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Message from the President

At the UNT Health Science Center we're creating healthy communities and much, much more. We're also helping locally, statewide, nationally and internationally to provide closure for loved ones of crime and disaster victims and reuniting trafficked children with their families. One day our work may lead to "customized" health care based on individual DNA. We explore these endeavors in this issue of *North Texas Health & Science.*

Because of work conducted by our scientists at the UNT Center for Human Identity, the family members of one more victim of 1970s serial killer John Wayne Gacy now know what happened to their loved one. Hundreds of Hurricane Katrina victims have been identified. Through its partnership with DNA ProKids, 13 abducted Haitian children have been identified and reunited with their parents.

Work by these pioneering scientists may one day lead to peronalized treatments based on an individual's DNA, an approach known as individualized medicine.

We also take a look at some of the dedicated people who put their expertise to work on behalf of our youngest patients. UNT Health is one of few practices in the area with a board-certified pediatric physical therapist. We also look in on a physician who specializes in osteopathic manipulative treatment for children, and we visit the lab of a physical therapy researcher who is using virtual-reality technology in an effort to diagnose very early autism. The younger a child is when diagnosed, the more effective the treatment.

We'll also learn about some of our compassionate and motivated Texas College of Osteopathic Medicine students who have helped increase the numbers of Asian Americans registered to donate their bone marrow for cancer treatment. They also are reaching out to the community in the fight against hepatitis B.

Whether providing peace of mind for families of victims, researching medical advances, caring for patients, or helping educate the public about health issues, the students and employees of the UNT Health Science Center are dedicated to improving our quality of life. We hope you enjoy this issue, and please contact us if you would like more information.

Scott B. Ransom, DO, MBA, MPH

CONTENTS

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On the cover -
The UNT Center for Human Identification has helped identify hundreds of crime victims, and its scientists likely will save lives.

UNT | HEALTH SCIENCE CENTER

It's not really like CSI — and yet it is.

The DNA work at the UNT Health Science Center is in the forefront of forensic research that helps law enforcement identify more victims and solve more crimes. And more families gain the closure of knowing that yes, that really is what happened to my loved one.

Our work also helps the living. UNTHSC researchers are helping stop human trafficking, provide prostitutes a path to a better life and make individualized gene-based medicine a reality.

> "We are the leading forensic DNA center in the United States, if not the world."
>
> ~ George Adams

George Adams, Director of the National Missing and Unidentified Persons System (NamUs) under a grant from the National Institute of Justice, during a media interview in 2009

George Adams, program manager for the University of North Texas Center for Human Identification (UNTCHI), is modest but proud. "We are the leading forensic DNA center in the United States, if not the world, under Dr. (Arthur) Eisenberg," said Adams, who is also the director of the National Missing and Unidentified Persons System (NamUs) administered by the Health Science Center for the National Institute of Justice.

The Center for Human Identification is located on the UNTHSC campus and is part of the Institute of Applied Genetics (IAG). It uses nuclear DNA, mitochondrial DNA (passed down through the maternal line) and sometimes Y STR DNA (carried on the Y chromosome) to identify human remains. The DNA from a bone or hair or tooth is compared to DNA from reference samples provided by relatives and DNA profiles in databases.

What sets UNTCHI apart is emphasis on mitochondrial DNA comparisons and the amplification techniques it uses on remains that have been deeply degraded, plus a "willingness to go out of our way to work with other labs," Adams says.

UNTCHI provides the DNA matching for more identifications than any other state except California. This dedication to the identification of human remains helps solve crimes and gives families closure.

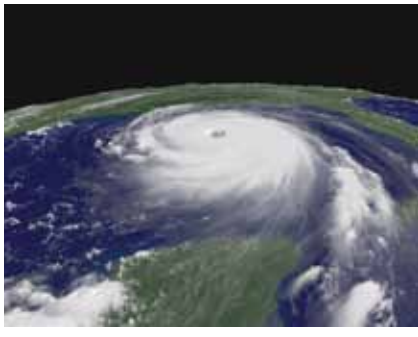
IAG is an interdisciplinary research institute under the auspices of the Health Science Center. Experts in genetics, genomics, microbiology, molecular biology, biostatistics and other disciplines perform research, development and services to support the society's needs.

In turn, IAG is part of the Health Institutes of Texas (HIT), UNTHSC's initiative to speed research from the bench to practical uses that benefit society.

UNTCHI's expertise means the center is regularly called upon to make identifications in high-profile criminal and disaster cases. See if any of these sound familiar:

A sweet little girl. It was major news when 6-year-old Opal Jennings was abducted while playing in a front yard in Saginaw, Texas, in 1999, but the extensive police investigation led nowhere. In 2003 bones and a skull were discovered near Lake Worth. Opal's mother provided a reference sample, which was compared to the mitochondrial DNA derived from an intact tooth. UNTCHI concluded with 99.9 percent probability the body was that of the long-missing girl.

Katrina's toll. When Hurricane Katrina ripped a swath of destruction across the Gulf states in 2005, UNTCHI dropped everything and volunteered to help identify victims. The state of Mississippi accepted the offer, and within 24 hours DNA sample collection kits were on their way. The center made identifications on hundreds of victims, at no cost to Mississippi, the work paid for by center funding from the National Institute of Justice.



The tale of Molly and Clayton. In 2005, Clayton Daniels' pickup ran off a cliff and exploded into a ball of fire. Police found charred remains inside the truck, but no skid marks on the road. Law enforcement officers asked UNTCHI to ID the body, though there were barely 15 pounds of remains. There was enough, though, to determine that the body was that of a female, eventually identified as a deceased elderly woman that Molly and Clayton Daniels dug up for an insurance-fraud scheme.

The Fort Myers eight. In 2007, eight male bodies were discovered on the edge of downtown in Fort Myers, Fla. UNTCHI agreed to help ID them, but said it would need reference samples. Florida law enforcement put out a plea via area media for relatives of missing men to supply DNA samples. More than 200 samples were submitted, and UNTCHI eventually identified three of the bodies.

John Wayne Gacy. In the 1970s, serial killer John Wayne Gacy raped and murdered 33 young men, then buried most of them in the crawl space of his Chicago home. Gacy, who liked to dress as a clown and perform at charity functions, eventually was convicted of murder and executed. Eight of the 33 bodies remained unidentified, however. Cook County, Ill., recently enlisted UNTCHI in identifying the remaining victims, and because of the center's work using new technology that wasn't available in the 1970s, another body was identified. Efforts are now under way to obtain more reference samples.

Family members of the identified victim gained closure after three decades of uncertainty about why their loved one disappeared.

Warren Jeffs. UNTCHI also makes identifications in criminal paternity cases. Forensic analyst Amy Smuts was a key witness at the summer 2011 trial of polygamist Warren Jeffs. Smuts testified that DNA analysis produced a 99.99 percent probability that Jeffs, head of the Fundamentalist Church of Jesus Christ of Latter-day Saints, was the father of a child born to a 15-year-old girl who is a member of the group.

DNA matching helps law enforcement identify suspects

Ranajit Chakraborty, PhD, professor of Forensic and Investigative Genetics, and his team analyze familial DNA from state databases of criminal offenders. For example, a family DNA link led to identifying Luther Franklin as the California "Grim Sleeper" murderer. The identification was made after his son, Chris Franklin, was convicted on a weapons charge and his DNA was put in the offender database.

Chakraborty is working with the states of Texas and New York to establish guidelines for use of familial DNA. Kansas and Louisiana likely will adopt similar guidelines.

The professor's future research may investigate matching highly heritable traits in genetic markers against eyewitness testimony. In such a situation, DNA markers can determine highly heritable traits that can be compared to eyewitness accounts and composite drawings. With new tools and a more robust database of offenders, he hopes to prevent false accusations and see violent criminals incarcerated before they cause more harm.




DNA work helps fight human trafficking throughout the world

Sometimes UNTCHI isn't just about closure for victims' families but can actually provide a happy ending. The center has joined with the University of Granada in Spain to combat international human trafficking through a program called DNA ProKids. Last year the center positively identified 13 Haitian children who had been abducted following the 2010 earthquake disaster and were being transported to Brazil and Argentina where they were to be illegally adopted. Following the identifications, the children were reunited with their parents in Haiti.

ProKids is an international humanitarian effort to deter human trafficking of children and help reunite abducted homeless children with their parents. Nearly 1 million people are trafficked across international borders annually, with half of them younger than 17. ProKids intends to record the DNA identity of children most vulnerable to exploitation and trafficking, whether through prostitution, forced labor or militant activities, or illegal adoptions.

