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PUSE



HOLDING ON TO HOPE

In a world where growing old is inevitable, doing so gracefully isn't necessarily guaranteed. Of those 85 and older, almost half suffer from Alzheimer's or some other form of dementia – tarnishing what should be lived as "the golden years." These neurodegenerative diseases have brought together a team of scientists and clinicians – whose work individually is notable – creating a synergy that moves us one step closer to solving the mystery of Alzheimer's.



ANIMATED ANALOGIES

While the animations of Marie Leiner, Ph.D., may not rival those in the Disney vault, they are creating a whole new world in preventive health care.

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Bernhard T. Mittemeyer, M.D.



THE HEALING ARTS

Lynda Billings, Ph.D., MFA, encourages graduate nursing students to become right-brain thinkers to see how naturally the genres of art and science complement one another.



A DOSE OF REALITY

Donors' gift sends medical students to the Betty Ford Center for a deeper understanding of substance abuse.

JOAN BRYAN, ON THE COVER, AND SANDRA ROBB, PICTURED ABOVE, ARE RESIDENTS AT THE MILDRED AND SHIRLEY L. GARRISON GERIATRIC EDUCATION AND CARE CENTER, A LONG-TERM FACILITY THAT OFFERS SPECIALIZED CARE FOR THOSE WITH ALZHEIMER'S AND OTHER AGE-RELATED DEMENTIA. THE CENTER PROVIDES SUPPORT FOR TTUHSC GERIATRIC EDUCATION INITIATIVES. PHOTO BY NEAL HINKLE

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ALUMNI

TYSON CROMEENS, PHARM.D. PHARMACY '02 District pharmacy supervisor, CVS Pharmacy Inc., Lubbock



MITESH SANGHVI, PH.D. BIOMEDICAL SCIENCES '08 Fellow, National Institutes of Health, Bethseda, Md.



TAMARA BAVOUSETT, D.N.P., M.S.N./P.N.P., B.S.N., NURSING '10, '04, '01 Private practice, Compass Pediatrics, Odessa



HOLLY SHORT, PA-C ALLIED HEALTH SCIENCES '00, '03 Physician Assistant, Covenant Health System Orthopedic Group, Lubbock



TYSON K. COBB, M.D. MEDICINE '91 Director, Hand and Upper Extremity Center at Orthopaedic Specialists, Davenport, Iowa



UPDATES

SCHOOL OF PHARMACY RESEARCH EARNS COVER STORY ONCE AGAIN

For the second time this fiscal year, research work by School of Pharmacy investigators has earned a spot on the cover of Clinical Cancer Research, one of the nation's top ranked oncology journals. The manuscript of Sanjay Srivastava Ph.D., associate professor in the Department of Biomedial Sciences, School of Pharmacy at Amarillo, was featured in the April 1 issue.

Srivastava's research identifies a chemical present in cruciferous vegetables such as watercress that can suppress the activation of AKT, a key cellular signaling protein in pancreatic cancers. Activating it can protect the cancer cells from death induced by anti-cancer drugs, Srivastava explained.

Pancreatic cancer is the fourth leading cause of deaths in cancer patients because of its poor prognosis and resistance to chemotherapy.

Srivastava's work follows that of Paul Lockman, Ph.D., (SOP '03) assistant professor in the School of Pharmacy, whose work was featured as the journal's Dec. 7, 2010, cover story. His previous work in pancreatic cancer was featured in the Summer 2009 issue of *PULSE*.

> KEEP UP WITH alumni activities BETWEEN ISSUES AT



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and follow us on



(TTUHSC Alumni Association)



TOGETHER, WE'LL KEEP TTUHSC **MOVING FORWARD**

I would like to share with you a few important developments at the TTUHSC in the academic and financial areas.

We have recruited Michael Evans, Ph.D., R.N., as dean of our School of Nursing. Dr. Evans, an accomplished leader in nursing education, will join us in January. He comes to us from the Goldfarb School of Nursing at Barnes-Jewish College in St. Louis.

Douglas M. Stocco, Ph.D., executive vice president for research, has agreed to assume the added position of dean of the Graduate School of Biomedical Sciences as of July 1. Stocco joined TTUHSC in 1974 as a professor in the Department of Cell Biology and Biochemistry. Many of you will remember him from your days here. You can read more about their appointments on page 7.

On the financial front, the current economic environment has created global challenges and the state of Texas is no exception. In January, the 82nd Texas Legislature convened and both houses introduced budget proposals to address the estimated \$26 billion shortfall in state revenues. Initially, we were looking at a shortfall of up to to \$45.9 million for the next two fiscal years. After negotiations between the House and the Senate, the Texas Legislature passed an appropriations bill that cut our funding by 7 percent to \$327.3 million, resulting in a \$24.5 million decrease from the previous biennium. In addition, the university will have an increased cost for health insurance as employee premiums and longevity pay will continue to be provided as in prior years. These will cost \$5.5 million, bringing the total biennial reduction to \$29.9 million.

Although the decrease in state funding is not as drastic as originally proposed, the reductions do mean that we have less funds to work with as we continue in our educational mission. In addition, our fall 2010 student body of 3,710 is expected to increase to almost 4,000 in the fall of 2011. It goes without saying, now, more than ever, your support is essential. Please consider giving to one of our many HSC Funds for Excellence or to a specific school scholarship account. We must maintain the rich programs, unparalleled experiences, and traditions that make this university a treasured part of their lives.

> Thank you for your eduring support. Tedd L. Mitchell, M.D. President

Vol. 22. No. 1

Chancellor

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Health Sciences Center President

TEDD L. MITCHELL, M.D.

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FROM ABILENE COMMUNITY WILL PROVIDE FOR **NEW NURSING** SCHOOL FACILITY

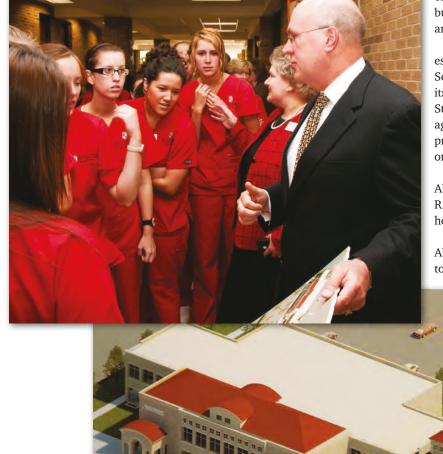
TTUHSC's School of Nursing will soon have a storefront for its educational offerings in Abilene. In April, President Tedd L. Mitchell, M.D., announced that gifts from the community will be used to build a new nursing facility, which will enhance educational opportunities and provide for multidisciplinary learning.

Community leaders were instrumental in securing and constructing the School of Pharmacy in 2007, and once again are showing strong support in this latest endeavor. TTUHSC has secured enough funding to begin construction and will continue to raise the remaining amount needed for completion of the project. Hendrick Health System will help construct the building, which will attach to the existing School of Pharmacy, and then donate the facility to TTUHSC.

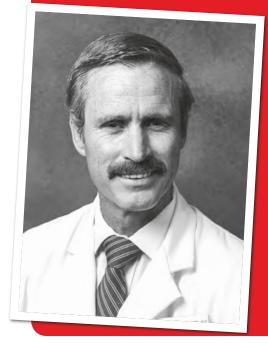
The school and hospital began a partnership in 2008 establishing a web-based post-baccalaureate program, the Second Degree BSN. Since then, the school has expanded its traditional Bachelor of Science in Nursing to the region. Students have completed course work in community-based agencies and clinics and at Hendrick Medical Center. Other programs available to Abilene and area residents are the online RN to BSN program and several graduate programs.

"This new facility will enable the School of Nursing at Abilene to grow to its full potential," said Pearl Merritt, Ed.D., R.N., the school's regional dean at Abilene, "which in turn will help to alleviate the nursing shortage statewide."

There are currently 56 students in the School of Nursing in Abilene, but school officials would like to increase enrollment to more than 100 by 2015.



Guess



<<<This El Paso faculty his luck, but then found an agriculture economics course at Kansas State. Can you guess who? see story on page 10

Faura D. Bus Institute for Women's HEALTH JOINING THE BATTLE AGAINST BREAST CANCER

A new program launched this spring from the Laura W. Bush Institute for Women's Health is helping women access services and information related to breast health.

Access to Breast Care for West Texas, ABC₄WT, will help women find resources for prevention and screening as well as help pay for mammograms and other diagnostic testing for women who qualify.

The Cancer Prevention and Research Institute of Texas awarded researchers at the LWBIWH a three-year, \$1.67 million grant to work with organizations and agencies in the Panhandle and South Plains of Texas who are already serving minority and underserved women.

★ To learn more, visit www.abc4wt.org.



Sara Jezierski's Amarillo apartment is a breeding ground for some of the creepiest, cleanest microorganisms that ever graced the inside of a petri dish.

It started in January 2010, when the TTUHSC campus at Amarillo was closed for a couple of days due to snow. Jezierski had just finished a semester of immunology when she got the idea to shape a bar of soap like a Petri dish filled with microbes such as E. Coli, Salmonella, Legionaella and a host of others that glow in eery neon colors.

