUHSC) immediately taught me the importance of getting that right.

"Also, going over organizational charts on what a hospital looks like. It's very eye-opening to how big of a picture this actually is, because just starting college, it's a complete unknown. At that age, you don't even realize how much you don't know."

BY GLENYS YOUNG



JOHN GULDE, PHARM D

Chief of Pharmacy

Thomas E. Creek VA Medical Center, Amarillo, Texas

Graduate: 2000

DECISIONS, DECISIONS, DECISIONS: Approximately 20 summers ago, John Gulde, PharmD, arrived at a career crossroads. He could use his bachelor's degree in physics to secure a job as an analyst, consultant, teacher or technician, or he could choose a path seldom traveled by physicists. "TTUHSC was opening a new School of Pharmacy in Amarillo and it was just perfect timing," Gulde recalls. "I looked into it and thought this would be a great path for me."

SERVING THOSE WHO HAVE SERVED: Gulde has been with the Thomas E. Creek VA Medical Center in Amarillo since he received his PharmD in 2000. In 2012, he was named interim chief of pharmacy, a title that became permanent in early 2013. He seized the opportunity and has played a key role in improving the administrative structure and clinical functions at the VA pharmacy. In doing so, Gulde has earned the respect of his peers and supervisors. "I am trusted to be a member of so many teams and committees where my thoughts are valued," he said. "It's a great honor."

FACING THE CHALLENGES: Gulde believes there are many roles for pharmacists to play in improving patient care. He says the VA supports that position by recognizing pharmacists as critical members of its health care team and by giving its pharmacists the latitude to practice to the full extent of their education and training.

"That pioneering spirit helps to create opportunities to serve in many areas, from ambulatory care and anticoagulation to specialties such as hepatitis, mental health and oncology. Our profession is constantly evolving, and what we do as pharmacists today and how we do it will not be the same throughout our entire careers. So we must have a mindset to embrace these changes as opportunities."

BY MARK HENDRICKS

JENNIFER OWEN, MD

Gynecology and Women's Health

Owen Health Group, Lubbock, Texas

Graduate: 2001

JEFF OWEN, MD

Family Medicine

Owen Health Group, Lubbock, Texas

Graduate: 2005



NEAL HINKLE

BLAZING A TRAIL: When siblings Jennifer Owen, MD, and Jeff Owen, MD, started thinking about opening a small family-run health clinic, they knew they would be breaking industry trends. However, their strong desire to get back to the basics in providing health care for their patients is what kept them forging ahead.

In July 2017, Owen Health Group opened its doors to patients. From a fireplace nestled in the lobby, to the soft music and homey decor throughout, their personal touch is woven into every square inch. "We spent a lot of energy and time on the building to make it a unique experience," Jeff said.

CONQUERING FEARS: The siblings faced many obstacles as they prepared to leave their successful practices and venture out on their own. For Jeff, navigating the unknowns of construction and setting up the business side of the clinic were some of the greatest challenges. "He has done a lot of research—his business mind is what led us," said Jennifer, concerning the trust she placed in her brother to overcome these hurdles.

Jennifer's greatest test was moving on emotionally from her 12 years in obstetrics. "Being a part of someone's baby coming into the world is indescribable," she said, as she recounted her resolve to savor every last moment with her expecting mothers. But her new venture has also given her joy. "We have patients crying and hugging us, thanking us for giving them their lives back," Jennifer added. She was the first physician in the region to offer the Votiva device, a new vaginal rejuvenation treatment for women.

WHY IT WORKS: There is no denying the camaraderie, love and respect the Owen siblings have for each other. "We love working side-by-side—we really complement each other well," Jeff said. "She comes with a happy smile, and it reflects on the entire practice."

As the Owen Health Group prepares for their first anniversary, the brother and sister team are humbled by the support of their family, patients and a team of employees that are emotionally invested in their vision. "We have absolutely zero regrets," Jeff said.

BY ABBI BRICKEY



ANTHONIA “ADA” ABANOBI, NP, BSN

Orthopedics/Trauma Nurse

Hermann Memorial Hospital, Houston, Texas

Graduate: 2003

BEST OF BOTH WORLDS: As a student athlete, physical activity and fitness were normal for Ada Abanobi, NP, BSN. While she completed her bachelor’s and master’s degrees in nursing, she continued her workout schedules, always finding time to visit the gym. She has taken that dedication to another level, competing in national bodybuilder and physique competitions. She has placed in the top three of most of her competitions and holds a pro card in the fitness division for Fitness Universe with Musclemania. Additionally, she was a member of the Houston Texans Cheerleaders in 2006.

She now brings her passion for fitness and healthy eating to her patients. “As a nurse, I am in a unique position to talk to my patients about their health and recovery,” she said. “As a part of their recovery from a surgery or an injury, many patients are wanting to be more active and eat better. I show them they can do it. As we age, mobility becomes priceless. I am finding ways to show my patients how they can increase their mobility and maintain function. I lead by example and have the opportunity to directly impact these patients.”