Helping prostitutes start a new life is also part of UNTCHI's work. Prostitutes are 18 times more likely to be murdered than women of similar age and race, according to studies published in the American Journal of Epidemiology. UNTCHI is creating the High-Risk Potential Victims DNA Database to provide law enforcement a forensic tool to aid in postmortem identification of victims. The first of its kind in the nation, the database is part of the center's collaboration with the Dallas Police Department's Prostitute Diversion Initiative. This initiative brings resources to prostitutes to help them start new lives free of prostitution.

New chemical 'cocktail' could expedite DNA identification

Recent advances in forensic genetics include streamlining laboratory procedures. The Center for Human Identification has designed reagents, chemical agents to hasten the laboratory processing for mitochondrial DNA testing of family reference samples. Family reference samples are used in the Missing Persons Program to identify skeletal remains.

Mitochondrial DNA, or mtDNA, can be thought of as the smallest chromosome, and was the first significant part of the human genome to be sequenced. MtDNA is inherited solely from the mother.

Reagents are substances used in a chemical reaction to detect or measure other substances. The "cocktail" of reagents designed by the CHI work well given a sufficient quantity and quality of DNA. With this cocktail, scientists can replace time-consuming DNA extraction procedures with only a short incubation step.

In real life, as opposed to TV crime dramas, DNA analysis can take as long as six months to a year, especially for routine work or complicated cases. Urgent cases, such as those of missing children, naturally move to the front of the queue, so results can be produced more quickly.

The new product pre-mixes approximately 10 reagents, making reagent mixing unnecessary. Using this new process could reduce costs and labor, increase the number of samples processed and decrease the possibility of sample mix-up.

Work is proceeding to create a kit that can be easily transported to areas where remains are found, such as natural disaster sites.

Ranajit Chakraborty, PhD, with his team

DNA research is making individualized medicine a reality

How would it be to be able to skip all those doctor's office forms asking about every ailment you or your relatives ever had? That might be possible for the next generation. It's feasible our children or grandchildren will simply hand the nurse a card or chip detailing their genetic makeup, making those forms unnecessary.

Doctors are moving ever closer to matching treatment with the patient's specific genetics, furthered by the Health Science Center's work in DNA. Ranajit Chakraborty, PhD, professor in Forensic and Investigative Genetics, has done ground-breaking research in mapping disease genes.

In another application for the the technology, he is awaiting word from the National Institutes of Health on a proposal to study genetics' influence on how pain progresses from being acute to chronic. This is one of his collaborative projects with the University of Texas at Arlington.

He is also eager to work with the UNT System College of Pharmacy, set to open in 2013, on the interplay between genes and medicines.

In addition, as a member of the International Commission on Radiological Protection, Chakraborty is helping research the interaction of radiation and genes. He says it may be possible in the future to:

- Calculate on an individual level the consequences for a child who has been cured of cancer with radiation therapy, which can damage normal, healthy cells near the tumor.
- Provide personalized counseling on how much radiation exposure a person should have, weighing risks and benefits. For example: Genetic testing can tell whether a woman is at higher risk for breast cancer, and her physician can counsel her on whether being exposed to the radiation in imaging such as mammograms is safe in her specific case.

Another area of UNTHSC's research, a collaboration of Chakraborty with the Texas Osteopathic Research Center, could be beneficial to most since back pain is a common complaint. Researchers are studying genetic markers that will tell which types of treatment will benefit a specific person's back pain. For example, those with a genetic predisposition to stiff muscles will react differently to physical therapy than those with markers for supple muscles.

Myron Jacobson named founding dean of UNT System College of Pharmacy

UNT Health Science Center President Scott Ransom, DO, MBA, MPH, announced the appointment earlier this year of Myron "Mike" Jacobson, PhD, as the founding dean of the UNT System College of Pharmacy.

"After a national search we were very pleased to recruit a renowned expert on translational pharmaceutics, chemistry and research, an experienced academic leader in pharmacy education and a successful entrepreneur and businessman," Ransom said.

Added UNT System Chancellor Lee Jackson: "With the support of many key area legislators, the 82nd Legislature approved a UNT System College of Pharmacy to be supported by all of our campuses. This new program will be headquartered in Fort Worth. It is also a great benefit that Mike is familiar with the UNT Health Science Center from his prior experience in Fort Worth."

Thomas Yorio, PhD, professor of Pharmacology and Neuroscience, who is UNT Health Science Center provost and executive vice president for academic affairs, said the school would help create a more comprehensive health science center. "Dr. Jacobson is already hard at work forging strong relationships with all of our schools," Yorio said.

Jacobson, a member of the Arizona Cancer Center and most recently a professor of Medicinal Chemistry at the University of Arizona, Tucson, College of Pharmacy, holds a bachelor of science degree in chemistry from the University of Wisconsin – Platteville and a PhD in biochemistry from Kansas State University. He completed postdoctoral research at the University of Utah and at the Mayo Clinic.

Jacobson first joined the Health Science Center in 1984, serving as acting chairman of the Anatomy and Cell Biology Department from 1989 to 1992. In 1992 he was named chairman of Medicinal Chemistry and Pharmaceutics at the University of Kentucky College of Pharmacy. He joined the University of Arizona in 2000.

"The opportunity to educate future pharmacists in an academic health science center environment is great, not only for pharmacy education but also for training students in inter-professional education," he said. "Our graduates will be members of a health care team important for maintaining health and optimizing therapy."

His research, in collaboration with that of his wife, Elaine Jacobson, PhD, focuses on the effect of niacin and niacin-derived molecules on human health. They founded Niadyne Inc., a family of three biotechnology companies.

With more than 30 years of National Institutes of Health funding, Jacobson's research has contributed to new skin cancer prevention and treatments. In 2011, StriVectin skin damage repair products, using technology developed by the Jacobsons, received the Skin Cancer Foundation's Skin Sense award.

The UNT System College of Pharmacy will open in 2013. UNT in Denton and UNT Dallas will collaborate with the College of Pharmacy and expand pre-pharmacy undergraduate programs in pharmaceutical sciences, as well as provide housing for clinical programs with hospitals throughout the region.

A youngster awaits her physical therapy session.

Special programs for special patients

New research and clinical practices focus on freeing the potential in children

Taking care of the smallest among us poses a unique challenge to health professionals. Children are not miniature adults. They have special needs and require specialized care.

Three teams at UNT Health Science Center are addressing children's needs with programs designed just for kids. Using skill, technology and creativity, these experts are making life better for local youngsters, as well as conducting research that could help children around the world.

Nicoleta Bugnariu, PT, PhD, associate professor of Physical Therapy, helps a toddler "steer" a boat in what could become a virtual-reality test for autism.

Using advanced robotics and virtual reality to diagnose developmental disorders

The laboratory where Nicoleta Bugnariu, PT, PhD, associate professor of Physical Therapy, conducts her research confronts the visitor with an enormous treadmill surrounded by floor-to-ceiling screens. Fire up the projectors and software, and you're in a virtual environment designed to test the motor development of children with autism spectrum disorders. Call it video-game heaven but with a significant positive impact on quality of life.

One in 110 children is diagnosed with autism spectrum disorders, according to the Centers for Disease Control. The average age for diagnosis is 5 years, and the youngest age is about 2. Diagnosing children younger than 2 isn't possible because testing relies on social and communication skills that haven't developed yet. Still, experts agree that the earlier a child is diagnosed and starts therapy, the better the outcome.

Bugnariu wondered if there might be another way to diagnose a child earlier. "It's known that in adolescence and adulthood, individuals with autism have different patterns of gait and movement," she said. "If we could identify those differences in children, that would give us another path to diagnosis."

Bugnariu and Rita Patterson, PhD, are testing this theory by having children play in the lab's virtual environment. Patterson is professor of Osteopathic Manipulative Medicine and Director of the Osteopathic Heritage Foundation Physical Medicine Core Research Facility. As a child walks through a pretend forest and takes aim in a virtual shooting gallery, sensors measure balance and gait while cameras track movement patterns.

The UNTHSC virtual reality system is unique. There are four other similar systems in the U.S., all within the Department of Defense, but no other system in an academic setting.

