

UT ARLINGTON

Health

THE UNIVERSITY OF TEXAS AT ARLINGTON COLLEGE OF NURSING AND HEALTH INNOVATION

Hands-on Learning

UTA's Smart Hospital is reshaping education with state-of-the-science patient simulators.





CARRING

Valorie Andrews earned an exercise science degree at UT Arlington and decided to return to campus for a nursing degree. She's scheduled to graduate in May. It's been a busy year, including her pediatric rotation at Children's Medical Center in Dallas. She's seen the difference nurses make in the lives of patients. "My goal is to become a certified registered nurse anesthetist as well as get my Doctor of Nursing Practice," Andrews says.

CONTENTS



10 Head Games

Kinesiology Associate Professor Cindy Trowbridge is researching the best ways to educate parents to recognize the signs of concussions.



14 Meet the Sims

Students are gaining confidence as they master health care practices and procedures using state-of-the-science patient simulators in UT Arlington's Smart Hospital, a national demonstration center for simulation research.

02 Letter
Welcome from Dean Anne R. Bavier

03 Rounds
The latest research and academic activities

20 Follow Up
Alumni who are changing lives and inspiring others

23 Class Notes
See the latest alumni accomplishments

24 Parting Shot
Kinesiology Assistant Professor Priscila Caçola

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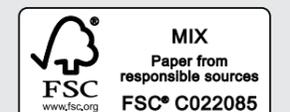
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On the cover: A student works on a patient simulator in the University's Smart Hospital. Photo by Joel Quintans.





“The college’s mission is to be the focal point for the University’s strategic focus on health and the human condition.”

A NEW ERA—a new magazine. I joined UT Arlington in August 2014 and shortly thereafter kinesiology and nursing combined to form the new College of Nursing and Health Innovation. The college’s mission is to be the focal point for the University’s strategic focus on health and the human condition. Our vision is to become the destination for those who wish to excel in research, education, and service that advance the human condition nationally and worldwide.

This is my third deanship. It is my favorite job throughout my varied career in education, government service, and numerous voluntary positions. This place is perfect for me—I thoroughly enjoy being dean. Our University is striving to become the model urban university. It is on the move! Creating new opportunities for discovery, education, and service is the hallmark of the college, and you will find some of the excitement on the pages that follow.

Both kinesiology and nursing are strong academic units with a total enrollment of more than 14,000 students—most are nursing students enrolled in online classes. We can be large because our faculty members never compromise quality in the expansion of programs. Our new nurses have pass rates on licensing exams that exceed the state and national averages, topping 90 percent, with a 90 percent-plus retention rate.

More than a thousand students are enrolled in our kinesiology program. Those taking exams to be certified as athletic trainers boast a remarkable 100 percent pass rate. Awesome!

I love to meet alumni and friends and will continue to be out and about seeking to meet you in person to tell the story of our college. Meanwhile, enjoy *UT Arlington Health* and get to know us better.

Anne R. Bavier, Ph.D., RN, FAAN
Dean, College of Nursing and Health Innovation



Nursing student Mercy Mumba is pursuing her Ph.D.

Enrollment grows to meet rising needs

Enrollment in UT Arlington’s College of Nursing and Health Innovation is surging as more students develop the skills required to meet employer demand and patient care needs.

The college is already the largest producer of baccalaureate-educated nurses in Texas and the largest not-for-profit college of nursing in the nation. Enrollment in undergraduate nursing programs jumped 118 percent from 3,925 to 8,557 between spring 2010 and spring 2015. Enrollment in graduate nursing programs is up 431 percent for the same period, rising from 595 to 3,162.

The increase comes as the health care industry works to meet the needs of aging Baby Boomers and provide preventive care to more people.

Research shows that registered nurses improve patient outcomes, says Beth Mancini, associate dean and chair of the Department of Undergraduate Nursing Programs, and that’s driving demand. She says many employers are encouraging and, in some cases, requiring their RNs with associate degrees to obtain a BSN.

“This is why we see so many nurses

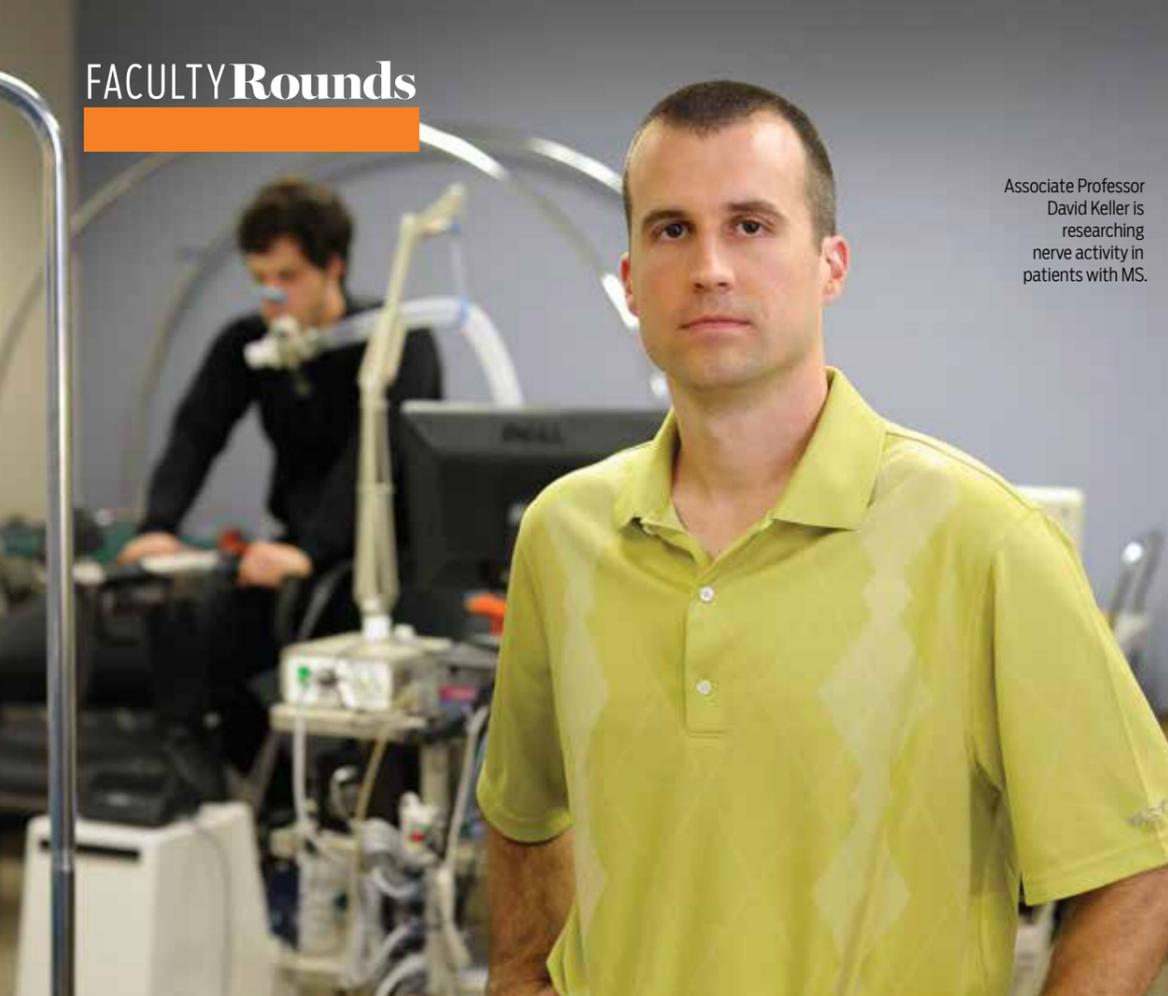
returning to programs such as ours,” Dr. Mancini says. “We provide high-quality, accessible, and affordable education.”

