

PULSE

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

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of the world
and we'll
take care of



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UPDATES



Moved recently or just need to update contact information?

Change it with the TTUHSC Office of Alumni Relations by visiting <http://blogs.ttuhs.edu/alumni/update-your-information>



Class Notes

Class notes are back on our new blog: the TTUHSC Alumni Insider.
Check it out on: blogs.ttuhs.edu/alumni/class-notes

We want your feedback

Send your comments to
Kara Bishop at kara.bishop@ttuhsc.edu



We're Online

Check out our website:
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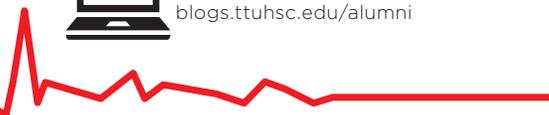
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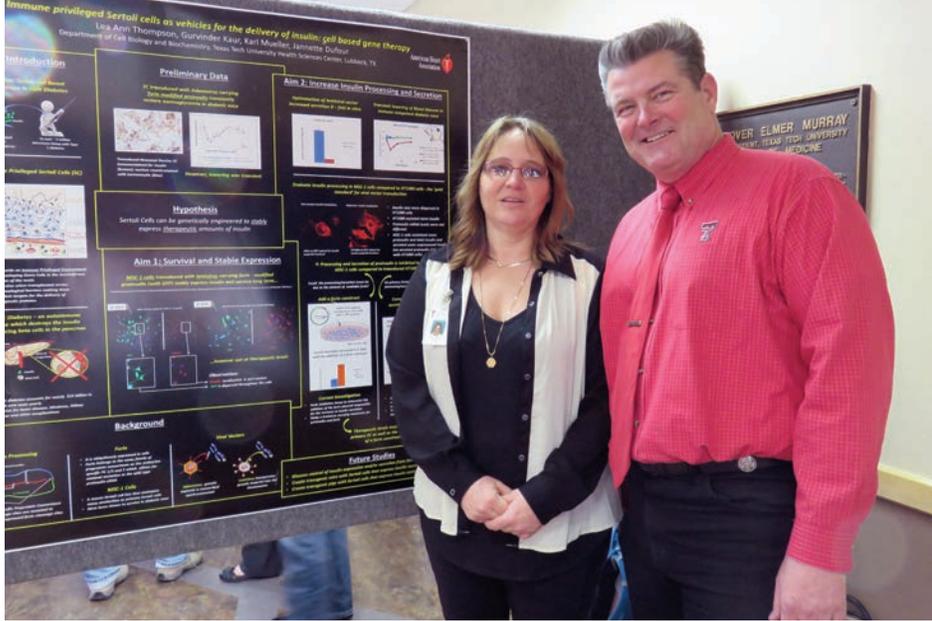
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Doctoral student Lea Ann Thompson gives her research presentation for Tedd L. Mitchell, MD, during Student Research Week.

RESEARCH COMPONENTS BENEFIT ALL DISCIPLINES

*“My name is Sherlock Holmes. It is my business to know what other people don’t know.”
-Sherlock Holmes in “The Adventure of the Blue Carbuncle”*

Why research? It’s elementary my dear Watson ...

This spring, TTUHSC celebrated a milestone in our Student Research Week (Read more about this on page 4). Not only did we have a record number of students participate, but we also had, for the first time, representation of all TTUHSC schools. In the past, student research had primarily been the domain of the Graduate School of Biomedical Sciences (GSBS). In a way this made sense because it is the GSBS students who strive to become the laboratory scientists of tomorrow. However, as our university grows in size and complexity, providing research experience to as many students as possible in all TTUHSC schools is a worthwhile goal.

For our budding GSBS scientists, Student Research Week is a celebration of much hard work and is a stepping stone along their paths to become the scientific leaders of industry and academia. However, given our historical emphasis on strong educational and clinical programs, I’ve been asked why I believe research is necessary for those whose career paths will be clinical and not research oriented. To quote one of my favorite literary characters, the answer is “elementary.” Participation in research trains a person in observational curiosity, inductive and deductive reasoning, patience and persistence. Such skills are immensely important not only for those in laboratories, but also for those whose professions will require them to decipher, digest and interpret large amounts of ever-changing data for the betterment of their patients. The rigors of research hone these skills, which is why all student clinicians benefit from partaking in such scholarly activity.

This is why I am so excited to see the increased participation in research amongst our students. We’re creating a new generation of health care professionals, armed with knowledge of technology coupled with the reasoning skills of a master detective. While they are thrilled to be participating and presenting their findings, in reality we’re providing them with the intellectual tools necessary to succeed in professions that require they “know what other people don’t know.” Makes me proud to be part of this great university.

Tedd L. Mitchell, MD
President



Summer 2015 | Vol. 25 No. 2

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Editor
DANETTE BAKER

Senior Editor
KARA BISHOP

Contributing Writers
JESSICA BAGWELL, SUZANNA CISNEROS, AARON
CULLEN, JO GRANT, DOUG HENSLEY, HOLLY LEGER

Designers
AMANDA SNEED, HARTSFIELD DESIGN

Contributing photographers
KENNY BRAUN, CAROLYN CRUZ, MICHELLE
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TTUHSC and TTU System Officials along with Abilene community members "broke ground" on the site of the future School of Public Health in Abilene



Carolyn Cockerell and Michael Molina

TTUHSC Breaks Ground at Future School of Public Health in Abilene

TTUHSC and TTU System officials broke ground May 20 on the site of the future School of Public Health in Abilene.

The school was made possible through private donations, the second largest gift in TTUHSC history. The school will occupy the third building on the Abilene campus, neighboring the School of Nursing, School of Pharmacy and Graduate School of Biomedical Sciences. The future School of Public Health will educate qualified experts in methods of managing data and providing health resources to communities in need.

"Through educational and research programs, the TTUHSC School of Public Health will address the growing needs of our region and state by providing professionals trained to study and preserve the health of communities," said TTUHSC President Tedd L. Mitchell, MD.

The future School of Public Health will help meet a major need in health care. As public health challenges grow in communities across the country, it is projected that the U.S. will need 700,000 public health experts by 2020. Many of these public health experts will be needed in West Texas.

"The establishment of a School of Public Health is a historic milestone for Texas Tech University Health Sciences Center and the Texas Tech University System," said Chancellor Robert L. Duncan. "Congratulations to the entire TTUHSC leadership team for their work. All of us are very appreciative of the great partnership we enjoy with Abilene."

TTU System Regent Tim Lancaster, president and CEO of Hendrick Health System, added that the school will likely encourage a transformation to better community health across West Texas, as more experts emerge from the school ready to help those in need.

"Today's groundbreaking is another example of the great collaboration among Texas Tech University Health Sciences Center, the Hendrick Health System and the Abilene community," Lancaster said. "Together we are advancing health care throughout the region and state with our future School of Public Health. I look forward to this exciting chapter for Texas Tech University Health Sciences Center at Abilene."

You can read more about the future School of Public Health in the "Population 3" article in the Winter 2015 issue of Pulse.

School of Medicine Establishes New Center of Excellence

The School of Medicine has established a new Center of Excellence for Translational Neuroscience and Therapeutics. Steven L. Berk, MD, dean and TTUHSC executive vice president and provost approved the center in December.

"The goal of the center is to develop and support clinically relevant translational research projects that involve scholarly activities and collaborations of basic science and clinical departments," said Volker Neugebauer, MD, PhD, director of the new center and professor and chair in the School of Medicine Department of Pharmacology and Neuroscience.

While the current key areas of expertise include pain, addiction, alcohol dependence and epilepsy, the center will support any clinically relevant research on neuropsychiatric disorders and nervous system function.

The neurophysiology lab housed in the Department of Pharmacology and Neuroscience will be available to members of the center.



Hamm



Pineda



Raya



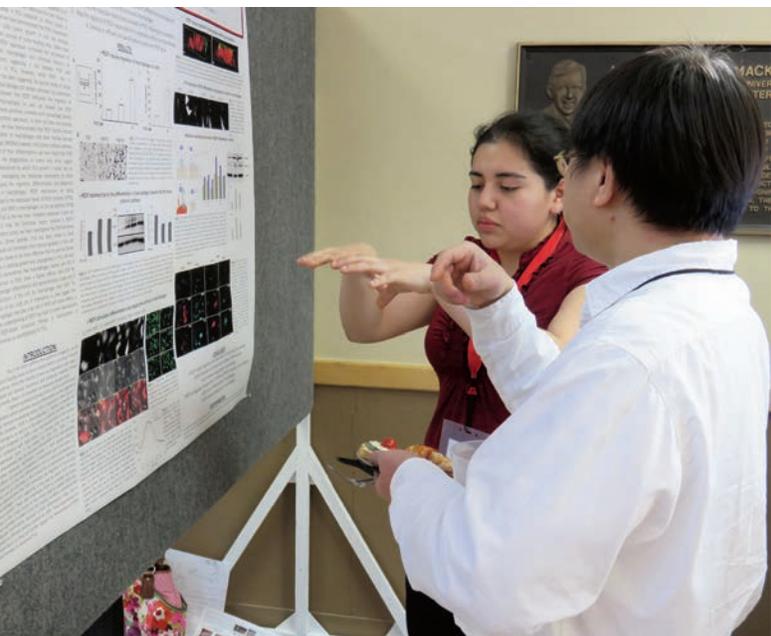
Van Weelden

TTUHSC Staff Named to Leadership Texas Class of 2015

Four TTUHSC staff members were named to the Leadership Texas Class of 2015, a program of the Leadership Women organization.

Staff members include Ashley Hamm, managing director, Department of Institutional Advancement; Victoria Pineda, MLA, CFRE, assistant vice chancellor, Department of Institutional Advancement for TTUHSC at El Paso; Ginger J. Raya, EdD, clinical administrator for TTUHSC at El Paso; and Susanne A. Van Weelden, senior director, Research Division for TTUHSC at El Paso.

Leadership Texas provides educational and development opportunities to Texas women who seek to advance as leaders and expand their knowledge of the diverse dynamics, issues, challenges and opportunities that impact their work, personal lives and communities.



GSBS Students Host Student Research Week

TTUHSC Graduate School of Biomedical Sciences hosted the 27th Annual Student Research Week in March. Along with distinguished seminar presentations, students from different disciplines participated in a poster competition and presented research projects to faculty and peers.

“Student Research Week provides our colleagues at TTUHSC and the community a glimpse into the quality of TTUHSC student researchers,” said Brandt Schneider, PhD, dean of the Graduate School of Biomedical Sciences (GSBS).

Every year the GSBS students organize Student Research Week to showcase the next generation of biomedical researchers and their work and invite distinguished national and international speakers to present discoveries on a specific theme as chosen by students. The theme this year was Host-Microbe Interactions: Exploring Worlds Within.

Keynote speakers were Steven Reed, PhD, founder, president and chief scientific officer of the Infectious Disease Research Institute, and Eugene Chang, MD, Martin Boyer Professor in the Department of Medicine at the University of Chicago. Student Research Week was also supported by a banquet hosted by the Graduate Student Association and a reception hosted by the Office of Institutional Advancement.

Chancellors’s Council Award Winners

TTU System Chancellor Robert L. Duncan announced the TTUHSC recipients of the annual Chancellor’s Council Distinguished Faculty Awards. Recognizing excellence in academics and research, these awards represent the most prestigious honor granted to faculty members throughout the TTU System.