Bugnariu and her team also watch children interact with a robot that has remarkably realistic traits. "Zeno," developed by Hanson Robotics and customized for this project by co-investigator Dan O. Popa, associate professor of electrical engineering at the University of Texas at Arlington, is a child-sized robot with facial features that can be

Rita Patterson, PhD, professor of Osteopathic Manipulative Medicine, places sensors on a child's hand before he hops aboard the treadmill for a balance test.

programmed to track and mimic human behavior. Bugnariu observes how children interact with the robot and measures their eye movements, facial expressions and hand motions.

The team studies children unaffected by autism as well as those with either a confirmed or suspected diagnosis. Tests will be repeated over time to determine when motor delays typically occur in children with autism. The goal is to develop new tools for diagnosing autism spectrum disorders, particularly for very young children, based on motor delays. "Earlier interventions will result in better outcomes for these kids," Bugnariu said.

Making physical therapy fun

Physical therapy for most adults means hard work, often to recover from illness or injury. The experience for children is more like play – at least if Yasser Salem, PT, PhD, has his way. Salem, associate professor of Physical Therapy, is devoted to making therapy enjoyable for his patients.

"Children want to play, so it's our job to make play part of therapy," he said. "We need to be creative. If a child wants to play with a particular toy, we make that toy part of the session."

Children are referred to physical therapy for a variety of conditions, including cerebral palsy, Down syndrome, spina bifida and developmental disorders. Children of all ages can receive therapy. Salem even works with newborn babies in the ICU.

Infants as young as two weeks old might need treatment for torticollis, a condition in which a child holds his or her head in a twisted position. Ideally, treatment starts as soon as a problem is identified to avoid improper movements or postures becoming ingrained.

"Sometimes children can develop tightness, contractions or stiffness from a particular condition, and they get used to that tightness and develop bad habits," Salem explained. "We want them to learn the healthy way to move."

After arriving in September, Salem began serving as a consultant through the Health Science Center's Patient Care Center and teaching in the physical therapy program. He is among a handful of therapists nationally who have board certification in both pediatric and neurological specialties. One of his goals is to help his students become board certified in pediatric physical therapy. "There are not many board-certified pediatric physical therapists in the United States," he said. "It's my aim to help my students reach that level."

Promoting health through osteopathic manipulative treatment

Many of the tiniest patients can be helped without medicines by using osteopathic manipulative treatment.

Yasser Salem, PT, PhD, associate professor of Physical Therapy, shows students how to use physical therapy with a toddler.

Sharon Gustowski, DO, MPH, with patient.

The treatment room where Sharon Gustowski, DO, MPH, works with her pediatric patients is a soothing environment. You can imagine falling asleep right on that bed in the center of the room. Children often start out nervous about what will happen, but after one session they're happy to come back. One 4-year-old was apprehensive on his first visit, Gustowski recalled, but "on his second appointment, he walked in, jumped on the bed and said, 'Can you do that again?' "

Gustowski, an assistant professor, both teaches and practices pediatric osteopathic manipulative treatment (OMT), a hands-on technique in which doctors gently move muscles, joints and connective tissue. OMT can help improve the health of children from newborns to teenagers as well as prevent and treat ailments ranging from colic to ear infections, sports injuries to developmental delays. Newborns are a special focus for Gustowski. She has found OMT effective in cases of excessive crying or spitting up, difficulty feeding, even torticollis and plagiocephaly, a condition when infants' heads become misshapen.

> "If you can do something that's going to help them walk better, look better, eat better, grow better, and be out of pain, then you can help them be a more productive, happy person."
>
> ~Sharon Gustowski

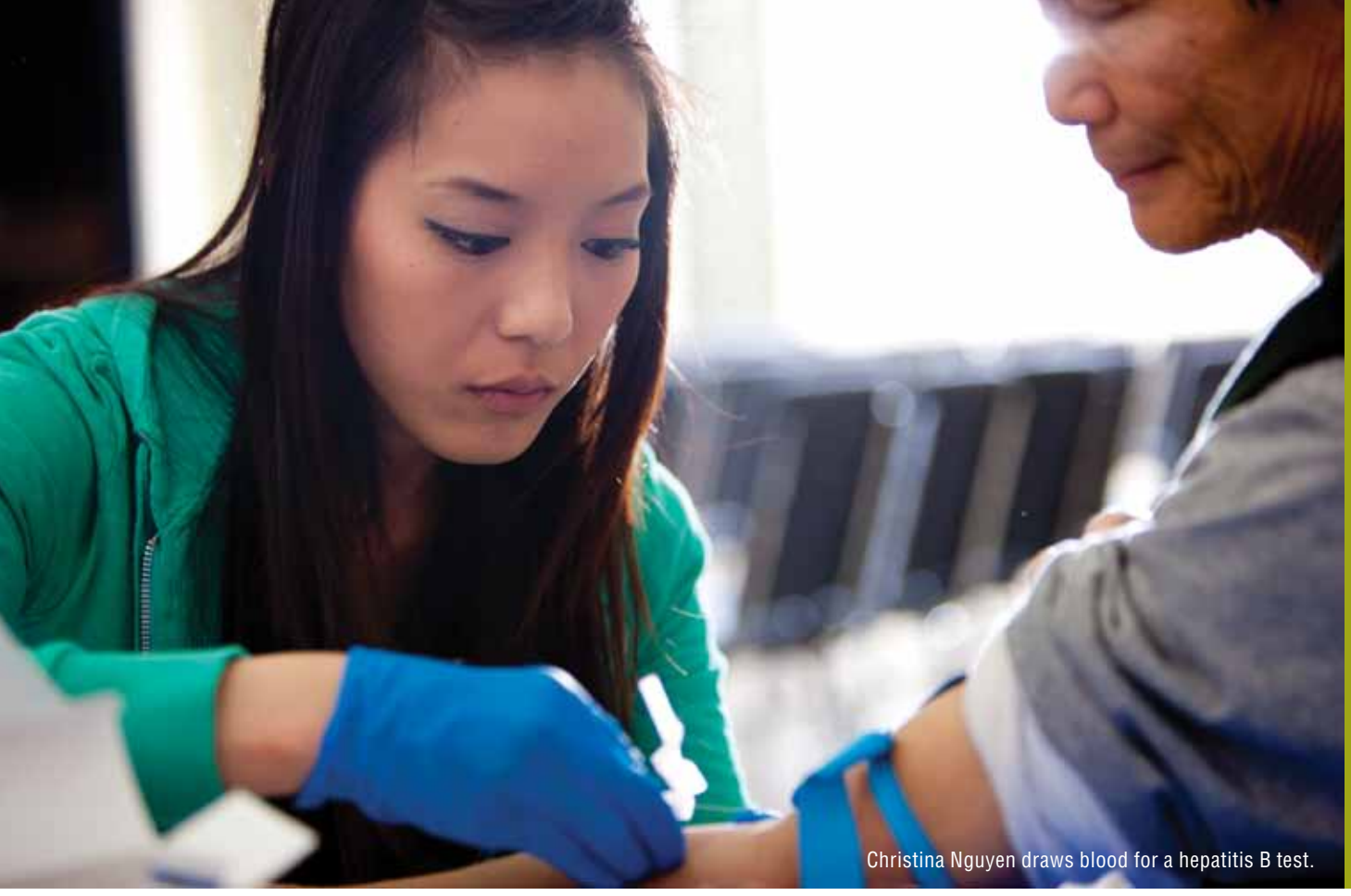
In addition to teaching OMT to second-year medical students, Gustowski is developing a pediatric OMT practice at UNT Health and expanding awareness of the technique within the community. Although around the nation OMT is used in pediatric patients as much as it is used in adults, Gustowski says many parents in North Texas aren't aware that it is available.

"We're here to focus on the total health of the child," Gustowski said, "and to help the child's body heal itself."

Opening possibilities in pediatrics

If pediatric practices at UNTHSC have a theme beyond the care of children, it is a focus on fulfilling kids' potential. Through earliest possible diagnosis of autism, Bugnariu wants children to receive the treatment that will help them succeed in life, at the time when it will benefit them most. Through physical therapy appropriate for growing bodies and fun for playful minds, Salem can remove physical barriers to a child's development. Through hands-on care, Gustowski promotes health and enables children to thrive.

"Children have so much potential," Gustowski said. "If you can do something that's going to help them walk better, look better, eat better, grow better, and be out of pain, then you can help them be a more productive, happy person."



Christina Nguyen draws blood for a hepatitis B test.

Hepatitis B and the Asian-American community

Two Texas College of Osteopathic Medicine (TCOM) students have directly touched almost 600 lives and created a partnership to address a health issue that disproportionately targets Asian-Americans – hepatitis B.