The nursing program’s graduates enjoy high success, with more than 90 percent passing their initial licensure exam on the first try. The college also gets top marks for increasing diversity. According to a report by *Diverse Issues in Higher Education*, UTA ranks third in the nation and highest in Texas for producing minority nurses with bachelor’s degrees.

In kinesiology, students enjoyed a 100 percent pass rate on the Texas Department of State Health Services Advisory Board of Athletic Trainers Licensing Exam, and 95 percent passed the National Board of Certification (BOC) Exam for Athletic Trainers (ATC credential) on the first try.

Coming this year is a new doctorate in kinesiology, a robust research degree that prepares individuals for scientific leadership in academic institutions.

The program shares courses with the Ph.D. in nursing, making it an innovative degree that has a strong interdisciplinary base.



Associate Professor David Keller is researching nerve activity in patients with MS.

A Show of Nerves

Research assesses nerve activity in multiple sclerosis patients

A UT Arlington kinesiology researcher and two colleagues made a major breakthrough while working to better understand blood pressure dysregulation and lightheadedness associated with multiple sclerosis (MS).

Associate Professor David Keller, along with Scott Davis of Southern Methodist University and Paul Fadel of the University of Missouri, successfully measured sympathetic nerve fiber activity—a function previously unmeasurable in MS patients.

“We were the first to report direct recordings of the electrical activity of the sympathetic nerve fibers important for blood flow and blood pressure regulation,” Dr. Keller says.

Backed by grants from the National Multiple Sclerosis Society and National Institutes of Health, he explores how the nerves under the control of the autonomic nervous system help keep blood pressure stable. It’s similar to the way a wall thermostat maintains room temperatures by sending

electrical signals to turn an air conditioner on and off.

Using a technique called microneurography, Keller and his colleagues directly measured the electrical activity of nerves that signal blood vessels to constrict or relax.

“All three of us were able to combine forces and share our expertise and experience with the microneurographic technique,” Keller says. “We were able to systematically approach it in a way that others had not been successful in the past. We were the first to demonstrate it can be measured in this group. That was a big hurdle.”

“Reduced Spontaneous Sympathetic Nerve Activity in Multiple Sclerosis Patients” was published in the *Journal of the Neurological Sciences* in September 2014.

“What we show in our paper is that compared to healthy, age-matched control subjects, it appears there are marked differences in the activity of those nerves at rest in individuals with multiple sclerosis,” he says.



Professor appointed to MEP advisory board

Nursing Professor Carolyn Cason recently was appointed to the advisory board of the National Institute of Standards and Technology’s Manufacturing Extension Partnership (MEP).

A program of the Department of Commerce, the MEP combines federal support with state and local organizations to address the critical and often unique needs of area manufacturers.

The partnership resulted in the creation or retention of 62,703 jobs, \$8.4 billion in new or retained sales, \$2.5 billion in client investments, and \$1.2 billion in cost savings during fiscal year 2013.

“I am honored to join MEP’s advisory board to support the partnership’s effort to drive innovation, economic growth, job creation, and productivity within the U.S. manufacturing industry,” Dr. Cason says.

Her three-year appointment will help strengthen UT Arlington’s long-held relationship with the institute.

Game Changer

Video-game simulation fosters better communication between doctors and nurses



In emergency situations, clear communication between medical personnel can determine whether a patient lives or dies.

That’s why the College of Nursing and Health Innovation, Baylor Scott & White Health, and UT Dallas created GLIMPSE, a video-game simulation that teaches physicians and nurses to work more collaboratively by playing out tense situations in a virtual world.

GLIMPSE, or Game to Learn Important Communications Methods for Patient Safety Enhancement, offers situational learning and perspective sharing through audio, video, and 3-D virtual gameplay.

To build it, researchers gathered feedback about positive and negative workplace communication from Baylor nurses and physicians. After the game was complete, the team invited them to play the roles of doctor and nurse and evaluated them to see if the game helped their knowledge.

Beth Mancini, associate dean of the College of Nursing and Health Innovation, was principal investigator for the nearly \$1 million grant from the U.S. Agency for Healthcare and Research Quality.

The project received two national awards at the fourth annual Serious Games and Virtual Environments Arcade and Showcase during the 2014 International Meeting on Simulation in Healthcare (IMSH) in San Francisco.

The honors included a best-in-show award in the academic faculty category and a fourth-place award in the technology innovations division.

“Our hope is that GLIMPSE will enhance patient safety and, ultimately, improve patient outcomes,” Dr. Mancini says. “Being honored by the judges at the IMSH tells us that the virtual learning environment we’ve built is among the very best in terms of content and design.”



Jennifer Gray, associate dean and George W. and Hazel M. Jay Professor of Nursing, received a D Magazine 2015 Excellence in Nursing award, honoring nurses who have made a difference in the lives of their patients and colleagues. She was profiled in the March issue of the magazine.

Program reaches beyond borders

The College of Nursing and Health Innovation continues to reach out to health professionals around the globe with innovative certificate programs that tackle crucial public health issues.

The college has partnered with a consortium of nine universities in Central and South America to provide continuing education options for health care providers including nursing students and practicing nurses, as well as other providers in dentistry, medicine, nutrition, and environmental engineering.

Now in seven countries including Argentina, Brazil, Colombia, Chile, Peru, Costa Rica, and Panama, the program is a partnership pairing UT Arlington’s Center for Hispanic Nursing and Health with Miami-based Whitney International University System.

Launched in 2013, the program serves as a bridge between educators and professionals across borders, says Margarita Trevino, UTA’s director of the program and a clinical associate professor of nursing.

“It’s a great opportunity to reach out and network with colleagues in other countries,” she says.

Upon completion, the students receive a certificate showing they have expertise in critical public health issues. Dr. Trevino says the partnership helps other countries develop a more qualified workforce and contributes to improving patient outcomes while helping UTA faculty better understand other cultures and public health systems.



Comparing Classes

Study examines differences in online and on-campus master's degree programs

How do online and on-campus educational experiences compare? Does one offer a better learning environment? Is one more stressful?

These are just some of the questions Assistant Professor Ronda Mintz-Binder hopes to answer in her research of online versus on-campus nursing master's degree programs. The multiyear study received two grants from the Dallas-based education company Academic Partnerships LLC.

"Online students have very intense expectations to meet, as their classes are condensed from the traditional 15-week schedule to a five-week one," Dr. Mintz-Binder explains. "We're trying to understand what we can do to help them stay in the program once they have committed."

For the first part of the study, the graduate students took an online survey focused mainly on their perceived stress and sense of belonging. A year later, Mintz-Binder followed up with the same group to gather

additional information about how changes in their lives—like job status or family matters—may have affected their schooling.

Results indicate that stress and sense of belonging are inversely related: When stress is low, belonging is high. In addition, students who did not receive strong grades reported the most perceived stress, and scores were more consistent overall for the 15-week semester students.

"Throughout the country, nurses are being encouraged and supported, sometimes financially, by their employers to seek a graduate degree and expand their roles," says Jennifer Gray, associate dean of the College of Nursing and Health Innovation.

"To get the best return on the investments of students, employers, and nursing programs, we must do everything we can to guarantee success," she says. "Dr. Mintz-Binder's research results will help with that endeavor."

Testing for depression in teens

Though an estimated five to 20 percent of adolescents suffer from depression, many never receive the treatment they need. Nursing Clinical Assistant Professor Sharolyn Dihigo's research shows that adding a simple paper test to teens' well visits could help change those statistics.

Called a CES-DC, short for Center for Epidemiological Studies Depression Scale for Children, it asks 20 questions about the patient's mental state over the previous week, giving health care providers a quick, reliable way to determine whether further mental health screenings or treatment are necessary.

Her research was published in *Women's Healthcare: A Clinical Journal for NPs*, a new peer-reviewed, online journal from the National Association of Nurse Practitioners in Women's Health.