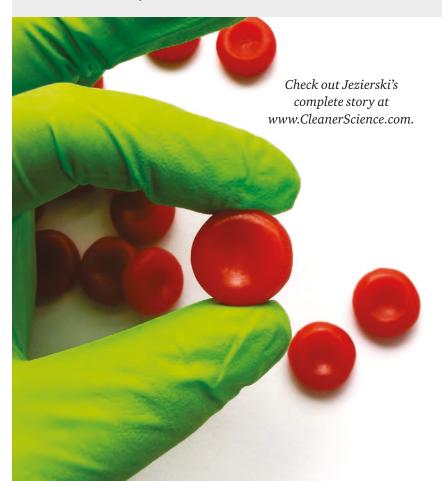
She felt sure someone else had already thought of the idea, but this time "too-good-to-be-true" wasn't. Within days, Jezierski, who just completed her second year in the School of Pharmacy, was learning how to make soap and exploring the possibilities of morphing her idea into a marketable product. Within the month, she came up with a name, Cleaner Science—and had set up shop in the virtual marketplace.

Today, Cleaner Science's product line features 20 different Petri dish soaps in a variety of colors and scents as well as breath mintsized versions of red blood cells, available in 17 fragrances.

"Cleaner Science gives me a good outlet to express my creativity, to switch on that right side of my brain, so to speak, when I have been maxing out my left side all day," said Jezierski. "The nice thing is that most of those things don't have an exact time they need to be done ... The only time constraint is to make it to the post office before they close for the day."









JUST the facts..



ranking the School of Allied Health Sciences received from the U.S. News & World Report for its master's level Speech-Language Pathology program compared to the 262 programs nationwide. The school's Rehabilitation Counseling Program ranked 56 of 96.



percent pass rate on the National **Council Licensure Examination** (NCLEX) was posted for the first time by students in the Traditional Bachelor's of Science in Nursing. The NCLEX is required to receive professional licensure in the field of nursing.

3-1-1

New fellowships have been accredited at the Paul L. Foster School of Medicine. The Accreditation Council for Graduate Medical Education granted a three-year fellowship in cardiovascular disease, a two-year fellowship in rheumatology, and a one-year fellowship in sports medicine.

number of high school students from rural West Texas that have participated in summer camps, mentoring programs and other initiatives offered by the West Texas Area Health Education Centers. The centers, which operate within the F. Marie Hall Institute for Rural and Community Health, encourage youth throughout the region to consider health care as a potential career.





siblings from the Attaya family are now TTUHSC alumni. Hosam Attaya, M.D., the youngest, earned his medical degree from the School of Medicine in May. His siblings are former student regent Ebtesam Attaya Islam, M.D., Ph.D., (SOM '10, GSBS '05); Eman N. Attaya, M.D., (SOM '05); Hesham N. Attaya, M.D., (SOM '08); Mohamed N. Attaya, M.D., (SOM '10). Congratulations!

there's no place like home

The Department of Obstetrics and Gynecology, School of Medicine at the Permian Basin is one of seven in the nation recognized by the American Association of Medical Colleges as having successfully integrated the medical home concept into the educational setting.

In its report, *Moving the Medical Home Forward: Innovations in Primary Care Training and Delivery*, the AAMC notes the changes the department has implemented during the past four years, which includes evidenced-based clinical care, a patient tracking system and safety initiatives. As part of their daily responsibilities, medical residents learn about resources at the local, state and national level available to help indigent populations.

The department has served as a model to other departments on campus, and a clinic in Midland also has adopted the medical home model for its organizational structure. Read more about the department's transformation in an excerpt from the AAMC report in *PULSE* online.

New deans for Nursing and Biomedical Sciences

STOCCO NAMED DEAN OF BIOMEDICAL SCIENCES

Douglas M. Stocco, Ph.D., has been named dean of the Graduate School of Biomedical Sciences. He began duties July 1. Stocco currently serves as TTUHSC's executive vice president for research, and will continue in that position as well.

He joined TTUHSC in 1974 as a researcher in the Department of Cell Biology and Biochemistry. His focus on the mechanisms involved in steroid hormone synthesis has received several honors and has been funded by the National Institutes of Health since 1984. Most notable was his identification



and characterization of a novel protein, which his research team named the Steroidogenic Acute Regulatory protein. The protein has been used in the early diagnosis of a potentially fatal congenital disease.

Stocco has published more than 200 peer-reviewed, original scientific articles, book chapters and review articles, gaining national and international recognition and has earned several honors from the NIH.

He received his undergraduate and master's degrees from the University of Windsor, in Canada, and his doctorate from the University of Toronto. Additionally he completed two years of postdoctoral research at UCLA.

Throughout his career at TTUHSC, he has served as vice dean for research for the School of Medicine and as the interim dean of the Graduate School of Biomedical Sciences. He has received prestigious recognition from TTUHSC including being named as a Grover E. Murray Distinguished Professor and a University Distinguished Professor. Stocco also holds the Robert A. Welch Endowed Chair in Biochemistry and is a Fellow in the American Association for the Advancement of Science.

He succeeds Luis Reuss, M.D., who now serves as director of TTUHSC's Center for Membrane Protein Research.



MICHAEL EVANS TO LEAD NURSING SCHOOL

The School of Nursing welcomes Michael Evans, Ph.D., R.N., as its fourth dean.

Evans comes to TTUHSC from the Goldfarb School of Nursing at Barnes-Jewish College in St. Louis. There, he served as professor, Maxine Clark and Bob Fox dean, and CEO of the 650-student school. Under his leadership, the school experienced growth in research, increased the number and

quality of graduates, and achieved two successful re-accreditations. Additionally, Evans was instrumental in transitioning two historic nursing schools—the Jewish College of Nursing and Barnes College of Nursing—into the current institution, which offers innovative programs at the undergraduate and graduate levels.

His experience also includes vice president and chief learning officer for Texas Health Resources, a 13-hospital health care system with 18,000 employees. There, he oversaw educational activities and created a corporate university model for health care education. Evans has been an adjunct professor in several Texas nursing schools including the University of Texas System. In addition, he has served as chief nursing officer at several Texas hospitals including Presbyterian Hospital in Dallas and St. David's Medical Center in Austin.

Evans, a graduate of TTU, earned his nursing diploma from Northwest Texas Hospital School of Nursing in Amarillo; his bachelor's in nursing came from West Texas State University School of Nursing in Canyon, Texas; and his master's from the University of Texas Health Science Center School of Nursing at Houston. He received his Ph.D. in nursing from the University of Texas at Austin.

He will join the TTUHSC administration in January, succeeding Alexia Green, Ph.D., R.N.

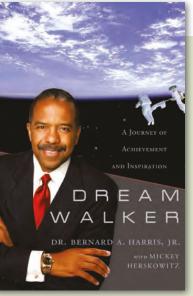


The first class for the innovative Family Medicine Accelerated Track (FMAT) program has been selected. These students will complete their medical degrees in three years at about half the cost of the standard degree program. The students, are: back row—Clay Buchanan, Seth Wilhelm, Robert Cooper, Emily Dosier, Amanda Hartman, and Charles Willnauer; front row: Eileen Dee, Keeley Bramblett and Tiffany Bunag. They are joined by Ronald Cook, D.O., chair, Department of Family and Community Medicine, TTU System Chancellor Kent Hance, TTUHSC President Tedd L. Mitchell, M.D., and Steven Berk, M.D., TTUHSC executive vice president, provost and School of Medicine dean. The FMAT program was featured in the Summer 2010 issue of PULSE.

MULTIMEDIA



Benches linked through imagery as well as their positive and negative marble components have been added outside of the Texas Tech Physicians Medical Pavilion in Lubbock as part of the TTU System Public Art Collection. Jim Hirschfield and Sonya Ishii from Chapel Hill, N.C., are the artists.



Dream Walker: A Journey of Achievement and Inspiration | By Bernard Harris, M.D., (SOM '82) 216 pp. Greenleaf Book Group Press, Austin, Texas. \$23.95

"My dream to venture into space began July 20, 1969, when I watched the blackand-white television

set in our living room, transfixed as Neil Armstrong and Buzz Aldrin stepped onto the surface of the moon."

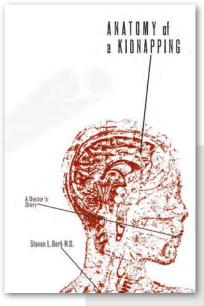
In Dream Walker, A Journey of Achievement and Inspiration, Bernard Harris, M.D., (SOM '82) tells the story of a young boy who refused to give up on a dream. His story takes the reader on a journey through his childhood living on a Navajo reservation to the suburbs of San Antonio, where Harris finished high school. He speaks of those who strongly influenced his paths, which eventually led to medical school, and then into space. Today, Harris is the CEO of a venture capital firm and founder and president of The Harris Foundation, a nonprofit that supports young people as they pursue their dreams.

Harris' story concludes with an introspective look at a man on a mission and a desire that his dream serves as an inspiration to others.



KUDOS The University of Texas at San Antonio School of Medicine honored EVERARDO COBOS, M.D., associate dean and division chief for oncology/hematology in the School of Medicine at Lubbock, with its 2010 Distinguished Alumni Award. He is a 1981 alumnus of the school.