The numbers tell a heartbreaking story:

- Of the 2.2 million chronic hepatitis B carriers in the United States, half are Asian-Americans.
- One in 10 Asian-Americans has the virus.
- About 70 percent of those infected will not know it until the disease progresses to cirrhosis of the liver or liver cancer.

The National Institutes of Health (NIH) estimates that the incidence of liver cancer in Chinese, Filipino, Japanese, Korean and Vietnamese people is between two and 11 times higher than among white Americans. The disease also is prevalent among those from the southern Asia countries of India and Pakistan.

And Asians are much more likely to develop liver cancer as a result of the infection.

This has significant implications for Fort Worth, which has about 27,000 Asian-Americans – a population roughly the size of Southlake.

Beenish Bhaidani and Christina Nguyen, both members of the TCOM Class of 2013, knew the situation couldn't continue. As officers in the Health Science Center's Asian Pacific American Medical Student Association (APAMSA), they began incorporating hepatitis B education into their community health screenings last year. They also initiated a collaboration with the UT Southwestern APAMSA chapter to develop a regional program called "Hepatitis B Free DFW" that provides screening, vaccinations and follow-up.

"If you get vaccinated before exposure, you can prevent hepatitis B," Bhaidani said. "And if you diagnose it early, you can monitor it closely and it's less likely to get to the point of cancer."

Beenish Bhaidani prepares samples for testing at a community event.

Asian countries have a high incidence of infection, and 70 percent of Asians living in the United States were born overseas, according to the NIH. Those born overseas are more likely to contract the disease from their mothers during birth. The earlier the infection begins, the more likely the patient is to develop cirrhosis of the liver or liver cancer.

Hepatitis B often produces only vague symptoms: fatigue, loss of appetite, nausea, pain near the liver, or jaundice. "We need to provide earlier screening and prevention (starting at age 30), especially in Asian-Americans born overseas," Nguyen said. "We want to make the population more aware of hepatitis B and encourage them to visit a physician."

Patients also need to know which screening tests to request, Bhaidani said. "Many people are tested for the hepatitis B surface antibodies, but they also need to be tested for additional antigens and antibodies to determine their status."

Nguyen and Bhaidani realized they could magnify their efforts by partnering with UTSW's APAMSA group. With a substantial member base, they were able to attract large grants for screening and follow-up, including one from Quest Labs. They likely have saved lives.

"We had some positive test results, and physicians are following up with those patients," Bhaidani said.

The TCOM students are educating their classmates about the increased incidence of the disease in Asian-Americans. The two students delivered a lecture that received positive feedback.

"A lot of our classmates said they would definitely watch and screen for this in their future practices, especially among their Asian-American patients," Nguyen said. She and Bhaidani also arranged for a presentation on protection against needle stick injuries.

"As part of the health care community, we have to worry about needle stick injuries on the job," Nguyen said. "Everyone thinks of possible HIV infection first after a stick, but the hepatitis B virus is

> "Health has a significant impact on quality of life – more than many other factors. That drew me in and keeps me here. I chose TCOM because of how involved it is in the community."
> ~Beenish Bhaidani

TCOM students Mai-Anh Tran Ngoc, Lisa Nguyen, Nathan Mielke and Robert Yang at a screening event for hepatitis B

not only more contagious, it also lives longer on dry surfaces outside the body. We wanted our classmates to know that you also need to test for hepatitis B after a stick injury because it is important to take prophylactic precautions against it."

The students' passionate involvement with this issue makes sense when learning why they chose to become physicians.

"I have always been drawn to math and science, but I am also drawn to people," Nguyen said. "I chose to go to medical school because I love the challenge of taking care of people."

Bhaidani: "Health has a significant impact on quality of life – more than many other factors. That drew me in and keeps me here. I chose TCOM because of how involved it is in the community."

Few Asians in bone marrow registry; donation easier than ever

Bone marrow transplants often are the only treatment for medical conditions such as leukemia, lymphoma, sickle cell, immunodeficiencies and Hodgkin lymphoma, but the patient's tissue must match the donor's. A match is much more likely between people of the same ethnicity. Asian-Americans represent a small percentage of those registered with the National Marrow Donor Program, making it difficult to find a match.

Beenish Bhaidani and Christina Nguyen, both TCOM Class of 2013, want to increase those odds. So they have conducted bone marrow registration events at TCOM's annual DO Dash run last fall and in Asian neighborhoods. As a result, close to 100 Asians have registered.

Nguyen pointed out that "there are new procedures for registration and donation, and we want to get the word out there." Most donations involve only a blood donation, making the previously required needle sticks in the hip no longer necessary. Instead, new technologies stimulate the bone marrow into producing new red blood cells, making it a donation possible with only a blood draw – a procedure called a peripheral blood stem cell donation.

Registering is even easier.

"Many people don't realize the registration process is not invasive," Bhaidani said, adding that a cotton swab rubbed inside the cheek is all it takes to have tissue typed and added to the national bone marrow registry.

"Less than 2 percent of Asians are registered," Nguyen added. "If we could increase the number of all Asians registered, we could increase the chance of

Christina Nguyen, left, registers bone marrow donors at the 2011 DO Dash, which is organized by TCOM students.

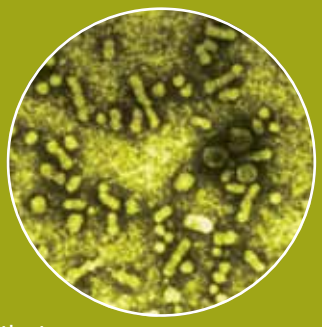
finding a match."

Anyone interested in registering with the National Marrow Donor Program may sign up at the "Be the Match" national registry at www.marrow.org.

BE THE MATCH®

National Marrow Donor Program
www.marrow.org

What is hepatitis B?



Hepatitis B is a liver disease that is most often spread from an infected mother to her infant at birth. But it also is spread by:

- Sexual or wound-to-wound contact.
- Contact with items that may have blood on them (shaving razors, syringes, toothbrushes, tattoo needles).

It is not spread through casual contact such as shaking hands or hugging, nor by sharing food or beverages, sneezing or coughing.

Hepatitis B is called a "silent killer" because there may be no symptoms. Most people learn they have chronic hepatitis B when they develop symptoms of severe liver damage, which may include jaundice, fatigue, nausea, loss of appetite, weight loss, a swollen stomach or ankles or spider-like blood vessels (called spider angiomas) that develop on the skin.

Vaccinations are available for hepatitis B.

(Source: National Digestive Diseases Information Clearinghouse, National Institutes of Health)

Testing for hepatitis B

If you are at risk, ask your doctor for these blood tests:

- **Hepatitis B surface antigen** (HBsAg) Determines if the virus is present.
- **Hepatitis B surface antibody** (HBsAb or anti-HBs) Determines if you have successfully responded to the hepatitis B vaccine or have recovered from an acute hepatitis B infection, which would mean you are immune.
- **Hepatitis B core antibody** (HBcAb or anti-HBc) Determines if you have had a past infection or may be currently infected.

(Source: Hepatitis B Foundation)

TCOM student Nnenna Ejesieme in the simulation lab.

TCOM maintains top-50 ranking among primary care medical schools

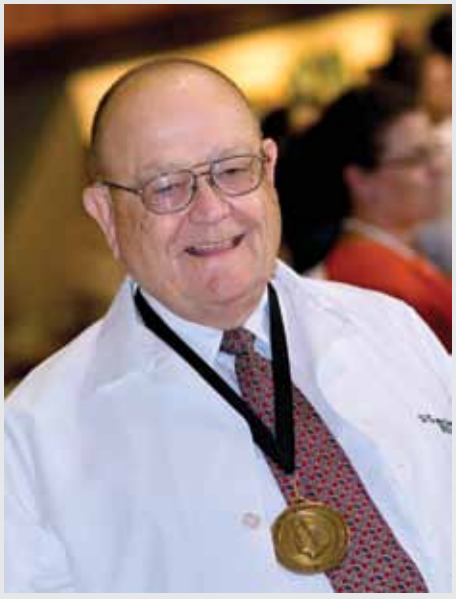
The Texas College of Osteopathic Medicine maintained its top-50 ranking for primary care in the 2013 *U.S. News & World Report* rankings, coming in at 35th. TCOM has ranked among the top 50 for primary care since 2003.