"Providing this test while a family waits for their appointment can overcome hesitation to talk about the feelings and behaviors linked to depression and lead to treatment success," Dr. Dihigo says. "Getting teens treatment when they need it is essential and has potentially life-saving benefits."



New research examines online versus on-campus programs.

Before the Fall

Laboratory helps reduce risk of falls in older adults



Christopher Ray and his research team are finding ways to prevent falls.

The World Health Organization cites falls as the number one cause of accidental deaths in senior adults, and a previous fall is the greatest indicator of a future one.

"People who fall are two to three times more likely to fall again within a year," says Christopher Ray, associate dean for research in the College of Nursing and Health Innovation and director of UT Arlington's Postural Control Laboratory, which has been helping senior adults prevent falls since 2008.

Dr. Ray and his team of students and research assistants do pre- and post-intervention measurements of participants to assess postural control, gait, fracture risk, and fitness—all factors in falls.

Evaluations may include fitness tests, bone density measurements, and assessments with computerized dynamic posturography, which uses a platform with three walls around it to simulate different cognitive and environmental changes as a participant stands. Results are compared to normative data of other seniors from the literature.

After the initial assessment, Ray and his colleagues look at how interventions can

remediate any less-than-ideal function. Participants also are invited to the lab's exercise classes to continue working on fall prevention, and Ray documents their progress. About 100 people participate in the classes, held every Monday, Wednesday, and Friday throughout the semester.

In addition to exploring acute issues—such as whether a specific intervention is better at improving a variable than another intervention—the lab can ask broader research questions that look at longitudinal change. Many participants have been coming to the lab for several years, allowing researchers to build a database looking at functional decline, the effects of exercise, and maintenance of independent lifestyle.

Ray is writing a grant for a study on day-to-day gait variability in older adults to better understand home-based gait monitoring for clinical interfaces with health centers and doctors. The goal is to catch people at earlier stages of functional decline.

"The earlier we can detect a problem and the earlier we can engage a clinical remedy allows us to preserve as much function as possible," he says.

Two kinesiology faculty members were honored by the National Athletic Trainers' Association. Cynthia Trowbridge, associate professor, received the Most Distinguished Athletic Trainer Award recognizing members involved in service and leadership activities at the national and district level. Paul Krawietz, clinical assistant professor, was selected for the Athletic Trainer Service Award recognizing volunteer efforts at the local and state level.

New study examines clinical hours in nursing education

The College of Nursing and Health Innovation has been awarded a \$1.8 million grant from the Texas Higher Education Coordinating Board to lead a multi-institution study of clinical experience requirements for nursing school graduates.

Research will involve more than 1,700 students over 30 months. In the end, the results will lead to a better understanding of the amount and nature of clinical experiences needed to have competency at graduation.

Partners in the program include Tarleton State University, El Centro College, Brookhaven College, the Dallas-Fort Worth Hospital Council Foundation, and six North Texas health care systems.

Currently, there is no state requirement addressing clinical experiences for nursing students.

"With this information, it will be possible to identify an optimal range of clinical hours resulting in more efficient and effective nursing education," says Beth Mancini, associate dean for undergraduate studies and a lead investigator on the grant.



Maria Moreno-Quñones was inspired to pursue a nursing career.

New Life, New Calling

Nurses made all the difference in caring for her newborn niece

Her niece weighed less than 2 pounds at birth, and her survival seemed precarious. Each time Maria Moreno-Quñones visited the tiny new family member in the neonatal intensive care unit, she was struck by the care and competency of the nurses.

It was their dedicated service, not just to her niece, but to her whole family, that inspired Moreno-Quñones to return to school after a 10-year hiatus and pursue a nursing degree.

“I knew that I wanted to be just that: a professional who is in a position to provide such great joy while also being a source of strength,” she says.

Now a senior, Moreno-Quñones is an active member of the Hispanic Student Nursing Association, where she has served on the executive board. Most recently, she earned a scholarship to attend the National Association of Hispanic Nurses Conference.

She’s also a member of Sigma Theta Tau International, the honor society of nursing.

Benefits of joining these organizations have been numerous. In addition to leadership skills and networking, Moreno-Quñones has gained a more thorough understanding of how a patient’s cultural background can affect overall wellness.

“Cultural competency is key,” she says. “As nurses, we must gain our patients’ trust, and what better way to do that than through understanding who they are, from their values to their beliefs.”

With graduation imminent, Moreno-Quñones already has accepted a position as an intensive care nurse in the medical unit of a prestigious hospital. She plans to become active in the National Association of Hispanic Nurses, both locally and nationally.

“Eventually I’ll return to school to further my education,” she says. “But for now, I plan on being a great nurse, joining committees, and using my knowledge to provide better care for our patients.”

Online program named one of nation’s best

UT Arlington is among the top 50 universities in the nation for earning a master’s degree in nursing online, according to *U.S. News & World Report’s* Best Online Graduate Programs 2015 rankings.

The College of Nursing and Health Innovation’s online program ranked No. 31 among 133 schools surveyed, up 34 spots from last year.

“This achievement underscores the commitment of extraordinary faculty and staff who continue to innovate and deliver exceptional curriculum to graduate students whether in the physical or virtual classroom,” says President Vistasp Karbhari.

The online graduate nursing ranking is based on student engagement (30 percent), faculty credentials and training (25 percent), peer reputation (20 percent), student services and technology (15 percent), and admissions selectivity (10 percent).

Enrollment in UT Arlington’s graduate nursing programs rose more than 400 percent from spring 2010 to 2015, jumping from 595 to 3,162.

Helping Veterans

Program offers flexibility and support for military members looking to transition to civilian job opportunities

The new Veterans’ Bachelor of Science in Nursing program is opening doors for former military members looking to advance their nursing careers.

The first class began the 15-month v-BSN program in January 2014. Funding includes an almost \$300,000 annual grant from the U.S. Department of Health and Human Services, announced in 2013. The program has admitted 16 veterans to date.

“The UT Arlington v-BSN program is achieving its goals of increasing the opportunities for veterans to translate their service experiences into civilian job opportunities, and it is helping us to better understand the unique needs of this important student population,” says Beth Mancini, associate dean in the College of Nursing and Health Innovation and principal investigator for the federal grant.

Coretta Sigler, retired Air Force, is part of the first cohort. She served as a military

medic and EMT, and worked in labor and delivery, pediatrics, and internal medicine. But her military medical background didn’t easily translate to the civilian sector.

“It was kind of a downfall to have that level of experience and have to start all the way at the bottom. We just needed a hand up,” she says. “The v-BSN program is such an open door for us.”

The online program offers the flexibility Sigler needs to complete her BSN while working full time managing an infertility clinic at Texas Health Presbyterian Dallas. With her BSN in hand, she’ll have the opportunity to move into a director’s position.

The v-BSN is a “gold mine” for military medical personnel, she says. “We’ve always wanted someone to appreciate our experience—to just acknowledge the hard work, the training, and the level of responsibility we had in the military. This gives us a transition and something to look forward to.”



Coretta Sigler enrolled in UTA’s v-BSN after serving in the Air Force.



Lost Boy combines kinesiology and nursing

Peter Deng was 9 and living in southern Sudan when his life changed forever.

It was 1987 and the civil war had reached his village, forcing him and other boys to flee or face death or induction into the army.

For months, he and 20,000 children walked until they reached Ethiopia. Many died along the way. After four years, war broke out, and the children fled again. The survivors, about 10,000, eventually reached a refugee camp in Kenya.

“I was thinking that was the end of my life,” says Deng, who was then about 14. “We had nowhere to go.”

In 2000, the international community began accepting the Lost Boys of Sudan and Deng came to the United States, earning a kinesiology degree from UT Arlington in 2013. Looking to expand his education, he came back to UTA to earn a bachelor’s degree in nursing.

Deng hopes to work in the United States and return to his village as a health care missionary.