The Distinguished Teaching Awards went to Vaughan Lee, PhD, associate professor in the Graduate School of Biomedical Sciences; Wendy Thal, DNP, RN, FNP-C, associate professor in the School of Nursing; and Sue Ann Lee, PhD, associate professor in the School of Allied Health Sciences Department of Speech, Language and Hearing Sciences.

The Distinguished Teaching Awards for TTUHSC El Paso went to Harry E. Davis II, MD, associate professor and vice chairman for education in the Paul L. Foster School of Medicine Department of Medical Education; Janet Piskurich, college master and professor in the Paul L. Foster School of Medicine Department of Medical Education. The Distinguished Research Awards for TTUHSC El Paso went to Rajkumar Lakshmanaswamy, PhD, associate professor and basic science research director of the Center of Excellence in Cancer Research; and Richard W. McCallum, MD, FACP, FRACP, professor and the founding chair of the Paul L. Foster School of Medicine Department of Internal Medicine.

5 minutes with the faculty...

MAKING CHOICES

THOMAS A. PRESSLEY, PHD | From Education to Location | *By Aaron Cullen*

When Thomas A. Pressley, PhD, professor of Medical Education and Physiology in the School of Medicine Department of Medical Education, made the career move to TTUHSC, he said he was attracted to the institution because, at the time, it was a relatively young institution. The university was also completing a major recruitment drive — bringing in dozens of new investigators. “It looked like it was going to be a very exciting place to work,” Pressley said.

Originally from Baltimore, Maryland, Pressley always knew that he wanted to work in academia as a scientist; it was really only a question of what discipline to explore. Pressley spent his undergraduate training at Johns Hopkins University, where he gravitated to biology, while retaining an interest in chemistry, physics and mathematics.

“I eventually became a physiologist because that specialty proved to be the most rewarding combination of the various disciplines,” he said.

When it came time for graduate school, he accepted an offer from the Medical University of South Carolina in Charleston.

“By then, I was married to Beth, a girl from my high school that I met my freshman year in college, and we had a pretty stereotypical student lifestyle. The lifestyle was shaken up pretty well when we moved from the slower pace of Charleston to New York City and Columbia University for my postdoctoral training.”

Eventually, Pressley was recruited by the University of Texas at Houston and then TTUHSC.

“At that point, Beth and I had two children, and Lubbock has proved to be a great place to raise a family.”

Pressley’s career path has taken several different turns, but he would not have it any other way.

“I’ve always enjoyed the diversity. As I progressed in my career, I found that I was doing more and more with education and academic leadership. These areas posed a new set of challenges that appealed to me, and I gradually shifted from the laboratory to the office and classroom. I also enjoy the opportunity to make contributions at all levels, from interactions with a handful of students in a small-group conference to the development of programs and policies within professional organizations such as the American Physiological Society.”

Pressley has participated four times in the Bataan Memorial Death March at the White Sands Missile Range.

Pressley has accumulated more than 1,000 hours in gliders with multiple flight trips of 150 miles or more.

Pressley and his family enjoyed a six-month sabbatical in western France.

According to his FitBit and records at the TransAmerican site at Lawrence Berkeley Laboratories, Pressley has walked more than 660 miles since the beginning of the year (as of press time), which is equivalent to the distance from Yorktown, Virginia, to Perry County, Kentucky.

At the 2015 Dean’s Faculty Appreciation Ceremony, Pressley won the Dean’s Basic Science Teaching Award, in large part because of his efforts to convert his lectures to more interactive formats for optimal student learning. He is pictured recording his lectures to audio for this purpose.





Allied Health Sciences Appoints New Regional Dean at Permian Basin

Neeraj Kumar, PhD, PT, was appointed regional dean and assistant program director for the School of Allied Health Sciences physical therapy program at the Permian Basin.

“I am excited for this wonderful opportunity and look forward to working with the outstanding leadership, faculty and staff in preparing future health care leaders for West Texas and the world.”

Kumar received his entry-level degree in physical therapy from Manipal Academy of Higher Education in Manipal, India; his post-professional degree in physical therapy from Guru Nanak Dev University in India; and his PhD in rehabilitation science from Buffalo State, in Buffalo, New York, a part of The State University of New York. He is licensed to practice physical therapy in India, New York and Texas and has more than 18 years of experience as a physical therapist, 13 of those years as a physical therapy educator and administrator.



Tenner Presents at the Association of American Medical Colleges

Thomas E. Tenner, Jr., PhD, associate dean for Faculty Affairs and Development for the School of Medicine presented at the Association of American Medical Colleges (AAMC) meeting in February.

Tenner’s presentation highlighted promising practices for improving organizational communication.

“The AAMC invited us to the meeting to make a presentation on how we try to communicate to our faculty,” Tenner said. “The silver bullet is (School of Medicine Dean Steven L.) Berk. His focus is on communicating with students and faculty. What is interesting is that we can’t identify any one thing that we do to communicate to faculty that works best. What resonates with one faculty member may not with others.”

Tenner said the Faculty Forward Engagement Survey, which was created by AAMC to help institutions assess their faculty needs, is based on what faculty members think. It queries faculty satisfaction.

“The one question asked on the Faculty Forward survey that impressed me concerned faculty feeling free to express their opinion without retribution,” Tenner said. “We scored 76 percent while the cohort was 46 percent. I wonder if our key to communication is that our faculty feel empowered to speak their minds without worrying that it will come back to haunt them. In other words, I believe that communication at our School of Medicine is a dialogue not a monologue.”

School of Nursing Develops Accelerated Program for Veterans

A new program offered by the School of Nursing and funded by a \$200,000 grant from the Texas Workforce Commission College Credit for Heroes program will soon create new opportunities for veterans with medical military experience.

“The grant is to initiate a Veteran to Bachelor of Science in Nursing Program (VBSN), which will begin in spring 2016,” said “Melinda Mitchell Jones, MSN, RN, associate dean for nontraditional undergraduate studies in the School of Nursing and principle investigator for the grant. “The program will be an accelerated 12-month course of study for veterans who have prior military medical experience who want to earn a Bachelor of Science in Nursing (BSN) from TTUHSC.”

The beginning of the program and the funding for the Texas Workforce Commission is a dream come true to Jones and other School of Nursing faculty who have anticipated creating a veterans program like this for many years.

“It actually started with Dr. Myrna Armstrong, EdD, RN, FAAN, former professor and regional dean of the School of Nursing at Highland Lakes, around 2010,” Jones said. “She envisioned a similar program to specifically assist Army-licensed vocational nurses to prepare to sit for licensing to become registered nurses. The timing was not right for the School of Nursing during that period because of other initiatives.”

After the retirement of Armstrong, faculty like Jones continued to pursue funding to create a BSN program for veterans. The 2013 expansion of the Texas Workforce Commission’s College Credit for Heroes program was a timely answer to School of Nursing’s hope for a means to start the VBSN program.

The one-year program will address a key challenge facing veterans who have served in a medical capacity in the military. Many of these veterans have extensive medical and clinical knowledge, but, until now, there has not been a way to translate time served in a military clinical capacity into course credit hours. The Texas Workforce Commission saw School of Nursing’s VBSN program as a way to meet a strategic goal given the school’s record of bringing forward innovative educational opportunities statewide.

“The program will facilitate the veteran’s progression to graduation,” Jones said. “Courses will be delivered online through a distance education platform. For clinical experiences, students will work one-on-one with a clinical coach for one year under the supervision of School of Nursing faculty.”

The School of Nursing began accepting applications for the VBSN program in May, and coursework will begin spring 2016. The program will be based at School of Nursing sites in Amarillo, Dallas and the Austin/Hill country area. Currently, it is the only VBSN initiative to be sponsored by the Texas Workforce Commission and the first of its kind in the state. Potential applicants should contact Melinda Mitchell Jones at (806) 743-4842.

MATTERS

of the heart

By Kara Bishop

Heart and Soul
Speech-Language Pathologist Dedicates Life to Others

At 65, Marjorie Asbill, SLP, (SOAHS '53) didn't hesitate when she was told to throw herself out of an airplane, which was experiencing some mechanical failure over Fairbanks, Alaska.

As director of special education and speech language for the Fairbanks North Star Borough School District, Asbill would fly into 11 remote villages — a 60,000-mile radius around Fairbanks — to help children. One thing that never wavered in her career was her dedication and commitment to kids who needed speech therapy. In fact, the reason for working in Alaska at all was because of the help she'd given to a child who later became a grateful adult on the school board in Fairbanks.

"I've had many people call me up to direct their programs, and I normally have no idea how they found my name until I meet the adult version of a child I taught," Asbill said.

This helps explain why her speech pathology career has taken her to the remote villages in Alaska as well as American Indian reservations in New Mexico and to Hawaii, Oregon, and, of course, the 12 years she spent in private practice in Lubbock. This list barely scratches the surface of her career. Asbill is up for adventure if it means she gets to improve someone's quality of life.

"Meeting the great men and women some of my students and patients have become is why I have always taken such pride in my profession," she said. "I wanted to make sure what I did with my life was fun and important, and with speech pathology I managed to achieve both."

Asbill's passion for helping children with speech disabilities was kindled after witnessing the care of a student with autism in her school growing up.

"I knew that speech therapy in schools could be improved, and I wanted to be part of that movement," Asbill said.

"I wanted to show children that speech therapy could be fun as well as life changing. I also knew that if a student was embarrassed, then speech improvement and progress wouldn't happen, so I did my best to make speech therapy sessions a safe environment."

She has impacted thousands of children that she will never see again; risked her life to treat patients in speech therapy; and dedicated her life to the building up of others, especially



"Meeting the great men and women some of my students and patients have become is why I have always taken such pride in my profession."

those with autism. Asbill is the true definition of a servant, and the three foster children she provided a home for, in addition to the five children she raised, could attest to that.

"There's no way to measure her impact in her career field," said Leslie Prichard, Asbill's daughter. "There's no way to count just how many people she's helped. She put her heart and soul into making her patients' and students' lives better." 

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

Francis Named President-Elect of Texas Chapter of American College of Physicians

Maureen D. Francis, MD, medical skills course co-director for the Paul L. Foster School of Medicine Department of Medical Education and associate professor in the Department of Internal Medicine, was named the president-elect of the Texas Chapter of American College of Physicians (ACP).

“It is an honor to serve as the president-elect of the Texas Chapter of American College of Physicians,” Francis said. “This is a wonderful opportunity to work with dedicated people from all parts of the state to improve care, support medical education and research, and represent the Texas internal medicine community.”



Sixth Annual Power of the Purse Luncheon Hosted in Amarillo

Lauren Bush Lauren, CEO of The FEED Foundation and niece of former First Lady Laura W. Bush, was the keynote speaker for the sixth annual Power of the Purse luncheon in April. Lauren discussed her foundation and the global hunger epidemic.

“I feel like hunger’s one of those things that’s very persistent, very overwhelming, very far away; yet, it is obviously such a massive global issue that really demands our attention and focus,” she said.

Power of the Purse has successfully raised more than a million dollars to support health initiatives in the Panhandle, while raising awareness of the Laura W. Bush Institute for Women’s Health (LWBIWH), and this year the proceeds went toward the LWBIWH as well.

The institute is working to develop the curriculum for sex- and gender-based medicine that will be pilot programmed at John’s Hopkins University, Stanford University and the Mayo Clinic — it has been beta-tested twice at TTUHSC. (Read more about the program in the Winter 2015 issue of Pulse).

Roughly 750 people attended the event with net proceeds totaling approximately \$150,000.