TCOM ranked second in the nation for primary care among osteopathic medical schools and second among all Texas medical schools. In addition, TCOM had the second-highest percentage of graduates entering primary care in the nation among all ranked medical schools (allopathic and osteopathic), 65.8 percent.

The UNT Health Science Center was also ranked the best in Texas and nationally ranked for the following areas:

- Rural Medicine — 12th
- Geriatrics — 15th
- Family Medicine — 16th

In Remembrance



T. Eugene Zachary, DO, former TCOM dean and vice president for academic affairs

T. Eugene Zachary, DO, former dean of the Texas College of Osteopathic Medicine and vice president for academic affairs, died Feb. 20. He was the namesake of Zachary College, one of six TCOM colleges that form a mentoring network to increase interaction between faculty and students.

Dr. Zachary was a professor emeritus of Family Medicine with a deep commitment to rural medicine. He served as vice president for academic affairs and as TCOM dean from 1984 to 1990. Most recently he was a part-time faculty member.

He held numerous leadership positions in the osteopathic profession, including speaker of the American Osteopathic Association (AOA) House of Delegates for 18 years, speaker of the Texas Osteopathic Medical Association House of Delegates for 17 years and speaker of the American College of Osteopathic Family Physicians House of Delegates for 20 years. At the time, he was the only person to hold all three positions simultaneously.

In 2007 he delivered the annual A.T. Still Memorial Lecture to the AOA House of Delegates in Chicago. It marked the first time the AOA invited someone from Texas to give the speech, which is named for the founder of osteopathic medicine. Also in 2007, Dr. Zachary received the Distinguished Service Award from the Texas Osteopathic Medical Association at its annual convention in San Antonio.

In 2008 he was honored with the T. Robert Sharp Meritorious Service Award from the Texas Society of the American College of Osteopathic Family Physicians in recognition of his outstanding service to the community, his profession and the organization.

More information about Dr. Zachary and his accomplishments is available in his obituary, published Feb. 23 in the *Fort Worth Star-Telegram*, www.star-telegram.com, and *The Dallas Morning News*, www.dallasnews.com.

Eugene Zachary, DO; Merilyn Richards, David Richards, DO; and James Hawa, DO ('77) in 1977

In the Community

Photos by Brightroom

The Cowtown:
A runaway success once again

More than 25,000 runners – a record – participated in this year's Cowtown races in February. The UNT Health Science Center was a presenting sponsor and also sponsored the event's half marathon. Some 351 UNTHSC volunteers helped keep events on course.

The Cowtown, founded by the Health Science Center in 1979, is the second-largest running event of its kind in Texas and one of the biggest in the nation. The Cowtown benefits CALF (Children's Activities for Life & Fitness).

At the Cowtown Expo, the UNT Health Fair provided free health screenings for hundreds of people. Many of our faculty, staff and students also ran in the six-event weekend.


HEALTH
Fair
UNT HEALTH
PATIENT SERVICES


UNT HEALTH
SCIENCE CENTER
UNT HEALTH
SCIENCE CENTER
TEXAS COLLEGE OF OSTEOPATHIC MEDICINE


THE COWTOWN
24364


3239


THE COWTOWN
32753


FINISH
Fort Worth, Texas
THE COWTOWN
UNT HEALTH
Star-Telegram
CHASE

Facility Update

Library courtyard to transform Health Science Center's look

The face of the Health Science Center campus as seen from Montgomery Street is being transformed with the creation of a Library courtyard. When complete, likely in early 2013, the project will create an outdoor commons with a view of the Library from Montgomery.

The courtyard and landscaping will help provide much-needed green space and an attractive, inspiring spot for study, discussion and reflection.

Building debris sorted and ready for recycling

- **In progress: Demolition Phase I**
  The Education Annex buildings at 901 and 999 Montgomery have been demolished. The circle drive and covered passenger drop-off on the north end of the Everett Education and Administration building are closed and will not reopen. Delivery areas will be indicated with signs. The circle drive in front of the UNT Health Patient Care Center will remain.
- **June/July: Demolition Phase II**
  The entire area from Montgomery Street to the faces of the Library, the Research and Education building, and the Everett Education and Administration building will be under construction. The multiple elevations in this area will be flattened to eliminate many of the steps and ramps.
- **July 2012-January 2013: Construction**
  The finished courtyard will create more green space (a recent survey found that, including rooftops, 96 percent of campus surfaces are impervious), blend with neighboring landscapes and make extensive use of drought-tolerant grasses and trees.

Features will include:

- Bicycle racks
- Passenger drop-off area on Montgomery Street
- Water feature with "bubbler"
- A narrow and shallow stream flowing from the bubbler, dipping beneath the main walk that leads to the Library entrance, then flowing to a still pool at the north side of the walk. The stream will feature a subtle waterfall effect. During droughts, it will be possible to turn off the bubbler or the stream.
- Environmentally friendly surfaces of porous decomposed granite.

Concept drawings provided by GSBS Architectural

Concept site plan. Drawings provided by GSBS Architectural

Demolition in progress as viewed from the library

Concept, south view

A clean palette

Concept, north view

UNT | HEALTH PATIENT SERVICES

Health Science Center physicians are Top Docs

Many UNT Health clinicians' fellow health care providers honored them recently in surveys conducted by *Fort Worth, Texas* magazine. They practice in clinics and hospitals across Tarrant County.

Cardiology
Randall Hall, DO, BS
David Slife, DO
Balaji Veerappan, MD
Martin Weiss, DO

Infectious Disease
Barbara Atkinson, DO

Gastroenterology
Monte Troutman, DO

Geriatrics
Janice Knebl, DO, MBA
Amy Moss, DO

Internal Medicine
Kathleen Crowley, MD

Palliative Care
Alvin Mathé, DO

Pediatrics
Toyya Goodrich, DO
John Podgore, DO, MPH

Podiatry
Brian Carpenter, DPM
Alan Garrett, DPM
Travis Motley, DPM

Psychiatry & Behavioral Health
Cheryl Hurd, MD
Prema Manjunath, MD
LaKeisha Marsh, MD
Carol Nati, MD, MS
Alan Podawiltz, DO, MS
Leslie Smith, MD
Scott Winter, MD

Sports Medicine
Brian Webb, MD

Thoracic/Vascular Surgery
Albert Yurvati, DO

Our physicians are Super Docs

Texas Monthly magazine heralded 10 UNT Health physicians as "Texas Super Doctors 2011" in its December issue. More than 40,000 doctors statewide were asked to nominate physicians they would choose in seeking medical care.

The same 10 UNT Health physicians were listed in the previous year's edition. Those named and their specialties:

- William Bowman, MD, hematology
- Kathleen Crowley, MD, internal medicine
- Gary Etter, MD, psychiatry
- John Fling, MD, allergy & immunology
- David Lichtman, MD, orthopedic surgery
- Arvind Nana, MD, orthopedic surgery
- Alan Podawiltz, DO, psychiatry
- Russell Wagner, MD, orthopedic surgery
- Martin Weiss, DO, cardiology
- Scott Winter, MD, psychiatry

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UNTHSC Health Care Heroes honored by *Business Press*

The *Fort Worth Business Press* honored several Health Science Center employees as 2012 Health Care Heroes this spring.

Mark DeHaven, PhD, executive director of the Texas Prevention Institute, and Jan Jowitt, RN, DHA, PhD, director of Nursing and Central Services for UNT Health, were among the 22 people and organizations honored.

DeHaven, professor of Behavioral and Community Health and of Family Medicine, has been involved in community health improvements and community-based research for nearly two decades. He spearheaded the GoodNEWS project with African-American churches in Dallas to prevent heart disease, and has promoted community gardening.

Jowitt also reaches out to the community. She helped provide care for Hurricane Katrina and Hurricane Ike evacuees. Not long ago, after observing a rush-hour accident on Interstate 30, she was the first responder to an injured young woman and took the proper care until paramedics arrived.

An alumnus, Jeff Beeson, DO (TCOM '05), also was honored as a Health Care Hero. He is medical director of the Emergency Physicians Advisory Board of MedStar EMS.

Also, UNTHSC received two special awards as part of the 10th anniversary celebration of the Health Care Heroes awards:

The Texas College of Osteopathic Medicine (TCOM) was presented the HEROES Health Care Award recognizing research, education and clinical care that address military service members' needs. Don Peska, DO, MEd, and TCOM dean, accepted the award on behalf of TCOM.

