

# Mission

## Beyond the White Coat

Faculty tap their alter egos  
for a creative approach  
to life and health  
p. 16







## Good health begins with a smile.

From braces and crowns, to dental implants and root canals, the faculty, residents and supervised students of the UT School of Dentistry combine their expertise and training to offer comprehensive dental care and specialty services—with compassion and understanding.

For example, pediatric dentist Maria-José Cervantes Mendez, D.D.S., sees what happens to kids whose parents do not understand the importance of brushing teeth, a healthy diet and regular dental checkups. “If you can prevent disease and keep everything good and healthy, it’s better for the patient, better for the parents, less expensive and the end result is better health,” she says.

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We’re UT Dentistry San Antonio, where smiles are made brighter—and lives are made better.



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### COVER STORY

## 16 Beyond the white coat

By day, they’re researchers, teachers, surgeons and therapists. But our multifaceted faculty shed their white coats after hours and embrace the artistic world of clay, photography, music—even clowning—to enhance their lives and their jobs.

Cover photo by Lester Rosebrock, Creative Media Services

Kimatha Grice, O.T.D.  
a.k.a. Tutti Frutti





# We make lives better.

Those words are more than just our institutional tag line. They are the job description of everyone at our institution who, through transformational research, education, clinical care and community service, seeks to make a difference in the world.

The cover story of this *Mission* illustrates that and honors our faculty and what they bring to their jobs, from the occupational therapist who moonlights as a clown and occasionally taps into her bag of whimsical props to help make patients’ hands stronger, to the surgeon who burrows in fields of wildflowers to take photographs and embraces the beauty, silence and peace that may elude him in the operating room. He does this so that he can bring that same concentration to his job.

There is also the story of a brave group of Latina breast cancer survivors who, working through our Institute for Health Promotion Research, share their stories of courage and vitality so that cancer survivors everywhere can remember why they fight and, most importantly, that they don’t fight alone.

We highlight our School of Nursing researchers who are working steadfastly to address the critical issue of nursing shortages by ferreting out the root causes of nursing stress. Someday, thanks to their work, those stressors can be reduced, or even eliminated, and retention rates will rise.

You’ll also read about the remarkable work of our Cancer Therapy & Research Center (CTRC) faculty, as well as those donors who help make it possible, as we celebrate an important milestone—40 years of working to annihilate cancer.

We believe in doing whatever it takes to make lives better every day. And we recognize a critical fact: We don’t do it alone. It is through your help and your belief in our



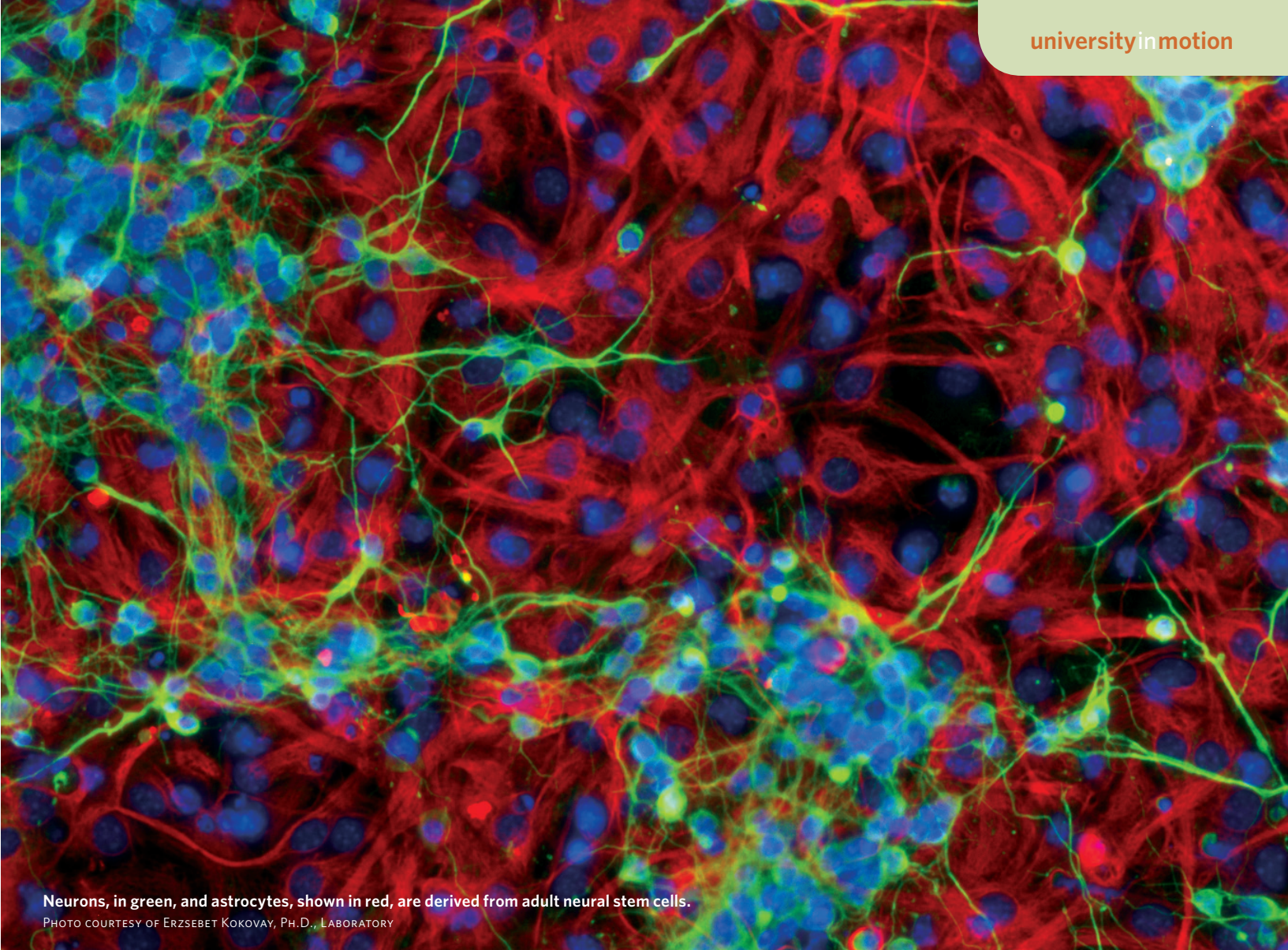
The 2014 President’s Gala, called *An Evening of Promise*, honored Patricia and Tom Frost (middle), longtime supporters of the Health Science Center. Standing with the Frosts are William L. Henrich, M.D., MACP, president of the Health Science Center (left), and honorary gala chair Bartell Zachry and his wife, Mollie (right).

commitment to the health of the world that we continue onward toward our ultimate goal.

Thank you for supporting the Health Science Center and thank you for working with us to make those four simple, yet vital, words ring true.

Sincerely,

William L. Henrich, M.D., MACP  
President  
Professor of Medicine  
UT Health Science Center at San Antonio



Neurons, in green, and astrocytes, shown in red, are derived from adult neural stem cells.  
PHOTO COURTESY OF ERZSEBET KOKOVAY, PH.D., LABORATORY

## Stem cells revealed Public Education Day to explore regenerative medicine

What are stem cells and how might they be used to treat diseases? How safe are current stem cell treatments? How can the public enroll in a clinical trial? What are the ethical issues? How is the U.S. military using regenerative medicine?

The Health Science Center will host a Stem Cell and Regenerative Medicine Public Education Day from 1 to 4 p.m. Dec. 2 to address the many questions about stem cells and regenerative medicine through speaker panels and interactive booths. Keynote speaker Elaine Fuchs, Ph.D., an investigator at Rockefeller University, will give a public lecture at 9 a.m. about her research that explores where adult stem cells come from, how they make tissues, how they repair wounds and how stem cells malfunction in cancers.

The event, held on the Long Campus of the Health Science Center, 7703 Floyd Curl Drive, is free and open to the public. It immediately precedes the 2014 World Stem Cell Summit, which runs Dec. 3 to 5 in San Antonio.

The Health Science Center is an organizing sponsor of the summit, which is the largest interdisciplinary stem cell meeting in the world.

“The Health Science Center is committed to stem cell research, including applications to oral health, aging, neuroscience, diabetes and cancer,” said Health Science Center President William L. Henrich, M.D., MACP, who is also a summit co-chair. “The World Stem Cell Summit is an opportunity to showcase our work on the global stage and establish new connections with national and international partners. The stem cell and regenerative medicine field has the potential to transform medicine, but also to transform the Texas economy.”

The World Stem Cell Summit will feature 200 prominent leaders in translational medicine, science and other fields. The event is expected to attract 1,500 attendees from 40 nations.

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## It's official CTRC retains national elite Cancer Center designation

In September, the National Cancer Institute renewed the Cancer Therapy & Research Center's official Cancer Center designation. An NCI Cancer Center designation is given to elite cancer centers, of which there are only four in Texas.

To qualify for the national designation, CTRC faculty and staff had to meet and exceed strict guidelines, such as continuing to make groundbreaking scientific discoveries, conducting innovative clinical trials, training the next generation of cancer doctors and reducing the burden of cancer for the people of San Antonio and South Texas.

"We are elated with these achievements—mainly because they help our patients," said CTRC Director Ian M. Thompson Jr., M.D. "Every conversation I have with a patient who is fighting cancer, or with a family member who is soaking up every word and asking questions so that person can fight alongside the loved one, is profoundly humbling. They are the real fighters, and we are so proud to serve them."

The CTRC serves a fast-growing area with a population of more than 4.4 million people in the region of Central and South Texas that includes Austin, San Antonio, Laredo and the Rio Grande Valley. With many Spanish speakers in its service area and higher rates of liver and cervical cancer along its borders, the CTRC has focused its mission on bilingual prevention education and outreach, collaboration with border physicians and cutting-edge clinical trials for cancer.

## Young at heart

Cardiovascular disease is the greatest killer of humans the world over, presenting huge financial and quality-of-life issues. It is well known that the heart becomes less efficient with age in all mammals studied to date, even in the absence of overt cardiac disease.

But scientists still don't have a good understanding of how to prevent these functional declines.

The longest-lived rodent, the naked mole rat, beats these odds and escapes cardiovascular aging, at least in ages equivalent to 92-year-old humans, researchers from the School of Medicine reported.

Kelly Grimes, a graduate student in the Health Science Center's Barshop Institute for Longevity and Aging Studies, has conducted the first studies of naked mole rat cardiovascular function. Her findings of maintained cardiovascular function during aging support earlier studies that this species resists the common signs of aging.

She found that, at rest, the heart of the naked mole rat beats very slowly at 250 beats per minute. The rodent should have a heart rate twice as fast for its body size. The blood pressure in naked mole rats is also very low, as is the amount of blood the heart pumps and how hard it contracts to pump the blood.

"However, if they need to, for example during exercise, naked mole rats can ramp up their cardiac function with ease," Grimes said. "Their entire cardiovascular system seems to be optimized."

These data are from two papers recently published by Grimes and Rochelle Buffenstein, Ph.D., as part of a study supported by the American Heart Association. Dr. Buffenstein emphasized that the naked mole rat is unlike any other cardiovascular aging model studied.

"It looks like the naked mole rat maintains heart function at youthful levels at least till age 90," Dr. Buffenstein said. "Clearly these animals hold the secret to healthy hearts in aging humans."

Why do humans, rats, mice, monkeys, dogs and other animals show declines, but not the naked mole rat? Grimes is studying molecular mechanisms that might be protecting the naked mole rats' cardiovascular structure and function. These protective mechanisms are likely closely linked to their natural subterranean environment and exceptional stress resistance.

The two papers are in the *American Journal of Physiology-Heart and Circulatory Physiology* published by the American Physiological Society.



## Barshop Institute gets \$7.5 million for aging intervention research

Exploring agents to help us live longer and healthier has become a multimillion-dollar project for the Barshop Institute for Longevity and Aging Studies.