NURSING, A FAMILY AFFAIR: Nursing runs in the blood of the Abanobi family as her mother, Beatrice, (Nursing ’93) and sister, Cornelia, (Nursing ’04) are registered nurses and graduates of the TTUHSC School of Nursing as well. Abanobi began her nursing education thinking she would apply to medical school after graduation.

“I realized how much I loved nursing and how much of an impact I could make. I received a great education at TTUHSC and knew I was in nursing to stay. I am developing a plan to combine my dedication to teaching patients about fitness and my practice as a nurse practitioner. This will be a new avenue for me, one that will directly impact them.”

BY JO GRANT LANGSTON



KRISTINA FLORES, MS

Medical Student, Class of 2022

Paul L. Foster School of Medicine, El Paso, Texas

Graduate: 2018 (TTUHSC El Paso)

HEAD MEETS HEART: Kristina Flores, MS, carved her own path to medical school. While she knew from a young age she wanted to be a doctor, an artistic gift led her to an undergraduate degree in painting. “Though it was more work to balance art classes with pre-med, I wanted to pursue both passions.”

The loss of her parents as a child taught Flores to make the most of all opportunities life has to offer. Her father, a Gulf War veteran, returned home from deployment with post-traumatic stress disorder (PTSD) that was never diagnosed. “I lost both of my parents because of a disease that went undiagnosed and untreated—a lot of my interest in medicine stems from that.”

PEOPLE FIRST: As part of TTUHSC El Paso's inaugural class in the Graduate School of Biomedical Sciences, Flores saw an opportunity to unite the university's three schools. In her first year, she was nominated as senator for the Student Government Association (SGA); in her second year, she was named SGA vice president of communications, collaborating with the medical school on events such as the Students United Para Nuestra Salud Health Fair and Texas Two-Step CPR trainings.

“What I really like about TTUHSC El Paso is that we're a very tight-knit community. The faculty and staff show us every day that they care about us and want to see us achieve our dreams.”

A NEW EXPERIENCE IN A FAMILIAR PLACE: Now a first-year student in the Paul L. Foster School of Medicine, Flores is excited to be a step closer to her dream. “I picked Paul L. Foster because I am a native El Pasoan, and my passion is to be a practicing doctor here one day.”

With four grueling—yet exciting—years ahead of her, Flores hasn't made up her mind about a specialty. But she has her eye on psychiatry, hoping to one day work with children and adults suffering from PTSD.

In the meantime, she still makes time to paint. “I try to paint five to six hours per week. I have about four paintings in progress right now.”

BY RACHAEL PAIDA



HANI ATALLAH, MD

Adult Psychiatry

Family Health Centers of San Diego, San Diego, California

Graduate: 2013

KATRINA DELEON, MD

Geriatric Medicine

Scripps Clinic, San Diego, California

Graduate: 2013

THE RIGHT FIT: No one knows where fate will lead, but for Hanan Atallah, MD, and Katrina DeLeon, MD, it seems like destiny steered them to join the Paul L. Foster School of Medicine's (PLFSOM) inaugural class in 2009. In addition to being home to a new medical school with a unique, community-based curriculum, El Paso had a natural draw. "I fell in love with El Paso. It just felt like a warm, beautiful place," said Atallah, a native of Lebanon.

For DeLeon, coming from a family of nurses put health care at the forefront, and the decision to move to El Paso from Lubbock—where she grew up and earned an undergraduate degree in cell and molecular biology at Texas Tech University—was intuitive. TTUHSC El Paso's philosophy of caring for people, and not just treating diseases, made El Paso stand out.

MUTUAL SUPPORT: While the demands of medical school are notorious for putting a damper on social lives, the long hours spent studying brought Atallah and DeLeon closer.

Their friendship, combined with the support of TTUHSC El Paso's Student Affairs staff, and the enthusiasm of faculty like Henry Weisman, MD, associate professor in the Department of Psychiatry, helped them push through many sleepless nights.

In their last year of medical school, the two decided to apply for a couples match through the National Resident Matching Program and were fortunate to match to programs in Los Angeles—Atallah to psychiatry and DeLeon to internal medicine.

SERVING THE UNDERSERVED: Now married and practicing in San Diego, Atallah and DeLeon are living the PLFSOM's philosophy of service, working mostly with underserved—and often marginalized—immigrant communities. With patient communication being one of the major challenges in her chosen field of geriatrics, the exposure to medical Spanish she received at the PLFSOM has been invaluable, said DeLeon.

"Going to med school in El Paso brought out the passion for caring for the underserved in both of us," said Atallah. "I come from that population. I remember getting my shots from a community clinic in Lebanon as a kid. I can really relate."