“UTA has helped me a lot,” he says. “It’s a blessing to be in this country. I’m the first in my family to have a degree. I want to help others. I’m thankful. You have given me a life.”



Members of UTA’s Nursing Constituency Council volunteered to build homes for Habitat for Humanity in September. The council is a branch of student government that serves as a liaison between nursing students and faculty.



Head Games

Kids want to play, but when does a knock to the head lead to brain trauma? Kinesiology Associate Professor Cindy Trowbridge is researching how to better recognize the signs of concussions. BY KATHRYN HOPPER

GET UP. YOU'LL BE FINE. For years, that was a typical parent response when kids took a hard hit on the playground or playing field. But growing research connecting head injuries from concussions with brain trauma has many parents rethinking what sports and activities their kids play, if they let them play at all.

Football has borne the brunt of the backlash as the NFL works to settle a \$765 million lawsuit with former players charging that the league needed to do more to protect players from repeated concussions that can lead to chronic traumatic encephalopathy, a progressive degenerative disease found in people with a history of multiple concussions.

But other sports and even simple

playground antics can cause concussions. The Centers for Disease Control reports that each year U.S. emergency rooms treat an estimated 173,285 sports and activity-related traumatic brain injuries in kids 19 and younger.

So what's a parent to do?

Cindy Trowbridge, associate professor of kinesiology in the College of Nursing and Health Innovation, is researching the best



Dr. Cindy Trowbridge talks to parents about the signs of concussions.



Understanding the child's brain

Concussions are a type of mild traumatic brain injury and are considered a result of traumatic shaking of the brain. They can cause acute and long-term changes in brain physiology and function, including cognition. And for children with developing brains, they can be especially dangerous.

Children have smaller brains in relation to their skulls. Compared to an adult, the young child brain has less mass and more cerebrospinal fluid between the brain and the skull. Think of it like an egg yolk—there's room for it to move. Because children's brains have less mass in relation to the skull, their brains experience more acceleration. This means the brain can hit the skull with more force when jolted on the playing field.

A child's brain also appears to be far more plastic or impressionable than the adult brain. This helps during maturation; however, it can have negative effects associated with brain injury because the brain itself is less resistant to trauma.

"We can't fix brain injuries like we can fix damage to ligaments and bones," Trowbridge says. "Therefore, it's important for parents to be protective when it comes to their children's brains and to be aware of the potential long-term effects a concussion can have on normal brain development."

Recognizing the symptoms

Recent research shows that parents have misconceptions regarding the definition, symptoms, and treatment of concussions.

Trowbridge says many don't know that concussions can occur from trauma other than a blow to the head. They also don't readily recognize key symptoms of concussions, including irritability and sleeping difficulties. Some people incorrectly identified arm and leg weakness or numbness as concussion symptoms.

Parents are in a prime position to recognize the signs and symptoms of a concussion in their child. The culture of sport encourages children to play and win, so a child often will hide symptoms from medical practitioners. But Trowbridge says parents can pick up on the subtle signs of problems associated with a previous concussion.

Symptoms usually are classified into four categories: physical, cognitive, emotional,

and sleep patterns. The physical signs include, but aren't limited to, headache, loss of consciousness, dizziness or balance problems, numbness, tingling, fatigue, visual problems, diminished pupil reaction, dazed or stunned expressions, ringing of ears, sensitivity to light and noise, and vomiting.

Among the cognitive responses are mental slowing or fogginess, and emotional symptoms include irritability, uncharacteristic actions, anxiety, sadness, and depression. Sleep changes such as excessive drowsiness, trouble falling asleep, and altered sleep patterns are also common.

When is it OK to play?

Unfortunately, the return to play and return to learn (or classroom) guidelines aren't widely understood by parents and even many health professionals because of communication gaps, Trowbridge says.

"If children are treated by emergency room physicians or pediatricians, these professionals may not be trained in the long-term management of concussions," she says. "The result: Children often return to school or athletics too soon."

The cornerstone for both the return to play and return to learn plans is rest—physical and cognitive, she says. That means a child must limit physical and mental activity (such as reading, TV, games, texting, and computer time).

"Concussions can cause a metabolic crisis for the brain because blood flow and glucose delivery are impaired," she says. "The brain needs energy to function normally and to heal itself, and these metabolic changes mean the active brain may not get as much energy as it normally needs to function properly. That's why rest is important to recovery."

Medical research recommends that children with concussion symptoms be removed from the classroom and given work to do at home. Work sessions should remain short with frequent breaks.

When a child is able to read for 30 minutes without increasing signs or symptoms, then a progressive return to school can begin (half days to full days). Resuming physical activity should be progressive as well.

"Following these guidelines can help parents protect their children's brains and potentially prevent long-term effects or tragic consequences," Trowbridge says.

Getting smarter about injuries

Last year Trowbridge became one of six certified athletic trainers selected to coordinate a new nationwide program launched by the MomsTEAM Institute, which provides youth sports stakeholders with comprehensive information and best-practice resources to keep children safe while playing sports. The nonprofit institute recently was named as a "pioneer organization" to implement the International Safeguards for Children in Sport in the United States as part of a global initiative by UNICEF.

Called SmartTeams, the program is an approach to sports injury and concussion risk management based on MomsTEAM's work with a high school football program in rural Oklahoma. MomsTEAM was able to reduce concussion rates and improve identification and management of concussions. The work was chronicled in a PBS documentary called *The Smartest Team: Making High School Football Smarter*.

As part of the initiative, Trowbridge began working with Grand Prairie youth football coach Ira Carter and team parents.

She outfitted the team with Brain Sentry helmet-mounted sensors that monitor impacts and help identify players who should be evaluated for concussions. She also worked with parents to manage other issues such as hydration and heat-related

injuries, as well as common cuts and bruises.

SmartTeams is set to roll out nationally this year. SmartTeam status will be awarded to youth sports organizations, nominated by parents, that have demonstrated a commitment to minimizing the risk of physical, psychological, and sexual injury to young athletes.

"The purpose of the SmartTeams pilot program is to demonstrate to parents, coaches, administrators, and health care professionals that there are steps we can take now to make youth sports safer," says Brooke de Lench, executive director of MomsTEAM.

As part of her research, Trowbridge surveyed parents to check their knowledge before the educational component of the program. So far she's discovered that face-to-face meetings work better than email to discuss health concerns. She says parents can get the basic information in a 45-minute meeting at the opening of the season, then get more information if needed.

"I keep hearing parents say, 'If I'd only known,'" Trowbridge says. "That's why I feel so passionate about letting parents know, making them aware so they can make these decisions and make them based on education and not based on glory." 📌

For more about the SmartTeams program, go to smartteamsplaysafe.com.

ways to educate parents so they can recognize the signs of concussions and be better advocates for their active kids. A certified athletic trainer for more than two decades, she has fielded more questions in the last four years about concussions than any other injury.

"It has become clear to me that parents of youth athletes and their families still need more information about the definition of concussions and symptoms to look for, as well as the appropriate treatment protocols," she says.

Dr. Trowbridge has made parental education a focus of her research and last year became part of a nationwide effort to coordinate a new youth sports safety program from the MomsTEAM Institute, a leading youth sports health and safety think tank and watchdog group.

She's working with the Grand Prairie Youth Football Association in a pilot pro-

"We can't fix brain injuries like we can fix damage to ligaments and bones."

gram set to go nationwide this year. Her efforts, including installing sensors on helmets and conducting informational talks with parents, have been featured on media outlets including NBC's *Today Show*.

"Families should know the first step is understanding what makes a child's brain unique," she says. "Then, parents must be ready to take steps to spot concussions and take action."

Most Common Concussion Symptoms

1. Headache
2. Difficulty concentrating
3. Fatigue
4. Drowsiness
5. Dizziness
6. Fogginess
7. Feeling slowed down
8. Light sensitivity
9. Balance problems
10. Difficulty with memory



Grand Prairie's Vikings are participating in the SmartTeams pilot program.