Over the next five years, scientists will receive \$7.5 million from the National Institute on Aging to test for compounds that enhance healthy aging in mice.

The Barshop Institute is part of the NIA Interventions Testing Program, which began in 2004, and works with the University of Michigan and the Jackson Laboratory to test aging interventions. The Barshop Institute tests the effects of drugs on longevity and houses the ITP Pharmacology Unit.

"This grant represents a doubling in funding over our previous ITP award," said Randy Strong, Ph.D., director and principal investigator of the San Antonio ITP. "This is now a \$22 million consortium, with a third of the funding coming to the Barshop Institute in San Antonio."

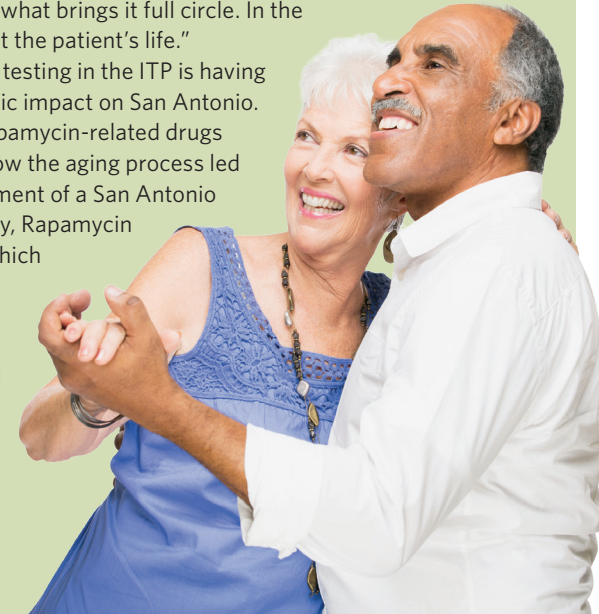
The program has studied the effects of 25 compounds in 35 survival studies. So far, five interventions have shown promise, including rapamycin, a medication that extended the life span of mice, even those only treated late in life. The anti-diabetic drug acarbose is also showing potential, said Dr. Strong, professor of pharmacology in the School of Medicine and research career scientist at the South Texas Veterans Health Care System.

Early results have already impacted the fields of geriatrics and gerontology, providing the first strong evidence that a single drug can extend longevity by delaying or preventing the onset of multiple age-related diseases. Clinical trials are planned or are already under way to extend these findings to humans.

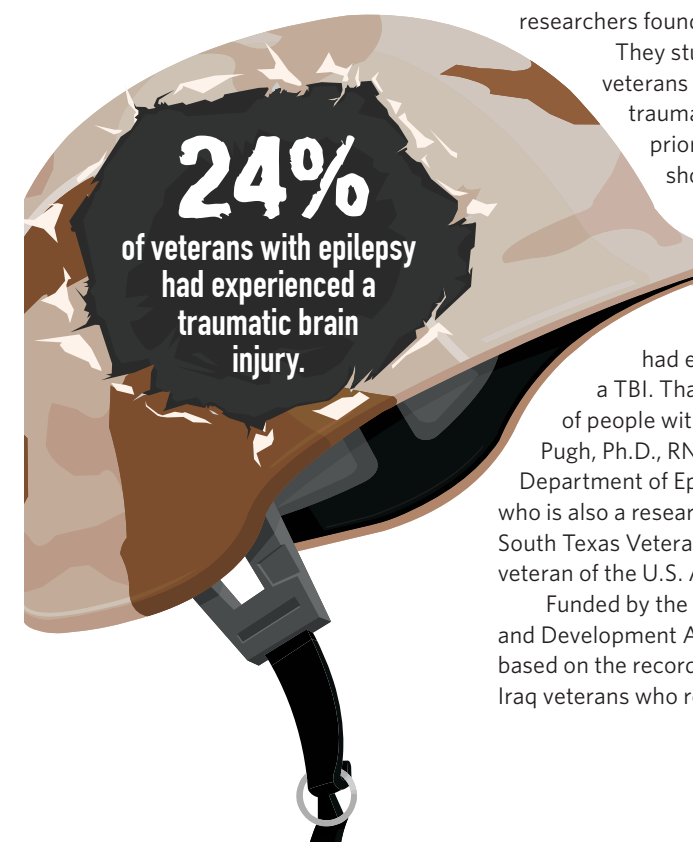
The NIA started a similar program using short-lived microscopic roundworms called *Caenorhabditis elegans* as an initial screen to speed up the identification of even more potential anti-aging interventions, Dr. Strong said.

"We are about the business of making lives better," said Health Science Center President William L. Henrich, M.D., MACP. "Basic science is critically important, as is translating discoveries to patient care. Basic science is the first step on the continuum. Translating basic science discoveries to better techniques and practices is what brings it full circle. In the end, it's all about the patient's life."

Rapamycin testing in the ITP is having a direct economic impact on San Antonio. The ability of rapamycin-related drugs to potentially slow the aging process led to the establishment of a San Antonio biotech company, Rapamycin Holdings Inc., which is licensing exclusive rights to intellectual property central to several aspects of the rapamycin discovery.



## Connecting the dots



Veterans of the Afghanistan and Iraq wars who sustained mild traumatic brain injuries (TBIs) were 28 percent more likely to have epilepsy than those with without TBIs, Health Science Center researchers found.

They studied the medical records of veterans from both wars who sustained traumatic brain injuries. Similar to prior studies, this research also showed that veterans who suffered penetrating or severe TBIs had the highest risk of developing epilepsy.

"We saw that 24 percent of the veterans who had epilepsy also had experienced a TBI. That is compared to 11 percent of people without epilepsy," said Mary Jo Pugh, Ph.D., RN, associate professor in the Department of Epidemiology and Biostatistics who is also a research health scientist with the South Texas Veterans Health Care System and a veteran of the U.S. Air Force.

Funded by the VA Health Services Research and Development Administration, the research was based on the records of 256,284 Afghanistan and Iraq veterans who received inpatient and outpatient

care in the Veterans Health Administration (VHA) in fiscal years 2009 and 2010.

Of the more than 2 million returning veterans, 15 to 19 percent of them have suffered a TBI with either loss of consciousness or altered mental state.

"The high prevalence of TBIs has raised concerns for the long-term consequences of neurotrauma in this population. Based on data from previous wars, there is a particular concern for the risk of post-traumatic epilepsy," Dr. Pugh said, adding that studies of veterans from World War II and the Korean War showed a link between combat-related head injury and epilepsy.

"This study shows us that we need to be prepared as a health care system," she said. "Given the large number of individuals who have sustained deployment-related TBIs, a substantial increased burden of epilepsy in this population is possible. The long-term consequences on the patient and the health care system includes increased risk of medical and social complications, including accidents, social stigmatization, loss of employment, inability to drive and even death. These veterans should be followed closely, and systems of care, such as the VHA Epilepsy Centers of Excellence, should be prepared to provide epilepsy specialty care for these individuals."





Cara B. Gonzales, D.D.S., Ph.D., is investigating the anti-pain drug capsazepine and its impact on oral cancer tumors.

# Two for one

## Drug kills cancer cells and blocks pain

An anti-pain agent has been found to also dramatically shrink human oral cancer tumors in mouse models. The agent, capsazepine, caused no damage to surrounding tissues, researchers from the School of Dentistry and School of Medicine found.

“That’s the beauty,” said Cara B. Gonzales, D.D.S., Ph.D., assistant professor of comprehensive dentistry and an investigator with the Cancer Therapy & Research Center. “Capsazepine kills cancers selectively, leaving normal tissues unharmed, and also acts on neurons to block pain, a desirable combination in a potential medication.”

Oral squamous cell carcinoma is the eighth most common cancer in the U.S. with 40,000 new cases and nearly 8,000 deaths reported annually. Typically, tumors develop on the side of the tongue, and 60 percent of patients have large tumors before seeking help. The five-year survival rate is 30 percent.

But if caught early, the disease is curable, said Randal A. Otto, M.D., FACS, professor and chairman of the Department of Otolaryngology-Head & Neck Surgery in the School of Medicine.

“Anything that selectively attacks the tumor while not injuring the normal tissues can only help the patient,” he said.

Capsazepine was developed to block TRPV1, a calcium channel found in pain-sensing neurons. When TRPV1 is activated, a pain signal is sent to the brain. Capsazepine may reduce oral cancer pain because it blocks tumor-secreted factors from stimulating TRPV1 on these neurons. Dr. Gonzales found that capsazepine also has anti-cancer activity that may be linked with its ability to increase oxidative damage in tumors. Enhanced oxidative stress leads to auto-destruction of the tumor cells, the researchers theorize.

So far, only local administration of capsazepine, directly into the primary tumors, has been tested.

“We would like to be able to deliver this therapy systemically to target metastatic disease,” Dr. Gonzales said. “Our laboratory is working with the Center for Innovation in Drug Discovery, a partnership between the Health Science Center and The University of Texas at San Antonio, to develop novel drugs that are similar to capsazepine, with improved efficacy for the purpose of systemic administration to treat tumors that are inaccessible to local injection or that have metastasized.”

The Health Science Center has claimed intellectual property on results of the study, which is described in the journal *Oral Oncology*.

# A good combination

## Dual-drug combo can cure hepatitis C



More than 90 percent of hepatitis C patients were cured in three months using a combination of pills already approved by the FDA.

When taken together, the drugs sofosbuvir and simeprevir resulted in nine out of 10 patients being cured. They were also well tolerated by patients, according to a study published in *The Lancet*.

Eric Lawitz, M.D., clinical professor in the School of Medicine and vice president of research and scientific development at the Texas Liver Institute, led the clinical trial conducted in the United States and funded by Janssen Pharmaceutical Companies.

Encouraging people to take a blood test to diagnose hepatitis C could result in their being treated with an oral regimen that could prevent serious liver diseases such as cancer, cirrhosis or liver failure. Hepatitis C is the leading cause of liver transplants in the U.S.

An estimated 3.2 million people nationwide have hepatitis C, and most do not know they are infected. Cure rates for hepatitis C patients with cirrhosis are historically lower than 50 percent, and the treatment has had numerous adverse effects. The previous standard of care with the drug interferon involved a complicated regimen of shots and up to 18 tablets a day for up to 48 weeks, and six months of follow-up care to determine if the therapy was successful. Side effects included rash, anemia and depression.

“We are now in the midst of a paradigm shift of moving away from complicated injection regimens,” Dr. Lawitz said. “This trial provides a glimpse into the outcomes of sofosbuvir and simeprevir for treatment of hepatitis C. Both drugs are approved by the FDA but are not yet approved together for this treatment.”

All-oral regimens hold promise for a hepatitis C cure rate of more than 90 percent of patients, including those with liver scarring, or cirrhosis. Study participants had the most common form of hepatitis C, called genotype 1, and were difficult to treat due to either failing a previous course of interferon and ribavirin, or having cirrhosis.

More than 150 million people worldwide have chronic hepatitis C, a major cause of liver cirrhosis and liver cancer. Annually 350,000 to 500,000 deaths are reported.

According to the U.S. Centers for Disease Control and Prevention, 75 percent of U.S. residents with chronic hepatitis C were born from 1945 through 1965. For this reason, the CDC recommends that people born during these years have a one-time test for hepatitis C to prevent the risk of more serious health problems.

# Fat

## be gone

What if you could flip a switch and start burning your excess fat? That could lead to more energy, and a lower risk of obesity and diseases such as type 2 diabetes. It sounds like a miracle switch, but researchers from the School of Medicine believe they have found it in the protein Grb10.

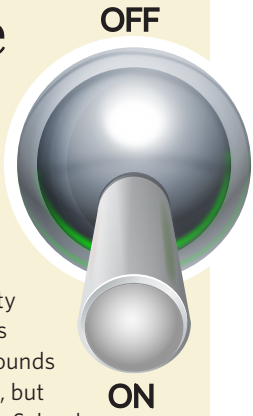
The body is made up of white and brown adipose tissue, also called fat tissue. White tissue stores fat, while brown tissue releases it through energy. Both are important for regulating metabolism, but having too much white adipose tissue could lead to weight and health problems.