The Texas Healthcare and Bioscience Institute honored TTU SYSTEM CHANCELLOR KENT HANCE with its 2011 Luminary Award, recognizing his efforts to further the development of the life sciences industry in Texas. The institute is an advocacy group whose mission is to research, develop and advocate policies statewide that promote biomedical science, biotechnology, agriculture and medical device innovations. UMC Health System recently honored two School of Medicine faculty with endowed chairs. VASUM PEIRIS, M.D., received the Joon Park, M.D., Endowed Chair in Medical Excellence. Peiris is an assistant professor of pediatrics and internal medicine in the School of Medicine at Lubbock and a pediatric cardiologist at UMC. RICHARD WINN, M.D., chief of infectious disease and professor of internal medicine, was named as the James P. Courtney Endowed Chair in Medical Excellence. The chair positions are supported by UMC Health System in Lubbock to fund TTUHSC medical programs and research. Congratulations to QUENTIN SMITH SR., PH.D., and a team of collaborating faculty investigators and basic scientists from the schools of Pharmacy and Medicine at Amarillo. They have received a \$1 million grant from the Cancer Prevention Research Institute of Texas to purchase a confocal/multiphoton laser-scanning microscope. This piece of equipment will allow the researchers to view images of drugs and cancer cells in the tissues of living organisms. It can also be used to explore the mechanisms associated with cell signaling and cell invasion within the body so that new therapeutic drugs can be tested. VALERIE ROBINSON, M.D., assistant professor, Department of Psychiatry, School of Medicine at Lubbock, is serving on the state Pharmaceutical and Therapeutics Committee, which develops recommendations for preferred drug lists adopted by the U.S. Health and Human Services Commission. Gov. Rick Perry appointed Robinson to the committee, composed of six physicians and five pharmacists that participate in the Medicaid program. An article by members of the TTUHSC SCHOOL OF MEDICINE CANCER CENTER, published last fall in the New England Journal of Medicine, has been ranked by the Faculty of 1000 (http://f1000.com) as being in the top 2 percent of published articles in biology and medicine. The article focused on the phase III Children's Oncology Group trial adding antibody therapy + cytokines to 13-cisretinoic acid for therapy of high-risk neuroblastoma.



The Match Day Song | By Brian Weis, M.D., associate professor, Department of Internal Medicine, School of Medicine at Amarillo, YouTube video

Most likely, he won't be cutting a single anytime soon, but Brian Weis, M.D., gave a memorable toast to the medical students at Amarillo with his original song about "the letter that came on Match Day." Annually, students nationwide learn of their residency placements in March. Visit PULSE online to view Weis' performance and to see where our students will be doing their residencies.

Anatomy of a Kidnapping | By Steven L. Berk, M.D. | 288 pp. Texas Tech University Press. \$27.95

"Four hours. That was the amount of time between looking down the barrel of a gun and finding myself free along a silent highway ... I looked upon the situation just as I looked upon a medical emergency: I took a deep breath, hid my panic, and tried to solve the situation."

In Anatomy of a Kidnapping, Steven L. Berk, M.D., TTUHSC executive vice president, provost, and School of Medicine dean, chronicles his account of being kidnapped from his home in Amarillo on March 6, 2005. Along with the story of his kidnapping, Berk describes numerous experiences with patients and lessons learned as a physician that ultimately helped prepare him for survival in the midst of incessant danger.

Berk refers to his fascination and understanding of William Osler's aequanimitas, which taught him the necessity of remaining calm and composed in the midst of any situation. As a physician faced with the task of treating patients in their times of dire need, Berk writes, "In times of crisis, no matter the nature, a physician must do his best to promote calm, rational solutions to any problem."

Insights such as this became ever so valuable, Berk says, the moment one seemingly ordinary Sunday morning became anything but ordinary.

Anatomy of a Kidnapping will be released in September by Texas Tech University Press.

Third TTUHSC student to serve as TTU System regent

School of Medicine student Jill Fadal was selected in April by Gov. Rick Perry as the sixth student to serve on the TTU System Board of Regents.

Fadal, who began her one-year term on June 1, is a native of Austin. She is the president-elect of the Orthopedics Club and serves as vice president of the MD/MBA Association. Fadal received her bachelor's degree in general studies in 2009 from TTU, where she was involved in many student organizations and activities including Phi Beta Kappa and President's Select. She now is a pursuing a dual-degree in medicine and business administration through a joint degree between TTUHSC and TTU.

She is the third student regent to come from TTUHSC since Gov. Perry appointed the first student regent in 2006. Student regents rotate among the TTU System universities and serve a one-year term.





WILLIAM SULLIVAN, M.D.

ASSOCIATE PROFESSOR, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY PAUL L. FOSTER SCHOOL OF MEDICINE

Trying his hand as a rodeo cowboy left William Sullivan, M.D., dead broke after being bucked off a horse at a jackpot rodeo the summer he turned 17. Deciding he had better find a new career, Sullivan worked his way back home to Kansas and then to K-State to study agriculture economics. He became interested in science, "and the next thing I knew I lost my way and ended up in medical school."

There is a hint of humor and an inkling that somewhere behind his Marty Robbins grin there may be more to the story than Sullivan's Reader's Digest version, but once he settled on medicine, not much could throw Sullivan off course. He came to TTUHSC in 1976 for a second residency - this time in obstetrics and gynecology and upon completion, the residency chair offered him a position.

"I realized after practicing family medicine for nine years that women were much better patients," Sullivan said, following his comment with a subdued laugh.

And the ones in El Paso, have held his heart ever since.

There is poverty, undoubtedly, and pathology that you'll not see anywhere else, but the patients are extremely loyal and appreciative of the care, Sullivan said. By Danette Baker

Two lessons Sullivan now shares with residents who come to El Paso: "You have to learn Spanish, and you have to learn you never argue with grandma."

Two years in Panama City, serving in the Peace Corp, prepared him for the first. The latter, he says, with a laugh, "I learned the hard way."

His mix of genuineness and teasing is a trademark. "My students will tell you I'm a cross between Hippocrates, (William) Osler and W.C. Fields. I strongly suspect they see (in me) Fields' zest for life; Osler was the father of medicine, and Fields, a practical joker.'

Case in point: his response to a question about changes in his specialty field. "Well, women are still having babies pretty much the same way they always did."

Medical students, he added, haven't changed much either.

"They are always the best of the brightest, the cream of the crop. And that's what's kept me going.

"I thoroughly enjoy watching their eagerness to learn and their inquisitiveness. They ask questions that I don't know the answer to, and so I continue to learn."

Discoveries

RESEARCH & SCHOLARLY

ACTIVITY

hambed



Research study looks at motivational factors that will increase



Teddie Kirk successfully made the change from a completely sedentary lifestyle to one that incorporates exercise into her daily routine ... and she never even broke a sweat.

Kirk, a receptionist for the Department of Internal Medicine at the School of Medicine at Amarillo, decided just a change in her eating habits alone was not going to keep off the 40 pounds she had lost through Weight Watchers during the past year. So in February, she volunteered for a research study being conducted on campus.

Jody Wilkinson, M.D., M.S., an exercise physiologist in the School of Allied Health Sciences Department of Rehabilitation Sciences at Amarillo, launched Fitness Works for Women this spring. He's investigating different types of motivation and support to determine what works best in getting women like Kirk to go from zero to hero in the fitness challenge.

"Exercising should be an aspect of everyone's lifestyle," he said. "We know how much we need to stay healthy, the issue is finding time to fit it into the daily routine."

Only about half of Americans exercise regularly, according to the Gallup-Healthways Well-Being Index. For women, particularly, there's a constant battle for those 24 hours in the day, Wilkinson said. "They are notorious for overscheduling themselves, but the focus is always on someone else's needs. So between work and family, it's difficult for them to find time to fit a 30-minute workout into their day, much less do it the recommended three to five times a week."

The good news, he said, is that research now indicates the same benefits are achievable even if you exercise in smaller increments—like 10 to 15 minutes at a time. The question Wilkinson poses: What's the best motivation to get moving?

During the study, Kirk relied heavily on the motivation and support she received via a virtual classroom. Another group of participants received similar information, only in a traditional classroom setting. The third group was given access to the corporate-style fitness center on campus, which is part of the new Health Promotion Research Laboratory. The lab's cardio and free weight equipment along with staff and research funding are provided through community collaborations with Amarillo Town Club, Baptist Community Services and the Laura W. Bush Institute for Women's Health.

Wilkinson, director of the lab, was formerly the medical director and director of the Center for Weight Management at The Cooper Institute in Dallas, where behavior modification is an integral part of the overall fitness plan. While he hopes in the future to make the fitness center available to students and employees, he believes that will serve only a small percentage of the population. "Through Fitness Works for Women, we're looking for creative ways to help women incorporate fitness into their daily schedules; hopefully, we'll identify barriers keeping them from doing so and address those for women, and eventually men as well."

Preliminary results such as Kirk's lend credence to Wilkinson's theory that a lifestyle approach to exercise is in a woman's best interest. After only a few weeks in the study, Kirk had given up half of her lunch hour to exercise—walking around campus. She also discovered that she could replace the drive to her neighborhood mailbox after work with a walk and log another 10 to 15 minutes of exercise. She just needed the motivation to get moving.

se physical fitness among women

One in five people in America have HIV and are not even aware they are infected. If one of those were your child, would you want to know? More than half of the parents surveyed by TTUHSC physicians were open to having their children screened for the human immunodeficiency virus. In an ongoing study, Stephanie Caples, Ph.D., assistant professor, and Jamal Islam, M.D., associate professor and research director for the Department of Family and Community Medicine at the School of Medicine at the Permian Basin, surveyed parents in the TTUHSC clinic to identify parental attitudes. Fifty-seven percent of the 78 parents asked were in favor of screening their children for HIV; almost half said the optimum age would be 11 to 15. The reason most often cited for agreeing to the screening was out of concern their child would become infected or could be at risk.



ELECTIVE SURGERIES HIGHER IN RURAL AREAS



A study of about 46 million Medicare patients reveals that residents in rural areas are more likely to have back surgery as well as abdominal aortic aneurysm repair than their urban counterparts. These were among the nine elective and nonelective procedures performed more often on those living in rural areas, according to a study by Mark Francis, M.D., professor and division chief of rheumatology at the Paul L. Foster School of Medicine. His work, "Rural-Urban Differences in Surgical Procedures for Medicare Beneficiaries" was included in the May issue of Archives of Surgery, a monthly peer-reviewed journal published by the American Medial Association.