Meet the Sims

UT Arlington's high-tech Smart Hospital explores the most innovative ways to train health care professionals. BY ROBYN ROSS

SIDNEY LOGAN FELT QUEASY. It was probably a stomach bug or maybe food poisoning from all the adventurous dining he'd enjoyed on his trip to the Far East. After his 15-hour flight from Beijing landed at DFW International Airport, the 64-year-old began suffering waves of nausea and diarrhea. Seeking relief, he checked into UT Arlington's Smart Hospital.



Students in UT Arlington's Smart Hospital work on patient simulators like this one.

When Amber, a student nurse, consulted his file at the beginning of her shift, she noticed a note from the previous nurse saying that, in addition to his nausea, Logan had complained of pain in his left calf.

Amber noted that her patient complained of nausea and leg pain and was already receiving nausea medication. His leg was slightly swollen, red, and warm to the touch. He had been sedentary for a long time on the flight and was probably dehydrated.

She believed he may be at risk for developing a deep vein thrombosis (DVT), or blood clot in his leg, and decided to call the physician to report the change in Logan's condition and her concerns about the possibility of a DVT.

Amber's supervising professor, who had been evaluating her work, congratulated her on her performance, and Amber smiled in relief. She's passed her exam.

Logan isn't a human being. He's a high-tech manikin who can simulate human breathing, pulse, speech, pupil reaction, and even bodily fluids. He's one of over 40 manikins representing both genders as well as a variety of ages that are used in simulation education, research, and the development of innovative teaching methods. The Smart

Hospital is a nationally recognized center for health care education using simulation techniques and hands-on teaching methods.

"Rather than 'see one, do one, teach one,' we actually allow students to perform a procedure and make an error on the manikin. This gives students the opportunity to see the consequences of their mistakes. In the clinical setting, instructors cannot allow students to make errors on real patients," says Judy LeFlore, associate

dean for simulation and technology in the College of Nursing and Health Innovation.

"We actually allow students to perform a procedure and make an error on the manikin."

Changing classes

When it opened in 2007, the 13,000-square-foot Smart Hospital was at the forefront of the national trend of integrating more simulation into the nursing curriculum. Its equipment comes from three corporate partners: Laerdal Medical, which makes the manikins and other training devices; Hill-Rom, which produces hospital beds, room furniture, and headwalls; and CareFusion, which supplies equipment including IV pumps, respirators, and supply and medication dispensing machines.

By partnering with corporations that provide state-of-the-art technology, faculty can replicate real-world medical scenarios and tailor training to enhance hands-on learning opportunities.

But can simulation effectively replace the clinical hours

traditionally required for nursing students to develop competency? In January of this year, the College of Nursing and Health Innovation received a \$1.8 million grant from the Texas Higher Education Coordinating Board to identify the optimal simulation and clinical experience requirements for pre-licensure education.

The research will involve 1,700 students over 30 months and is a collaborative effort uniting UTA, three other nursing schools, the Dallas-Fort Worth Hospital Council Foundation (DFWHC), and several health systems including HCA North Texas Division, Baylor Scott & White Health, JPS Health Network, Kindred Healthcare, Methodist Health System, and Texas Health Resources.

"Hospital employers are interested in making the clinical portion of nursing education more efficient and effective when preparing nursing graduates to be 'practice ready,'" says Sally Williams, director of the DFWHC Foundation Workforce Center. "This collaboration will make a significant impact on the preparation of future graduates entering the North Texas health care workforce."

The project will begin by identifying specific skills, behaviors, and competencies students should be taught in



areas such as pediatric and adult care. Then, data will be collected on study and control groups of nursing students as they progress through their clinical experiences, including an initial simulation experience.

In all, the researchers expect to gather more than 1 million data points before using the findings to make recommendations.

"UT Arlington is particularly qualified to lead this new research project because of our history of successful student outcomes, our emphasis on health research, and our groundbreaking work in simulation technology," says Anne R. Bavier, dean of the College of Nursing and Health Innovation. "The results of this study will influence education and health care in Texas and the nation far into the future."

Smart teaching

In July 2014, the National Council of State Boards of Nursing published a landmark study showing that simulation can effectively replace clinical hours in the hospital.

Researchers compared three groups of students: one that predominantly did clinical experiences with live patients with not more than 10 percent of clinical hours spent in

simulation, one that replaced a quarter of their clinical experiences with simulation, and one that replaced half of their clinical experiences with simulation. All three groups demonstrated equal knowledge, competency, and critical thinking, suggesting that simulation is an effective substitute for clinical time with actual patients.

"The study validates that student outcomes are no different if clinical experiences are replaced by well-designed and executed simulated clinical experiences," Dr. LeFlore says.

Unlike traditional clinical training, the Smart Hospital ensures that students are exposed to a wide array of scenarios. Faculty can use a manikin to simulate a rare malady instead of waiting for a patient with that particular malady to seek care. Practicing on a manikin lets students make, and learn from, mistakes—something that could never happen with real patients.

"But with a simulated patient, we can let the students work independently and figure out what to do," says Kristine Nelson, the Smart Hospital's manager of simulation operations. "Hopefully, they do things correctly. But maybe they do things wrong and, following that experience, they have

Hands-on training in the use of authentic health care equipment is part of the Smart Hospital experience for all students. State-of-the-science equipment helps students become more proficient.



A Cast of Characters

UT Arlington's Smart Hospital is a Laerdal Center of Excellence in Simulation with state-of-the-science human patient simulators from infants to adults. They can mimic human vital signs and a variety of symptoms from rumbling stomachs to mournful wails. Instructors can present a variety of scenarios to help students gain confidence as they build skills. Meet a few of the (simulated) patients.



SimMan Essential This simulated patient offers realistic breathing, eye blinking, and a human voice that can be pre-recorded or transmitted wirelessly from an instructor. It can portray either gender and comes in a variety of skin tones.



Nursing Baby This simulator can present normal, bulging, and depressed fontanelles for assessment and normal and abnormal heart, breath, and bowel sounds for auscultation.



SimMom This simulated patient can present a variety of birthing scenarios including breech delivery, eclampsia, shoulder dystocia, ruptured uterus, and post-partum hemorrhage. She also can be used as a non-pregnant female patient.



SimNewB This high-fidelity baby simulator has an umbilical cord that can be assessed, cut, and catheterized for intravenous therapy. It can react to drug treatments and has a realistic pulse, breathing rates, and lifelike grunts that can be adjusted by the instructor.



SimJunior This simulator represents a child around age 6 and can display a wide range of conditions, from a healthy, talking child to an unresponsive, critical patient with no vital signs.



Nursing Anne A moderate fidelity simulator, Nursing Anne is used to develop key skills from basic patient care to advanced nursing procedures such as wound assessment, recognition of breast disorders, and post-surgical mastectomy-care.

a debriefing session where that's discussed and analyzed, hopefully preventing mistakes on real people."

In a scenario designed to test students' abilities in a specific medical situation, faculty in the control room down the hall manipulate the manikins' vital signs, symptoms, and even voices. Via cameras in simulated hospital rooms, they watch the scenario unfold and adjust the manikins in response to the students' actions.

The exercises are recorded so faculty can review them with students. LeFlore says the debriefing is equally as important as the simulation itself.

"If we use video, the students can see what they did and identify their own mistakes," she says. "They can sort of disengage from the encounter and talk about how it felt and what they could have done better. That's where the learning really occurs, when you walk away from it and a skilled instructor helps you think about what just happened."

Remote possibilities

Research conducted by UTA faculty shows that simulation can also train professionals in the field—even those miles away.

"Because of the national focus on patient safety and quality, hospitals will be requesting that clinicians be able to demonstrate that they are competent in the procedures you say you can do," LeFlore says. "But how do health care providers maintain competency if they don't get the opportunity very often to practice those skills?" Simulations conducted across distance accomplish that, "especially for what we call high-risk, low-volume procedures."