“We know that if we want to keep our body lean, we have to get rid of extra nutrients in the body, which means burning more energy,” said Feng Liu, Ph.D., professor of pharmacology at the Health Science Center and director of the Metabolic Syndrome Research Center at Second Xiangya Hospital, Central South University in Changsha, China.

Converting the white tissue to brown, or “beigeing” the fat, could lead to this increase in energy. The researchers discovered the molecular pathway called mTORC1 that controls this beigeing, and Grb10 acts as the on-off switch. This protein is stimulated by cold stress, which causes the body to burn energy.

“Understanding how beigeing is controlled is so very important because, if we can improve energy expenditure, we can reduce obesity,” Dr. Liu said.

The discovery has other implications, too. The mTORC1 pathway is also involved in aging, cardiovascular disease and cancer.



# Stressed out? Blame your genes

Scientists have long believed that the tendency of experiencing stress-related disorders such as depression, post-traumatic stress disorder and obesity is inherited or is the result of traumatic events. But scientists from the Health Science Center who study depression in teens are looking into another factor—the role that changing genes play.

Subtle changes in a gene can predict how the brain reacts to stress, they found. And those genes may change over time, making some with the same genetic makeup more likely to experience stress than others.

The studies, led by the Health Science Center’s Douglas E. Williamson, Ph.D., and Ahmad Hariri, Ph.D., from Duke University, looked at the serotonin transporter, a gene that regulates the amount of serotonin signaling that occurs between brain cells and is frequently the target for antidepressant drugs. They proved the existence of a mechanism impacting the brain that also may play a role in an individual’s reaction to stress, which may be a stronger predictor of stress than DNA sequencing.

Attached to the serotonin transporter’s DNA are chemical marks called methyl groups. They help regulate when, where and how much of the gene is expressed. This is one form of gene modification, which scientists are studying to understand how the same genetic code can produce different reactions to stress, and a wide range of cellular responses in the body.

“Our work is helping to identify the specific mechanisms that are involved in the onset of depression, which is involved in 70 percent of people with PTSD,” said Dr. Williamson, an associate professor of psychiatry, epidemiology and biostatistics in the School of Medicine, and the Dielmann Chair of Genetic and Environmental Risk.

“The findings of the current study and our ongoing research are contributing to a paradigm shift in how our field examines genetic contributions to psychiatric conditions like depression and post-traumatic stress disorder. We are moving beyond simple inherited genetic sequence variation to examine what is being modified during one’s lifetime and how this may in turn be passed on to our children.”

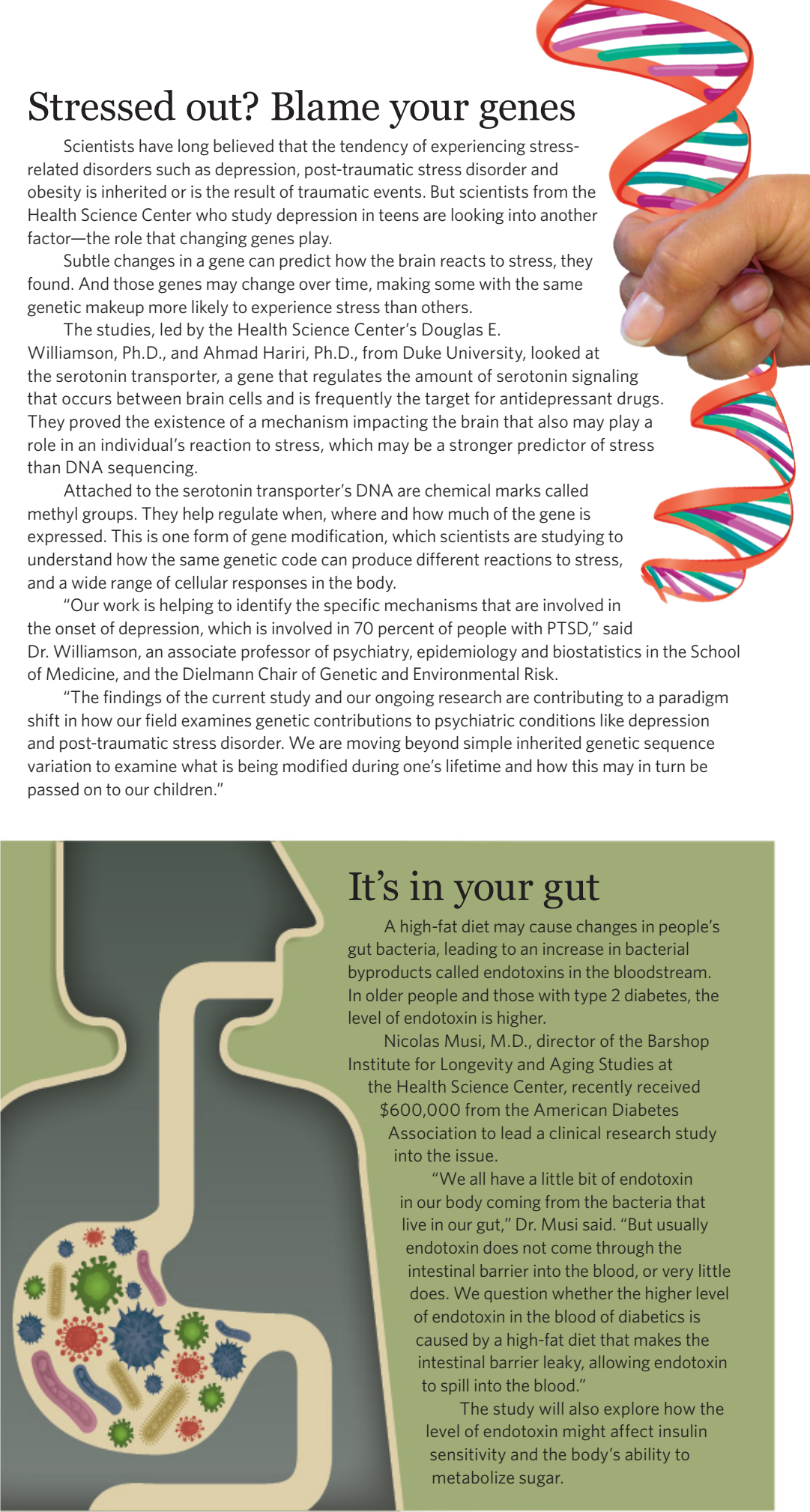
# It’s in your gut

A high-fat diet may cause changes in people’s gut bacteria, leading to an increase in bacterial byproducts called endotoxins in the bloodstream. In older people and those with type 2 diabetes, the level of endotoxin is higher.

Nicolas Musi, M.D., director of the Barshop Institute for Longevity and Aging Studies at the Health Science Center, recently received \$600,000 from the American Diabetes Association to lead a clinical research study into the issue.

“We all have a little bit of endotoxin in our body coming from the bacteria that live in our gut,” Dr. Musi said. “But usually endotoxin does not come through the intestinal barrier into the blood, or very little does. We question whether the higher level of endotoxin in the blood of diabetics is caused by a high-fat diet that makes the intestinal barrier leaky, allowing endotoxin to spill into the blood.”

The study will also explore how the level of endotoxin might affect insulin sensitivity and the body’s ability to metabolize sugar.





# WHEN THE SHOCK WAVE HITS

Study evaluates how eyes respond

BY WILL SANSOM

**IMAGINE YOU ARE A SOLDIER,** patrolling the streets of a war-ravaged city. Without warning, a suicide bomber sets off an improvised explosive device 50 yards from where you stand. The powerful blast flips you backward into a wall. In seconds you open your eyes. How are you seeing? Will this affect your vision permanently?

Researchers from the joint biomedical engineering program of the Health Science Center and The University of Texas at San Antonio have evidence that eyes subjected to that kind of pressure, even if not punctured, are seriously injured and could suffer partial or complete blindness.

In 2014, the team published a study of blast effects in a postmortem pig eye model. For two years, researchers tested blasts contained inside a tube system at the U.S. Army Institute for Surgical Research, located on Fort Sam Houston in the San Antonio Military Medical Center complex. The U.S. Department of Defense funded the study.

Postmortem pig eyes were exposed to various levels of blast energy and were evaluated with photography, ultrasound and microscopic examinations. Researchers found that an initial shock wave of over-pressurized air from a blast is enough to damage the eyes, even in the absence of shrapnel or other particles. The optic nerve, which serves as the conduit of messages between the eyes and the brain, can also be damaged, leading to numerous visual deficits.

The study is crucial given the dangers soldiers face today. During the Civil War, 1 percent of battlefield injuries

involved the eye; this increased to 3 percent through World War II. During the last several combats in the Middle East, 13 percent of injuries have involved the eye. Ocular injuries are now the fourth most common military-deployment injury.

"We think it's largely due to the use of explosive devices," said study co-author Randolph Glickman, Ph.D., professor of ophthalmology and radiological sciences in the School of Medicine at the Health Science Center. "They are everywhere, they are messy devices, and they produce lots of eye injuries."

The problem is not restricted to the battlefield. Each year, 2.4 million eye injuries occur in the U.S. A fifth of Americans will experience one in their lifetime, ranging from a scratched cornea to loss of vision. Ocular trauma is the leading cause of blindness in the U.S.

"Obviously it's a serious issue in both the military and civilian communities," said Dr. Glickman, who is cross-appointed at UTSA in physics and biomedical engineering.

Blast injuries can be categorized in four levels: primary, resulting from the pressure wave produced by the blast

itself; secondary, due to shrapnel or debris thrown up by the explosion; tertiary, concussive injuries resulting from the whole body being thrown forcefully against a solid object; or quaternary, long-term effects such as post-traumatic stress disorder.

The blast wave hits people so fast that they don't have time to blink for protection, and even low blast levels can cause eye damage.

The work came out of a pilot study of paintball injuries by geologist Walter Gray, Ph.D., and ophthalmologist Rick Sponsel, M.D., both faculty at UTSA. The researchers found that computer models used by engineers to evaluate how materials break under mechanical stress could also be used to predict eye injuries sustained from different levels of trauma. The machine is so correct, they found, that the type and severity of injury predicted by the computer model matched the actual injuries sustained in lab trials using animal eyes.

Dr. Glickman uses the information to investigate the biological responses to blast trauma.

Before the research, this damage to the eyes was frequently attributed to traumatic brain injuries.

"Internal effects in the eye are something no one has really studied," said co-author Matthew Reilly, Ph.D., assistant professor of biomedical engineering at UTSA. "Previous studies looked at whether the eye ruptured during the secondary stage, but those research teams didn't have the sophisticated equipment to look at the

inside. In this study, we've been able to distinguish between primary and secondary blast effects."

With the primary blast, the pressure is more widely distributed, Dr. Reilly said.

"The pressure's not hitting at one point on the eye but across the whole surface," he said. "The eye isn't punctured at this step, but the soft parts inside the eye get scrambled. Bad things happen."

The research team observed retinal detachments, separation of tissue layers, optic nerve damage and injuries to a group of structures that help maintain fluid and pressure balance in the eye.

Those things don't have to happen, the researchers said. Existing eyewear shields against objects such as shrapnel but doesn't address blast waves. In the future, they would like to collaborate with Department of Defense specialists to design new types of protective eyewear. Blast modeling would lead to development of prototypes that could be tested to determine which designs best prevent primary blast injuries.

Over time, the project could also help physicians better screen patients for ocular damage and create appropriate treatment plans for the increasing number of soldiers who suffer eye blast injuries while in harm's way.