Misra



Byrd

TTUHSC Faculty Members Awarded CPRIT Funding

The Cancer Prevention and Research Institute of Texas (CPRIT) recently funded projects for two TTUHSC faculty members.

Subhasis Misra, MD, FACCWS, FACS, associate professor in the School of Medicine in Amarillo and chief of Gastrointestinal and Hepato-Pancreato-Biliary Surgery in the Division of Surgical Oncology, received \$1.4 million for his project, “Get FIT to Stay Fit. Stepping Up to Fight Colorectal Cancer in the Panhandle.”

The project is geared toward improving the screening rates for colon cancer in the Texas Panhandle. This work addresses two critical barriers to screening: lack of knowledge and awareness of colorectal cancer and lack of access to screening and diagnostic services.

Theresa Byrd, DrPH, MPH, RN, chair of the Graduate School of Biomedical Sciences Department of Public Health, received \$1.4 million for her project, “ACCION for Rural West Texas.”

The prevention program, Against Colorectal Cancer in our Neighborhoods (ACCION), for Rural West Texas will provide community-based education about colorectal cancer screening and free fecal immunochemical testing for uninsured residents of Lubbock and the surrounding eight counties as well as free colonoscopy screenings for positive fecal immunochemical tests.



GGHSON Officially Opens Building in El Paso

The TTUHSC El Paso Gayle Greve Hunt School of Nursing officially opened its new building Feb. 3, 2015, with a ribbon cutting ceremony. The location is at the corner of 201 N. Concepcion Street and Alberta Avenue.

The 34,000-square-foot facility, which is located directly across from the Paul L. Foster School of Medicine Medical Education Building, includes a high-tech environment for faculty and students; a 12,000-square-foot simulation lab; four classrooms; and collaborative learning spaces. The school offers an accelerated Bachelor of Science in Nursing program as well as a new RN to BSN program.

“The TTU System is excited about the Gayle Greve Hunt School of Nursing and its future,” said TTU System Chancellor Robert Duncan. “We have an outstanding health-related institution in El Paso, and we have an incredible opportunity to impact health care by training first-class nursing students in a first-class facility.”

The nursing school responded to a severe nursing shortage in the greater El Paso region by admitting its first class of BSN students in 2011. The school now has approximately 90 students and 10 faculty members, and administrators anticipate the school will grow to 300 students in five years to counteract the long-term nursing shortage in the medically underserved El Paso region — 173 have graduated to date. The Gayle Greve Hunt School of Nursing joins the Paul L. Foster School of Medicine and the regional campus of the Graduate School of Biomedical Sciences.



Laura W. Bush
INSTITUTE for WOMEN'S HEALTH
 TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

LWBIWH Names Tyne Executive Director

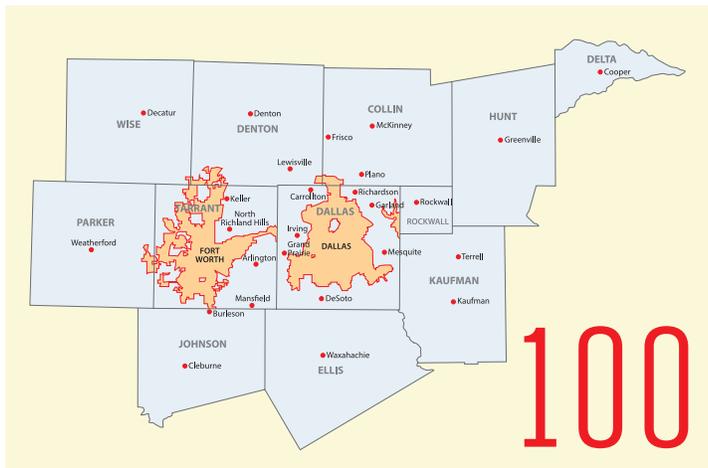
Connie Fraser Tyne was named the new executive director of the Laura W. Bush Institute for Women's Health (LWBIWH) in April. Tyne comes from The Cooper Institute, a non-profit research and education institute in Dal-

las, where she served as executive vice president of External Relations.

During her 18-year association with The Cooper Institute, Tyne directed several successful programs for improving health for women, children and men of all ages through good nutrition, regular exercise, behavior modification, healthy school environments and effective medical care. She successfully brought together government agencies, private groups and philanthropic individuals to advance medically-based, scientifically-proven and cost-effective ways to achieve these goals.

“Connie Tyne has a passion for keeping people healthy, particularly women who have been underserved in health care,” said TTUHSC President Tedd L. Mitchell, MD. “That is why she is the perfect fit to serve as executive director of the Laura W. Bush Institute for Women's Health. She has the heart and the energy for the work that is being conducted, and she has the prior experience and expertise to execute her duties with phenomenal success, just as she did within the Cooper organizations.”

JUST The facts



Roughly 1/3 of the School of Pharmacy student population of TTUHSC at Dallas come from within a 100-mile radius of the Metroplex.



TTUHSC has 21 community telemedicine sites across the South Plains.

TTUHSC Informational Technology Services provides institutional support for more than 10,500 computers across all campuses.



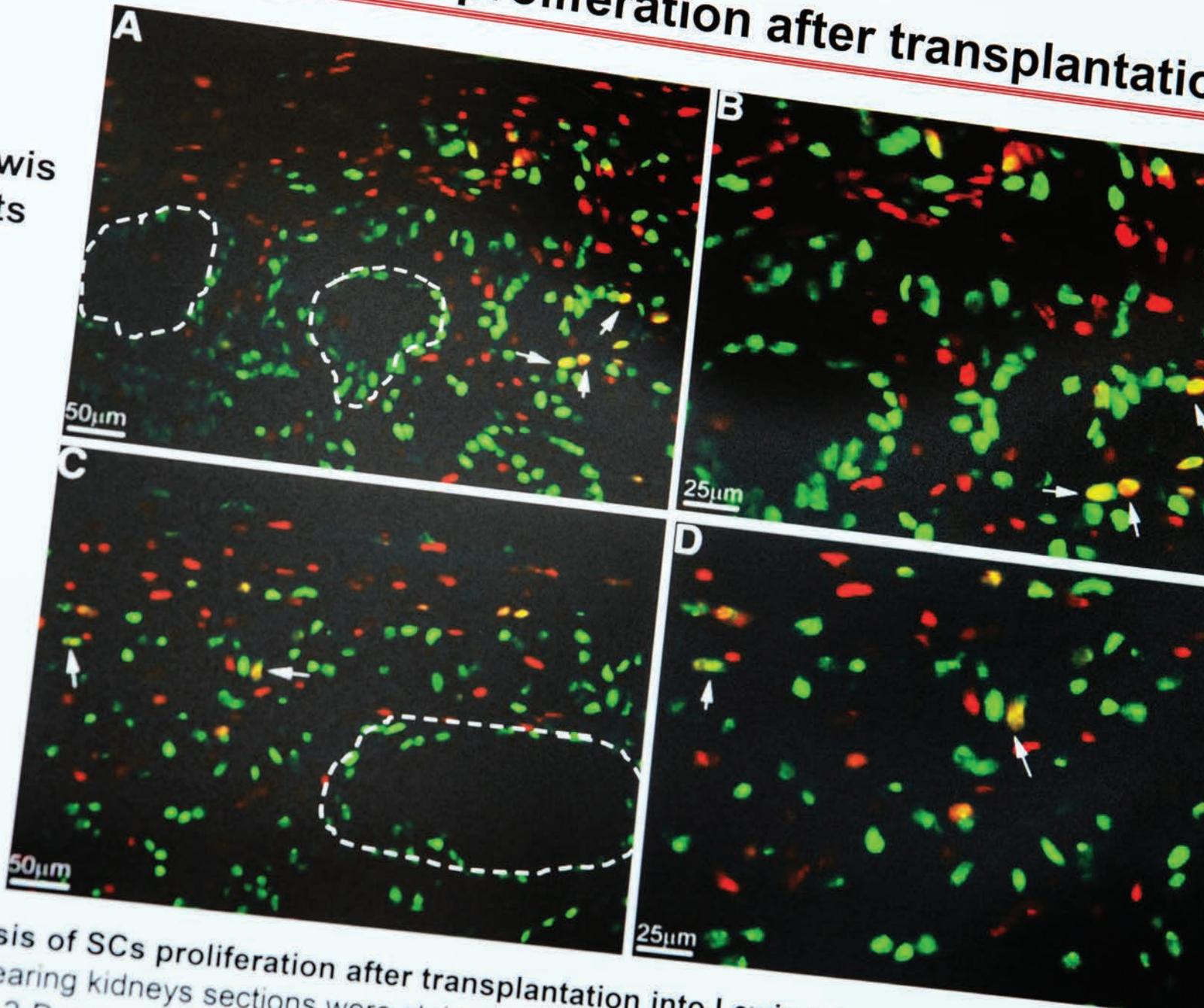
bound volumes line the bookshelves of the TTUHSC Library System



In the 2014-2015 academic year, more than \$74.2 million of financial aid was in the form of student loans.

79430
Preliminary Data:
Mature SCs resume proliferation after transplantation

Lewis
rats



Analysis of SCs proliferation after transplantation into Lewis rats or NSG mice. Kidney sections were stained with SC marker WT (green, A-D) and Proliferation marker BrdU (red, A-D). Double positive proliferating SCs were yellow. SCs resumed proliferation after transplantation. Majority of the BrdU+WT1+ cells were randomly present throughout the graft.

Quantification of SC Prolif



The Potential of a Cell

RESEARCHERS SEEK A CURE FOR TYPE 1 DIABETES

When Jannette Dufour, PhD, was 13 years old, she and her family moved to Homer, a small fishing town in southern Alaska, with a population of less than 4,000. With no cable television at home, the Washington native had to create her own fun, often venturing outdoors to walk along the beach, snowmobile, fish, or go cross-country skiing.

And when she wasn't outside, she read.

"You kind of learn how to be more independent and entertain yourself, rather than just turning on the TV," said Dufour, associate dean for research in the School of Medicine with joint appointments as associate professor in the medical school and Graduate School of Biomedical Sciences Department of Cell Biology and Biochemistry. "It was a good experience."

Already interested in science at that age, Dufour believes those years of Alaskan adventure taught her critical thinking, determination and a willingness to try new things — skills she has found useful in the last 20 years researching Sertoli cells as a possible cure for Type 1 diabetes.