Carl E. Everett, DO, was honored with a lifetime achievement award for his role as a leader in health for the Fort Worth community. He was one of three founders of TCOM, and his association with and support of the school spanned more than 60 years. He also served a lengthy term on the board of directors of the Osteopathic Medical Center of Texas and a year as chief of staff. His later career was spent in the nursing home business.

Mark DeHaven, PhD

Jan Jowitt, RN, DHA, PhD

Carl E. Everett, DO

Photos by Glen Ellman/*Fort Worth Business Press*

First President's Faculty Awards are presented

Scott Ransom, DO, MBA, MPH, presented his first President's Faculty Awards the evening of Jan. 19 to 64 faculty members, recognizing contributions in education, research and clinical care. Each faculty member received a medal and a cash award.

In each of the three areas a Silver and a Gold honoree also received a glass trophy.

Russell Gamber, DO, receives his award from Kathleen Forbes, MD.

Clinical Excellence recipients

Educational Excellence recipients

Michael Connors, PT, DPT, MPT, and family

Research Excellence recipients

Clinical Excellence

Gold Award Recipient

Frank DeLeon, MD
Obstetrics & Gynecology

Silver Award Recipient

Albert Yurvati, DO
Surgery

Additional Recipients

Barbara Atkinson, DO
Internal Medicine

Khoi Chu, MD
Obstetrics & Gynecology

Ramon Cintron, MD
Community Medicine

Michael Connors, DPT
Physical Therapy

Hedieh Davanloo, MD
Internal Medicine

Kathleen Donaldson, CNM, NP
Obstetrics & Gynecology

Kathryn Edwards, MD
Pediatrics

Peter Elliott, MD
Obstetrics & Gynecology

Russell Gamber, DO
Osteopathic Manipulative Medicine

David Grissom, MD
Community Medicine

Kollier Hinkle, MD
Obstetrics & Gynecology

G. Sealy Massingill, MD
Obstetrics & Gynecology

Maya Namboodiri, DO
Community Medicine

Arvind Nana, MD
Orthopedics & Podiatry

Joseph Pallone, MD
Obstetrics & Gynecology

Christopher Stevens, MD
Obstetrics & Gynecology

Marlene Tham, DO
Osteopathic Manipulative Medicine

Russell Wagner, MD
Orthopedics & Podiatry

Brian Webb, MD
Orthopedics & Podiatry

Scott Winter, MD
Psychiatry & Behavioral Health

Educational Excellence

Gold Award Recipient

Michael Connors, DPT
Physical Therapy

Silver Award Recipient

Kirk Barron, PhD, PA-C
Physician Assistant Studies

Additional Recipients

Subhash Aryal, PhD
Biostatistics

Swati Biswas, PhD
Biostatistics

Erin Carlson, PhD
Health Management & Policy

Abbot Clark, PhD
Cell Biology & Anatomy

Christopher Cooper, MPAS, PA-C
Physician Assistant Studies

Thomas Diver, MPAS, PA-C
Physician Assistant Studies

Ladislav Dory, PhD
Molecular Biology & Immunology

Martha Felini, PhD, DC
Epidemiology

Laurie Hill, PA-C
Physician Assistant Studies

Lisa Hodge, PhD
Molecular Biology & Immunology

Claire Kirchhoff, PhD
Cell Biology & Anatomy

Raghu Krishnamoorty, PhD
Cell Biology & Anatomy

Henry Lemke, MMS, PA-C
Physician Assistant Studies

Robert Mallet, PhD
Integrative Physiology

Rustin Reeves, PhD
Cell Biology & Anatomy

Rhonda Roby, PhD
Forensic & Investigative Genetics

Harold Sheedlo, PhD
Cell Biology & Anatomy

Meharvan Singh, PhD
Pharmacology & Neuroscience

David Sterling, PhD
Environmental & Occupational Health

Joseph Warren, PhD
Forensic & Investigative Genetics

Research Excellence

Gold Award Recipient

James Simpkins, PhD
Pharmacology & Neuroscience

Silver Award Recipient

Arthur Eisenberg, PhD
Forensic & Investigative Genetics

Additional Recipients

Kathryn Cardarelli, PhD
Epidemiology

Abbot Clark, PhD
Cell Biology & Anatomy

Mark DeHaven, PhD
Behavioral & Community Health

Michael Forster, PhD
Pharmacology & Neuroscience

Anuja Ghorpade, PhD
Cell Biology & Anatomy

Marina Gorbatyuk, PhD
Cell Biology & Anatomy

Zygmunt Gryczynski, PhD
Molecular Biology & Immunology

Janice Knebl, DO
Internal Medicine

John Licciardone, DO
Medical Education

Robert Luedtke, PhD
Pharmacology & Neuroscience

Rong Ma, MD, PhD
Integrative Physiology

Steve Mifflin, PhD
Integrative Physiology

John Planz, PhD
Forensic & Investigative Genetics

Ann Schreihofer, PhD
Integrative Physiology

Jerry Simecka, PhD
Molecular Biology & Immunology

Dong Su, PhD
Molecular Biology & Immunology

Robert Wordinger, PhD
Cell Biology & Anatomy

Shaohua Yang, MD, PhD
Pharmacology & Neuroscience

Thomas Yorio, PhD
Pharmacology & Neuroscience

Joseph Yuan, PhD
Integrative Physiology

News

Janice Knebl chairs National Board of Osteopathic Medical Examiners

Janice Knebl, DO, MBA, professor of Internal Medicine and endowed chair of Geriatrics, recently was named chair of the National Board of Osteopathic Medical Examiners.

NBOME is a not-for-profit corporation that tests the medical knowledge of aspiring osteopathic physicians. This testing provides the pathway to licensure for osteopathic physicians in the U.S.

Knebl was named the Dallas Southwest Distinguished Endowed Chair in Clinical Geriatrics in 2003 and has been chief of Geriatric Medicine since 1988. In 2009 she became project director of the Health Science Center's Reynolds Geriatrics Education and Training in Texas (GET-IT) program, which helps meet the growing need to train physicians in caring for a geriatric population.

She has been a member of the NBOME board of directors since 1999. In 2003 she was elected to the executive committee, and from 2005 to 2009 she served as secretary/treasurer. Since 2009 she had served as vice chair.

TCOM earns accreditation with commendations

The American Osteopathic Association's Commission on Osteopathic College Accreditation (COCA) recently confirmed the continuing accreditation of the Texas College of Osteopathic Medicine for seven years. TCOM received commendations for its teaching academy, rural education and research.

COCA is recognized by the U.S. Department of Education and ensures that the quality of colleges of osteopathic medicine reflects the evolving practice of the profession.

Conference to address HRT and brain aging

The effects of hormone replacement therapy (HRT) on brain aging and Alzheimer's disease will be discussed May 31-June 1 at the Health Science Center. "Window of Therapeutic Opportunity for Estrogens and Progestins on Brain Aging and Alzheimer's Disease" will provide an authoritative update on new science and reanalysis of the five-year Women's Health Initiative Memory Study performed by the National Institutes of Health.

Leading scientists will share with physicians and neuroscientists the latest knowledge on whether a window of opportunity exists for hormone therapy in the treatment and prevention of cognitive decline in post-menopausal women. The conference reflects UNTHSC's efforts to help an aging female population maintain brain health.

Conference co-organizers are James Simpkins, PhD, professor in Pharmacology and Neuroscience; Meharvan Singh, PhD, chairman and professor in Pharmacology and Neuroscience; and Roberta Brinton, PhD, R. Pete Vanderveen Chair in Therapeutic Discovery and Development, School of Pharmacy, University of Southern California.

The conference precedes the American Aging Association's annual meeting on June 2 in downtown Fort Worth. Association president Michael Forster, PhD, professor of Pharmacology and Neuroscience, will chair the meeting.

TCOM students represent UNTHSC at DO Day on Capitol Hill

Students from the Texas College of Osteopathic Medicine were among more than 800 DO students and 200 physicians in Washington, D.C., for the annual DO Day on Capitol Hill on March 8.

This event gives DOs and osteopathic medical students the opportunity to meet with their Congress members and discuss issues important to the osteopathic medical profession.

More than 20 students represented TCOM at a policy briefing session. Speakers included American Osteopathic Association President Martin Levine, DO, and U.S. Rep. Bill Cassidy, MD.

Students visited the offices of Texas Sens. Kay Bailey Hutchison and John Cornyn, and U.S. Rep. Kay Granger. The students discussed health care-related proposed legislation with staff members.

TCOM celebrates National Rural Health Day

The Health Science Center marked the first National Rural Health Day on Nov. 17 with updates on rural health care in Texas.