# Living Bold

Latina breast cancer survivors savor a decade of living in **technicolor**

BY LETY LAUREL  
PHOTOS BY RICK CARRILLO

Julie La Fuente  
Louviere

She calls herself a cactus, with thorns to protect her and the resilience to withstand anything. A Texas prickly pear cactus can survive snow, drought and injury. When a cactus gets cut, it scars and keeps growing. And it produces life in the delicate yellow flowers that sprout along its hard ridges.

After three bouts of cancer, Julie La Fuente Louviere is cut and scarred, but she's still going.

"It rains, it thunders, it's cold and it's hot. The nopal is still standing," she said. "And it's standing with pride, with its needles out. Nothing is going to make it weak."

Louviere was 29 when she was diagnosed with breast cancer. After a mastectomy, she began chemotherapy. Five years later, she heard the word every cancer survivor dreams of hearing: remission. Then came more good news. Despite the damage to her ovaries caused by the chemotherapy, she was pregnant with her second child.

But the excitement was short lived.

Just into her second trimester, the cancer came back, this time in her liver and bones.

"It didn't look good," she said. She was given two months to live. Doctors advised her to terminate her pregnancy and begin intensive chemotherapy. She refused.

"I said, 'God won't give me anything I can't handle.'" She became the first woman documented in medical books to undergo chemotherapy while in advanced pregnancy. She was told her baby would have a slew of health problems. But on Valentine's Day 1998, her daughter, Alis, was born—healthy despite the odds.

And eventually, Louviere's cancer disappeared.

"She's my miracle baby," she said. "In a way, I believe it was my daughter who saved my life."

Louviere's story of survival is one of 26 featured in *Nuestras Historias: Mujeres Hispanas Sobreviviendo el Cáncer del Seno* (*Our Stories: Hispanic Women Surviving Breast Cancer*), a collection of essays by Latina breast cancer patients and survivors. The 114-page book, written in both English and Spanish, was produced in 2004 by Redes En Acción, a national Latino cancer research network funded by the National Cancer Institute and based at the Institute for Health Promotion Research at the Health Science Center. Louviere said she never hesitated when asked to share her story.

"Not only was my story going to give hope to some lost soul that was out there, but it was going to be given in two different languages," she said. "And to me, if God had me here for a reason, maybe that was the reason. If I could help my own race and my own women to understand this disease and understand there is hope after breast cancer and know that you can be a mommy and a wife, and you can be a sister, and you can be a loving aunt fighting this disease and still making cookies for the neighborhood children, it would all be worth it."

Like a picture taken a decade ago, the stories are frozen in time. But in the 10 years since the book was published, much has changed. Of the 26 original authors, 10 have died. And once more, Louviere is battling yet another bout with the disease—for the third time.

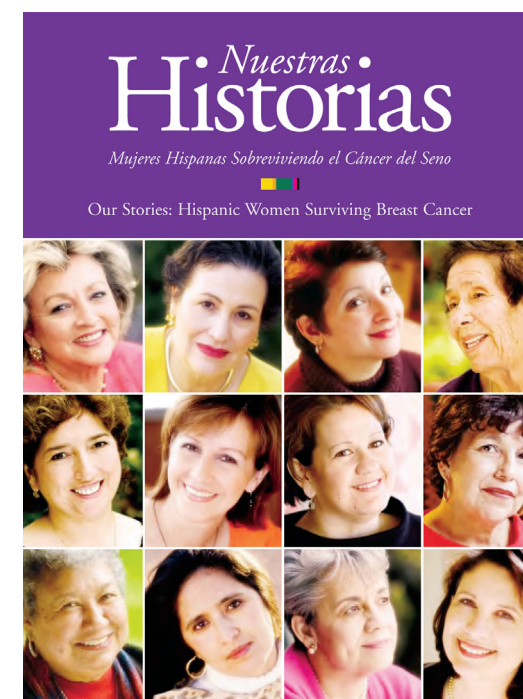
The numbers speak loudly as to why the book was written. Breast cancer is the leading cause of cancer death among Latina women, and the number of cases is steadily increasing. The purpose of the book was to put faces to the startling statistic, and offer hope, comfort and advice for others battling breast cancer, said Sandra Lorena San Miguel, research instructor for the Department of Epidemiology and Biostatistics and the institute.

"Latina women put themselves last," she said. "Their needs are so primary—how to put food on the table that day. They don't see the long term."

"We wanted to produce something for women that they could relate to so they could go out and face their fears and say, 'We can do this.'"

Since it was printed in 2004, the book has won several awards and has been distributed for free to breast cancer patients, survivors and their families. It also lives online, and has been used by other support programs to help patients as far away as Wisconsin.

Most importantly, it has been shared by the authors who participated, and passed down to their nieces, daughters and grandchildren. Now a new generation of Latinas can be armed with the knowledge that the participants themselves felt they lacked, Louviere said.



"The book made me feel like I could help people," Louviere said. "It made me feel like we were a group of not only cancer warriors, but Latina warriors. And we needed to get heard. And we did."

## Battle scars

The cover of *Nuestras Historias* is a mosaic of women's faces. There is strength, resolve and beauty. There's no visible sign of cancer.

"For the women who read this book, I think it shows them that not all cancer patients look a certain way. You can see us looking fabulous," said Tanya DelValle, who was also featured in the book. At the time of her diagnosis in 1997, she was 27 years old, the youngest breast cancer patient in San Antonio. "It also shows you the very real side of this. It does take some lives. But it shows that you are a survivor from the minute you're diagnosed, not from when you're done with chemo. It can happen at any age, yet you can still survive."

DelValle's survivor story began when she was in the prime of her life. She was engaged, and working as a coach and a biology teacher at a local high school. A routine visit to the doctor revealed her lump, but neither her doctor nor DelValle were concerned. At that time, there weren't many women in their 20s who had cancer.

The lump continued to grow, and when doctors tried to drain the cyst, nothing but cells came out. Immediately, more tests and a biopsy were scheduled. Then, just before Thanksgiving, she got the devastating news: It's malignant.

In a flash, her life changed. She joined survivor groups, and other women fighting breast cancer became her best



friends. Her sense of security was shattered as she watched those friends die.

"I changed a lot," she said. "I saw life through a different lens. I appreciated things a lot more. I have always been a pretty happy person, but I found an inner strength that I didn't know existed."

She focused on the women she saw hitting and passing the all-important five-year milestone that signals remission.

"I remember looking at them and going, 'I am going to be you one day,'" she said.

When San Miguel asked her to write her story for *Nuestras Historias*, she had finally passed the milestone. Along with the scar from her lumpectomy, she wore another battle mark, a tattoo of the Energizer Bunny playing a drum with a pink ribbon on it to symbolize her promise to keep battling against cancer.

"I became that woman that other women look to and say,

time, he was unemployed and health insurance had not yet kicked in through her employer. She took a gamble and waited.

Once she saw the doctor, the rest happened quickly.

"I had to have a full mastectomy because they didn't know how much cancer had gotten loose and traveled throughout my body," she said. That was 31 years ago.

Soon after her diagnosis, Beilstein's mother was diagnosed with breast cancer. And five years ago, her daughter, Laura, found out she, too, had the disease.

For Beilstein, who is called the Mexican Lucille Ball by her family because of her propensity for fun and laughter, the moment her daughter was diagnosed was a turning point. Out came *Nuestras Historias*. She used it to give Laura hope and to remind her that she wasn't alone.

"In some way or another, we women can relate to each other," Beilstein said. "The more women are made aware, the

through the turmoil that a cancer diagnosis brings. And it identified them as survivors, even in the grip of illness.

"When people think of women going through chemotherapy, they think she's gray, she's bald, she's fragile," Louviere said. "They never see she's vibrant. They never see she's a fighter. They never see the port that means that she's a warrior. They never see the charisma, the attitude, the willingness to fight. They don't see that the person has her lips done and her makeup done because she's enjoying that day, that moment, and she's not taking it for granted."

But that's what the book did, Vasquez said. It captured the women in the beauty of life.

"To see all these women featured, with beautiful haircuts and makeup, one breast missing, two breasts missing, no breasts missing—and to see them feeling good about themselves, that's what the book portrays," Vasquez said. "It was important that we show that you can be a cancer survivor

The new me enjoys every moment that there is. Traffic, the heat. I just enjoy that God has given me the energy for today."

For 22 years, Louviere has been a cancer patient. Like the nopal, she's scarred, but she wears the wounds of cancer proudly.

"I have learned the power of prayer," she said. "I have learned that life is way too short. I have learned that when God throws you lemons, you make a little lemonade, and I've learned that it's OK to feel sad some days.

"I have learned that it's OK to wear a bikini and have all these scars on your body. You call those your warrior scars. And I've learned that it doesn't matter where you start, as long as you finish. And you finish with your head up, your shoulders back and with a smile."

But, she quickly adds, she's not finished yet.

“The fight is a hard one, but we are going to fight and not be afraid. And if it comes back, we are going to fight with even more power.”

—Bea Vasquez, 15-year survivor



"I'm going to be you one day," she said. "I loved that chance to give them hope."

And she's now living her dream, she added, despite the challenges that cancer threw her way. She is married to her best friend, Rudy, and surrounds herself with family and friends.

The incidences of breast cancer are highest for non-Hispanic white women, yet it is Latinas who are less likely to survive for five years after diagnosis. Latinas are 2.3 times more likely to be diagnosed at a later stage because they delay or forego routine wellness checkups.

"Latina women typically hold back. Even when they find a lump, they don't see a doctor," San Miguel said. "There are resources in the community, but a lot of times they don't follow through because of fear."

When Sylvia Beilstein felt the small lump in her breast, she kept it a secret from everyone, even her husband. At the

more they will examine themselves."

Women need to be educated, and they need to feel empowered, said Bea Vasquez, who helped San Miguel find survivors to share their stories for *Nuestras Historias*, and who also is a 15-year breast cancer survivor featured in the book. The cancer diagnosis didn't stop her from being active in the community or from raising one daughter and six foster children.

"The fight is a hard one, but we are going to fight and not be afraid," Vasquez said. "And if it comes back, we are going to fight with even more power."

**A decade of milestones**

Ten years after its original release, *Nuestras Historias* remains an important project in the lives of the participants. It gave them a chance to share their knowledge and experiences. It let them deliver hope to strangers who were going

and still look beautiful and still get up in the morning and still feel good about yourself."

There are other lessons in the book as well. Like Louviere's nopal, the essays urge all women to keep growing by learning more about cancer, to spread hope like the flowers that blossom along the cactus' ridges, and to boldly live life.

Though Louviere was given an expiration date years ago, she hasn't stopped living. This year, she reached a milestone she never thought she'd see.

"Turning 50 years old was the biggest thing ever. I wanted to turn 50 so bad," she said.

And then the second-biggest thing happened. She became a grandmother, or, as she calls herself, "Glama."

"It was the frosting on the cake," she said. "Before cancer, I was very materialistic. I never had time to smell the flowers.



To download a copy of *Nuestras Historias*, or to watch videos of these and other survivor stories, go to [redesenaccion.org/historias\\_bk.html](https://redesenaccion.org/historias_bk.html).

About the institute

The Institute for Health Promotion Research investigates the causes of the unequal impact of cancer, chronic disease and obesity among Latinos in South Texas and the nation. Led by Amelie G. Ramirez, Dr.P.H., it seeks to find solutions to health disparities and promotes behavioral health interventions, projects and programs. It was founded in 2006 and is based at the Health Science Center. To learn more about the institute, go to [ihpr.uthscsa.edu](https://ihpr.uthscsa.edu).



FACULTY TAP THEIR

# alteregos

FOR A CREATIVE APPROACH  
TO LIFE AND HEALTH

BY LETY LAUREL

Even Albert Einstein, the father of the theory of relativity, a pillar of modern-day physics, had another, less obvious side.

If he wasn't a physicist, he once declared, he would have been a musician.

"I often think in music," he said. "I live my daydreams in music. I see my life in terms of music. I get most joy in life out of music."