The observational study challenges the belief that rural

residents lack access to care. "What is particularly striking in this study is that we found more surgeries among all of the surgeries we examined," said Francis. "While there are a number of potential explanations, the uniformity of these results raises concern that the increased surgeries are the byproduct of poorer health in the rural community."

The bottom line: Researchers still need to determine whether the greater number of surgeries is reflective of poorer health among rural residents, which would indicate a need for enhanced primary care to improve health and reduce the need for surgeries.



TAKING CARE OF THE CAREGIVER

Most Americans will be informal caregivers at some point during their lives. During any given year, there are more than 50 million people providing care for a chronically ill, disabled or aged family member or friend. Although most caregivers are in good health, caregiving can be stressful and can contribute to serious physical and mental health problems. According to a research study by Jana C. Saunders, Ph.D., R.N., C.N.S., professor with the School of Nursing, caregiver strain was explored among 365 caregivers in West Texas. She identified the greatest effects of strain on the caregivers related to their finances, feeling completely overwhelmed and changes in personal plans.

"One of the challenges among those in West Texas is their very enduring attitude of 'this is what needs to be done', and they just do it and don't complain," Saunders said.

The bottom line: A greater understanding of the strain on the caregiver is needed in order to develop programs, services, and interventions that support and meet the needs of these caregivers, Saunders said. Reducing strain for the caregivers can improve outcomes for the care recipients.

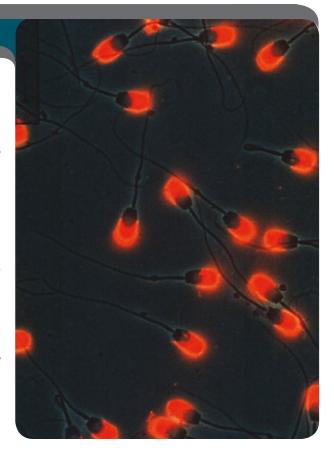
REPRODUCTIVE ANATOMY

Recent findings on the species-specific function of a sperm protein discovered by School of Medicine researchers could provide solutions to a variety of reproductive issues. In a paper published in *The* Journal of Biological Chemistry, Daniel Hardy, Ph.D., associate professor in the Department of Cell Biology and Biochemistry at Lubbock, and his team showed that the protein, named zonadhesin, allows sperm cells to recognize the egg of its same species and initiate fertilization.

In animal models, the researchers were able to "knock out" the gene for zonadhesin to observe its role in reproduction. Sperm cells without the protein were still viable and fertile, but could not identify a same-species egg, thus eliminating the speciesspecificity of fertilization.

There are strong implications for fertility and infertility, Hardy said. "We could target zonadhesin to develop a species-specific contraceptive, for example."

The research was supported in part by the National Institutes of Health, the Lalor Foundation, School of Medicine seed grants and the Texas Department of Agriculture.





Researcher's cartoon characters bring social/ Lealth messages to life

Move over caped crusaders; there's a new superhero in town, and she's prepared to take on childhood bad behaviors. With a tinkle from her wrist alarm, Super Didi dons her spandex suit and pink cape to battle ... dun, dun, dun, dun ... The Children Who Call Themselves Dirty Hands.

YOU KNOW THE TYPE. Splish-splashing in the water, wasting this precious resource instead of using it to wash away germs before meals or after using the restroom. They are the ones who get sick and spread diseases because bacteria and other microorganisms live on their dirty hands.

This superhero-style lesson on social/health issues is one of eight included in an animated educational video series written and produced by Marie Leiner, Ph.D., a health communicator and research associate in the Center of Excellence for Neurosciences/Psychiatry at the Paul L. Foster School of Medicine at El Paso. Since the mid-1990s, Leiner has tackled various health and social issues through cartoons and animated visuals.

Her work is based on psychologist Albert Bandura's social learning theory, which proposes that people can learn behaviors from one another through observation, imitation and modeling.

"There is more to changing behavior than just giving someone information," Leiner said. "You can simplify the message, but to make people act to the message requires some type of reward."

For the preschoolers at Ice Castles Too Inc. in El Paso, the animated characters leave a lasting impression, says Dora Hernandez, the center's director. The childcare facility is one of the Workforce Solutions affiliates that has implemented the video vignettes into their curriculum. "They provide instructors with a teachable moment to introduce or emphasize acceptable social behaviors," Hernandez said. "And it's fun for the children; they are much more receptive to messages presented in this animated format."

Leiner says research in this field has struggled to make an impact in the scientific realm, but that has come along. For years, she presented anecdotal findings at professional conferences, which helped increase knowledge in the field. During the past year, Leiner has published six papers related to health communication, an indication her work has gained scientific ground.

"It's hard to test behavior change and what influenced it," she said. Yet testimony such as that by Cora S. Chavira, childcare training director for Workforce Solutions Upper Rio Grande, indicates her concepts work. The state agency provided funding to help produce the curriculum materials. "We basically just have to ask the children, 'What would Didi say,' when there is inappropriate behavior, and the children will model the positive choices they've seen in the video."



While Leiner's animations and story lines may not rival those in the Disney vault, they have certainly captured worldwide attention. She has received national and international awards almost annually since her work began.

With funding from the W.K. Kellogg Foundation, Leiner introduced the concept of cartoon characters as educators through an educational outreach program in the School of Medicine's pediatrics department. Pepin, an energetic, inquisitive young boy based on a well-loved character of Mexican folklore, starred in "The Adventures of Pepin." Portrayed as the expert, he explained the importance of vaccines as well as counseled his parents and other family members on diseases common to those living in the border region.

Since then, Leiner has taken Pepin to DVD, where he is joined by Super Didi in many of the adventures, and to cyberspace, where he is the main character in a virtual world, sponsored by Kohl's Safe Child Initiative. Leiner created the bilingual interactive website with a design team from El Colegio de Chihuahua, a public university in Mexico. On the website, Pepin is faced with everyday health choices, such as wearing protective gear when skateboarding and eating healthy and exercising to avoid diseases such as obesity.

"As a health communicator, I see that children can be very good teachers and that educating them also helps educate their parents," Leiner said.

Through the years, she has worked to keep Pepin and the other characters on pace with technology. He's been in cartoons, videos and now on the World Wide Web. So what's next? Leiner says perhaps an educational video game for the Wii or an iPhone app.

Ja'Net Nash, D.N.P., M.P.H., (SON '11) decorates walls in the Dallas County Jail's clinic with art posters educating inmates about potential health hazards of selftattooing. The artwork she creates helps start conversations with her patients.

Today, Arizona Congresswoman Gabrielle Giffords continues her journey of recovery after being targeted Jan. 8 by a crazed shooter in her home state.

The Tucson tragedy—which resulted in six deaths and 14 wounded, including a life-threatening bullet to Giffords' head—was headline news for weeks. And nationwide, many held their breath waiting for each day's news update of her recovery.

Miraculous was a word used regularly by her neurosurgeons. But how?

Giffords' recovery has had much to do with the arts. For her, it was music that helped pull the congresswoman out of her subconscious state and into a realm of gaining back speech, memory and ambulatory functions.

"Art and healing are working together in more places than many realize," said Lynda Billings, Ph.D., M.F.A., assistant professor in the School of Nursing. "It's happening all around us, but we have opportunities to implement the two even more."

As curriculum developer of the school's graduate elective course, Utilizing the Arts in Health Care, Billings strives to provide nurses with an appreciation of the arts and the necessary skills to execute that appreciation into their practice.

"Creativity is a powerful tool that needs to be used effectively in all areas of medicine," she said. "The creative spirit is alive and well in all of us, but it can especially be used in the health care system."

Since taking Billings' class, Kimberly Harper, B.S.N., (SON '10), has worked with peers at Texas Health Resources in the Dallas/Fort Worth metroplex to change the very look of patient rooms, creating more of a home environment.

"Art has always made me feel better," said Harper, a cardiac nurse. "But this online course showed me just how much it goes beyond my own love and how I can utilize art to help my patients in so many ways."

Harper said they have changed paint colors in the hospital rooms, incorporated items such as favorite blankets from the patients' homes and added family photos to their bedside tables. They also use art therapy with the patients' families, such as having grandchildren make get-well cards, to help pass the time during long procedures.

"It helps time go by for the family members, and while the patient is put on two-to eight-hour bed rest (afterward), the cards help put a smile on our patients faces as they are able to look at the 'art' left behind by their loved ones.

"I know that sounds so simple," she said. "But even changing aesthetic things within the environment of our patients, we're seeing better outcomes. If a patient feels better mentally, they heal faster physically."

In a September 2010 article of the American Journal of Public Health, more than 85 percent of America's doctors agree, "a peaceful mind equals a healing body."

According to the article, there is a growing understanding of the intricate relationship between many types of health disorders and a personal experience of emotions, stress, attitudes and beliefs. If, however, health care practitioners can have a positive impact on these factors, there is an important opportunity to reduce the burden of illness and suffering.

Research increasingly demonstrates that a variety of creative engagements (the arts) can positively impact these emotions, attitudes and beliefs, contributing to greater health and wellness for patients, Billings said.

"The arts have long been recognized for their power to bridge differences—connecting individuals of different backgrounds and experiences through the shared experience of art, music, literature and dance that ultimately heal communities and individuals as well."

Ja'Net Nash, D.N.P., M.P.H., (SON 'II), a family nurse practitioner for Parkland Hospital in Dallas, who works in the Dallas County Jail System, has focused on community healing as a result of Billings' course. She said Billings taught her to look at entire populations and how art can heal from the inside.