BY RACHAEL PAIDA

RICARDO PEREZ, BSN, RN

Registered Nurse

Progressive Care Unit, Providence Memorial Hospital, El Paso, Texas

Graduate: 2013

ANGELICA PEREZ, BSN, RN

School Nurse

Desert Wind Elementary and Middle School, El Paso, Texas

Graduate: 2013



TOMMIE MORELOS

FINDING SOMETHING MORE: Angelica Perez, BSN, RN, wanted to be a nurse since she was a little girl watching her grandmother work as a nurse in Ciudad Juárez, Mexico. For Ricardo Perez, BSN, RN, interest in the profession came later in life. He earned an undergraduate degree in business management and marketing, but a few years working in the business world left him looking for something more. After a friend in the medical profession introduced Ricardo to nursing colleagues, he found his calling.

"I decided I was done with the business world," Ricardo said. "I knew I wanted to get into health care, into making people feel better physically."

REWARDS: Angelica and Ricardo said the family-like atmosphere at the Gayle Greve Hunt School of Nursing (GGHSON) helped them through their education. Working as nurses has been different than they expected, but "the rewards are a lot better than you think," Angelica said.

"Sometimes you have days when you want to cry, but then there is always at least one patient who says, 'Thank you,' or somebody tells you that you really helped them," she said. "It really makes you feel like you are doing good, like this is your calling. I really enjoy it."

"Every day, we are reminded that we are fragile beings, and that at some point, we're all going to pass away," Ricardo said. "But the things that we do while we're here are what make this world a better place. I want to help people. I notice that the nurses who are only there for the money don't last. The ones that are there with heart and want to make a difference, they stay 20, 30 years."

INSPIRATION: Ricardo and Angelica said they are grateful to the GGHSON for putting them on the right path. "They gave us the opportunity to better our lives," Ricardo said. "Going through their nursing program made a difference in our lives, and allows us to make an impact in our community."

Ricardo is now in his final year of the MSN Family Nurse Practitioner program at TTUHSC, and Angelica plans on starting her advanced degree soon.

"I enjoy being a nurse; I didn't want to be a nurse practitioner," Angelica said. "But watching Ricardo go through the FNP program inspired me. Now I want to do it, too."

BY JAY KOESTER

EL PASO ELECTRIC GIFT HELPS UNDERSERVED EL PASOANS RECEIVE MEDICAL CARE



El Paso Electric's George De La Torre, Karmen Mayorga and Eddie Gutierrez, (center) tour the Medical Student Run Clinic in Sparks, a small community in far east El Paso County. The company has a decades-long history of support for TTUHSC El Paso, including its student run clinic, which provides lifesaving services to the residents of Sparks.

El Paso Electric has a decades-long history of giving to the community. While the company has made \$100,000, \$500,000 and even \$5 million gifts to TTUHSC El Paso, its smaller donations mean just as much.

The small community of Sparks in far east El Paso County is benefitting from a recent \$2,000 gift from El Paso Electric to TTUHSC El Paso's Medical Student Run Clinic. The clinic provides a wide variety of lifesaving medical services to the residents of Sparks, and thanks to grants and donations, all of the services are free of charge.

El Paso-area physicians volunteer at the twice-a-month clinic, managed completely by TTUHSC El Paso students under the supervision of volunteer physicians. Medical students from the Paul L. Foster School of Medicine organize the clinic, recruit the physician volunteers and apply for grants.



Learn more about El Paso Electric's support of the Medical Student Run Clinic [and how you can contribute, too] at elpaso.ttuhsoc.edu/ia/elpasoelectric.aspx.



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™
EL PASO



**COME
BACK.
MOVE
UP.
LIVE
BETTER.**

Calvin Clark, nurse practitioner at University Medical Center in Lubbock and Texas Tech University Health Sciences Center alumnus.

“The health care industry here is on the forefront of innovation. People think Lubbock is just a little West Texas town with no research, but we really have a lot going on.”

**DISCOVER HIGH-PAYING JOBS AND SEE WHY MORE AND MORE
TTUHSC ALUMNI ARE CHOOSING TO COME BACK TO LUBBOCK
RETURN2LBK.ORG**



As Seen on Instagram

On March 18 at 7 p.m., flames licked at the base of the buildings on the TTUHSC Amarillo campus creating a close call for three research students and a security guard. Thankfully, they all made it out of the building safely and the fire went no further, although smoke did infiltrate the buildings closing campus for two days. Investigators from the Amarillo Fire Marshal's office, along with the Potter County Fire Department, determined the fire was caused by electrical lines on the ground from a power utility pole blown over during the high winds earlier in the day.





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

MOVED RECENTLY OR JUST NEED TO
UPDATE CONTACT INFORMATION?

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

Meme's Gift

Nursing Alumna Honors
Her Grandmother
with Scholarship

She's washing bottles and breast pump equipment at two o'clock in the morning. Standing at the sink wondering when it's her turn to do something. Something for her. Something for others. Something meaningful with great purpose.



Michelle Haleck, BSN, RN, RD



Read Michelle's story at
www.yourlifeourpurpose.com.

THE CAMPAIGN FOR
YOUR LIFE
— our purpose —

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