Was this just a frivolous diversion for Einstein? Is it just fun and games for the surgeon who photographs wildflowers, the autism researcher who plays the cello, the occupational therapist who's a clown or the dentist who throws clay? Is it simply a way to blow off steam? Or could it be something much deeper, much more essential?

Turns out that to stay healthy, these creative minds require multiple creative outlets, they say. Even more significantly, clowning around or jamming in a jazz band complements and enhances the careers of health professionals and researchers. It refreshes and renews, adds joy and fulfillment.

These "sides," or alter egos, can be called avenues of self-expression, celebrations of multidimensional characters. But, truth be told, they simply make them better.



therapist clown

# Kimatha Grice, O.T.D.

Adults are way too serious.

Instead of playing, adults spend all their time working, Kimatha Oxford Grice grouses. They work so hard, she said, that they've forgotten how to play.

And that's just not OK for her.

Dr. Grice, O.T.D., OTR, CHT, is an associate professor of occupational therapy who occasionally teaches class at the Health Science Center as Professor Feather Brains. That is, when she's not clowning around in a pink wig and colorful dress as Tutti Frutti, her true alter ego.

"[Constant work is] just not healthy," she said. "The theory that is the basis of occupational therapy is to live a well-rounded life. You have to have leisure interests, things you do that make you have fun and keep you healthier. Being a clown fits me."

Since she was young, Dr. Grice has been fascinated with clowns. After becoming an occupational therapist, she realized something. As a therapist, she is always making her patients do something that's uncomfortable, sometimes even painful. What if she could do something that was fun? Even better, what if she could use that fun to help her get patients to do those uncomfortable things?

Her transition into the world of clowning didn't happen overnight. Clowning, after all, is a serious business that takes planning, character development, schooling, the building up of supplies and skills.

But once she started full-force, she couldn't stop. Dr. Grice has been clowning since 1991, bringing Tutti Frutti into the lives of her patients, hospitalized children and adults, charity events, birthday parties, nursing homes and community events.

"As a hospital clown, I felt it was a way to give back, and in that setting I got to be in a totally different role. I could go in and play and be funny and do something that wasn't uncomfortable for patients," she said.

Clowning isn't just a recreational outlet to help keep her sane. It's also like a shot of adrenaline to her spirit. And on a practical side, it's also made her a better therapist. Dr. Grice works as a certified hand therapist at the Hand Center of San Antonio. She often digs into her clowning prop bag to get her patients to do hand exercises by balloon twisting and making puppets talk.

"Occupational therapists do whatever it takes to get a patient to do what you need them to do," she said. "That's why clowning and OT go so well together. I like to play."

And humor in medicine is important, she said.

So important, in fact, that for 14 years she has taught an elective at the Health Science Center called Laughter is the Best Medicine: An Interdisciplinary Elective about Humor, Healing and Healthcare. That's where Professor Feather Brains makes her occasional cameos dressed in bright purple hair, round black glasses and white doctor's coat.

"I see clowning as a ministry," she said.

"It's a God-given talent that I'm using to help people."





PHOTOS BY RONALD STEWART, M.D.

# Ronald Stewart, M.D.

Bluebonnets formed an ocean of blue along the side of the highway last spring. It was an irresistible sight for Ronald M. Stewart, M.D., chair of the Department of Surgery and recreational photographer.

Knowing a flower is best photographed at ground level, he pulled over, grabbed his camera and made his way into the field, finally nestling among the flowers to find the best vantage point.

Like surgery, photographing a flower takes concentration and time. Stillness. Quiet.

The minutes ticked by as he lay on his side. Suddenly, his concentration was shattered, first by an EMS unit with sirens, then by a police officer approaching. Turns out, his stillness was mistaken for something quite different—an injured person in need of help.

“I told her, it’s all fine. I’m taking pictures,” he laughed.

Dr. Stewart has been taking pictures since he and his wife, Sherri, were given a camera as a wedding gift in 1982, first in the operating room as a resident and later at his children’s sports games. Nature photography, especially that of wildflowers, soon followed.

“My photography follows what I would call a normal sort of surgery performance improvement process,” he said. “You think they’re pretty good until you start comparing them to somebody else’s and then you realize they’re not very good. Then you begin gradually tweaking them over time, doing your best, then looking back to see how you could do it a little bit better.”

He’s perfected his style to the point that dozens of his photographs can be seen throughout the Health Science Center’s Medical Arts & Research Center and University Health System’s University Hospital.

Photography isn’t very different from surgery, he said. Both require concentration, as well as precise steps and careful technique, although there may be different approaches to accomplish the same goal. And depending on the operation, surgery can be peaceful, as can lying in a field of flowers.

“There’s an art to both, and there is peace in the complete immersion and flow,” he said.

Yet photography allows him something that is unique: the ability to stop and enjoy something that he might otherwise be too busy to see. Beauty is always around, but sometimes it takes a change in perspective, or lighting, to see it, he said.

“It’s an outlet that is relaxing and gives you time to think,” he said. “One of the things that we’re really short of in the modern world is any quiet time for reflection or thinking in a non-directed way. I think for me, photography gives me that.”







PHOTOS BY LESTER ROSEBROCK, CREATIVE MEDIA SERVICES

researcher musician

# Raymond Palmer, Ph.D.

Every now and then, Raymond Palmer, Ph.D., would ditch a day of high school. He'd wait for his mother to leave for work, then he'd go straight to the garage.

He just had to play a little music.

He'd spend the entire day in that garage, playing the piano, determined to figure out one more Beatles or Jethro Tull song.

"Music is just something I have to do," he said.

And while he played through his undergraduate days, that eventually faded away as he advanced his higher education career, first getting an associate's degree in physical education, then bachelor's and master's degrees in psychology, a nursing degree, and then eventually a Ph.D. in preventative medicine.

Once he became an assistant professor, he just didn't have the time anymore.

"I became real down, almost borderline depressed. Something big was missing from my life. I was cranky and unsatisfied," he said. On a trip to the music store one day, where he was surrounded by gleaming guitars and other instruments, he felt an inner joy for what felt like the first time in years. After affirmation from his wife, Cindy, he knew: It was time to start playing music again.

"My existential crisis was over," he said. "Sometimes you have to give something up because you don't have time to do it all. And sometimes the things you give up are the things you love and that's a mistake. You should not do that. That was music for me."

Dr. Palmer, who now is an associate professor in the Department of Family & Community Medicine, is probably best known for his work on environmental neurotoxins and autism. But outside of work, he's surrounded by the arts. He lives south of downtown in an area popular with art enthusiasts. His home is an 11,000-square-foot industrial space that is part art gallery and studio, brewery, concert venue and residence. Once a month, he hosts musical groups who play in what he calls his "intentional listening room," a performance space that seats about 35 music lovers. He also plays a modified cello in what he jokingly refers to as a "rhythm and ooze" groove band and keyboard in a jazz band that plays gigs around town.

"I have a friend who once asked, 'What are you doing in this left-brained academic world? You are so right-brained,'" he said. "There is this whole idea that the left side of your brain is analytical and verbal and the



right side is artistic and kinetic, but realistically, we're all a combination of both."

Each side works in concert, assisting the other, he said. And music and science aren't so different, anyway, he added. As a biostatistician, his job is to take data, synthesize it, follow the information and discover associations, which he then presents in a digestible way. He has to perform the statistical analysis, understand what it reveals and, working with a team of other scientists, translate the information to grant-funding agencies. His work researching autism sprouted from a question he had about the causes of the disorder and the desire to find some answers.

Similarly, as a musician, he follows an inner voice, develops sounds, notes or a rhythm that sounds good, then lets them evolve into a groove. It develops and grows. He and his bandmates create music that will stir the audience and speak to them in different ways, translating emotion through music.

In both music and science, there is passion to discover and enlighten, he said. And he needs both to feel complete.

"Your work life doesn't fulfill the multidimensional aspects of yourself," he said. "There is more to all of us than just one dimension. It doesn't always have to be the arts, it could be reading, gardening, physical activity or whatever your passion is. It makes you a better person."





PHOTOS BY LESTER ROSEBROCK, CREATIVE MEDIA SERVICES

dentistartist

# Keith Hill, D.D.S.

He's too much of a dentist to be considered bohemian. But that doesn't keep Keith V. Hill, D.D.S., FAGD, from trying, he said.

By day, he's in Health Science Center clinics leading and supervising a team of 25 students through dental procedures. But on most evenings, after he gets home, he grabs his backpack and bike and rides to a local haven for ceramic artists—the Alamo City Pottery Workshop.

There, the fridge is stocked with beer and shelves are lined with pottery projects in the works. And Dr. Hill has his own wheel, where he throws clay and molds it into art.

After 38 years in dentistry, the last seven spent teaching, dentistry is what he thinks about before sleep takes over. It's his first thought in the morning. As he's driving home from work, he's thinking about different techniques to share with his students.

"I think it's true about any medical profession, it can become all you're about," said Dr. Hill, assistant professor in the Department of General Dentistry. "You need multiple diversions to break the train of thought and give your brain a rest, give your body some rejuvenation, recreation and do something completely opposite of what you are engaged in."

At the point where dentistry became all-consuming, Dr. Hill decided it was time to find an outlet. He never thought of himself as artistically inclined, but he saw his father find joy in oil painting. Art, he mused, could be one way to break away from the rigidity of his profession and bring some peace to his overworked brain.

"There are very exacting protocols to accomplish a dental procedure and we're very rigidly trying to achieve perfection in everything that we do," he said. "The only way I knew to find release or a mode of expressing my individuality was to start doing some artwork, and I had always been fascinated with ceramics."

After more than a dozen ceramics classes in the span of about five years, Dr. Hill's distraction has become more than a hobby. It's become his therapy. To date, he's created upwards of 300 bowls. Some are painted in vibrant colors in homage to the multicultural city he lives in, others are textured and glazed in soothing earth tones. He uses the paintbrushes his dad used, and feels an emotional connection to the man who introduced art into his life.

Dr. Hill used to give away his bowls to students at Christmastime as gag gifts. Today, students and colleagues alike ask him for his pieces. They decorate the School of



Dentistry, often sitting atop desktops and shelves. He's also started selling his artwork, participating in local art shows and sales through the pottery workshop.

Though dentistry must be exact, art is fluid and flexible. He has learned that imperfections can lead to beautiful and functional art. Flexibility is one of the things he likes the most about ceramics.

"Dentists tend to be terribly critical of themselves, even when a procedure has been successful. When you create something away from your profession, it helps you be a little bit more flexible and not be so hard on yourself. It helps me be a little more tolerant, and recognize that in anything we do, there are going to be flaws and imperfections. Even with great success, even with something that looks beautiful.

"And it has added something else that's important. It has added to my mental health."



# STRESS TEST

Researchers studying soaring stress levels among nurses

BY ROSANNE FOHN

Ashley Byrd, B.S.N., RN, became interested in mental health nursing while earning her bachelor's degree. "I noticed that there was a shortage of nurses in this field and I wanted to help make a difference," she said. "There is still such a stigma attached to mental health issues, but these are our mothers, fathers, brothers and sisters. Who knows when we might be stressed because of what happens in life or depressed because of a traumatic event? I want to be there for my patients, to help them and guide them."

Working in the mental health field for three years, Byrd couldn't help but notice that nurses also suffer from stress while caring for patients, regardless of the area in the hospital where they work.

"There are a lot of things in the hospital culture that can cause stress. In my field, acutely ill psychiatric patients can cause nurses stress," she said.

Other common examples of stress in the nursing workforce include not having the right supplies, frequent interruptions while preparing patient medications, long or varying shifts, demanding workloads, and having fewer nurses than are needed on a shift. Physical manifestations of this stress include a higher risk of infection because of compromised immune systems and frequent exposure to ill patients. Stress in the nursing workforce is also associated with other occupational hazards such as neck, shoulder and lower-back injuries from lifting and positioning patients, and foot and leg problems from being constantly on their feet.