"This course was an awakening for me. It taught me to examine myself and my views and how important art is in the mental and physical well-being of every individual—and for the jail community as a whole."

Nash is working—through multiple art programs—to provide better health and to help keep inmates on the right path during incarceration as well as to help them stay straight once they re-enter society.

"Art allows me to provide a more humanistic approach to health care," she said. "One of our main problems in the jail system, for instance, is self-tattooing, which results in potential transference of HIV, Hepatitis C and other tremendous health issues."

Nash is working to incorporate posters in the jail setting that reminds those incarcerated of the dangers of this practice. The simple act of presenting educational information through graphics, she said, may thwart prisoners from engaging in activities that can lead to communicable diseases that continue to spread once they leave the jail setting.

"It seems so simple, but this is a form of art that helps not only the individual, but the entire community as well," she said. "By taking this course, I've learned to look at the beauty of what I see and find new ways to bring it to life."

And that's exactly what Billings' is hoping for.

"My wish for those taking this course is to see beyond the day-to-day practice of medicine," she said. "I want them to look inside themselves and at the world around them to find ways to provide even better health care for their patients. Art has been a part of health care for some time, and I look forward to an even larger incorporation of the two."

Billings pointed to children's hospitals where it's not uncommon to see terminally ill youngsters smiling as they engage in playrooms stocked with crayons, dress-up clothes, toys and plenty of music. Walk through most any hospital pediatric wing, and ceiling tiles are often adorned with the artwork of children who have been patients.

"A child is happy if they are kept from thinking about their illness," Billings said. "It's nothing for us to think of that for our youth—to incorporate 'art' into their lives. But no matter how old or young we are—that 'art' is beneficial to our overall well-being at any age."

Harper agrees.

"I'm sure (now that I've taken the course) that I'm a better nurse," she said. "By utilizing art, my patients open up more to me, which allows me to learn more about my patients. With that, I'm able to provide the best individualized care that I possibly can."

{brush}strake



Lynda Billings, Ph.D., MFA, mixed her love for the arts with $health\ care\ to\ develop\ a\ course\ for\ graduate\ nursing\ students.$

genius

Art has been Lynda Billings' life passion, and her course, *Utilizing the Arts in Health Care*, has been a culmination of that passion.

"Art has been a part of who I am since I was a young child," said Billings, Ph.D., M.F.A., assistant professor in the School of Nursing. "And it has truly played a part in everything I've done most all of my life."

A former teacher in the TTU School of Art, Billings said she was drawn to health care, nursing in particular, and wanted to be a part of connecting the arts more closely into that profession.

She developed the graduate elective course as her doctoral dissertation, and introduced it to the nursing curriculum in 2006. In it, Billings encourages participants to look closely at art and health care through three major assignments.

First, students are asked to research the arts in health care and recognize just how much the two are already working together.

"I ask students to compile 15 separate areas where arts are already being used in the health care arena," Billings said. "Whether it is music, poetry, the visual arts, or architecture; the list goes on."

From there, students choose one particular art form and submit a process for implementation of that art form into their practice.

Finally, students write a formal research paper on how the implementation of art and health care work together.

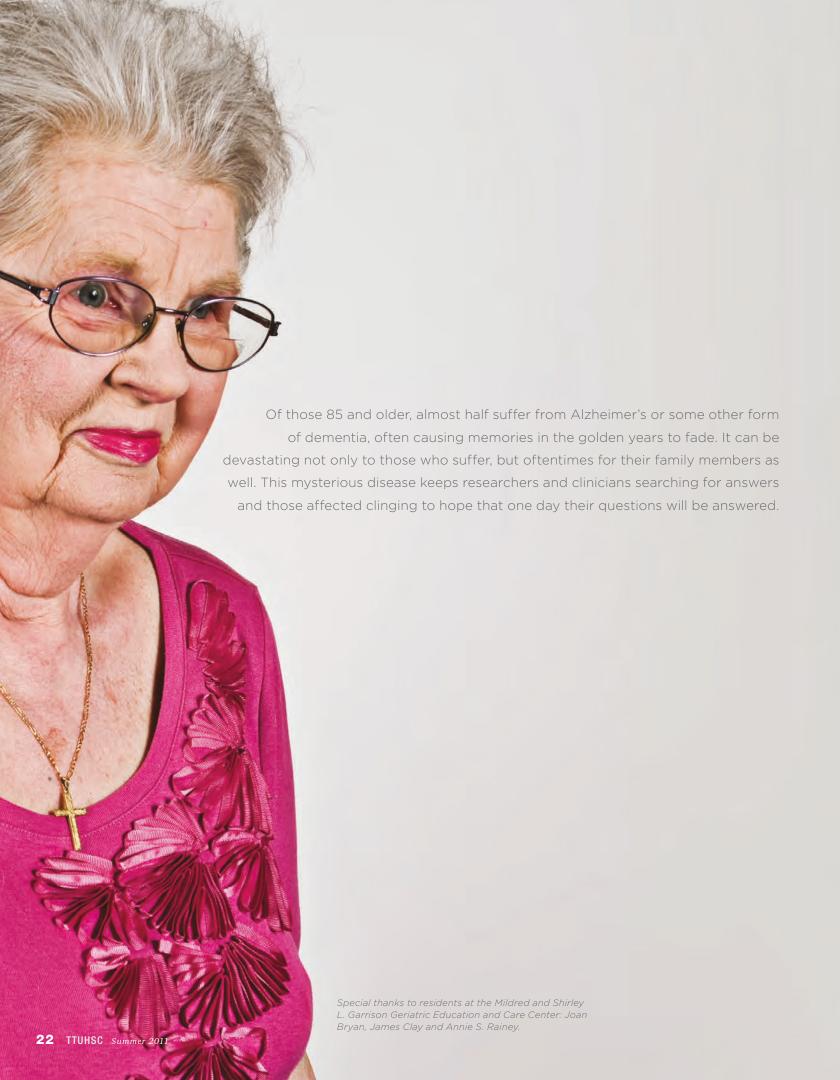
"I've been so gratified by what I've seen and read from these students," Billings said. "I've had students come back, some who have admittedly said they were a little leery of taking the course, and saw a world of change with just minor 'art' adjustments, like changing the color of a blank patient wall or simply reading books to a patient.

"That's all art."

For Billings, a painter at heart, she's found her home.

"I've raised a family with four boys, and during that time, art was about the mother/son relationship. Now, it's about this," she said. "In retrospect, I look at myself and no matter where I am in life, my art is a self-portrait."





Sandy Lehman's world collapsed when she realized the scourge that was gradually robbing her husband of a lifetime of memories. Robert "Bob" Lehman had spent a lifetime as a doctor, caring for hundreds of patients across the South Plains and beyond. After retirement, Bob and Sandy had so many plans for the future.

"But we didn't get to all those plans," she said. "We did make it to Paris, but I knew then that his memory was going quickly."

Once Bob was diagnosed with Alzheimer's, Sandy said she remembers doing a lot of walking—and breaking of dishes.

"When it dawned on me that I was the one that had to clean up the broken dishes, I stopped that one," she said, now able to smile at the memory.

Bob died in 2008. And, though he passed with most of his memories gone, Sandy still has hers. And for her, optimism is her path—even in the face of the road she traveled.

Sandy is not alone. In fact, a patient is diagnosed with Alzheimer's every 76 seconds, and by 2050 that number is expected to increase to a diagnosis of one every 36 seconds.

"It's incredibly daunting, quite frankly," said Paula Grammas, Ph.D., executive director of the Garrison Institute on Aging; she also has the Mildred and Shirley L. Garrison Chair in Aging. "At this point in time, we simply don't understand the cause of the disease. Period."

She is one of several neurodegenerative disease experts recruited to TTUHSC during the past decade to find answers that will lead into the next generation with greater hope.

Grammas, also a professor of neurology in the School of Medicine, is passionate about getting past the unknowns of Alzheimer's and other neurodegenerative disorders to find answers that will give the next generation greater hope. She is nationally recognized for her pioneering research into the role of unhealthy blood vessels in the development of Alzheimer's disease.

"The vascular system is an integral part of the brain's function," she said. "So, my question that I continue researching – and I believe we're not far from an answer – is this: Can blood vessel changes directly affect or even slow Alzheimer's disease and ultimately other neurodegenerative diseases?"

As of now, medications prescribed for Alzheimer's patients merely mask the symptoms, Grammas explained. There is nothing approved by the FDA, she added, that actually has proven to slow – let alone cure – the disease.



Success in science is survival of the orneriest ... we're doing much, much more than just

we're thriving.

surviving,

Paula Grammas, Ph.D. Executive Director. Garrison Institute on Aging

IDENTIFYING THE CAUSE

But before curing a disease, one has to know its cause.

Enter Bradley Miller, M.D., Ph.D., The CH Foundation Chair in Parkinson's Disease Research. Miller's particular focus is on studying both healthy and unhealthy brains post-mortem as part of TTUHSC's Brain Bank Program, established in 2007. The bank provides brain autopsies to confirm clinical diagnoses of dementia, preserves brain material using state-of-theart biorepository techniques, uses brain tissue for original research at TTUHSC, and extends brain tissue to qualified scientific researchers nationwide studying diseases related to dementia.



"Alzheimer's disease is one of a number of neurodegenerative diseases that result in dementia," Miller said. "To really study it, first we have to be sure that the dementia was caused by Alzheimer's (where the diagnosis part comes into play) and then we have to look into the human brain for clues to the cause of Alzheimer's disease (where the research part comes into play).

"Dementia caused by Alzheimer's can be very severe and affects more people than all of the other dementing diseases combined. We hope that answers found in Alzheimer's research will apply to other dementias, as well."