LeFlore is a pioneer in the latest technique called remote-controlled distance simulation, which creates the same kind of scenarios used to instruct students. But instead of the manikins and control room being nearby, they may be miles apart. By using manikins and related Laerdal software, LeFlore can run a simulation from the Smart Hospital at UTA for neonatal nurse practitioners at another site, whether across town or out of state.

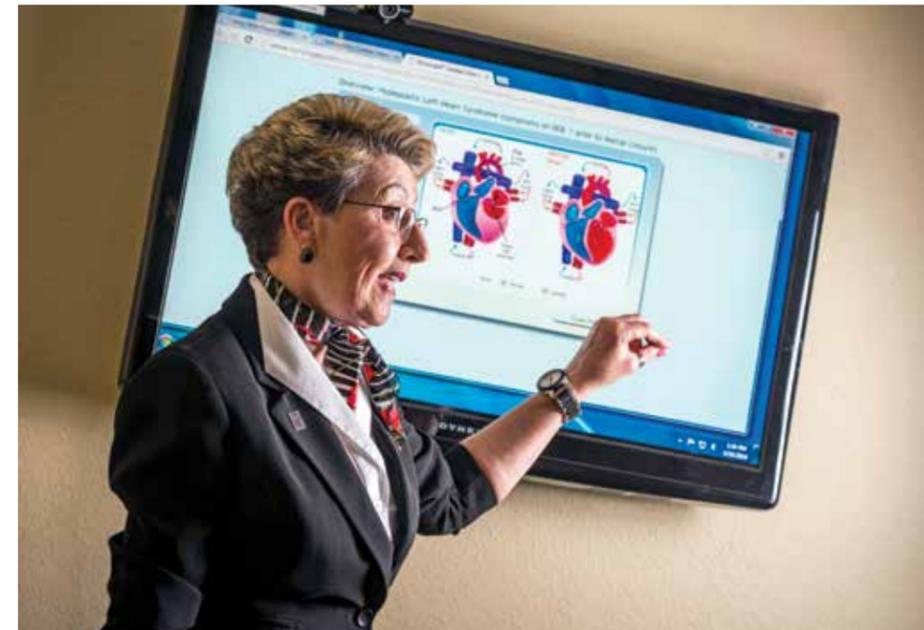
The technique first had to be tested to determine whether such remote simulations were possible. LeFlore and colleagues partnered with Pediatrix Medical Group, a division of the national medical network MEDNAX.

MEDNAX provides medical staff at 370 neonatal intensive care units nationwide and cares for almost a quarter of the neonatal intensive care unit patients in the country.



The company got involved because it saw simulation as a potential way to train its 700 neonatal nurse practitioners and validate their competency, says Debra Sansoucie, vice president for advanced practitioner programs at Pediatrix. It funded a feasibility test of a remote-controlled distance simulation of a neonatal care emergency, which LeFlore, from her computer in Arlington, ran for a team of Pediatrix clinicians at Cook Children's Medical Center in Fort Worth.

The successful test and its implications for future training are documented in a paper published in the August 2014 issue of *Clinical Simulation in Nursing* by LeFlore, Sansou-



Dr. Judy LeFlore discusses various scenarios that can be programmed for patient simulators.

cie, Carolyn Cason, professor of nursing, Patricia Thomas, clinical assistant professor, and two more co-authors examining a 2012 simulation exercise.

The testing site was furnished with the SimNewB manikin, an infant patient simulator with capabilities including chest rise, pulse, and vocal and lung sounds, and the laptop that controls it with accompanying Laerdal software. Instead of someone at the hospital controlling SimNewB's behavior and response to treatment, LeFlore remotely accessed the SimNewB computer so she could run the scenario.

A second laptop on site sent footage of the event back to LeFlore by integrating with fixed and pan-tilt-zoom cameras using Laerdal's SimView, an internet-based content management system that coordinated the video feeds and live-streamed them to the Smart Hospital.

Back at the Smart Hospital, LeFlore used one computer to control SimNewB and a second to watch the proceedings unfold. Just as in simulations that take place in the Smart Hospital, mere steps from the control room, LeFlore adapted SimNewB's response to the interventions of the medical team in a hospital 30 miles away.

Continuing education

The success of the test demonstrated that simulation is a cost-effective training option for continuing education. LeFlore and Sansoucie are now in the third year of implementing a remote-controlled distance simulation program for practitioners using Pediatrix hospitals' risk management data and credentialing requirements to choose scenarios that address critical needs.

It might be a premature baby, or (as in the test simulation) a baby with pneumothorax, a hole in the lung that causes it to collapse and the chest cavity to fill with air.

"We're really focusing on what we call the low-volume, high-risk scenarios," Sansoucie says. "Those are things you may not be exposed to that frequently. But when you are exposed, you need to know how to respond, and you need to respond rapidly."

The UTA/Pediatrix partnership is the result of collaboration between LeFlore and Sansoucie, whose careers followed similar trajectories before they met at a conference in 2009. Both began as neonatal intensive care nurses, became nurse practitioners, and went on to teach at the university level.

Now that LeFlore, Sansoucie, Cason, Thomas, and their colleagues have demonstrated the effectiveness of remote-controlled distance simulation for practitioners, they've begun implementing such competency validation for Pediatrix clinicians across the country.

"We're still in the infancy of this project, which I see just growing in importance as time goes by and as we're able to embed it into our more than 140 practices across the country," Sansoucie says.

"Hopefully, the research will be read by leaders of national organizations that can implement change," LeFlore says, "and that will get the ball rolling." 📌

Alumna serves on ship of hope

Spreading hope isn't specifically in Stephanie Duncan's job description, but it's an essential part of her workday.

As hospital ward supervisor aboard a large hospital ship docked in Tamatave, a seaport on the coast of Madagascar, Duncan works alongside other medical professionals to offer hope to people in need—and to save lives. The patients they treat often have debilitating tumors and hernias that need expert surgical attention.

"Patients come to us desperate for an answer, for new life," the 2006 nursing graduate says. "And the awesome thing is that we get to provide that for them."

The vessel is part of Mercy Ships, a charity that provides free health care, community development education, health education, and more. Doctors and nurses aboard the ship donate their time and often spend their own money to work in service there.

The ship will be docked in Tamatave until June 2016. After that, Duncan will go wherever Mercy Ships takes her.

"There are hundreds of thousands of people in need, and when I think about it, it's overwhelming," she says. "But working together with other like-minded people, we can really change the world, one patient at a time."



Stephanie Duncan works with a child aboard Mercy Ships.



Jose Alejandro teaches nursing at El Centro College in Dallas.

Head of the Class

Jose Alejandro inducted into American Academy of Nursing

Since graduating from UT Arlington in 1998, Jose Alejandro has built an impressive résumé, earning two master's degrees and a doctorate.

But for Dr. Alejandro—a nursing professor at El Centro College in Dallas and a nursing consultant—UTA is never far from his mind.

"UTA gave me the foundation for everything I've been successful in, from being involved with professional organizations to having mentors who really valued their mentorship and made every effort to make sure that we were successful," he says. "I'm very loyal to UTA."

One of those Maverick mentors, Professor Emeritus Mary Lou Bond, nominated Alejandro to the American Academy of Nursing. Also nominated by Angie Milan, past president of the National Association of Hispanic Nurses, Alejandro was inducted into the academy in 2014 and is now a fellow for life. The academy seeks nursing profes-

sionals who've made a national impact.

In July 2014, Alejandro wrapped up a two-year term as president of the National Association of Hispanic Nurses. While at the NAHN, he reorganized the group's business model, which translated into growth in membership, influence, and revenue.

"I think we need to do more to encourage Hispanic youth to go into nursing at an earlier age," he says.

Encouraging young Hispanics to consider nursing is his passion. He believes nursing groups should begin reaching out at the elementary school level. Only 4.8 percent of nurses are Hispanic, and only 11 percent of all Hispanic nurses are male, according to minoritynurse.com.