"Stress actually is an epidemic in nursing. It's a psychological problem and a physiological problem. And in the end, it can affect the quality of patient care," said Byrd, who is seeking a master's degree and certification as a psychiatric mental health nurse practitioner in the School of Nursing.

perspective, there is an awareness of stress in the nursing workforce, but there have been few systematic investigations that quantitatively measure the causes and effects of stress, and what we can do to improve the nursing work environment from a systems approach," said Dr. Puga, an assistant research professor in the Center for Advancing Clinical Excellence (ACE), a center of excellence in the School of Nursing.

This is a critical issue, he said. There is increasing evidence that unhealthy work environments can contribute to stress among health professionals as well as medical errors and ineffective delivery of care, according to the American Association of Critical Care Nurses, which is leading a national initiative to encourage healthier nursing work environments. Improvements are essential for patient safety, the association found, and could enhance staff recruitment and retention.

Dr. Puga and Byrd are studying stress with nurses from San Antonio's Methodist Hospital. They will be collecting saliva samples to measure cortisol, a physiological biomarker of stress. Nurses also will fill out surveys and routinely document the stressors in their work environment, such as disruptions in workflow processes and problems with teamwork. Data will be collected on organizational culture, job satisfaction and turnover rates to better understand the relationship between system variables, stress and staffing outcomes.

Wanda Gibbons, RN, B.S.N., M.H.A., NEA-BC-FACHE, chief nursing officer at Methodist Hospital and interim chief nurse executive for Methodist Healthcare, said stress in frontline nurses is an important research topic that hospital officials were eager to help explore.

"Most of our research on stress has been qualitative," she said. "This study will give us the opportunity to collect

Stress often leads to absenteeism, burnout, and for some nurses, leaving the profession, she added.

Through her master's coursework, Byrd was introduced to evidence-based quality improvement—how to use and conduct research to improve the quality of care for patients. Because of her background, it was a natural fit for Byrd to become a research assistant on a study conducted by Frank Puga, Ph.D., that examines the psychological and physical factors of stress.

"From the national

direct, quantitative data to provide a better environment for our nurses. It will help our nurses become more aware of how they deal with stress and will help advance nursing research."

This pilot study is funded by a \$10,000 research grant from the American Organization of Nurse Executives, which promotes leadership, professional development, advocacy and research to advance nursing practice and patient care.

Once the process for data collection is refined in the pilot study, Dr. Puga plans to conduct a full-scale national study on this topic through the Improvement Science Research Network (ISRN), a national, interprofessional research network based in the ACE.

"The ISRN helps establish best practices by taking studies that have been proven to work in one or a few hospitals and conducting them across the country at many different sites," explained Kathleen Stevens, Ed.D., RN, ANEF, FAAN, director of the ACE and ISRN. "When a new idea is proven to work well in many environments, it can become a new model of improved care, reflecting best practices."

Byrd, who will collect saliva samples from nurses and communicate frequently with them about the study, said she's excited to be working with Dr. Puga to investigate a major issue that plays a part in clinical excellence.

"And as a future mental health nurse practitioner," she said, "I am looking forward to consulting the literature and conducting evidence-based practice to help my patients and contribute to the body of knowledge for health professionals."

## NURSING STRESS POINTS



Stress in nursing can lead to absenteeism, burnout and high turnover rates, but students and faculty at the Health Science Center are working to measure the causes and effects of that stress and are exploring ways to improve the nursing work environment. Improvements are essential for patient safety and could enhance staff recruitment and retention, according to the American Association of Critical Care Nurses.



# Serving our military

Triple graduate combines physical therapy skills with research abilities to help wounded warriors

BY CATHERINE DUNCAN



Christopher A. Rábago, Ph.D., PT, is not your typical physical therapist. And, he surely isn't your usual biomedical researcher. His rare combination of biomedical engineering knowledge, analytical research skills and clinical abilities make him a perfect fit at a unique military treatment and research facility.

Dr. Rábago works with a diverse team of scientists and physical therapists performing amputee, prosthetic and limb injury clinical research in the Military Performance Laboratory at the Center for the Intrepid (CFI). The CFI, located at Brooke Army Medical Center in San Antonio, is part of the Department of Defense/Department of Veterans Affairs Extremity Trauma and Amputation Center of Excellence.

Dr. Rábago is a triple graduate of the Health Science Center and said his work with wounded warriors often makes him think of where he was on Sept. 11, 2001.

"I was in my first year of physical therapy school at the Health Science Center. I was in Dr. Patricia Brewer's neuroanatomy lab in the basement of the medical school. The events of that day affected me profoundly," he said.

A couple of years later, when he was about to earn his master's degree in physical therapy, which then required a

coordinating bachelor's degree in health care sciences, Dr. Rábago explored the idea of joining the military as a physical therapist.

"At that time, the military had no openings for physical therapists, so I thought working with the military was off the table," he said. The San Antonio native—inspired by his physical therapy professors—decided to stay at the Health Science Center after graduation to pursue a Ph.D. in biomedical engineering.

This may have seemed a big leap from physical therapy to biomedical engineering, but the joint program between the Health Science Center and The University of Texas at San Antonio "offered a great integration of clinical and engineering courses," he said. It also helped that Dr. Rábago had a strong background in the core courses that made up the diverse curriculum.

"When I first went to college, I started off as an electrical engineering major at UT Austin. After my first year, I changed my major to kinesiology. After earning my bachelor's degree in kinesiology, I stayed at UT Austin and earned my first master's degree in kinesiology with a biomechanics specialty," he said.

At the Health Science Center, Dr. Rábago was supervised by Dr. Jack Lancaster at the Research Imaging Institute (RII).

"The RII was an incredible place to conduct research and expand my knowledge and research skills," Dr. Rábago said. "I was a PT learning neuroimaging techniques on all these new, incredible imaging devices."

His dissertation involved using transcranial magnetic stimulation to study motor control in a project funded by the VA.

After earning his Ph.D. in 2009, he received an email from a fellow alumnus he met while serving as the founding president of the Physical Therapy Alumni Association at the Health Science Center.

"This forwarded email gave details about a position at the [Center for the Intrepid] for a physical therapist with experience in neuro research and who had a Ph.D.," he said. "I couldn't believe it. I began here in October 2009 as a contractor and in 2011 became the first Army



Christopher A. Rábago, Ph.D., PT, works with a team of scientists and physical therapists performing amputee, prosthetic and limb injury clinical research in the Military Performance Laboratory at the Center for the Intrepid.

PHOTOS BY LESTER ROSEBROCK, CREATIVE MEDIA SERVICES

civilian employee for the DoD/VA Extremity Trauma and Amputation Center of Excellence."

Dr. Rábago also serves as an adjunct professor at the U.S. Army-Baylor DPT Program at Fort Sam Houston and is a faculty associate in the School of Medicine at the Health Science Center.

He is a team lead on projects using a Computer Assisted Rehabilitation Environment, which is referred to as CAREN, for virtual reality rehabilitation for injured service members. Using the CAREN's 300-degree virtual reality environment, physical therapists can assess and treat service members in a safe, simulated reality.

In the CAREN, there are 24 motion-capture cameras tracking the movements of a wounded warrior while he or she interacts with elements in realistic and challenging scenarios created by a CAREN operator. Dr. Rábago and his colleagues can assess a service member's biomechanics for adaptation to a prosthetic, to identify deficits following brain injury, or to determine readiness for discharge and a return to duty.

The Military Performance Laboratory at the Center for the Intrepid also contains a state-of-art Gait and Motion Analysis system to aid in developing and evaluating novel prosthetic devices.

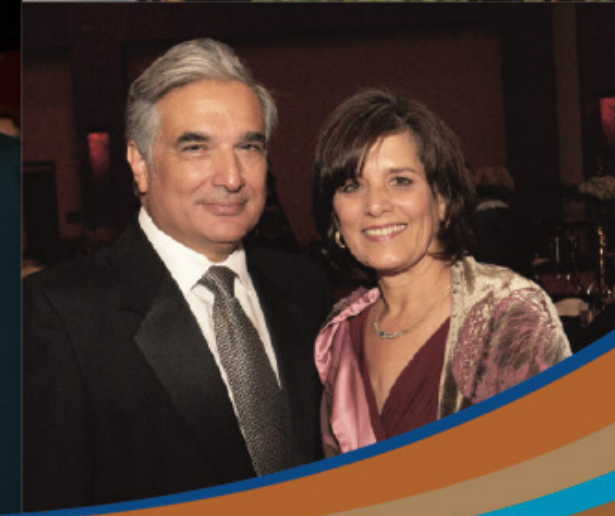
"When new prosthetic devices are developed, we get them first to evaluate. If they don't increase the function of our servicemen and women, it's difficult to justify their prescription," Dr. Rábago added.

"The technology we have here allows us to assess and treat our wounded warriors while also performing clinical research. Everything we do is evidence-based practice, which I learned at the Health Science Center," he said. "We have the best therapists working at the CFI who ask great questions that turn into research projects, all in order to optimize and better the care of our patients. I am so proud that I was able to come to the Center for the Intrepid and work with our military members. At the CFI, we get the pleasure of serving those who have sacrificed so much in service to our country."



# An Evening of Promise

## Annual gala honors Frost family legacy



The link between Patricia and Tom Frost and the Health Science Center was forged in 1959, when the Texas Legislature signed House Bill 9 to create the School of Medicine that now sits in the heart of the San Antonio Medical Center.

But the Frosts never imagined it would become what it is today.

"It's been an important thing in my life [to experience] how well it's been done," said Tom Frost, emeritus member of the Health Science Center's Development Board. "It's marvelous. We never dreamt it would be anything like what we have now. The level of medical care in this community is many times greater today than it was before the university came."

The Frosts, known for their longtime support for the economic growth of San Antonio, were honored at the 2014 President's Gala held Sept. 13. The event, called An Evening of Promise, will establish the Tom C. and Patricia H. Frost Endowment to Advance Cancer Research and Education with proceeds of \$500,000 raised through community support. The endowment will go toward student scholarships and fellowships, and cancer research.

It was the Frosts' faith in the future and their willingness to accept risk that helped launch the Health Science Center into the epicenter for education, research and healing it is today, said Health Science Center President William L. Henrich, M.D., MACP.

"In one way or another, directly or indirectly, we have all been touched by the countless efforts of Tom and Patricia Frost's generosity and service to San Antonio, to our region, to our state and to our country," Dr. Henrich said.

"When Tom and leaders of San Antonio inaugurated these new medical efforts, they made a pledge to the city to give their best efforts to improve health care, foster research and light the lamp of education."

Tom Frost, chairman emeritus of Frost Bank, is the fourth generation of his family to oversee the bank founded by his great grandfather, Col. T.C. Frost, in 1898. The Frost family continues to build on a legacy of philanthropy that spans generations, said Bartell Zachry, honorary chair of the gala.

"No team has done more than the team of Pat and Tom Frost," he said. "Their nurturing support since [the Health Science Center's] beginning has touched so many lives. It is important that they be recognized for what they have

accomplished, but especially for the example they have set for all of us in all they have done for so many years that makes possible the dynamic, grand and extraordinary lifesaving resource and life-changing resource that is the Health Science Center of San Antonio."

More than four decades ago, Frost led efforts to establish the Cancer Therapy & Research Center and was named its first honorary trustee. The CTRC, which just marked its 40th anniversary, has become one of the elite academic cancer centers in the country to be named a National Cancer Institute-Designated Cancer Center.

"This generous support by the Frost family and countless other members of our community will allow us to continue to provide compassionate treatment for all of our patients while our research team seeks to improve treatment and understand cancer with the goal of preventing it," Dr. Henrich said.

**PICTURED ABOVE LEFT:** The 2014 President's Gala honored longtime Health Science Center supporters Patricia and Tom Frost, who stand with Health Science Center President William L. Henrich, M.D., MACP, and his wife, Mary.