L.G. Butler believes solving the Alzheimer's mystery will also lead to helping those, like his wife, who suffer with Parkinson's disease.

"Whether it's Alzheimer's, Parkinson's or other forms of serious dementia, it's still a long goodbye to those we love most," Butler said. His wife,

> Priscilla, died in 2009 while being cared for at the Mildred and Shirley L. Garrison Geriatric Education and Care Center. "I learned the mantra of the Garrison Center was 'May you live all the days of your life,' and that wasn't just meant for her, it was meant for every loved one touched by those who suffer from dementia-related diseases."

Despite obvious tribulations in the Alzheimer's mystery, both Miller and Grammas show perseverance while discussing their work.

"Success in science is survival of the orneriest," she said. "And we're doing much, much more than just surviving, we're thriving."

With all of the advancements in modern medicine, there is still no concrete diagnosis for Alzheimer's until autopsy. But TTUHSC is on the cusp of changing that.

Sid O'Bryant, Ph.D., assistant professor of neurology in the School of Medicine and director of geriatric community outreach at the Garrison Institute on Aging, already has developed a blood test to diagnose

Alzheimer's and is awaiting a patent. Additionally, through the F. Marie Hall Institute of Rural and Community Medicine, where he serves as director of rural research, O'Bryant has focused efforts on understanding how extrinsic factors directly affect thinking, and ultimately memory, during the aging process.

"By harnessing specific affective problems, doctors internationally will advance yet another step closer to a possible cure," he said.

If we're able to learn the risk factors for Alzheimer's. we'll be better equipped to prevent it.

Sid O'Bryant, Ph.D. Director of rural health research, F. Marie Hall Institute for Rural and Community Health



We hope that answers found in Alzheimer's research will apply to other dementias as well.

Bradley Miller, M.D., Ph.D.

The CH Foundation Regents Endowed Chair in Parkinson's Disease Research

INTERVENTIONS

In the clinical arena, Chuang-Kuo Wu, M.D., Ph.D., is picking up where O'Bryant hands off. Wu, the Corinne Payne Wright Endowed Chair in Alzheimer's Disease, already has patients involved in clinical trials for newer and better medications that no longer simply mask Alzheimer's symptoms – but may prove to slow them, or even prevent them from occurring.

"To make a comparison, long ago we learned that lowering cholesterol helps in preventing heart disease and stroke," Wu said. "And we regularly put people at risk on

cholesterol-lowering medications.

"I believe, in time, we will be able to develop diagnostic tests that show who may be at risk for Alzheimer's and other dementia-related diseases and be able to put them on preventive medications to ultimately prevent those patients from developing Alzheimer's, Parkinson's and other dementia."

Wu said he believes in the future that "dementia testing" will be incorporated into regular physicals similarly to mammography and colonoscopy screenings for breast and colon cancers.

"This is our future," Wu said. "And I'm excited to be a part of it."



I believe, in time, we will be able to develop diagnostic tests that show who may be at risk for Alzheimer's and other dementiarelated diseases.

Chuang-Kuo Wu, M.D., Ph.D. Corinne Payne Wright Endowed





PIECES OF THE PUZZLE

"If we're able to learn the risk factors for Alzheimer's, we'll be better equipped to prevent it," O'Bryant said. "Each member of our team is a part of a huge puzzle – the puzzle of Alzheimer's. But together, we're finding answers.

"For instance, and this is just one small area, we've already found that mid-life diabetes, high cholesterol and obesity are all precursors to Alzheimer's. Bottom line: Anything that's bad for your heart is bad for your brain."

Sandy Lehman finds that news interesting; her husband was a diabetic. "Toward the end, he was like a little child always searching for pieces of candy or cookies. I remember thinking, 'Why not let him have it?'

"His life was slowly fading, and I wanted it to be the most it could be in the time he had left. So, we let him enjoy in those last weeks, and live life to its fullest. In retrospect, I truly have so much to be grateful for in my life – and so much to continue looking forward to.

"And, knowing we have an expert team studying this illness right here in Lubbock makes me proud."

Andrew Dentino, M.D., division chief for geriatrics and palliative medicine in the School of Medicine, said education is key to continue the ball rolling in Alzheimer's advancement.

"I truly call Alzheimer's the number one public health problem in the elderly today," he said. "It's the fastest growing cause of death in 2011 and is the sixth leading cause of death in the elderly."

That said, Dentino, who holds the Bernhard T. Mittemeyer Endowed
Chair of Geriatrics and joint appointments as professor in internal medicine, family and community medicine and psychiatry, believes outside of the research and clinical laboratories, it's the general public who need to be educated on this disease.

"Sadly, Alzheimer's isn't something loved ones want to admit a family member may have," he said. "So, by the time we see them, they're often far into the deep stages of dementia."

With better understanding, however, Dentino said there is hope until a cure is found.

"While we don't have all the answers now, we do have many safety nets in place," he said. "Sadly, we can't change the progression of Alzheimer's, but we have learned so much in the area of how to care for patients and their families during the course of the disease."



Sadly, we can't change the progression of Alzheimer's, but we have learned so much in the area of how to care for patients and their families during the course of the disease.

Andrew Dentino, M.D.

UMC Bernhard T. Mittemeyer Endowed Chair of Geriatric Medicine

TAKING CARE OF THE CAREGIVERS

Stephanie McClure, M.D., division chief of geriatrics at the School of Medicine in Amarillo, couldn't agree more.

McClure holds the Mirick-Meyers Endowed Chair in Geriatric Medicine and is director of the Amarillo Alzheimer's Academy. Established in 2003, the academy is an educational community effort of the TTUHSC schools of medicine and pharmacy and the Area Agency on Aging of the Panhandle. Together, the group provides free consultation, medication reviews, home safety checks, referrals to area resources and educational references and opportunities

for both patients and their families to better understand the difficulties of living with Alzheimer's.

Basically, McClure said, it's a matter of providing support to help those with Alzheimer's live with dignity, while offering a shoulder to loved ones.

"It's so hard to see the person you love (who has Alzheimer's) change so drastically," McClure said. "Alzheimer's goes beyond dementia and enters a realm of personality changes, often very disturbing to family members. Our goal is to help family members, who often serve as the caregivers, to better understand the disease, how to work with their loved one suffering from the disease, and offer them a support system they can hold on to."



Our goal is to help family members to better understand the disease and offer them a support system they can hold on to.

Stephanie McClure, M.D. Mirick-Meyers Endowed Chair in Geriatric Medicine



L.G. Butler continues to serve as a caregiver, now in a supporting role for those whose loved ones are battling neurodegenerative diseases.

"The outwardly degeneration is happening," Butler said. "But inwardly, we all can be renewed. It was a long goodbye for me; that's why it's still important to me to be a part of support groups and sharing Bible study with those who most need a shoulder to lean on as loved ones seek shelter and hope during their long goodbye."

Deeply spiritual, Butler quickly pointed to a bible verse in Romans 5, "... tribulation produces perseverance; and perseverance, character; and character, hope."

"Isn't that something?" Butler said, smiling. "Whether researchers, doctors, caregivers or patients, we face tribulation, and we are persevering; therefore—let us remember (there's) hope."

Visit PULSE online to learn more about these experts and their work.

perception BY DANETTE BAKER VS. IREALITY

The Betty Ford Center's weeklong immersion program changed medical students' perspective on substance abuse and those it affects

What grandmother would brag about her precious grandchildren and then admit to having regularly drank a couple of bottles of wine by the time she went to pick up them up after school?

One who wanted to break free from the addiction before she hurt the ones she loved.

And now, Tina Kaviani, M.D., (SOM '11) gets it. After spending a week at the Betty Ford Center, she has a clearer understanding of substance abuse and those with the disease.

"Surprisingly, they are not much different than me," she said.

With a career in psychiatry ahead of her, Kaviani knew the opportunity to spend a week at the nations' premier rehabilitation center was something she couldn't afford to pass up. After all, where better to learn about substance abuse and who better to teach it than someone living it?

Thanks to a generous donation from Jay and Mimi Bonds, Kaviani and seven other medical students plus two faculty members were the first from TTUHSC to attend the Betty Ford Center's Summer Institute for Medical Students as a team. The couple will send a second group this summer.

The program excels at assisting students to understand addiction as a disease and how it impacts not only the addicts, but their families as well, said Gregory Schrimsher, Ph.D., an assistant professor of psychiatry and the Giles C. McCrary Endowed Chair in Addiction Medicine in the TTUHSC School of Medicine.

Lindsey Casey thought she fully understood the dynamics, having grown up solving conflicts between the abusers and enablers among the alcoholics in her family.

What she came away with was a different perception not only of the alcoholic, but of the family member as well. The latter is not the only victim.

"Now, I feel that I can be a part of the healing process instead of placing blame," said Casey, now a fourth-year student. "Medical school prepares you to treat diseases, but if you only look at the condition that brings the patient in and you don't look beyond that to see what might have lead them down a path to cause their medical issues, you're only putting a Band-Aid on a wound that will never heal."

At the Betty Ford Center, the students are immersed in the recovery program, spending eight to 10 hours a day attending support groups, lectures, and AA meetings alongside those who are there for rehabilitation.

The experience is very impactful, said Simon Williams, Ph.D., associate dean for Academic Affairs in the School of Medicine. He and Schrimsher attended with the students.

The medical school curriculum addresses addiction medicine, but not extensively, Williams said. The opportunity to see firsthand and hear in-depth the stories of those with addictions provides another level to understanding and treating those with addiction diseases, making it a natural extension of education.