While at UTA, Alejandro was a founding member of what is now the Hispanic Student Nursing Association.

"I see an extremely bright future for Hispanics in nursing," he says. "The growth potential is there."



A passion for service

How does someone who has devoted her life and career to service take it to the next level? Kelly Bowman, a 2003 nursing graduate, decided that returning to UT Arlington to earn her master's degree in nursing was the way to go. She's enrolled in the nurse practitioner program, anticipating earning her degree in summer 2016.

It was almost a foregone conclusion after 10 years as a Navy nurse. She deployed to Iraq for seven months as a surgical trauma nurse, where she supported Marines in the Battle of Fallujah. Stateside, Bowman treated trauma patients at the National Naval Medical Center in Washington, D.C., and served on a select team that functioned as an extension of the White House Medical Unit.

"It is a motivating feeling to contribute to an organization that is bigger than you," she says. "Having lived through war and being constantly surrounded by trauma patients, trauma has become my passion. I know I can do more for my patients and make a bigger impact as a practitioner."



Jana Harris, a 1999 exercise science graduate, was on campus in March to discuss career options with students in the Society of Kinesiology Scholars. Now the president/ chief executive officer of Harris Packaging Corp., Harris says her UTA degree proved invaluable in her career. "I wanted to open their minds to other options," she says.

Scholarship recipient Elizabeth Roberts hopes to work in critical care.



Making Dreams Come True

Giving to Dream Makers Scholarship program changes lives

Elizabeth Roberts was working as a personal banker but soon realized her real passion was nursing. A 2011 biology graduate, she wanted to find a way she could focus on earning her BSN.

"I felt that it was important to give my undivided attention to my coursework," Roberts says. "While I could have worked and gone to school full time, to pay for living expenses, I felt that I would have done myself and my patients a disservice."

She was able to focus on her studies full time thanks to a scholarship funded by the Dream Makers program. Roberts quit her job and entered the Off-Campus Accelerated Program.

She graduates in May and is interviewing for a position in critical care.

"The scholarship helped tremendously," she says. "It's helped me pay for tuition and books, and I didn't have to rely as much on student loans."

Since 2002, the Dream Makers Scholarship program has contributed more than \$3 million toward scholarships for students in the College of Nursing and Health Innovation. The generous donations support the dreams of some of the nation's most promising students. These future leaders in health

have the potential to improve the lives of their clients and patients, effect change in the health care industry, and positively impact their communities and the world.

Gifts come in the form of individual scholarships from sponsors who give annually as well as from endowments funded by donors whose support will continue in perpetuity. The roster of Dream Makers includes individual sponsors, trusts, hospital systems, and other community partners.

Recipients attend the Dream Makers Scholarship Luncheon, held in early March, and sit with their scholarship donor. In many instances, the student and donor remain in contact after the student graduates.

J. and Lynn Luke look forward to attending the luncheon each year and are happy to support the scholarship program, particularly given the nation's critical need for health care providers.

"I feel it's a privilege to help out students," J. Luke says. "I was a student myself many years ago, and I know it's a good thing to support students focusing on earning their degrees."

For more information about the Dream Makers program, contact Sandra Golightly at sgolightly@uta.edu or 817-272-4793.



The support of alumni, friends, businesses, and organizations enhances opportunities for UTA students to fulfill their dreams of becoming successful nursing professionals. Make a lasting impact on the lives of these dedicated scholars and of our renowned faculty by donating online. Simply go to uta.edu/nursing and click on the link **Make a Gift Now**.



Honoring a retiring leader

Jean Ashwill helped hundreds of nursing students navigate their paths to a degree through her work in the classroom and as assistant dean of enrollment and student services.

So when she retired in December, the graduates she helped joined with faculty and staff to find a perfect way to honor her by creating the Jean Ashwill Leadership Endowment.

The endowment will fund scholarships to be awarded to undergraduate nursing students who have exhibited excellence in leadership through involvement in student organizations, University committees, events, mentoring, and academics.

Its first recipient was María Moreno-Quiñones, a senior nursing major who has served in leadership roles in the Hispanic Student Nursing Association and is a member of Sigma Theta Tau International, the honor society of nursing.

For more information including making a contribution, please contact Sandra Golightly at sgolightly@uta.edu or 817-272-4793.

CLASSNOTES

the UTA College of Nursing and Health Innovation. She chairs the Dallas/Fort Worth International Airport board and serves on other Tarrant County and Dallas/Fort Worth councils and boards. **Sheri Innerarity** ('78 BSN, '81 MSN, Nursing) received the 2014 American Association of Nurse Practitioners' Nurse Practitioner State Award for Excellence. Dr. Innerarity is an associate professor for clinical nursing at the UT Austin School of Nursing, where she has taught since 1989, and works as an adult clinical nurse specialist and family nurse practitioner in Smithville, La Grange, and Bastrop.

1980s

Martha Moore Brothers ('80 BS, Microbiology; '92 BSN, Nursing) is a school nurse in the Fort Worth Independent School District. **Nan Batten Ketcham** ('84 BSN, '90 MSN, Nursing) is the undergraduate program director at the Baylor University Louise Herrington School of Nursing in Dallas. She has been a member of the Baylor nursing faculty since 2006 and is pursuing her Ph.D. in leadership studies at the Gary Cook School of Leadership at Dallas Baptist University. **Wrennah Gabbert** ('85 BSN, '90 MSN, Nursing) chairs the Department of Nursing Rehabilitation Sciences at Angelo State University. A professional specialist in the ASU nursing department from 1997-2007, Dr. Gabbert spent the last six years at the Texas Tech University Health Sciences Center, filling various teaching and administrative posts at the TTUHSC School of Nursing in Lubbock and TTUHSC Gayle Greve Hunt School of Nursing in El Paso. **Vivian Wong** ('86 BSN, Nursing) is program director of the Wound and Ostomy Education Program at San Jose State University. The blended online and on-site program provides a pre-certification course for registered nurses seeking certification in wound or ostomy care.

1990s

Celeste Johnson ('91 MSN, Nursing) received the 2014 Academic Achievement Award at Texas Woman's University, where she earned a Doctor of Nursing Practice degree. She is director of nursing, psychiatric services, for the Parkland Health and Hospital System in Dallas. **Denise Bredow** ('93 MSN, Nursing) is a member of the clinical faculty in the family nurse practitioner program at Baylor University in Dallas. She received her Ph.D. in population health sciences from Texas Woman's University in May 2014 and practices as a family nurse practitioner at Mission Arlington. **Dan Kirkpatrick** ('93 MSN, Nursing) was elected president of the Ohio Nurses Association. A retired Air Force colonel, he is a clinical instructor at the Wright State University-Miami Valley College of Nursing and Health. He also is mayor of

Fairborn, Ohio. **Karla Ramberger** ('95 BSN, Nursing) is chief nursing officer for the Methodist Health System in Dallas.