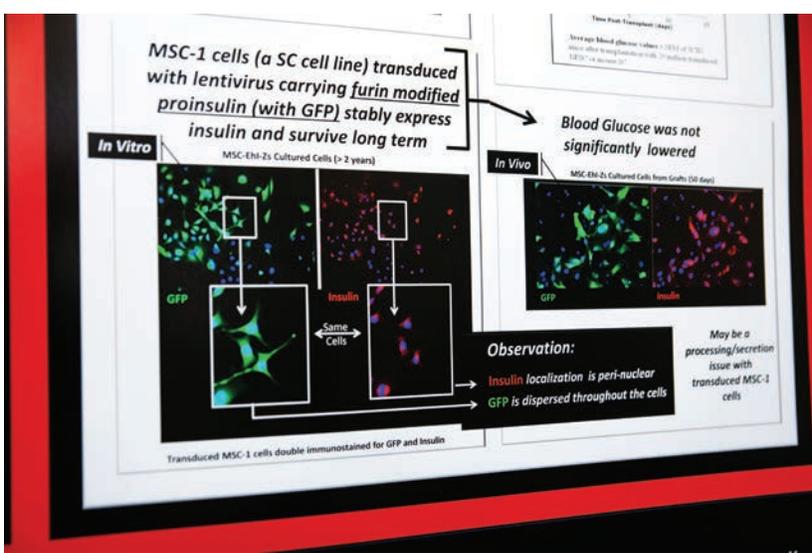
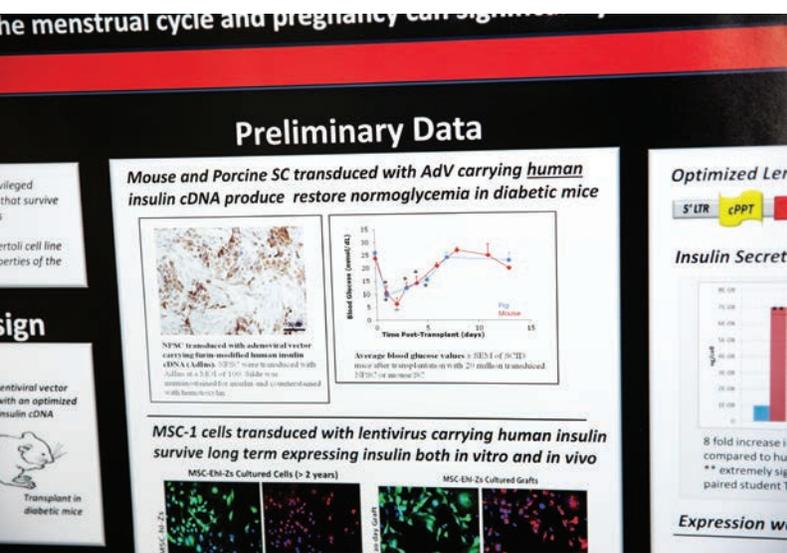
Sertoli cells originate from the male testes and protect the developing germ cells. Their ability to change immune responses and protect other cells makes them very special in the world of diabetes and transplantation research.

"Sertoli cells are really unique and there aren't a lot of people that study them," said Dufour. "So I find that fascinating, because we get to do something unique and exciting all the time."

Dufour's work is well-known in the field of diabetes research, earning recognition in publications and funding. She recently received her second National Institutes of Health grant — this one worth \$448,871. Since being hired at TTUHSC in 2005, Dufour has received more than \$2 million in total funding for her exploration of the Sertoli cell, which includes substantial support from the [CH](#) Foundation.

Dufour admits the research is hard work, and while there is still more to discover about the cell's potential, she is determined to find the answers. Perhaps it's just that Alaskan spirit.

BY HOLLY LEGER
PHOTOS BY MARK UMSTOT



The Problem with Islet Transplantation

The objective in Dufour's lab is to improve the outcomes of islet transplantation. The transplantation has been shown to reverse diabetes, but with setbacks that can be harmful to the patient.

Islets are the insulin-producing cells in the pancreas that are destroyed in Type 1 diabetes. Individuals with brittle diabetes fulfill the criteria to receive a transplant of these cells from a donor, so their bodies might start producing insulin again.

Since the 1970s, scientists have been perfecting the transplantation process, but a few hurdles still remain. For example, islets are hard to come by. It takes donations from multiple human organ donors to acquire enough cells for just one transplant procedure.

When and if a transplant is completed, patients face another problem. The transplanted cells are from organ donors and the recipient's immune system tries to attack them. To solve the problem, doctors prescribe immunosuppressant drugs, which Dufour said can actually be harmful in the long run.

"The drugs suppress the immune system," Dufour said, "if the immune system doesn't function properly this could potentially lead to infections and cancer."

Even with a successful transplant and immunosuppressant drugs, the islet transplantation is not yet a permanent fix, with the recipient's body eventually rejecting the cells after one to five years; resulting in the need for insulin therapy once again.

However, the unique makeup of the Sertoli cell offers hope for the future.

The Miracles and Mysteries of the Sertoli Cell

When Dufour started her postdoctoral work in 1999 at an islet transplantation lab at the University of Alberta in Edmonton, Alberta, Canada, she learned about using Sertoli cells as means to protect islets.

In 2005 Dufour joined TTHSC, where she continued to research what the cell could achieve in islet transplantation.

Because of their protective properties against the immune system, the Sertoli cells could eliminate the need for dangerous immunosuppressant drugs after transplantation.

“The Sertoli cells protect themselves, yet they also protect the islets, which are the cells that are making insulin,” Dufour said. “So they have a lot of potential.”

Currently, Dufour’s lab performs two types of experiments: normal islet transplantation using Sertoli cells as a vehicle to protect these islets, and the transplantation of insulin expressing Sertoli cells.

In the Sertoli cell-islet co-transplantation experiment, Dufour said about 60 percent of the grafts survive long term, while 40 percent reject.

“Which is pretty amazing, because normally 100 percent of islet grafts will reject in about 20 days,” Dufour said. “And we have grafts that can survive more than 100 days.”

Gurvinder Kaur joined the lab in 2007 as a PhD candidate. Now a postdoctoral research associate in Dufour’s lab, Kaur studies the Sertoli cell’s mechanism of survival and how it modifies the immune system.

“If you look at the Sertoli cell survival, it’s always better than the insulin-producing cells,” Kaur said. “So if we can figure out what Sertoli cells are doing for their survival, maybe we can use those factors to improve the transplantation of other cells. For example, insulin-producing cells.”

So far, Dufour said they have learned Sertoli cells induce regulatory immune cells.

“We found that they can actually make two different types of regulatory cells,” Dufour said, “not just one.”

These regulatory cells are important as they are the same cells that can protect transplanted tissue and prevent autoimmune diseases, like Type 1 diabetes.

Meanwhile, Lea Ann Thompson, a PhD candidate in Dufour’s lab and a Type 1 diabetic herself, is working on a separate, but related, project for improving treatment of diabetes: genetically engineering the Sertoli cells to produce insulin and, therefore, bypassing the islet cells altogether.

“(The Sertoli cells) protect themselves better than anything, so that made us think, what if we just made them make insulin?” Thompson said. “It’s very cool.”

So far the Dufour lab has shown that Sertoli cells can express insulin and decrease blood glucose levels. This is a very exciting step in the use of Sertoli cells.

With the increasing knowledge of a Sertoli cell’s survival mechanism, and the ability to genetically engineer it to produce insulin at a therapeutic level, the lab could potentially create a breakthrough in Type 1 diabetes. 



Jannette Dufour, PhD

SEEKING TO IMPROVE THE INFANT MORTALITY DEATH RATE

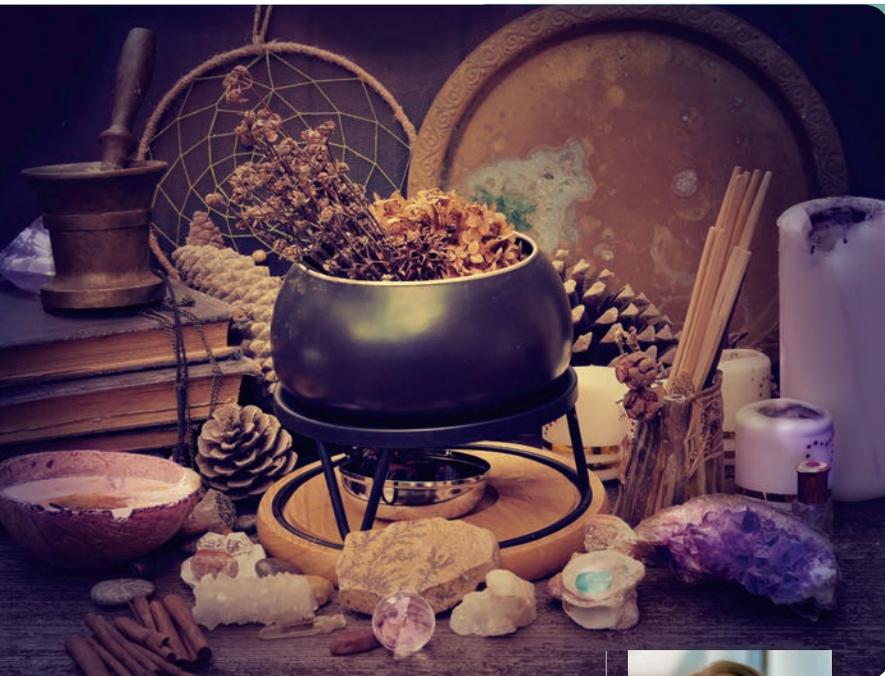
There are certain conditions that make premature births more possible such as carrying multiples, too much amniotic fluid, and previous premature delivery and infections. Gary Ventolini, MD, is investigating how infections start and what factors are involved by studying the good bacteria, lactobacili, in the vagina. Ventolini and his team are the first in the world to conduct this type of research.

Lactobacillus produce lactic acid, hydrogen peroxide and other products in vitro including biofilms, which are very complex biological structures that bacteria produce to defend themselves. Since the labor process starts as an inflammatory reaction, biofilm from lactobacilli would prevent preterm labor by stabilizing the vaginal flora. The goal is to culture these lactobacillus and make them produce biofilm in mass quantities to prevent pre-term labor. Preventing pre-term labor via biofilm production reduces the rate of infant mortality indirectly.

Ventolini is acquiring the license to use microfermenters — small test tubes to culture the lactobacilli and measure how much biofilm is produced — from the French government and hopes to begin using the microfermenter process soon. This technology will make the measurements more accurate and help determine next steps in improving vaginal immunity.



Gary Ventolini, MD, is the regional dean for the School of Medicine at the Permian Basin and professor in the Department of Obstetrics and Gynecology.



Kendra Rumbaugh, PhD, is an associate professor in the School of Medicine Department of Surgery and runs the Rumbaugh Lab.



ANCIENT REMEDY MAY CURE MSRA

Antibiotics are no longer as effective against bacteria, which evolve to protect themselves. A medicinal recipe taken from a 1,000-year-old manuscript is generating buzz concerning what historical knowledge and ancient remedies can do to resolve this antibiotic dilemma. Kendra Rumbaugh, PhD, has been working with the University of Nottingham in England to expand the benefits of a particular traditional remedy.

The recipe is meant for eye styes, which could cause severe damage and possible fatalities in ancient times. The University of Nottingham concocted the recipe and after testing, determined that the remedy killed MRSA — drug-resistant staph infections — and at higher rates than one of the last-result antibiotics currently used.

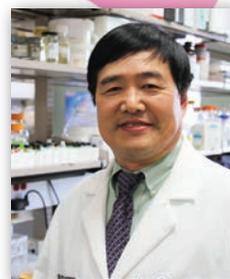
The University of Nottingham then turned to Rumbaugh, whose lab at TTUHSC frequently conducts efficacy studies of new antimicrobial compounds and works with many academic and industry partners, for additional testing of the remedy. Next steps include purifying ingredients and determining which ingredients have the antibacterial activity.

PROMISING AGENT DISCOVERED FOR TREATING BREAST CANCER

Most breast cancers can be treated with hormone therapy and high-estrogen therapy, but triple-negative breast cancers (TNBC) are typically not responsive to this treatment and tend to be the most aggressive breast cancers. Ruiwen Zhang, MD, PhD, DABT, is looking for a specific oncogene inhibitor to aid in treating TNBCs.

The MDM2 (mouse double minute 2) gene is highly expressed in advanced breast cancer and has been linked to metastasis drug resistance and radiation resistance. This gene is at least partially responsible for the aggressiveness of the cancer, so Zhang's goal is to block the function of these oncogenes.