For more than 20 years, the Betty Ford Center has offered its Summer Institute for Medical Students (SIMS) program for first and second year medical students to learn about the disease of addiction, its diagnosis and treatment. The Bonds have paid for several TTUHSC students during the past six years to attend individually. But too often, the "new wears off" before the students get into rotations and practice, said Jay Bonds. The team approach seems to create a stronger bond among the students, which in turn can have a greater impact on implementation of addiction education when they return, he said.

TTUHSC is one of only two universities nationwide to participate in this type of elective. The Bonds also send a team from the Texas College of Osteopathic Medicine at the University of North Texas Health Science Center.

Attending as a group did make the experience all the more impactful because the students had the opportunity to debrief at the end of each day, said Williams. "Having the



Thanks to a generous gift from Mimi and Jay Bonds, center, TTUHSC medical students had the opportunity to participate as a group in the Summer Institute for Medical Students at the Betty Ford Center. Pictured with the Bonds are Patrick Shepherd, M.D., ('11); Simon Williams, Ph.D., assistant dean for academic affairs; School of Medicine Dean and TTUHSC Executive Vice President and Provost Steven L. Berk, M.D.; Gregory Schrimsher, Ph.D., assistant professor of psychiatry and the Giles C. McCrary Endowed Chair in Addiction Medicine; Tina Kaviani, M.D. ('11); Amber Wright, M.D., ('11) and Chris Coleman, M.D. ('11).

information is one thing, witnessing it firsthand and hearing in-depth the stories of addiction and the promise of recovery, makes it real."

During the week, Kaviani saw life as an alcoholic through the eyes of the grandmother, who she says could have been one of her very own family members.

"There is this social status based on educational levels that makes you think someone with an addiction is not like you," said Kaviani, who begins a psychiatry residency this summer at the University of Texas Southwestern Medical Center at Dallas. "The women at the (Betty Ford) center were like me in every sense. They had jobs; they worked; they had husbands. Anyone of them ... they could have been me, or my mom, or my grandmother."

Many of the students described the week as "life changing" as they gained an acceptance of substance abuse as a disease, a respect for its victims, and tools to identify and intervene when it grips one of their patients.

"There are just some lessons can't be learned from power point in the first two

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"Addiction is not an individualized disease. It affects all of those around you; one doctor can make such a significant impact on a whole family."

years of medical school," said Sterling Overstreet, now a fourth year medical student. He spent the week in a men's small-group. "Initially, in my mind (substance abuse) was simply a matter of poor coping skills—just not knowing when to say when.

"Then, after hearing their stories, understanding and accepting addiction as a disease began to make sense. We don't expect a person with diabetes to just stop eating foods and be healed.

"An addict is a patient suffering from a significant pathology and it should be addressed."

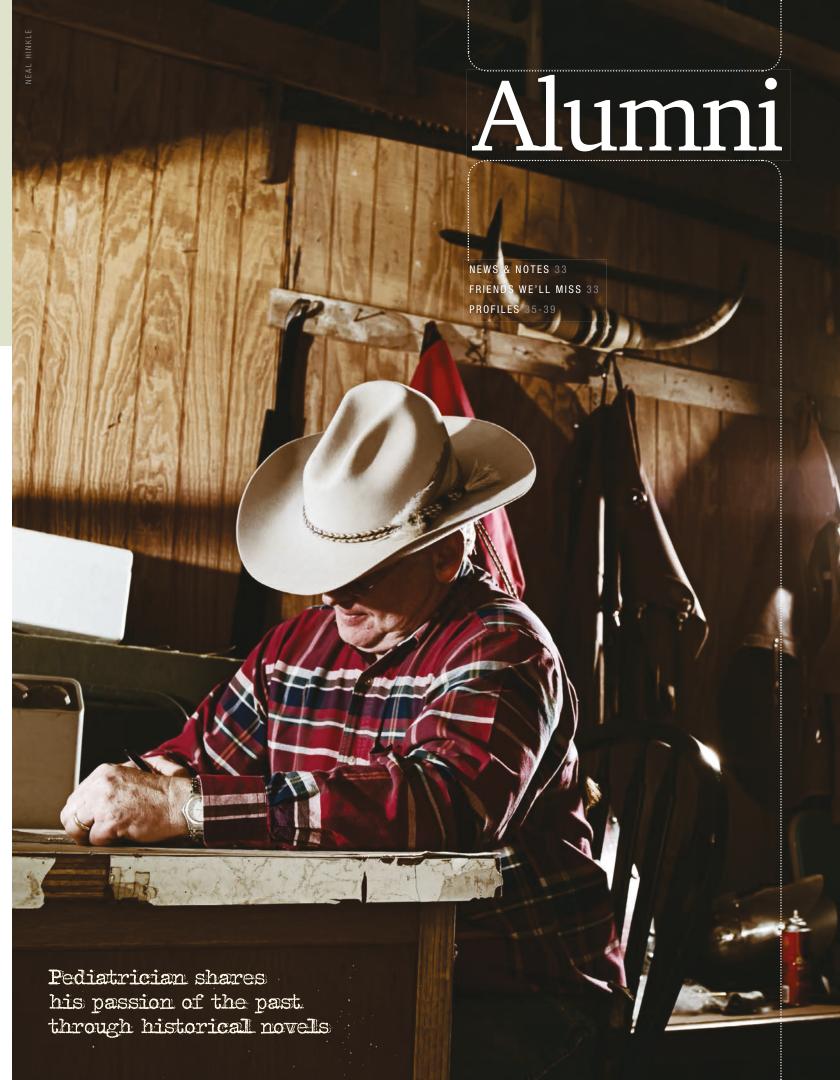
For the Bonds, hearing the positive experiences reinforces their conviction that physicians can and should be a part of the intervention equation.

"My goal is to help others come back from a personal battle with substance abuse," said Jay Bonds, who has been sober for 19 years. His wife also has her own personal experiences, having grown up with a father who was an alcoholic. "Addiction is not an individualized disease. It affects all of those around you; one doctor can make such a significant impact on a whole family.

"Physicians can play such an integral role in recovery, but they have to be able to accept addiction as a disease, recognize the symptoms, be aware of solutions and be willing to intervene."

For Patrick Shepherd, M.D., (SOM '11), it was simply gaining an awareness of what's available in treatment options and the courage to intercede.

"It's fair to say I'm much more well-equipped to go into practice," said Shepherd, who will be doing a residency in pediatrics at the University of Arkansas College of Medicine in Little Rock, Ark. "I don't have the personal experience to relate, but I now have the confidence to intervene because I have witnessed firsthand those who have struggled with addictions."

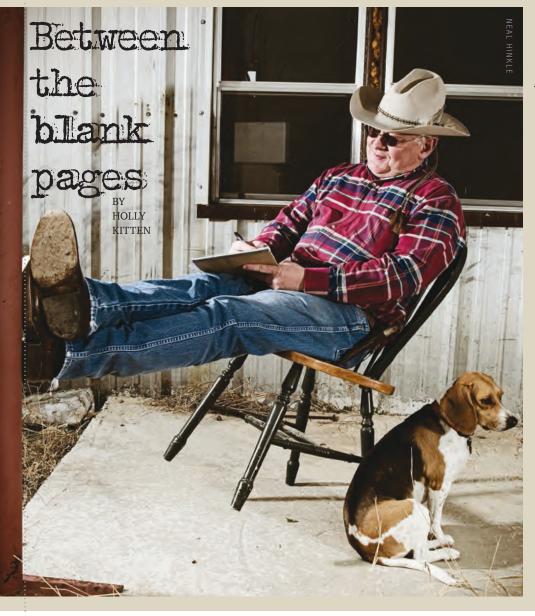


alumni

Congratulations to alumni from the schools of Allied Health Sciences, Biomedical Sciences, Medicine and Pharmacy who have been nominated by their peers as 2010-2011 Distinguished Alumni. School of Nursing honorees were presented in the fall and included in the Winter 2010 issue of PULSE.



GSBS honored Dennis J. Paulson, Ph.D., ('80), pictured with his wife, Susan K. Paulson, Ph.D.



For 27 years, Stephen L. Turner, M.D., (SOM '83) has served the residents of Plainview and its surrounding communities as a pediatrician.

But lately, he has been writing more than just prescriptions.

When he's not in the office, Turner escapes to the Llano de Sacate Ranch in Swisher County, a 320-acre ranch he has owned for 23 years. Sitting in the bunkhouse next to a burning potbelly stove, Turner will gaze out the picture window at the livestock and scratch away on a yellow legal pad, working on the next novel of his published series.

"It's a real stress reliever to write," he said. "It really takes your mind away from the administrative stress of a private practice."

Turner, a fifth-generation Texan and an eighth-generation American, has published a series of books called the Western Quest Series. The fictional novels are based on his family's history, which can be traced back to 1607 when the Turners moved from Scotland to Ireland.

"When I was a little kid, I loved to sit and listen to my great-grandparents and grandparents tell stories about the family," Turner said. "I got to thinking, there may not be too many more people who can tell these stories, and it occurred to me to turn the stories into historical fiction."

The first book, *Out of the Wilderness*, follows the story of Thomas Turner, Turner's great-grandfather, several times removed, who immigrated to the United States in 1749. The next four books follow his other forefathers, one of whom fought

lumni

SCHOOL OF ALLIED HEALTH SCIENCES

Distinguished Alumnus Department of Rehabilitation Sciences: Richard Cheng, J.D., OTR/L, ('00)

Distinguished Alumna Department of Speech, Language and Hearing Sciences: Carolyn Perry, M.S., CCC-SLP, ('91, '93)

Distinguished Alumnus Department of Laboratory Sciences and Primary Care: Jubel Reed, PA-C, ('o1)

GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

Distinguished Alumnus Doctorate of Philosophy Degree: Dennis J. Paulson, Ph.D., ('80)

SCHOOL OF MEDICINE

Distinguished Alumna Cynthia A. Jumper, M.D., ('88)

Distinguished Alumnus Community Outreach: Suresh Prasad, M.D., ('99)

in the Revolutionary War with his six sons, and another who enlisted in the Confederate Army when he was 12 years old. Turner said information provided by a genealogist allowed him to know the exact place of his forefather's land, what crops he grew, and even the taxes he paid.