Rural Health Day is a project of the National Organization of State Offices of Rural Health. Highlights from UNTHSC's event, sponsored by the Texas College of Osteopathic Medicine Rural Osteopathic Medical Education of Texas (ROME) program, included two TCOM alumni discussing how ROME enhanced their work.

"ROME rotations prepared me with nursing home visits, preparation for colonoscopies, surgeries – all knowledge you need for practice in rural communities," said Daniel McGilvray, DO, family medicine resident, John Peter Smith Health Network.

James Qualls, DO, family medicine resident, Waco Family Medicine Residency Program, praised ROME's clinical rotation program. "The skills I learned, especially procedural skills – and being one on one with an attending physician – offers training a lot of medical schools lack. During my rotation in Fairfield (Texas), I saw everything going on. I went over case after case with my attending physician."

Other speakers included Si Cook, Texas Farm Bureau director of organization; Linda Jones, MSPH, director of the State Office of Rural Health; and Don McBeath, director of advocacy, Texas Organization of Rural and Community Hospitals.

Shree Bose meets President Barack Obama.

Google Science Fair winner meets president at White House

Bose with television host Bill Nye, "The Science Guy"

When Alakananda Basu, PhD, professor in Molecular Biology and Immunology, began mentoring high school student Shree Bose in a science fair project, little did she know that her efforts would help her protégé earn the honor of meeting the president of the United States in the White House East Room.

Shree Bose, a student at Fort Worth Country Day, won the Grand Prize in the first international Google Science Fair (see *North Texas Health & Science,* 2011, Issue 3). Then in February, she kicked it up another notch as an invited guest at the second annual White House Science Fair. The event celebrated the achievements of students from 40 competitions around the country who excel in science and math.

Research Update

Developer of blood test for Alzheimer's joins UNTHSC

UNTHSC's focus on treating Alzheimer's disease continues to gain momentum from the university's participation in the Texas Alzheimer's Research & Care Consortium (TARCC), a collaborative effort of the Baylor College of Medicine in Houston, Texas Tech University Health Science Center, UT Southwestern Medical Center in Dallas and UT Health Science Center at San Antonio that started in 1999.

"The Texas Alzheimer's Research and Care Consortium has tremendous value for Texans as well as researchers at UNTHSC," said TARCC member Robert Barber, PhD, associate professor of Pharmacology and Neuroscience. "The results of consortium studies are yielding greater insight into the factors that impact risk and progression of Alzheimer's disease. The data and biological samples generated by the consortium are a resource that is fueling a large number of diverse and important research projects here in Fort Worth and across the state."

In 2010, researchers led by Sid O'Bryant, PhD, then with Texas Tech University, created a blood test for the disease; individuals in the Alzheimer's Disease Neuroimaging Initiative confirmed its accuracy. No other blood test has been independently validated as effective at diagnosing Alzheimer's. Although further validation is required, the test could change geriatric medicine. It could affordably be given yearly to all those over 65.

In January, O'Bryant joined the Health Science Center to further his research into Alzheimer's in Mexican-Americans. "This is the fastest aging population because it's the youngest, but little research has been done on Alzheimer's in this population," he said. "We will work with Dr. Janice Knebl and the geriatricians around Fort Worth to learn more about Alzheimer's disease. Eventually, we intend to look at the relationships between Alzheimer's and diabetes." Knebl is an osteopathic physician who is a TARCC member, UNTHSC professor and Dallas Southwest Osteopathic Physicians Endowed Chair in Clinical Geriatrics.

"We think Alzheimer's might look different in Hispanics than it does in Asians or African-Americans. Perhaps the genetic risk factor is less frequent in Mexican-Americans because there is less frequency in that population," O'Bryant said.

O'Bryant will begin recruiting patients for his

Sid O'Bryant, PhD

Sid O'Bryant, PhD, collaborating with James Simpkins, PhD, and Janice Knebl, DO, MBA.

study soon with the assistance of area physicians.

Health Science Center members involved in TARCC are Lisa Alvarez, MA, program coordinator I; Barber; Ranajit Chakraborty, PhD, professor, Forensic and Investigative Genetics; Glenda Dwight, research assistant; Thomas Fairchild, PhD, vice president, Strategy and Measurement; James Hall, PhD, professor, Psychiatry and Behavioral Health; Barbara Harty, RN, MSN, GNP, assistant professor, Internal Medicine; Knebl; Doug Mains, DPH, associate director, Strategy and Measurement; O'Bryant; Rhonda Roby, PhD, associate professor, Forensic and Investigative Genetics; John Planz, PhD, associate professor, Forensic and Investigative Genetics; James Simpkins, PhD, professor, Pharmacology and Neuroscience; and Stacy Turner, clinical research coordinator I.

New stickless method may offer diabetes test relief

Diabetes requires daily maintenance and frequent testing of blood-sugar levels that can challenge adults. It's an even bigger burden for children, who must use finger pricks to check their blood sugar levels each day and have blood drawn regularly for testing. But collaborative research at the UNT Health Science Center, UT Dallas, UTA, the Texas Health Research and Education Institute, and Texas Instruments on an e-strip that can measure the equivalent of hemoglobin A1C using saliva may save young patients from a painful step.

The small strip is inserted into a digital reader to determine blood glucose levels. While the test must be done in a physician's office, eventually the patient may be able to put the test strip on her tongue, then seal the strip in a special mailing envelope and send it to the lab. Diabetic children could avoid a painful process associated with their disease.

"Glucose levels can change daily," explained Nusrath Habiba, MD, assistant professor of Pediatrics. "We check the A1C levels via a blood test periodically (monthly, quarterly, yearly) to verify the average level in the blood cells.

"Saliva has a protein encasing the glucose that is similar to that of hemoglobin – blood. If the saliva results are as dependable as the hemoglobin test, it would be much less painful and invasive. Especially for children."

The e-strip is being tested on Type 2 diabetes patients at least 10 years of age. The results will be compared to those of the same gender and similar age. Results are expected this summer.

John Licciardone, DO, MS, MBA

Licciardone appointed to National Institutes of Health board

John Licciardone, DO, MS, MBA, executive director of The Osteopathic Research Center, has been named to the advisory board of the National Institutes of Health-National Center for Complementary and Alternative Medicine (NIH-NCCAM).

The board comprises a distinguished group of physicians, scientists, complementary health practitioners and members of the public, all representing a broad range of science and practice. They meet three times a year on the NIH campus in Bethesda, Md., to review grant applications and make recommendations on research priorities.

Alumni

Sixth annual PAS job fair

The Physician Assistant Studies Alumni Society supported the sixth annual job fair Feb. 24 in the Everett EAD Atrium.

More than 60 students visited 28 booths staffed by organizations including HLM Medical Management Firm LLC, the National Health Service Corp./Texas Primary Care Office, Dalke Professional Medical Staffing and Cleburne Pediatrics.

HLM Medical Management also provided door prizes.

The PA Studies program opened its doors in 1997 and now has more than 250 practicing alumni.

PAS students Jessica Bolfing and Roya Shariati meet Heidi Medcalf, PA-C ('04).

Painting by Soon Warren in UNTHSC's permanent collection

Advancement

Gift honors lifetime of helping others

Paula Perrone

Paul Perrone

Paula Perrone will never forget hearing her late father, Paul Perrone, tell his story of landing on the Normandy beaches during one of the bloodiest battles of World War II.

"He was a glider pilot," she said, "and he made a pact with God that if he survived he would spend the rest of his life helping others."

He did survive, and through the pharmacy he started after the war, spent the rest of his life helping others. And Paula and her family want to extend his legacy by providing a scholarship for students entering the new UNT System College of Pharmacy set to open in 2013. Their gift of $100,000 will establish the Paul Perrone Scholarship to support a student each year—the kind of individual who shares his commitment.

"This is the perfect way to honor him," Perrone said. "He was thankful to be alive, and he didn't renege on his promise. He did more than fill people's prescriptions – he would talk to them. He had the gift of being able to relate to and comfort people."

And he had a zest for life. He supported himself while attending pharmacy school through competitive bull riding, and he loved practical jokes.

"Dad never stood still," Perrone said. "He believed that scholastics do matter, and he never stopped learning. He believed that learning was part of the continuum of life."