Based on a computer-aided design, Zhang's team developed a new inhibitor containing a small chemical that causes oncogene protein degradation. After the cancer cell is treated with this compound, the oncogene protein level is significantly reduced. The MDM2 oncogene has a gene in normal cells, as well, though it is at a much lower level of expression, which means the normal cells don't depend on this oncogene to survive. This allows Zhang's chemical compound to treat all cells, but only kill cancer cells. Chemotherapy treatments have been problematic, because this current therapy has a non-specific effect in that it kills both normal and cancerous cells. The chemical compound Zhang's team has developed resolves this issue and the process of development is still ongoing.



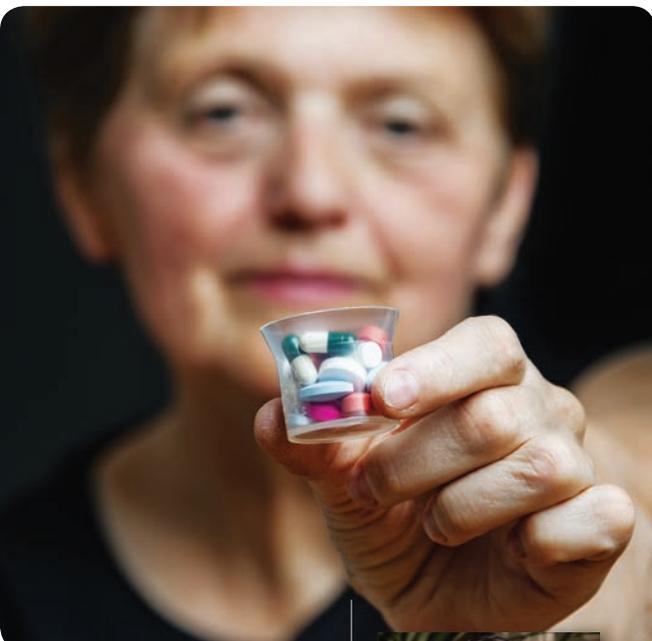
Ruiwen Zhang, MD, PhD, DABT, is a professor in the School of Pharmacy Department of Pharmaceutical Sciences.

ANTIHISTAMINES, MUSCLE RELAXANTS LINKED WITH EMERGENCY VISITS AND MORTALITY IN ELDER VETERANS

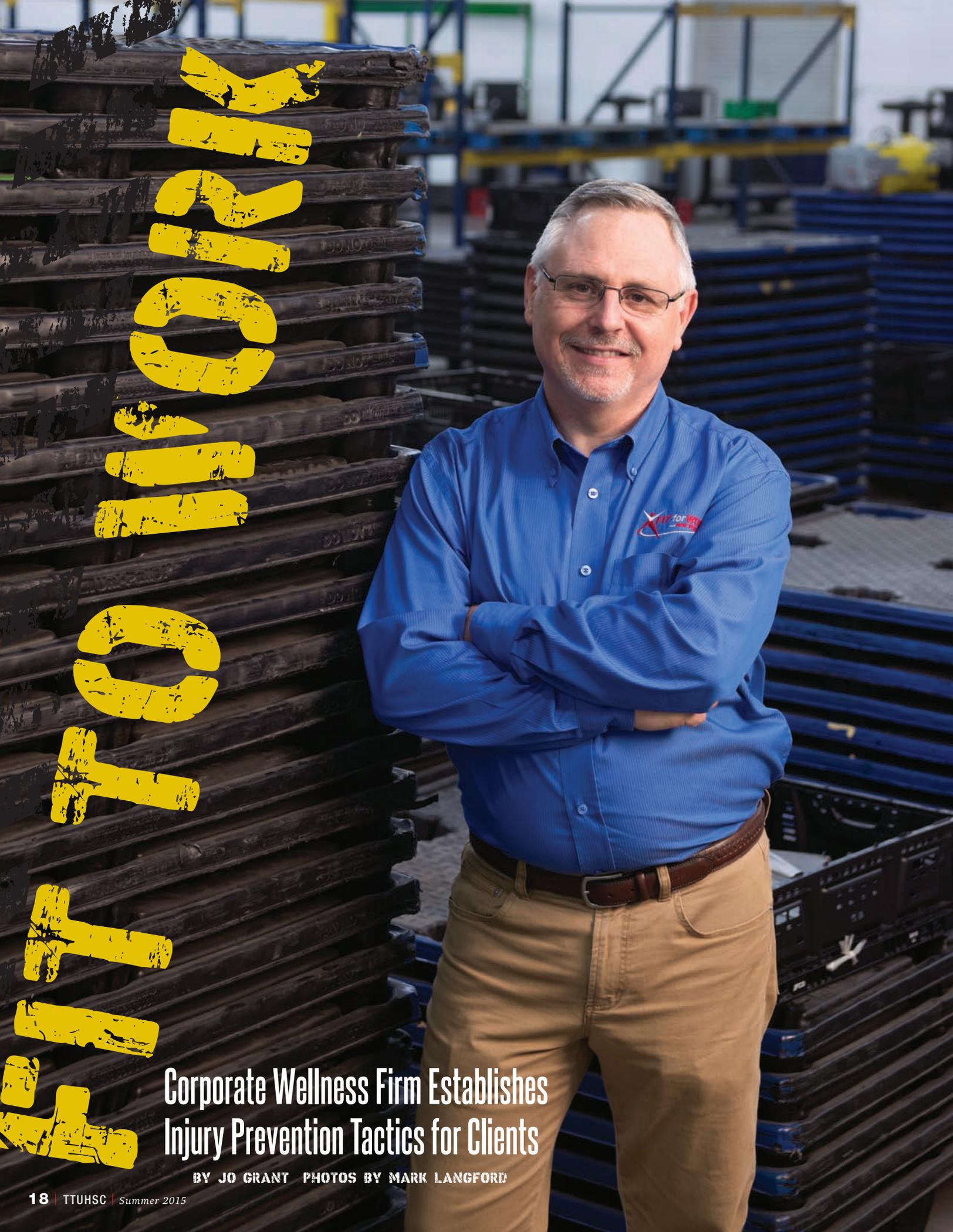
The Health Care Effectiveness Data Information Set (HEDIS) quality measures put forth by the National Committee on Quality Assurance measures performance of important dimensions of health care and service. However, the quality measure regarding high risk medication use in the elderly may not be supported by evidence. Carlos A. Alvarez, PharmD, MSCS, BCPS, conducted a large, national, retrospective cohort study to determine if the quality measure for high-risk medications in elderly individuals is associated with clinical outcomes such as emergency room visits and mortality.

Alvarez and his team looked at the two most common drugs prescribed to elderly Veterans Affairs patients in the HEDIS measure set, which consisted of antihistamines and skeletal muscle relaxants. They followed patients for several years whom were prescribed first-generation antihistamines, such as diphenhydramine, and muscle relaxants including carisoprodol, cyclobenzaprine, and methocarbamol. These patients were matched against another group of patients who weren't prescribed these medications.

They found that first-generation antihistamines were associated with death and hospitalizations, as well as fracture-related injuries. Muscle relaxants were associated with increased hospitalizations and fractures as well, but were also associated with reduced mortality, which was statistically significant. Alvarez theorized that some of the individuals who were prescribed muscle relaxants were having more frequent follow ups; therefore, visiting their doctor more frequently than those patients not prescribed muscle relaxants. More frequent contact with the health care system by elderly patients taking muscle relaxants might allow opportunities for physicians to diagnose other health issues before they are life threatening.



Carlos Alvarez, PharmD, MSCS, BCPS, is an assistant professor in the School of Pharmacy Department of Pharmacy Practice.



Corporate Wellness Firm Establishes Injury Prevention Tactics for Clients

BY JO GRANT PHOTOS BY MARK LANGFORD



When Keith Adamson, OT, (SOAHS '85) graduated from TTUHSC, he had no idea how important a beloved corn chip would be for his future. That corn chip and the company behind it, Frito-Lay North America Inc., established the groundwork for Adamson's purpose in educating workers on injury prevention.

As an injury-prevention consultant in the mid 1990s at the Frito-Lay factory in San Antonio, Texas, Adamson had what he calls a “wow” moment. He envisioned an innovative way to avoid injury with on-site injury prevention programs.

“As an occupational therapist, I was helping injured Frito-Lay workers recover,” he said. “I was helping them regain function and get back to work. During that time, I saw the possibility of educating companies in ways to avoid injury. And I realized the best way to do that was to be on-site with them.”

Adamson continued working with Frito-Lay, but was now providing one-on-one instruction to employees on-site, teaching proper body mechanics and safety. He gave comprehensive instruction on these topics and what safety equipment to use, resulting in fewer injuries and less severe, more manageable injuries. This, in turn, meant lower costs to the company. Fewer workers were experiencing disabling injuries, as well.

Other Frito-Lay factories as well as other corporations began asking Adamson about his concept. He set up a national program for Frito-Lay and began expanding his concept to other companies. His on-site theory received national recognition from his peers as a best practice. His “wow” moment was well on its way to becoming reality.

Adamson and his friend, Tom Tobin, OT, shared the same ideals in injury prevention, which is why they joined forces in 1998 and established Fit for Work in San Antonio. Seventeen years later, their company is a leader in injury prevention innovation with clients across the United States.

“We had one goal when we started and still have that same goal today,” Adamson said. “We want to change the way health care is delivered, one company at a time. Our charge is to service clients in the workplace, giving proactive training to prevent injury. We do not operate in a reactive way, which would mean waiting for the next injury. We want to avoid that injury first and foremost.”

In 2000, Labatt Food Service in San Antonio became one of the first Fit for Work clients, and for Curt Hanna, Labatt corporate safety hiring manager, that was one of the best decisions his company has made.

“Fit for Work has made significant differences in our work,” Hanna said. “They understand the physical demands of our work environment and show us how to prevent injuries and keep our workers happy and on the job.”

Labatt is a wholesale food distributor with warehouses across the nation. Common injuries for these types of workers include strains and pulls to the shoulders and lower back. Fit for Work not only treats the injuries when they happen, but the therapists also evaluate work dynamics and educate workers on ways to avoid the injury, Hanna said.

In the Fit for Work business model, occupational and physical therapists, along with licensed athletic trainers, have space inside a company, many times on the factory floor. They determine hazards and document risk factors for these companies that pave the way in developing solutions before the injuries occur.

The company fosters a culture of wellness, Adamson said. Unlike traditional methods of delivering health care at the time of illness or injury, Fit for Work emphasizes prevention over cure and works to eliminate incentives for illness over health.

“Our intent is to keep workers from becoming injured,” Adamson said. “We aren’t building health clinics inside these businesses. We are



establishing prevention tactics. And the proof is shown on the bottom line when our clients are losing less money to injuries.”

Adamson and his crew are rarely in the on-site office he says. Instead, they spend most of their time on the factory or warehouse floor working one-on-one with workers in job coaching, as well as conducting training sessions in workplace safety. They observe workers and determine hazards. They then move to correct the problem areas. Additionally, when workers do require care or intervention, they don't leave the job site.

“If we have a worker who complains of a sore shoulder, we look at his work area and how he is doing his job and determine what changes need to be made,” Adamson said. “Hopefully, we can change a process or look at a new way of doing that particular job and keep that shoulder soreness from turning into a tear or muscle pull, which keeps the worker off the job. That is good news for the worker who can avoid painful injury and good news for the company with a decreased number of lost work days.”

Hanna agrees.