**BOTTOM LEFT:** Members of the Edlund family shared their patient story in a video featured at the gala. The video highlighted the work of Health Science Center students, faculty and staff. Pictured are (L-R) Christopher Curzon, D.O., Stephanie Edlund, David Edlund, Terri Edlund and Steve Edlund.

**TOP RIGHT:** Bartell Zachry served as honorary chair of the gala.

**BOTTOM RIGHT:** UT System Chancellor Francisco G. Cigarroa, M.D., and his wife, Graciela, attended the event.



# Exceeding expectations

## CTRC raises an unprecedented \$13.2 million

The Cancer Therapy & Research Center received \$1 million from the Klesse Foundation and an additional \$1 million from the Valero Energy Foundation in support of the recruitment of a nationally recognized scientist to lead the CTRC’s Cancer Prevention Program.

The two gifts helped the CTRC exceed its \$10 million annual fundraising goal, bringing the year’s philanthropic total to an unprecedented \$13.2 million.

“Margie and Bill Klesse and the Valero Energy Foundation are enabling us to continue to surpass our goals in making new discoveries and providing exceptional care, and we cannot thank them enough,” said CTRC Director Ian M. Thompson Jr., M.D. “These votes of confidence from our own community are not only incredibly helpful for cancer prevention, research and care, but they are also close to our hearts.”

Recruitment of a national leader in cancer prevention will distinguish the CTRC on a national level and will have a transformative effect, amplifying the important and lasting impact of reducing the burden of cancer on the South Texas region, he added.

Margie and Bill Klesse and Valero are longstanding supporters of the CTRC and the Health Science Center. Margie Klesse is a member of the CTRC Board of Governors and has served on the Board of Trustees of the CTRC Council, formerly the Cancer Center Council. She also has co-chaired the *San Antonio Express-News* Book & Author Luncheon, which benefits the CTRC’s Phase I Clinical Research Program.



Margie and Bill Klesse

At the Sept. 29 announcement of the gifts, Bill Klesse recognized Dr. Thompson’s leadership and the critical work of the CTRC physicians and researchers.

Many people who suffer from cancer can’t travel to other cities for treatment, he said, so having a top-rated cancer facility in San Antonio, one that is connected to an academic institution, is essential.



# Seeds of hope

## Pilot grants create bridge to take researchers to the next level

BY ELIZABETH ALLEN

Like a seed that becomes a tree, pilot grants can help a scientist through the mundane but pricey steps needed to prove an idea has real potential—thus securing the bigger grants to finance the years of work it takes to create the next effective drug.

When Roger and Dot Hemminghaus heard about the pilot research grant program at the Cancer Therapy & Research Center, they chose to support the work of Manjeet Rao, Ph.D., assistant professor of cellular and structural biology.

Their instincts were sound. Their \$25,000 pilot gift allowed Dr. Rao to build toward a \$900,000 grant from the Cancer Prevention and Research Institute of Texas (CPRIT).

Dr. Rao’s work is with microRNA, small gene-like molecules that can affect cells through subtle regulation of a number of factors and play a critical role in cancer drug resistance. Dr. Rao wants to put them to work against triple-negative breast cancers and find less toxic treatments that aren’t so vulnerable to drug resistance.

“It was a project that we believed would lead to very specific results—and that we could understand, for one thing,” Roger Hemminghaus said with a chuckle. “[Dr. Rao] was working with a breast cancer that wouldn’t respond to the existing treatment, and he was taking a new approach to understanding the chemistry and physiology of that cancer.

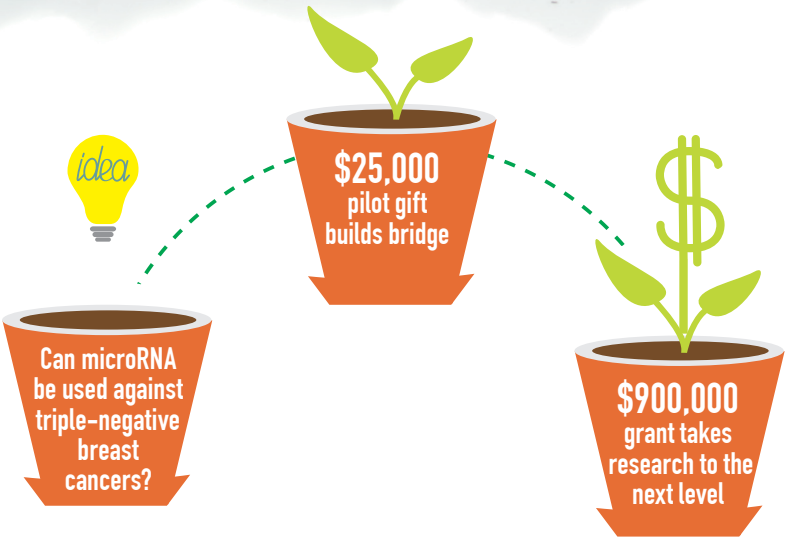
“And it appears, according to the size of the grant he just got, we picked a winner,” he said.

The Hemminghaus grant is an example of the bridge that pilot grants can form to help researchers take their work to the next level, said CTRC Director Ian M. Thompson Jr., M.D.

“It’s not necessary to fund a building or endow a chair to make a real difference,” he said. “People can make a powerful, tangible difference at the pilot grant level if they direct it to something that has great potential, which is something we vet when we compile the list of potential research projects. And it’s more meaningful to everyone if they know exactly what they’re funding.”

Barbara and George Williams recently chose two projects to fund: Gail Tomlinson, M.D., Ph.D., interim director of the Greehey Children’s Cancer Research Institute, is researching liver blastomas in children. And Karen Block, Ph.D., assistant professor of nephrology, and Denis Feliers, Ph.D., assistant professor of cell biology, are working on kidney cancer.

A blastoma is a type of tumor that comes from immature or embryonic tissue. Dr. Tomlinson is searching for a key similarity between liver blastomas and hepatocellular cancer in adults, which is the most common type of liver cancer. Finding the similarities



is critical to designing a clinical trial that could help both, she said. While hepatocellular cancer is a looming threat for an increasing number of adults, pediatric blastomas are much rarer. Funding national clinical trials to develop drugs to treat them alone is difficult, Dr. Tomlinson said.

She has identified a possible key element that appears in both cancers, and the next step involves intensive analysis to develop a drug to target it.

The gift to Dr. Block and Dr. Feliers will be used to develop a therapy for kidney cancer, among the most malignant cancers in the U.S. with a high incidence in South Texas. The researchers are examining what drives the process at the cellular level. When the wrong protein is present in kidneys, it gives rise to kidney cancer, and oxidative stress is what allows the wrong protein to be present.

“Current therapies aren’t touching this protein,” Dr. Block said. “If we can silence the enzymes that produce oxidative stress, it reduces renal tumor growth by 70 to 80 percent.”

The next step is crafting a therapy that targets the key players producing oxidative stress that can be used in combination with other therapies for the treatment of renal cancer.

The Williamses, who have lost family members to cancer, said the ongoing research is a long way from the cancer treatments of the past. Contributing to moving new therapies forward is an opportunity they’re happy to have. They’ve already pledged to fund two additional pilot grants. They will select one later this year and one next year.

“Cancer is such a scourge in our society,” Barbara Williams said. “We felt that if we could attack it on the front lines—that, to us, was just really important.”

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# Creating a community

First McFee Scholars begin their journey to become physicians

BY LETY LAUREL

Fifty years ago, Arthur McFee, M.D., like all Harvard medical students at the time, was a resident of Vanderbilt Hall. For four years they ate together, studied together, worried together. They mentored each other and supported each other through the rigors of medical school.

"We had breakfast, lunch and dinner together all four years," he said. "By virtue of that fact alone, there's a certain amount of commonality forged."

Today's medical students often live separately, off campus, and that presents a different challenge, he added. The communication and mentoring opportunities that come naturally with roommates have to be created.

At the Health Science Center, those opportunities come in the form of the Veritas, a student advising system. Created in 2006, Veritas takes incoming students and clusters them into 20 groups within five color-coded societies: Green, Red, Blue, Yellow and Purple. Each group is led by a clinical faculty member and upper-level medical students who act as mentors and peer advisers. Students remain with their groups throughout their medical school careers.

Through group and one-on-one activities, the students learn about critical issues such as choosing the best career, study strategies and professionalism in medicine.

There also are retreats, outdoor competitions such as tug-of-war, and social hours to help build camaraderie.

"It's the opportunity to be with one another and talk to one another and communicate and go back and forth," Dr. McFee said. "I realized that was something that, when I was a student, we took for granted because of the way things were set up."

With that realization, Dr. McFee, professor emeritus of surgery and one of the founding faculty members of the Health Science Center, and his wife, Iris, have designated \$75,000 to create the Dr. Arthur S. McFee Society Endowment for Student Academic Enhancement. The money supports the Blue Society, and the students will now be known as McFee Scholars.

"We have been associated with the medical school since 1968," Dr. McFee said. "It was my first and only academic appointment and with it came the privilege of starting a new school from scratch and watching it grow."



Arthur McFee, M.D., professor emeritus of surgery and one of the founding faculty members of the Health Science Center, and his wife, Iris, have created the Dr. Arthur S. McFee Society Endowment for Student Academic Enhancement. The money supports the Blue Society of Veritas, a student advising system for School of Medicine students.

"We are grateful to the school for the opportunities it has given us to share in its development. We regard the support of this endowment as a payback for an investment that the school made in us 40 years ago."

Christine Andre, M.D., Veritas director and associate professor of medicine, said the gift will be used to support general Veritas activities.

"I am so grateful to Dr. and Mrs. McFee for their generous endowment and genuine interest and involvement in the students who are the future of medicine," she said.

One of those students, Karli Silverberg, a first-year medical student and one of the first McFee Scholars, joined about 220 other first-year students at a pep rally the morning after receiving their white coats—the rite of passage for students beginning the journey to become physicians. With tortilla tosses and other icebreaker exercises, Silverberg was introduced to her fellow classmates, and the group of peers who would soon become her friends and mentors.

She said entering medical school is daunting, but being a part of a group of students who are sharing the same experiences makes it easier. "It's really important to have a group like this," she said. "I think it contributes something special. I feel like I'm part of a community."

## A pledge to help

The Houston-based JLH Foundation has made a pledge of \$356,415 to the University Transplant Center, a partnership of the Health Science Center and the University Health System.

Foundation funds will be used to support the personal needs of transplant recipients and their families, foundation officials said. The foundation was created to honor the memory of John L. Hern, a Houston businessman who in the late 1990s was hospitalized for 252 days awaiting a heart transplant.

During his hospital stay, Hern met and befriended patients who were waiting for transplants or who had just received transplants. He realized that many could not afford the associated costs, such as transportation, temporary lodging, restaurant meals, parking, co-pays and costly prescription drugs. He decided to help.

While he did undergo successful transplant surgery in December 1996, Hern died the following October after anti-rejection drugs failed. But his desire to financially assist transplant patients was realized shortly



(L-R) Ellis Tudzin, foundation trustee; Paula Hern, foundation chair and daughter of John Hern; Glenn Half, M.D., director of the University Transplant Center; Tom Barbour, foundation trustee and husband of Paula Hern; and Jennifer Milton, M.B.A., B.S.N., CCTC, administrative director and clinical assistant professor of the University Transplant Center.

thereafter with the establishment of the JLH Foundation, funded by profits from companies he owned.

Over the years, the foundation has established relationships with several nonprofit transplant entities and initiated donor awareness programs, primarily in the Houston area.



## Forging a connection Father, daughter unite to support students

Julie Barnett, D.P.T., M.T.C., PT, respected the work of her father, a general surgeon, so much that she decided to follow his path to medicine. It seemed natural for the two of them to create another connection years later.

Dr. Barnett and her father, Duane Barnett, M.D., now retired, have established the Barnett Endowed Scholarship in the School of Health Professions. The \$10,000 gift will create an annual scholarship of \$500, awarded in perpetuity to first- or second-year physical therapy students.