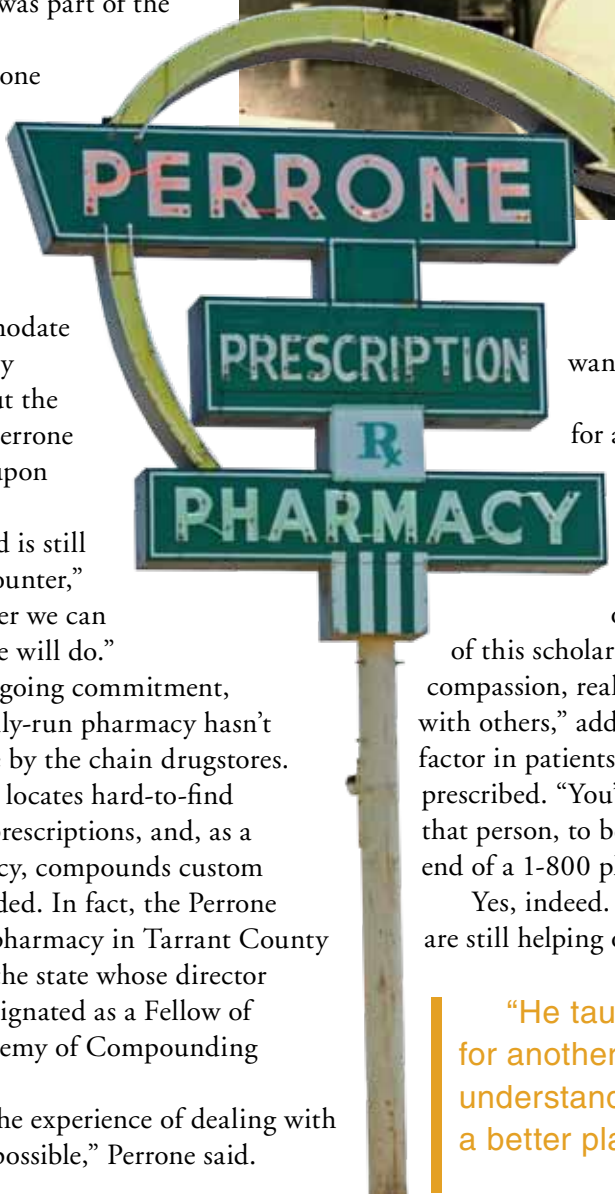
This year, the Perrone Pharmacy celebrates its 60th anniversary. The building, located at 3921 Benbrook Highway in Fort Worth, is undergoing renovations to accommodate the evolving technology used in pharmacies, but the philosophy that Paul Perrone founded the business upon remains the same.

"It's as though Dad is still standing behind the counter," Perrone said. "Whatever we can do to help someone, we will do."

Because of that ongoing commitment, Perrone said their family-run pharmacy hasn't been rendered obsolete by the chain drugstores. She said the pharmacy locates hard-to-find medications, delivers prescriptions, and, as a compounding pharmacy, compounds custom medications when needed. In fact, the Perrone Pharmacy is the only pharmacy in Tarrant County and one of only 15 in the state whose director of compounding is designated as a Fellow of the International Academy of Compounding Pharmacists.

"We try to make the experience of dealing with medication as easy as possible," Perrone said.

Paul Perrone behind the counter at Perrone Pharmacy.



It's what Paul Perrone would want.

"He taught us that compassion for another human being is the key to understanding and making the world a better place," Perrone said.

"Equally as important to our family is that each recipient of this scholarship exhibit that same gift of compassion, really reaching out and connecting with others," adding that can be an important factor in patients taking their medications as prescribed. "You've got to be able to connect with that person, to be more than just the person at the end of a 1-800 phone number."

Yes, indeed. Paul Perrone – and his family – are still helping others.

> "He taught me that compassion for another human being is the key to understanding and making the world a better place."
>
> ~Paula Perrone

To Your Health and a Healthier Community.

Annual Gala

The UNT Health Science Center showcased its School of Health Professions, which trains physician assistants and physical therapists, at UNTHSC's annual black-tie fundraiser gala Nov. 5. The event was themed "To Your Health and a Healthier Community."

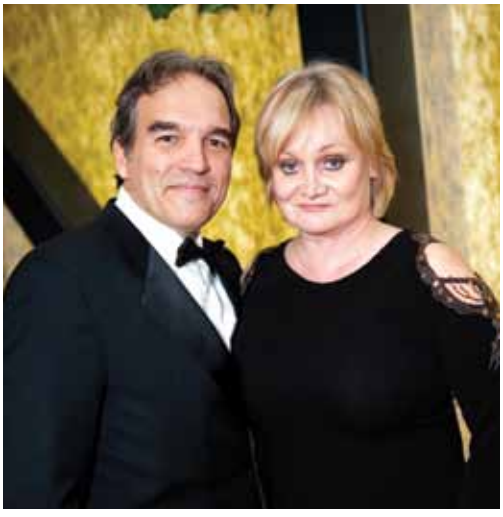
The gala, held at the Renaissance Worthington Hotel in downtown Fort Worth, attracted more than 600 community leaders, alumni, friends and supporters for gourmet dining, fellowship and live dance music. The gala also honored U.S. Congresswoman Kay Granger, who earned UNTHSC's Vision Award, given for outstanding service to the UNT Health Science Center.

President Scott Ransom, DO, with U.S. Rep. Kay Granger, who received the UNTHSC Vision Award

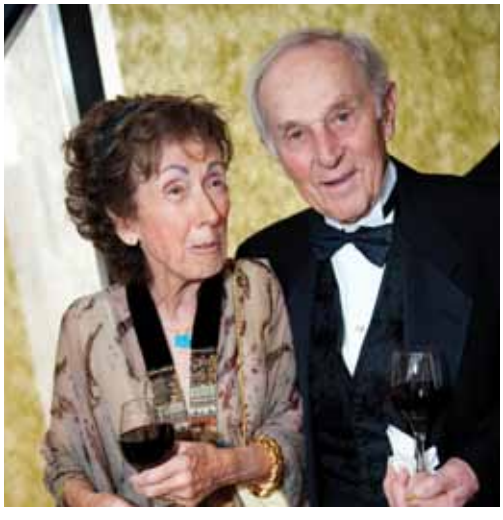
Fort Worth City Councilman Zim Zimmerman, Mac Zimmerman, and Greg Upp

Bob Mitchell; Nancy Mitchell; Paul Dorman; Terri Anderson; Scott Ransom, DO, and Elizabeth Ransom, MD

Elizabeth Ransom, Scott Ransom, Brenda Whitley, County Judge Glen Whitley, Travis Baugh, UNT System Chancellor Lee Jackson and Margaret Jackson



Al Yurvati, DO, and Sharon Yurvati



Beverly Weiss and Stanley Weiss, DO

Attendees celebrate at the gala, held at Fort Worth's Worthington Renaissance Hotel.

Donor Honor Roll *Lifetime Giving*

The UNT Health Science Center is deeply appreciative of our many friends and donors who have generously given over their lifetime to support the mission of our institution. Their ongoing commitment is a vital part of our success and growth.

Doctor of Philanthropy, $1,000,000+

Alcon
Alzheimer's Association
American Heart Association
Anne T. & Robert M. Bass
Bass Foundation - Mr. & Mrs. Edward P. Bass
Baylor All Saints Medical Center
Rebecca & I. Jon Brumley
Amon G. Carter Foundation
Dallas Southwest Osteopathic Physicians Inc.
Carl E. Everett
Clay W. Gilbert
Frederick & Cindy Hill
JPS Health Network
Life Technologies
Morris Foundation
Osteopathic Heritage Foundation Inc.
Martha Sue Parr Trust
Plaza Medical Center of Fort Worth/HCA North Texas
Donald W. Reynolds Foundation
Sid W. Richardson Foundation
Texas Health Resources
Albert & Sharon Yurvati

Founder's Vision Society, $500,000+

American Association of Colleges of Osteopathic Medicine
American Osteopathic Foundation
Cook Children's Health Care System
Susan G. Komen Foundation
Marianne & Alan Levine
The Miles Foundation Inc.
North Texas Affiliated Medical Group
North Texas Specialty Physician
Thomas M., Helen McKee & John P. Ryan Foundation
W. B. & Ellen Gordon Stuart Trust

White Coat Society, $100,000+

Abbott Laboratories
Anonymous
American Diabetes Foundation
American Osteopathic Association
AT&T Foundation
Richard D. Bass Foundation
Ronald R. Blanck
The Burnett Foundation
Cancer Research Foundation of North Texas
Community Hospital Foundation
Joe & Jessie Crump Foundation
DH Foundation
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