“We encourage our employees to visit with the therapists when they first notice a soreness or if they feel something isn't quite right,” Hanna said. “If something happens at work or at home, we want them to see the therapists as soon as possible. When Fit for Work intervenes quickly, we have a better chance of keeping our workers working.”

Nationally, private industry employers experience more than three million nonfatal workplace injuries and illnesses annually, resulting in an incidence rate of 3.3 per 100 fulltime employees, according to the Bureau of Labor Statistics, U.S. Department of Labor. This statistic continues the pattern of statistically significant declines, except for 2012, occurring annually for the last 11 years.

“Companies lose thousands of dollars each year dealing with employee injury,” Adamson said. “Those are costs to cover the care the employee will need and to cover the costs of the worker's time away from the job. Our model can reduce those injuries typically by 50 percent in the first 12 to 18 months.”

Hanna said his staff appreciates the new injury-prevention culture that has been brought in, and the therapists have been known to attend staff meetings and to lead warm-up and stretching exercises to prepare staff for warehouse work.

“We consider the Fit for Work staff part of our work group,” Hanna said. “We don't consider them an outside vendor; they are a part of our very close-knit team.”

For Adamson, his journey from the halls of TTUHSC to the Frito-Lay factory to companies across the country has been an exciting and beneficial one. His training in the first occupational therapy class at TTUHSC combined with the idea birthed in a sea of corn chips created a major player in the world of injury prevention. “We want to be change-agents, and I believe we are doing just that,” he said.

Fit for Work works with more than 30 companies across the country. Those client relationships are long term, with therapists living in the community and focusing on preventing work injury. Additionally, the company has trained other therapy companies on how to duplicate their on-site business/wellness model. In each of its client companies, Fit for Work therapists manage the on-site clinic, but spend most

**OUR INTENT IS TO
KEEP WORKERS FROM
BECOMING INJURED**



of their time with the workers in their daily environment. He says one company official called Fit for Work a “house call” for his workers, bringing health care and wellness straight to those who need it.

Adamson credits much of his success to the entrepreneurial spirit instilled in him while he was a TTUHSC student. His professors pushed him to determine what he wanted to do with his training.

“When I was working on my degree, I really didn’t know what I wanted to do,” he said. “I knew I wanted to help people who were injured but was unsure how I was going to do that. I had professors in the occupational therapy program who nudged me, telling me the field was wide open. I could do whatever I wanted to do. I heard that,” he said.

Because the program was new while Adamson was a student, he feels the professors and program organizers shared their zeal for taking risks and trying new things with their students. “They were innovating and designing a new program and we benefitted from that. With their encouragement, I realized I could take risks.

“That first class was fairly small, and we helped set the foundation for what has become a great program,” he said. “We helped build that program, and I still see the benefit of that. Our students are doing great things in this industry.” 



WELCOME TO THE FAMILY



Danette Baker

From Your Director of Alumni Relations

TTUHSC now boasts more than 20,000 alum since the inception of the medical school in 1969. To reflect our growing alumni base, the Office of Alumni Relations is now formalizing the TTUHSC Alumni Association.

“We’re now doing something different here at TTUHSC than we’ve done previously,” said TTUHSC President Tedd L. Mitchell, MD. “From the standpoint of alumni, there has always been an overlap with the Texas Tech alumni base. There have been times where each school had its own alumni group as well, and because our academic health center was small in numbers, that worked. Now, we have roughly 22,000 alum and only 18 percent of them got their undergraduate degree at Texas Tech. So now, we need to serve our alumni here at TTUHSC in a different capacity.”

TTUHSC realized decades ago how important its alumni would be to the institution’s mission — this being the whole reason for the sustainment of an alumni relations office. It’s important for those in health care to work together; otherwise, the profession as a whole would be very unforgiving. That’s why TTUHSC promotes an interdisciplinary teaching model. Likewise, we want to continue that approach with our alumni.



“I am **very proud** to be an alumnus of TTUHSC. As one of many graduate students who were part of the **inaugural PhD program** that began in the late 1970s, I take a great deal of pride in knowing that many of my classmates went on to **very successful careers** as department chairs, division directors, research program directors and academic administrators. These types of success stories have also created a **strong sense of gratitude** toward our institution.

My membership and active participation in the TTUHSC Alumni Association has **allowed me to give back** to an institution that had such an important **impact on my professional career.**”

-Matthew Grisham, PhD (GSBS '82)

KEEPING ONE ANOTHER INSPIRED AND CONNECTED

“It’s important early on to stay connected with the alumni association and with each other,” Mitchell said. “The Pulse magazine is a great way to keep up with each other and the alumni relations office uses social media and a blog platform to keep alumni updated on their institution and each other.

The Office of Alumni Relations has reunited classmates, provided TTUHSC tours to returning alumni and, most importantly as of late, have worked to provide even more benefits and services that haven’t been available in the past. Among those are access to select services through the academic health center libraries and continuing education resources with membership in the TTUHSC Alumni Association.

The Office of Alumni Relations has been hard at work to create a beneficial structure for the TTUHSC Alumni Association. The end result of those efforts? A membership in the TTUHSC Alumni Association university-wide with and additional school chapter membership.

We realize that our alum affiliate with their respective schools and it’s important that school pride be recognized and celebrated. However, alumni are part of a much bigger picture than just their particular school and/or program. Alumni represent the entire TTUHSC institution and the alumni relations office wants to support you as you make TTUHSC known throughout the world.



“I’d heard that universities don’t care about you, but that was not the experience I had at TTUHSC. My education stint at TTUHSC was one of the **most rewarding** and **positive experiences** I’ve ever had in my life.”

- Vicente Martinez, BSN, RN, EMT-P (SON '01)

“TTUHSC provided me the foundation to be able to make a difference in the lives of the people in the Lubbock/West Texas community for which I am loyal and thankful.”

- Cynthia Jumper, MD, MPH (Resident '91; SOM '88)



JOIN THE FAMILY

By earning a diploma or completing a residency or certification, you became a TTUHSC alum and that will never change. Now you have the opportunity to formally join the TTUHSC Alumni Association. And while you're out there taking care of the world, we'll take care of you.

“What a cool way to spend your life, as part of a team that's dedicated toward making the lives of its fellow citizens better,” Mitchell said. 

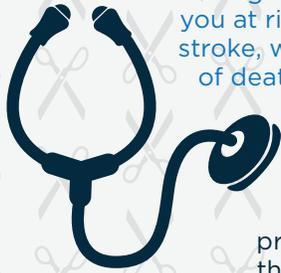


Barbershops for Better Health



Medical students check community members' blood pressure. From L to R: Matthew Amodeo, Fizza Naqui, Vivien Ingram and Margaret O'Neal.

by Kara Bishop | Photos by Zachary Tijerina



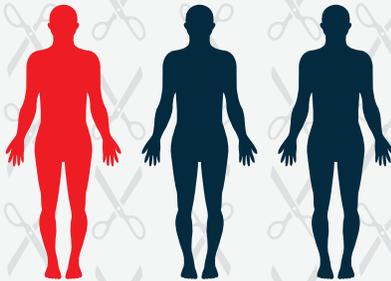
Having high blood pressure puts you at risk for heart disease and stroke, which are leading causes of death in the United States.



Only about half (52 percent) of people with high blood pressure have their condition under control.



About one in three American adults has prehypertension — blood pressure numbers that are higher than normal — but not yet in the high blood pressure range.



About 70 million American adults (29 percent) have high blood pressure — that's one in every three adults.

High blood pressure was a primary or contributing cause of death for more than 360,000 Americans in 2013 — that's nearly 1,000 deaths each day.



High blood pressure costs the nation \$46 billion each year. This total includes the cost of health care services, medications to treat high blood pressure and missed days of work.

Many physicians call hypertension the silent killer. The danger of high blood pressure is the possibility that an individual will feel perfectly fine, yet significant internal damage over time may result in a terminal outcome if left untreated.

Medical students at TTUHSC decided to do their part to spread awareness of the dangers of hypertension and educate people on the harmful effects of leaving high blood pressure untreated.

“About five or six years ago, a medical student took an idea to the dean of the School of Medicine,” said Margaret O’Neal, second-year medical student and co-leader of the outreach program. “It was approved and the Barbershop Blood Pressures (BSBP) initiative was born. There were two purposes for this program: make people aware if they are at risk and educate the community on hypertension and diabetes.”

This year O’Neal and Nicole Alavi-Dunn, also a second-year medical student, led the charge with a group of students participating. Once a month, students visit 13 barbershops around Lubbock, educating the community about hypertension and checking their blood pressures.

“The community is very receptive to this program,” Alavi-Dunn said. “We may have some people who don’t want their blood pressure checked, but sometimes the barbers chime in and convince them to do it. Other barbershops have contacted us, indicating that they wish to participate in the future.”

Not only is this outreach program great for the community, but it benefits the students, as well.

“The first two years of medical school are rough,” O’Neal said. “You’re hitting the books hard and feel like all you ever do is study, and you rarely see patients or apply what you’ve learned until your third year. This program has given me an outlet for patient care and practicing bedside behavior. I enjoy interacting with the community and educating them on the dangers of high blood pressure. It also helps remind me of why I’m training to become a physician. I feel that I’m making a difference in people’s lives, which is what inspired me to pursue this career field in the first place; it’s been one of my favorite things about medical school thus far.”

And the program has made positive differences in lives.

“We’ve caught some community members whose blood pressures were high and they weren’t aware of it,” Alavi-Dunn said. “We encourage them to see their doctor, and the barbers will sometimes give us feedback and tell us someone went to get treatment because of our education, which is a great feeling.”

There is hope for the BSBP to become an interprofessional program.



“We had a big media day this Valentine’s Day that we called Barbershop Health Check, and students from different disciplines were invited to participate,” O’Neal said. “Other schools were excited and showed interest in the program, so there is hope to expand. The only challenge is trying to coordinate students when each school within TTUHSC has differing schedules and commitments.”

The BSBP program houses equipment at each participating barbershop. Each shop has an automated blood pressure cuff, weight scale with BMI chart, and brochures concerning hypertension and diabetes. The students check each month to make sure equipment is working correctly and to restock literature.

And they don’t just visit barbershops.

“Something that hasn’t been mentioned is our visits to Salvation Army,” Alavi-Dunn said. “We visit the Salvation Army once a month during the evening meal to check blood pressure and blood glucose levels, the latter of which isn’t a possibility at the shops.”

O’Neal’s experience with the Salvation Army reinforced the fact that hypertension is a silent killer.

“I checked a man’s blood pressure one night and it was 140/90, which is right at the cutoff of being hypertension. He told me that his blood pressure had been this way for 10 years but he felt fine, so he quit taking his medication. I urged him to go see his physician, because even though he felt fine, there could still be internal damage occurring. High blood pressure damages your small blood vessels, which injures your small nerves,

which may affect your eyesight and kidney function. If you don’t see your doctor until you are experiencing symptoms, chances are irreparable damage has taken place. That’s why I feel this program is so valuable.”

Medical students, including Alavi-Dunn and O’Neal, participate in The Free Clinic, which provides medical care for the uninsured population in Lubbock. BSBP volunteers carry business cards containing this information to share with patrons, forming a great partnership between these programs.

“We carry the clinic cards so we can direct someone to medical care who may not have benefits,” Alavi-Dunn said. “We want individuals in the community to know that we truly care about their health and that there is always a way to obtain treatment when they need it.”

Steven L. Berk, dean of the School of Medicine and vice president and provost of TTUHSC, said BSBP is an ideal service program.