"He came up with the idea, and I had always wanted to do something like that," said Dr. Barnett, a clinical assistant professor of physical therapy at the Health Science Center. "He loves building up students, always has. And he always is thinking the best of people and being a teacher and an educator. That's been my whole outlook, too. The apple doesn't fall far from the tree."

Creating the endowment was the right thing to do, Dr. Barnett said, to celebrate their shared passion for medicine and education.

"It feels like such a healthy emotional yet financially tangible way to have the heritage go on," she said. "That's what it's about. This combination for the two of us, it feels like one of those father-daughter things that I'm really proud of."

## New chair established

John H. Doran, M.D. '73, an internist in Odessa, Texas, has given \$500,000 to the Health Science Center to establish the John H. Doran, M.D., FACP, Endowed Chair in Peripheral Neuropathy.

Dr. Doran has been practicing in his native Odessa since graduating from the School of Medicine. He said he has long had an interest in giving back to the medical school and in advancing knowledge through research.

"There's a lot we need to know about peripheral neuropathy," he said. "I've seen an increase in the number of cases in recent years. There are more idiopathic [unknown] causes."

The endowment will support, among other areas, the investigation of pathophysiology, cell biology and biochemistry of neuropathy, the development of biological or biochemical drugs and participation in clinical trials designed to reduce or eliminate the disease process.

Alejandro Tobon, M.D., is the inaugural holder of the Doran Chair. He completed his medical education in Colombia followed by an internship at Drexel University. His neurology residency training was at the University of New Mexico and his neuromuscular medicine fellowship training followed at the University of Miami.



Alejandro Tobon, M.D.





## Gift to the deaf education program will benefit more children

The deaf education and hearing science program received a \$246,000 gift from the Oberkotter Foundation. It was the only university program in the country selected for a grant from the foundation this year, said Blane Trautwein, Ed.D., CED, assistant professor and program director.

The money will be used to create an online course about listening and spoken language outcomes for children with hearing loss. It will also go toward the program's main practicum school, Sunshine Cottage, which will create a teletherapy program for families of children ages 0 to 3 who have hearing loss, but who live too far away to get appropriate help, he said.

"To say that we're the only one chosen in the nation speaks fairly well for our program," Dr. Trautwein said. "We're pretty darn thrilled."

The first gift from the Oberkotter Foundation was in 2008, and over the years support has topped \$663,000. The foundation supports schools where children who are deaf or hard of hearing can learn listening and spoken language skills and develop their social, emotional, language and educational skills.

The Health Science Center's deaf education and hearing science program started in 2008 with three students. Today, with Dr. Trautwein and Sarah Ammerman, Ph.D., CED, at the helm, the program has grown to 21 students and is one of the largest in the country.

"Our program is all about making sure there are professionals out there who are knowledgeable enough and have the skills to be able to help the students use all this technology and all these great advances in medical sciences to their benefit," Dr. Trautwein said. "It's not just a matter of identifying children with hearing loss. You have to have trained professionals to make a difference."



**Blane Trautwein, Ed.D., CED, (top photo) and Sarah Ammerman, Ph.D., CED, (bottom photo) have grown the deaf education and hearing science program into a nationally recognized program since its inception in 2008.**



**Manjeet Rao, Ph.D. (right), assistant professor of cellular and structural biology, was one of several HSC faculty awarded research grants and faculty recruitment funds.**

## HSC researchers receive support from cancer institute

Nearly \$8 million in cancer-related research grants and faculty recruitment funds were awarded to the Health Science Center by the Cancer Prevention & Research Institute of Texas (CPRIT), surpassing previous amounts awarded by the same group.

HSC faculty competed with nearly 600 grant applicants to receive the highly competitive funds. They are:

- Amelie Ramirez, Dr.P.H., professor and director of the Institute for Health Promotion Research and associate director of Cancer Prevention and Health Disparities at the CTRC, with co-investigators Kipling Gallion, M.A., and Patricia Chalela, Dr.P.H., received \$1.4 million.
- Ricardo Aguiar, M.D., Ph.D., associate professor of medicine and biochemistry, received \$854,740.
- Devalingam Mahalingam, M.D., Ph.D., oncologist and assistant professor of medicine, received \$825,285.
- Patricia Dahia, M.D., Ph.D., associate professor of medicine, received \$881,146.
- Manjeet Rao, Ph.D., assistant professor of cellular and structural biology at the Greehey Children's Cancer Research Institute, received \$900,000.
- Thomas Boyer, Ph.D., professor of molecular medicine, received \$200,000.
- Daisy Morales-Campos, Ph.D., instructor/research of epidemiology and biostatistics at the Institute for Health Promotion Research, with Deborah Parra-Medina, Ph.D., M.P.H., professor of epidemiology and biostatistics, received \$149,985.
- Deborah Parra-Medina, M.P.H., Ph.D. and principal investigator Meizi He, M.D., M.Sc., Ph.D., at The University of Texas at San Antonio, received \$573,095.
- A recruitment grant for a potential faculty member was also awarded. Tim Huang, Ph.D., professor and chairman of molecular medicine, prepared this recruitment proposal that received \$2 million.

## Expanding reach

### \$3.7 million grant focuses on pediatric cancer patients throughout South Texas

Hispanic children have the highest incidence of cancer and the poorest outcomes. This is an especially critical issue for San Antonio, a city with a population that is more than 63 percent Hispanic.

The National Cancer Institute has awarded a \$3.7 million grant to pediatric oncologists at the Health Science Center to lead a consortium of regional providers in pediatric cancer research trials.

The grant is through the NCI's Community Oncology Research Program (NCORP), and it designates the area as one of 12 minority/underserved community sites in the United States, and the only NCORP site in Texas.

"Because we are a majority-Hispanic city and have such a large Hispanic population in the area we serve, it is essential that our children be included on national trials," said Gail Tomlinson, M.D., Ph.D., interim director of the Greehey Children's Cancer Research Institute at the Health Science Center.

The grant will focus on issues such as survivorship, the next big step in improving pediatric cancer care. It will also go toward cancer care delivery research, genetic counseling and support services, including consistent and accurate translation for families with language barriers.

Anne-Marie Langevin, M.D., professor and pediatric hematologist-oncologist at the Health Science Center and principal investigator on the grant, said the large scale of the grant and the area it covers means the best care is available to a larger number of families. The grant will target children in an area that extends throughout South Texas, from the Rio Grande Valley to Austin.



**Shafqat Shah, M.D., is a pediatric hematologist-oncologist at the Health Science Center. She's been treating 13-year-old Samantha Alvarez since she was 5, when she was diagnosed with an aggressive malignant brain tumor.**

"We know that children, adolescents and young adults treated on clinical trials tend to do better," she said. "With all the partners, we cover 90,000 square miles of Texas, and we offer families of children and young people with cancer access to a network of clinical trails."

The other grant partners include San Antonio Military Medical Center, Methodist Children's Hospital, Dell Children's Medical Center in Austin and Driscoll Children's Hospital in Corpus Christi.

The five-year grant replaces a federal pediatric cancer grant led by the Health Science Center for more than 23 years.



**Retired Maj. Gen. Byron C. Hepburn, M.D.**

## New Military Health Institute, director announced

Retired Maj. Gen. Byron C. Hepburn, M.D., was named director of the Health Science Center's new Military Health Institute.

Announced in September, the institute will improve the health of military service members, veterans and their families through collaborative education, research and clinical care.

Dr. Hepburn, whose military career spans 38 years, is a former commander of the 59th Medical Wing, Wilford Hall Ambulatory Surgical Center, Joint Base San Antonio-Lackland and director of the San Antonio Military Health System.

Prior to his selection as commander of the 59th Medical Wing, where he led the Air Force's largest medical wing, he served as

deputy surgeon general of the U.S. Air Force. In that role, he directed all operations of the Air Force Medical Service, a \$5.1 billion, 43,000-person integrated health care delivery system serving 2.4 million beneficiaries at 75 military treatment facilities worldwide.

He is a distinguished graduate of the U.S. Air Force Academy and one of only a few U.S. Air Force pilot-physicians. He completed a residency in family practice and holds an appointment as professor in the School of Medicine's Department of Family & Community Medicine. He also holds the titles of assistant dean for military health in the School of Medicine and associate vice president for the Health Science Center.





**STEVEN BAILEY, M.D.**, was inducted into the inaugural 2014 Class of Master Fellows of the Society for Cardiovascular Angiography and Interventions, the professional medical society for adult and pediatric invasive/interventional cardiologists. He is professor and chief of the Janey and Dolph Briscoe Division of Cardiology at the Health Science Center and is a cardiologist with UT Medicine San Antonio.



**PETER J. HOUGHTON, PH.D.**, was named director of the Greehey Children's Cancer Research Institute and holder of the Greehey Distinguished Chair for the Children's Cancer Research Institute. He will begin Dec. 1.



**CYNTHIA MOJICA, PH.D.**, is one of five new appointees to the Advisory Committee on Minority Health, overseen by the Office of Minority Health at the U.S. Department of Health and Human Services. Dr. Mojica is a researcher at the Institute for Health Promotion Research.



**JACQUELINE LEE MOK, PH.D.**, was named vice president for academic, faculty and student affairs. Most recently, she worked as vice president/chief of staff and secretary of the Board of Trustees at Johns Hopkins University, where she also was a presidential research fellow in 2013.

## On top of the world

Russel J. Reiter, Ph.D., and Charles L. Bowden, M.D., of the School of Medicine, are on Thomson Reuters' list of "The World's Most Influential Scientific Minds 2014."

Dr. Reiter, professor in the Department of Cellular and Structural Biology, is one of the world's leading experts on the sleep-regulating hormone melatonin, the pineal gland and circadian rhythms. He is recognized in the Biology & Biochemistry category.

Dr. Bowden, clinical professor in the departments of psychiatry and pharmacology who holds the Nancy U. Karren Endowed Chair in Psychiatry, is an internationally respected authority on bipolar disorder and mood-stabilizing medications. He is recognized in the Psychiatry/Psychology category.

"The Thomson Reuters recognition is one that conveys the competitiveness of The University of Texas Health Science Center at San Antonio on the world scientific stage," said William L. Henrich, M.D., MACP, president of the Health Science Center.

A key indicator of a scientist's influence in his field is the number of times his publications are cited in other publications. The honorees, including Drs. Reiter and Bowden, published the greatest number of highly cited papers in 21 broad fields between 2002 and 2012. Highly cited papers rank in the top 1 percent by citations for their field and year of publication, according to Thomson Reuters.



Russel J. Reiter, Ph.D.



Charles L. Bowden, M.D.

## High praise

Eight educators from the Health Science Center were selected as winners of the 2014 Regents' Outstanding Teaching Award From The University of Texas System.

Each honoree received \$25,000. This year the UT System awarded a total of \$2.4 million to top educators from its nine academic universities and six health institutions. The awards are among the largest and most competitive in the nation for rewarding outstanding faculty performance.

William L. Henrich, M.D., MACP, president of the Health Science Center, said the eight educators are deserving of the honor that recognizes leadership, service and passion for teaching.

"These innovative and inspirational educators are indicative of the culture of teaching excellence for which the Health Science Center is known," he said.

Those honored were:

- William P. Clarke, Ph.D., professor of pharmacology
- Archie A. Jones, D.D.S., M.B.A., professor of periodontics
- Linda M. McManus, Ph.D., professor of pathology
- Jay I. Peters, M.D., professor of medicine
- Linda Porter-Wenzlaff, Ph.D., M.S.N., RN, clinical associate professor of nursing
- Ruben D. Restrepo, M.D., RRT, FAARC, professor of respiratory care
- Ivy S. Schwartz, D.D.S., M.S.Ed., professor of general dentistry
- Frank J. Weaker, Ph.D., adjunct professor of cellular and structural biology.



**William Clarke, Ph.D. (left), was one of eight HSC educators selected for the 2014 Regents' Outstanding Teaching Award.**

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