Originally, the books were to be used only for the family's enjoyment, Turner said, but his wife, Roberta, suggested he have them published. In 2008, Sunstone Press offered Turner a contract for eight books; he is currently working on the sixth novel, which is scheduled for release this summer.

Before he begins a book, Turner said he takes his documented family lineage and combines it with extensive online research about historical events in order to create the plots. It's a process, he says, that takes about six months.

Then he takes out his yellow legal pad and begins to write.

"It's like somebody poked a hole in a dam," he said. "It just comes. I have to force myself to stop, take a break and come back the next day."

However, Turner said he sets certain priorities when it comes to his busy lifestyle. He spends about 20 hours a week on his writings, in addition to his clinic hours.

"The medical practice comes first," he said. "The patients are first."

Sometimes, the patients manage to sneak their way into his novels. Turner said he likes to make his patients characters in the stories because imagining real faces and personalities in the plot helps him to write. Plus, he said it makes for great conversation pieces with his patients during appointments.

"It's been fun for them and their families to spot their names (in the books). Of course," he said, laughing, "the bad part is most of them end up dead. They all say, 'Cool!'"

Plainview Daily Herald publisher Sandra Aven said when the newspaper sponsored a book signing, the patients in Turner's books came to sign books, too. Her son, Chance Aven, is a prominent character in books two, three and four and is scheduled to be part of a surprise in book seven, Turner said.

"We're proud of Dr. Turner," Aven said. "We've had several people (from Plainview) write a book, but it's exciting to see him sell a whole series."

Plainview native Kyle Miller, a fourth-year student in the School of Medicine and former student regent, said the books have helped the community further embrace an already loved doctor.

"He's one of the cornerstones of the Plainview community," Miller said. "You always get a pearl when you go in to see him."

SCHOOL OF PHARMACY

Distinguished Alumna Excellence in Practice: Sarah Ussery, Pharm.D., ('06)

<u>friends we'll miss</u>

Jack Alvin Bolton, M.D., (SOM '90) died Dec. 16, 2010, in Lubbock. He was an assistant professor in the School of Medicine Department of Anesthesia.

Josie Guardado died May 17, 2011, in El Paso. She was the residency coordinator in the Department of Internal Medicine at the Paul L. Foster School of Medicine.

Clark Johnson, M.D., died Jan. 17, 2011, in Lubbock. He joined the School of Medicine in 1976 as associate professor of Family Medicine, later serving as director of the department's residency training program. In 1996, he was named associate professor emeritus of TTUHSC.

Ronald C. Kennedy, Ph.D., died June 29, 2011, in Lubbock. He was professor of medical microbiology in the Graduate School of Biomedical Sciences and chairman of the Department of Microbiology and Immunology, School of Medicine at Lubbock.

Janie Soliz died May 15, 2011, in Idalou. She worked as a financial aid screener for the School of Medicine until her retirement in August 2008.

James "Jim" Watters died Jan. 18, 2011, in Lubbock. He joined TTUHSC in September 2003 and served as the assistant dean for Graduate Medical Education and Designated Institutional Official in the School of Medicine.

Angela Renee Wills, Pharm.D., (SOP '05), died May 2, 2011, in Chicago. She was a clinical pharmacist at Barnes Jewish Hospital in St. Louis, where she assisted patients receiving lung transplants. Wills had the honor of carrying the School of Pharmacy banner during commencement exercises in 2005.

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.

alumni



study break snacks during spring finals compliments of the Office of Alumni Relations. 6 School of Nursing alumni and preceptors from the nurse practitioner program were honored at an appreciation dinner. The school began the program in 1988 and expects to graduate 106 students this year. 7 The offices of Student Services and Alumni Relations helped institute a new tradition this year by implementing an official class ring ceremony. Previously, TTUHSC has participated in the annual ritual at TTU. The presentation of the official class ring is a tradition that began in 1998.











Thanks for the memories

BY BERNHARD T. MITTEMEYER, M.D.

■here are innumerable memories that I will treasure from my 24-plus years of service at our beloved TTUHSC. Having recently retired, and now as a part-time faculty member, I am pleased and honored to briefly comment on a few of them.

From that day in early November 1986, when I was first introduced by Sen. John Montford to the faculty and staff in Lubbock and by MedNet to those in Amarillo, El Paso and Odessa, I have been and continue to be amazed by the faculty, staff and support staff in each school and on each campus. What I will always remember is your spirit and determination to overcome adversity and turn criticism into excellence while developing this great institution into a multidisciplinary team of excellent regional centers and schools, committed to our mission of serving the people of West Texas.

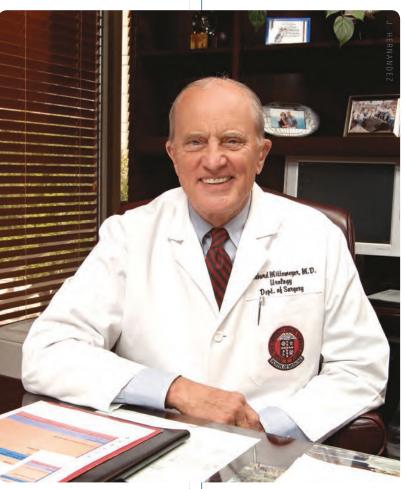
It is each of you, wherever you serve, whom I will always remember. You have and will continue to create our institution's legacy, and I am very proud and thankful to have had the opportunity to serve with each of you.

These years at TTUHSC have given me opportunities that a 28-year career in military medicine could never have fulfilled. To witness and participate in what less than 50 years ago was but a governor's dream is hard to equal. To observe the amazing impact a much-maligned institution, at least in those early years, has had on the quality of life and health care of our citizens in a region larger than all of New England plus the state of New York combined, is hard to equal. Our growth and reputation has been phenomenal, and it gives me a sense of pride to see the success TTUHSC has made as an institution in the TTU System.

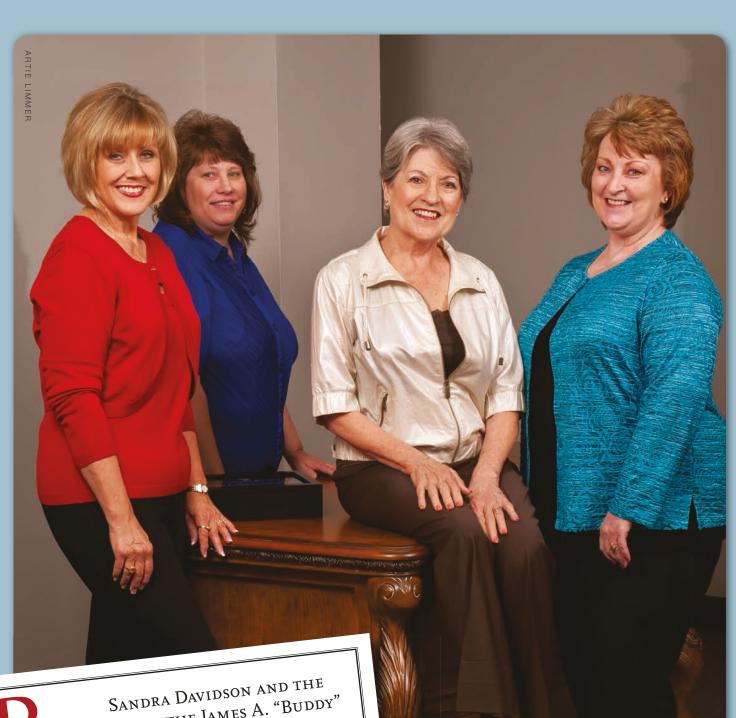
As for the future of TTUHSC, the establishment of the Paul L. Foster School of Medicine at El Paso as well as the expansion of our various schools into other communities speaks for itself as does the ever-increasing number of programs offered by each of our outstanding schools. The state Legislature has been kind in its support of our mission, and I hope that continues; however, I also believe that our future excellence lies in the loyalty and generous support of our graduates, as well as with the families of the many patients we have cared for. Last, and certainly not least, we must continue to strengthen relationships with the hospitals in the communities we serve. Excellence in what we do, whether teaching or patient care, will make the difference.

In closing, I am very grateful for having had the privilege to serve and for the friendship and support you have given me during my career at TTUHSC.

Thank you, and carry on!



Bernhard T. Mittemeyer, M.D., served TTUHSC in several capacities during his time here. Prior to joining the TTUHSC team, he had a 28-year career in the U.S. Army, retiring as surgeon general.



STAFF OF THE JAMES A. "BUDDY" DAVIDSON CHARITABLE FOUNDATION CONTINUE THE WORK BEGAN BY HER HUSBAND MORE THAN THREE DECADES AGO.

Mr. Davidson gained an appreciation for nursing from his MOTHER, WHO WAS A REGISTERED NURSE. TODAY, THE FOUNDATION THAT BEARS HIS NAME SUPPORTS NURSING STUDENTS AT TTUHSC AS WELL AS MANY OTHER HEALTH CARE INITIATIVES.

READ THEIR STORY

[AND LEARN HOW YOUR GIFT CAN IMPACT TTUHSC] http://giving.ttuhsc.edu





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