“It’s a great program for our medical students to make a contribution to our community,” he said. “First- and second-year medical students are fully capable of taking blood pressures and educating patients on the risks associated with high blood pressure. The students came up with the idea for this program because they felt it was a great way to access patients who may not schedule regular doctor appointments. It’s also an ideal project because it enables other schools to participate, whose students are just as competent at taking blood pressures and creating awareness. We know this program has helped people and we’re excited for what the future holds.” 

IT'S ABOUT THE PATIENT

Shah Demonstrates Compassion in His Many Accomplishments

Sachin R. Shah, PharmD, (SOP '00) associate dean for assessment and accreditation and professor for the School of Pharmacy at Dallas, has done more in 15 years as a pharmacist than many have done with their entire careers. Working in the Advanced Hematology/Oncology Clinical Pharmacy at the Dallas VA Medical Center, which he actually created and developed himself, Shah has quite the resume.

Not only is he a respected pharmacist in his field, but he also established an American Society of Health-System Pharmacists (ASHP) accredited Hematology/Oncology Specialty Residency Program in 2004 and has trained multiple students since then.

One might think he is a “jack-of-all-trades, master of none,” but ask any of his students and they will tell you differently.

“He’s very well-rounded,” said Ryan Schuller, PharmD, (SOP '15). “He understands everything that goes with oncology that you have to understand as far as patient care, infectious disease, pain management and other hematology related things. He knows how to evaluate data very well. He’s always on top of new developments.”

For Shah, the challenge of staying well-educated with the ever-changing field of oncology is what drew him to the profession in the first place. Even though it can be tough at times, he knows it’s even tougher for the cancer patients receiving chemotherapy.

“Just knowing that they have cancer itself is daunting information,” Shah said. “Educating them on all the medications they’re receiving and side effects they may have, and also helping them manage those side effects has been one of the most rewarding aspects.”

continued on page 30...



"THAT'S REALLY EVIDENT WHEN HE'S THINKING OF THERAPIES AND TRYING TO DETERMINE WHAT THE NEXT STEP SHOULD BE. IT'S ALWAYS ABOUT THE PATIENT."

...continued from page 29

Shah began his career at the Dallas VA Medical Center in September 2002. He said there wasn't a practicing oncology pharmacist at the time of his hire, so Shah developed the program. He started with inpatient oncology pharmacy services and later expanded to an outpatient oncology service. This has allowed him to see patients in clinic within the practice agreements of the oncology team, which consists of an oncologist, oncology fellow, nurse practitioner, residents, students and himself.

"At the VA, you can practice as a provider," Shah said. "You are involved in assessing the patient's disease management in terms of whether the disease is responding, stable or progressive."

After establishing his program at the VA, Shah saw the opportunity and need to begin training residents. He said, at the time, there were only two oncology residency programs in the state of Texas, and he wanted to provide an additional option for students.

However, establishing a residency program is no easy feat. Shah had to develop a plan, identify rotation sites, design the oncology activities and create a rubric for evaluations. He said it was all worth it, though.

"It gives a great opportunity to train students and residents," Shah said, "and then as they are practicing in their own field, it gives us a great opportunity to collaborate with them and develop new programs that can help patients or can help their institutions as well."

Telyssa Anderson, PharmD, (SOP '15) who completed rotations with Shah as her preceptor, said Shah is very well-versed and respected in his field, perhaps because of his overwhelming knowledge of oncology.

"Honestly, he is up-to-date on all the new information that comes out," Anderson said. "As soon as a study comes out you know that he's read it, he's familiar with it and he's using it to make recommendations in practice."

With more than 50 published works, Shah is not new to the scholarly field of research. It's something he enjoys actively pursuing to better understand the different medications in chemotherapy, like how to safely administer it, minimize side effects and create better treatments for patients.

Shah brings that knowledge to the table to discuss patient treatment plans, which he said are sometimes very hard to decide.

"The other name for chemotherapy is poison," Shah said. "And the dosage is very complicated. So as a pharmacist, it provides a great opportunity to be an integral part of that medical team and help manage an appropriate therapy."

When she was rotating with Shah, Anderson said she got to see him be part of that decision-making process, but what impressed her most was Shah's constant passion for the patients.

"It's not something that he has to explicitly say," Anderson explained. "I think it's more in the way that he approaches patients and conducts himself. He demonstrates that the patient is always your focus. That's really evident when he's thinking of therapies and trying to determine what the next step should be. It's always about the patient."

Anderson said she hopes to work with the same passion and knowledge as Shah.

"He's been a mentor and a role model to me," she said, "and if I can do even half the things in my career that he's done so far, then I'll consider myself to be successful." 



Alum Assists in Ebola Outbreak Relief

Capt. James Dickens, DNP, RN, FNP-BC, (SON '12) served as the Officer in Charge of the USPHS Monrovia Medical Unit (MMU) Team 2. Capt. Dickens and other USPHS officers served at the forefront of the U.S. Government response to the Ebola outbreak in Liberia. Capt. Dickens led a team of 74 interprofessional officers who were deployed to manage and staff the MMU, a 25-bed Ebola Treatment Unit (ETU), in Margibi County, Liberia. The MMU is dedicated to providing care to health care workers and responders who become infected with Ebola. Since the MMU opened in November 2014 it has received and provided care for numerous Liberian health care workers. We thank Capt. Dickens for his service.

friends we'll miss

Charles Bradley, MD, died March 18, 2015. He was a retired professor in the School of Medicine Department of Pathology.

 Christopher Cochrane, PharmD, (SOP 2007) died May 5, 2015.

Teresa Clark, DNP, (SON '15) died May 20, 2015.

 Nick Manitzas, MD, (SOM '94) died May 1, 2015.

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



Hodges Elected to IACP Board of Directors

Shawn E. Hodges, PharmD, (SOP '01) owner and pharmacist at Innovation Compounding Inc., in Marietta, Georgia, was elected to the 2015 International Academy of Compounding Pharmacists (IACP) Board of Directors by the IACP membership.

IACP is an association representing more than 4,000 pharmacists, technicians, students and members of the compounding community who focus upon the specialty practice of pharmacy compounding. Pharmacy compounding is the long-established tradition in pharmacy practice that enables physicians to prescribe and patients to take medicines that are specially prepared by pharmacists to meet patients' individual needs.

"Having the clinical and professional expertise of individuals like Dr. Shawn Hodges is essential to IACP's role in developing the best practices of compounding pharmacists everywhere," said David G. Miller, RPh, IACP executive vice president and CEO. "Each of our volunteer board members brings unique experiences as both practitioners and business managers to guide IACP and its membership. We are fortunate to have Shawn as part of our leadership team."



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1 Paul L. Foster School of Medicine graduates and their families attended the second Annual Open House at El Paso. This event is an opportunity for graduates to show their families where they've been spending the last four years. 2 El Paso faculty and community members attend the unveiling of the second permanent public art piece on the TTUHS El Paso campus. 3 Alumni gathered in Abilene to network and listen to remarks from Chancellor Robert Duncan, President Tedd L. Mitchell, MD, and TTUHS alumna, Lori Campbell (SOP '11). 4 Alumni from the School of Nursing celebrate the fifth year of the DNP program by attending a reunion event. 5 The Alumni Relations Office rewards students for their hard work during finals week with "Student Survival Kit" goodie bags. 6 Faculty, administrators, staff and students thank those who have supported the School of Medicine for their continued generosity at the School of Medicine Donor Appreciation Luncheon.



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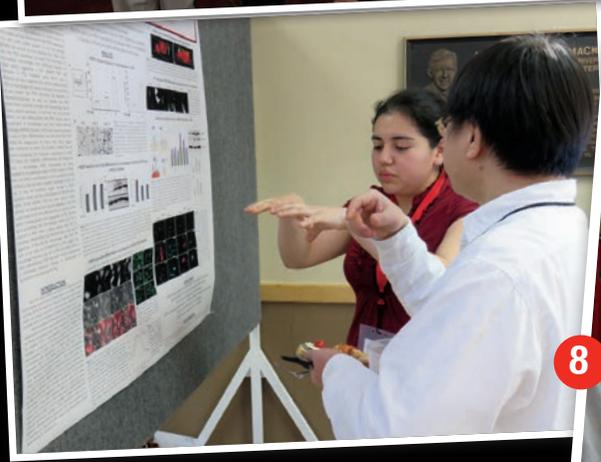
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7 Community members enjoy a Derby Day event, hosted by Institutional Advancement. 8 The Department of Institutional Advancement hosts a reception for alumni, faculty and students during Student Research Week. 9 The Student Government Association hosts their annual awards banquet to honor faculty, donors and students. 10 Faculty, administrators, staff and students thank School of Nursing contributors for their continued support at the School of Nursing Donor Appreciation Luncheon.



2014

Distinguished Alumni

SCHOOL OF ALLIED HEALTH SCIENCES



BRENDA FIELDS CROSS, AUD
(2007, 2003; Audiology)
Chair and Professor for Communication Disorders at West Texas A&M University



ROLANDO RAMIREZ, ATC, LAT, PT
(2005, 2004; Athletic Training, Physical Therapy)
Coordinator of Rehabilitation/Assistant Athletic Trainer for the Houston Texans



GREGORY S. THOMPSON
(2002; Medical Technology)
Regional Vice President and Chief Operating Officer of the Lubbock Health Plan for Amerigroup



JASON TYLER, EMT-P
(2005; Clinical Support Service Management)
Emergency Medical Services Director for Scurry County EMS

GRADUATE SCHOOL OF BIOMEDICAL SCIENCES



HERB JANSSEN, PHD
(1980; Physiology)
Professor of Physiology in Medical Education for Paul L. Foster School of Medicine

SCHOOL OF NURSING



BONNIE CLIPPER, DNP, MBA, FACHE
(2012; Executive Leadership)
Consultant



BOB DENT, DNP, MBA, RN
(2010; Executive Leadership)
Senior Vice President and Chief Operation Officer for Midland Memorial Hospital



ANNETTE GARY, PHD, RN
(1998, 1993, 1990, 1984)
Associate Chief Executive Officer for Program Operations for StarCare Specialty Health System

SCHOOL OF PHARMACY



TADD HELLWIG, PHARM.D, BCPS
(2006)
Associate Professor of Pharmacy Practice for South Dakota State University College of Pharmacy

To read the full version of this article, please visit:
www.ttuhsu.edu/communications/pulse





CARBIE ROSEMA

FINDING HIS CALLING: Lance Walsh knew he wanted to work in medicine at an early age, but it was his experiences at TTUHSC that led him specifically to urology. As a student in the dual MD/PhD program, Walsh said he was impressed with the entire urology department, especially the treatments available to patients.

"I really liked the types of surgeries they did," Walsh said.

Upon graduating from Tech, Walsh attended the University of Texas Southwestern in Dallas to complete his residency. There, he received training in robotic-assisted surgeries, a knowledge that later played a huge role in his career.

USING THE LATEST IN TECHNOLOGY: The Eisenhower Medical Center in Palm Springs recognized Walsh's surgical talent and, in 2007, recruited him to help begin its robotics program. He established his private practice, Walsh Urology Associates, on the hospital campus, and in 2008, he and his team performed the first robotic prostatectomy at Eisenhower.

Robotics technology allows surgeons to operate using magnification, which Walsh said improves overall precision. The incisions are smaller, resulting in less blood loss and quicker recovery for patients.

Although the robotics training during his residency was tough, Walsh is grateful to have the specialization because he sees hospitals using it more and more.

LANCE P. WALSH, MD, PHD

Founder and Principal Physician

Walsh Urology Associates, Palm Springs, California

Graduate: 2002, 2001

"It's a steep learning curve," Walsh said, "but most of the prostate surgeries for cancer that are done nowadays are done robotically, whereas 20 years ago, they were all done with a big open incision."

PASSIONATE ABOUT HIS CAREER: As the principal physician at his private practice, Walsh does more than surgeries; he also sees patients in his clinic each week. He treats a variety of conditions, ranging from cancer of the genitourinary tract to benign conditions including kidney stone, benign prostatic hyperplasia, continence, bladder prolapse and hematuria.

"I like helping people," Walsh said. "And with urology, most of the conditions that we treat, we can actually cure or make the condition much better. So it's a really rewarding career choice."

BY HOLLY LEGER



Clipper dressed as nurse at 6 years old

AIMING HIGH: Bonnie Clipper has always had high aspirations. Whether that was serving as a chief nursing executive for 17 years or climbing Mount Kilimanjaro, being on top has always been part of her plan, which is evident in both her professional and personal life. Between running with the bulls in Pamplona, Spain, and scaling “fourteeners”—mountains that exceed 14,000 feet—in Colorado, Clipper has made it her mission to live life to the fullest. A 25-year nursing career aided this mission.

WHERE IT STARTED: Clipper knew she wanted to be a nurse when she was six years old and her dream never changed, because of the fulfilling and exciting nature of the career. She said her profession has been very dynamic and ever changing.

“I enjoy interacting with patients and other health care professionals and feel like I learn something new every day,” Clipper said.

PASSIONATE PURSUIT: Pursuing her passion in nursing, Clipper receives great satisfaction from her career, and her greatest triumph has been “knowing that our patients receive the best care possible and of course working with a great team of nurses and doctors.”



BONNIE CLIPPER, DNP, CENP, FACHE

Consultant, Austin, Texas

Graduate: 2012

FUTURE PLANS: Clipper has had many leadership roles throughout her career, and her targets reach beyond nursing. “I would like to move into a CEO role at some point in the future.”

Clipper was appointed as an advisory panel member to the Patient Centered Outcome Research Institute and looks forward to making a difference in this exciting new capacity. She also recently moved back to Texas from Colorado where she served as the chief nursing officer for the Medical Center of the Rockies in Fort Collins, Colorado; she looks forward to sharing her knowledge with others.

CHOOSING TTUHSC: She chose TTUHSC because she “wanted a school with a track record of academic excellence and strong legacy of producing successful leaders.”

BY AARON CULLEN



MICHELLE FEY

MATTHEW BARKER, AUD

Audiologist

Bay Audiology, New Zealand

Graduate: 2004, 2000

CHOOSING TTUHSC: For Matt Barker, TTUHSC had been his college of choice for as long as he could remember. Originally from Dalhart, Texas, West Texas had always been his home.

"I chose to stay in the area for my education because of the feel a person gets around fellow West Texans," he said. "You would be hard-pressed to find a better bunch of people."

DISCOVERING HIS PASSION: Barker said he stumbled upon speech-language pathology when he started his academic career in college; during his preliminary education, he discovered his true passion: audiology.

"I had my mind set on specializing in speech-language pathology, and while I was going through the program, I discovered more and more about audiology as it was a subject included in the program and I just clicked with it. I enjoyed speech-language pathology but found audiology to be right up my alley. It dawned on me one day that I really had a passion for it when I went to my professor's lab and asked to borrow a textbook to read for pleasure. That's when I knew I was heading in the right direction."

WHY HE LOVES HIS JOB: "I have always wanted to make a meaningful difference in the lives of others and correcting hearing problems is a great way to do that," Barker said.

When discovering classes and courses along his journey, one in particular stuck with him.

"I had my ears blocked for two days (in one of the courses), and that was the biggest eye opener I could have ever had. Walk a mile in someone else's shoes so to speak."

TRAVELING ABROAD: Leaving West Texas for New Zealand, Barker had originally committed to a two-year contract to work and study audiology abroad. Life took its course and he remained in Napier, New Zealand, for 12 years, finding his wife and together having three children there, as well. Now, after 12 years, Barker has decided to return home with his new family.

"Even with all the amazing attributes New Zealand has to offer, my family and I have decided it's now time to continue the adventure back in West Texas. I am very excited to be near home, family and friends again!"

BY AARON CULLEN



MARK HENDRICKS

MINDY SEXTON, PHARM.D

Owner and Pharmacy Manager

The Apothecary Specialty Pharmacy, Lubbock, Texas

Graduate: 2007

SEARCHING FOR A NICHE: Upon graduation, Mindy Sexton spent the next several years working in various retail pharmacy management positions. Despite her success, Sexton found herself searching for a more personal way to help her patients and the community.

“I always wanted Lubbock to have a hometown pharmacy that is as much involved in the community as it is in the management of patient’s health,” Sexton explains. “I envisioned a place where the entire family can get everything they need in one place — a pharmacy that embraces all practices of healing, including prayer. I wanted to be able to take care of people without any barriers and to be able to do whatever I wanted or needed to help people feel better.”

OPEN FOR BUSINESS: In September, Sexton opened The Apothecary Specialty Pharmacy. She’s a compounding and immunizing pharmacist, a natural health and essential oils consultant and a business contract manager who also handles marketing and public relations.

“Our compounding is so vast, we always say, ‘There’s a compound for that!’” Sexton said. “We do a whole lot of bio-identical hormone replacement therapy, so I spend one-on-one time with the patient to help them have an idea of what’s going on in their body and how we can help them to feel better in their own skin. As their advocate, I will reach out to their provider to facilitate the process and make recommendations. I also work closely with our veterinarians to help determine the best way to get a pet the medicine they need, too. Like I said, the entire family is our patient. Lastly, but most importantly, I am our prayer leader. I pray over our team and our business, the health care providers in the community, our patients and their families. God is so good that without Him we would just be walking blindly. I go to Him for everything.”

FAMILY TIME: Sexton and her husband, Thomas, have a 12-year-old daughter named Kaylee and a 9-year-old son named Luke. With her brother, two nieces and a nephew also living with them, home life can sometimes be as busy as her store, but Sexton calls her family her biggest supporters.

Sexton and her family are “big movie-goers” who also enjoy traveling and attending church together. She’s still involved with NCPA and she works with the American Heart Association and the Texas Pharmacy Association.

PATIENT CARE IS LOVING CARE: Sexton says people sometimes appear shocked when they enter her store for the first time because the atmosphere differs from a typical pharmacy.

“It’s very homey and inviting. We want people to see Christ through us and the way we treat them. It rewards me most when people appreciate when I offer to pray with them or for them, because we live in a hurting world, and I think providing them hope and love is the first step in the healing process.”

This is why her company’s motto, ‘A merry heart doeth good like a medicine,’ is perfect for her business. She took it from Proverbs 17:22, one of her favorite Bible verses.

BY MARK HENDRICKS



KENNY BRAUN

Jeremy Hernandez, MD, and his wife, Staci Hix-Hernandez, MD, change people's lives for a living.

"When I can perform a reconstructive surgery for someone who's gone through a horrible experience like chemotherapy or a car accident and put a smile back on that patient's face, that is the reason I get up in the morning and go to work," Staci said.

FINDING THEIR WAY: Initially, Staci was a dance major at Eastern Oklahoma State prior to transferring to Texas Tech, and Jeremy was a punter for the Red Raiders.

"I was hopeful that something would come of my football career, but realistically I knew it wouldn't, so I decided to get serious about what I wanted to do — helping people," Jeremy said.

WHY THEY CHOSE MEDICAL SCHOOL: Staci approached her career choice in a unique way.

"I just kept waiting for something to tell me I couldn't do it. I was afraid that a career in medicine might be a pipe dream, but then the obstacles never came up to veer me off the path, and I was successful in classes and nothing prevented me from succeeding."

ADVICE FOR OTHERS: Both said to stay humble and don't forget to have a little fun in life.

JEREMY HERNANDEZ, MD

Anesthesiologist

Scott & White Memorial Hospital, Round Rock, Texas

Graduate: 2003

STACI HIX-HERNANDEZ, MD

Plastic and Reconstructive Surgery

Scott & White Memorial Hospital, Round Rock, Texas

Graduate: 2003

"Humility is important," Staci said. "You're not great alone; you're a summation of people who work with you and you only look good because they make you look good. And in medicine if you fail to stay humble, the job will send you a curve ball that makes you humble."

"Life is more than going to school, making good grades and putting everything into your career, though I'm not condoning flunking out of school or working half-heartedly; but if you don't have fun and experience some things like dinner with friends or a movie with family, then you could easily burn out," Jeremy said.

BY KARA BISHOP

Rural Health Care from a Nurse Practitioner's Perspective

BY MELANIE RICHBURG, DNP (SON '13)

I wear a lot of hats. I am the clinic director at the newly recognized Family Wellness Clinic — Rural Health Clinic, which is part of the Lynn County Hospital District, located in Tahoka, Texas. Tahoka is the county seat of Lynn County. The county has a population of 5,915. I see patients at the clinic on a regular schedule. I also admit patients and make hospital rounds on all of my patients at Lynn County Hospital. We have an outreach clinic in O'Donnell, Texas, and I go to that location once a week. I also have patients in Slaton Care Center and Post Health Care Center, which are both long-term care facilities, and I make rounds there on a monthly basis. I am working with New Home ISD currently to arrange an outreach clinic there beginning in the 2016 school year.

So I wear a lot of hats. But these aren't the hats I'm talking about.

Rural is defined as basically being in a lower population or away from a larger organized area. When the patient thinks about having a medical emergency or just seeking medical care when he or she are in a rural area, travel has to be planned and thought has to be given to access and availability unlike urban areas.

Staffing a hospital works much the same way. Access and availability aren't the same; therefore, I am not only the medical provider that addresses health concerns, but I'm often the mental health provider, the spiritual minister and many times a modified social worker. I am blessed to have some strong social workers in my life that I call upon frequently to help me with coordination of care for my patients. In an urban setting all these other hats I wear are handled by that specialty. In the rural setting out here in Tahoka, it's me and others like me.

I also have to rely on my own judgment quite frequently. Technology is not readily available in the rural areas. The types of medical equipment for testing and some

medications may not be available for hours or days. When I'm managing a medical situation, I have to trust my assessment skills and oftentimes my gut in determining if the patient can wait for the test or medication or if I need to just transfer the patient to an appropriate facility to receive care.

Rural health care definitely has its challenges. So why do I do it? Because I believe every person in the world deserves access to competent health care. I believe that we all have been given a talent that will bless us. For me it's taking care of patients. It's having the opportunity to receive my Doctorate of Nursing Practice at TTUHSC. It's being able to take my education and experience and having a respected and recognized voice for rural health care and serve on many committees and in many professional forums. I have been able to back up the passion I have for rural America with education and knowledge and that's why I do what I do. 



Melanie Richburg, DNP, (SON '13), clinic director at Family Wellness Clinic-Rural Health Clinic in Tahoka, Texas, is pictured with one of her patients, Fern Barnes.

Logan Price, AuD, (SOAHS '13, '09) has always believed in giving back. He received a \$5,000 scholarship from James Avery Craftsman Inc., and was so grateful that his first order of business after securing a paid internship was buying a necklace from the jewelry store. And he hasn't stopped there. His appreciation for his education from TTUHSC has inspired him to help other students achieve their dreams.

READ HIS STORY

[and learn how your gift can impact TTUHSC]

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