2000s

Angela Plauche ('00 BSN, Nursing) is co-founder of the Urbane Scrubs company. She is an ICU nurse at Parkland Hospital in Dallas. **Becky Abuor** ('02 BSN, Nursing; '08 MSN, Nursing Practition) is founder and chair of Afya Health Systems, a nonprofit charitable organization that provides access to comprehensive health care in parts of Kenya where such services aren't available. **Kelly Bowman** ('03 BSN, Nursing) is pursuing a master's degree at UT Arlington after two tours of duty with the Navy in the Middle East. She worked as a flight nurse transporting patients from the surgical shock trauma hospital to the local hospital via helicopter, at times under enemy fire. **Tammy Evans** ('03 BSN, Nursing; '08 MSN, Nursing Administration) is manager of the Baylor All Saints Medical Center Emergency Department in Fort Worth. Previously she was risk manager, patient safety officer, and accreditation coordinator at the Baylor heart hospitals in Plano and Denton. **Gail Kemp** ('03 BSN, Nursing) is an emergency room nurse and clinical coordinator for Rescue Nurse International, which provides bedside nursing care and transportation to ill travelers around the world. **Jakki Opollo** ('04 BSN, '08 MSN, '12 PhD, Nursing) is director of Professional Practice and Nursing Research at Parkland Health Hospital System in Dallas. **Tara Haskins** ('07 MSN, Nursing Practitioner) is assistant professor of nursing at Louisiana Tech University. She completed her doctorate in forensics at the University of Tennessee Health Science Center. **Kelvin Phan** ('08 BS, Athletic Training) is coordinator of clinical education for the Department of Athletic Training at the University of Charleston in Charleston, W.Va. He is an instructor in the athletic training program and also provides medical services to the university softball team. **Kristin Salinas** ('08 BS, Athletic Training) works at Houston Methodist St. John Hospital as an outreach athletic trainer for Clear Lake High School. **Jed Stratton** ('08 BS, Athletic Training) is an assistant athletic trainer at UT Arlington. He is the primary athletic trainer for the women's basketball team while assisting with the tennis and golf teams.

2010s

Seth Holwerda ('10 MS, Exercise Physiology) is a doctoral student in the Department of Medical Pharmacology and Physiology at the University of Missouri School of Medicine. **Kristina Ibitayo** ('10 PhD, Nursing) is an assistant professor at LeTourneau University's School of Nursing. She helped write the proposal approved by the Board of Nursing for the start of LeTourneau's undergraduate nursing program.

Previously she was a clinical assistant professor in UT Arlington's College of Nursing. **Long Lam** ('10 BS, Athletic Training) is head athletic trainer for the Rio Grande Valley Vipers, a development league basketball team affiliated with the Houston Rockets. Previously he served a one-year internship with the Rockets training staff. **Debra Logan** ('10 PhD, Nursing) is chair and director of the Nursing Program at Kansas Wesleyan University in Salina, Kan. Previously Dr. Logan was director of nursing programs for Brown Mackie College in Bedford and was campus dean of nursing and assistant professor of nursing for West Coast University in Dallas. **Jane Harmon** ('11 DNP, Nursing Practice) is a psychiatric mental health nurse practitioner at McCurtain Memorial Hospital in Iabel, Okla. She also manages psychiatric patients in a primary care clinic and provides care in four nursing homes in McCurtain County. She was a clinical instructor in the UTA College of Nursing from 2006-2012. **Aaren Gignac Stratton** ('11 BS, Athletic Training) is athletic trainer at Lake Ridge High School in Mansfield. **Kara Edgerton** ('12 BS, Exercise Science) is a student in the Doctor of Physical Therapy program at the University of North Texas Health Science Center. **Danielle Hansen** ('12 BS, Athletic Training; '14 MS, Exercise Physiology) is an athletic training fellow at the Steadman Clinic in Vail, Colo. She was a graduate assistant athletic trainer with the Movin' Mavs wheelchair basketball team while at UT Arlington. **Roger Sancho** ('12 BS, Athletic Training) is head athletic trainer for the Santa Cruz Warriors, a development league basketball team affiliated with the Golden State Warriors. **Cecilia Acuna** ('13 BS, Exercise Science) is a student in the Doctor of Physical Therapy program at The University of Texas Medical Branch in Galveston. **Ryan Barfoot** ('13 BS, Exercise Science) is a student in the Doctor of Physical Therapy program at Texas Woman's University. **Tyler Benson** ('13 MS, Exercise Physiology) is a student in the Doctor of Osteopathic Medicine program at the University of North Texas Health Science Center in Fort Worth. **David Christopherson** ('13 BS, Exercise Science) is a student in the Doctor of Physical Therapy program at the Texas Tech University Health Sciences Center. **Wendy Donnell** ('13 PhD, Nursing) wrote A Correlational Study of a Reading Comprehension Program and Attrition Rates of ESL Nursing Students in Texas. She is an assistant professor of nursing at Texas A&M International University. **Jason Ngu** ('13 BS, Exercise Science) is a student in the Doctor of Physical Therapy program at Texas Woman's University. **Brandon Esianor** ('14 BS, Exercise Science) is working toward a graduate degree at The University of Texas Medical Branch at Galveston.



Brittany Byrd ('11 BSN, Nursing) was a finalist for the 2013 Good Works Under 40 award. Sponsored by the Dallas Foundation, the award highlights the work of outstanding volunteers under age 40. Byrd founded Girls Embracing Mothers, a group that helps girls visit their mothers in prison.



Sabina Harrington, ('89 Kinesiology) was named 2015 Outdoor Educator of the Year by the Dallas Ecological Foundation. A teacher at Arlington Martin High School, Harrington works with more than 380 students in the outdoor adventures program, which includes hunting, fishing, archery, and camping.



Priscila Caçola, assistant professor of kinesiology, works with a student.

Program helps kids improve their moves

When kinesiology Assistant Professor Priscila Caçola started recruiting for a study on developmental coordination disorder in spring 2012, parents showed up with their kids—and lots of questions.

Sometimes called dyspraxia, DCD is a neurodevelopmental condition characterized by poor motor skills that interfere with daily activities, often resulting in problems with handwriting, coordination, and/or balance. Although DCD affects 5-6 percent—or more—of schoolchildren, resources for kids and their parents are scarce.

Dr. Caçola, director of UTA's Developmental Motor Cognition Lab, quickly realized she could help. That fall, she started the Little Mavs Movement Academy, a group motor skill intervention program that helps kids ages 6 to 15 with movement and coordination difficulties. Currently 25 kids are enrolled in the program, which meets once a week.

"I thought it was a great way for UTA students to learn how to work with kids. We could create a community," Caçola says, noting that children with DCD often suffer from anxiety, depression, or low self-esteem related to their poor motor ability. "They understand really well that they have poor motor skills. It's one of the few developmental disorders

where the kids are aware that they are different."

She thought working in a group would help the children feel better and be more motivated. Preliminary research shows the intervention is helping with peer problems, improving anxiety levels, and boosting confidence.

Caçola also has conducted research showing lack of coordination in catching a ball, walking a straight line, or writing in between the lines is actually a spatial issue.

"It's not that their muscles are not working correctly, it's that they can't estimate where they should be correctly—and that's a huge role in catching a ball," she says. "One of the things I'm looking at is coincidence timing, which is being able to match your body to an object in space at the same time."

An experiential paradigm in her lab involves kids intercepting objects that move to and away from them to see how those with DCD compare to typically developing children. Initial research shows DCD kids are 3-6 centimeters off compared to others.

"They aren't 'not catching' the ball because they have balance problems. It's because they don't know where the ball is," she says. "They are 2½ inches off. It's really interesting." 🇺🇸



CHANGE A LIFE

YOUR ANNUAL GIFTS SHAPE THE FUTURE OF UT ARLINGTON STUDENTS

YOUR SUPPORT FUELS SUCCESS IN THE COLLEGE OF NURSING AND HEALTH INNOVATION

UT Arlington boasts some of the nation's brightest and hardest-working students, but many struggle to make ends meet. More than 75 percent of our students report being employed during the school year, with almost 20 percent working full time. Yet these high-achieving scholars consistently receive national recognition for academic excellence and find time to volunteer hundreds of thousands of hours in the community each year. Your annual gifts help future leaders like Jaeca Flanagan, a student in the College of Nursing and Health Innovation, fulfill her potential and discover her passion. Make a gift online today at uta.edu/giving or call the Office of Development at 817-272-2584.

JAECA FLANAGAN

HOMETOWN: DeSoto, Texas

MAJOR: Nursing

CLASSIFICATION: Senior

EXPECTED GRADUATION: Spring 2015

FUTURE PLANS: To pursue a master's degree in nursing and become a nurse practitioner

SCHOLARSHIPS: Dream Maker's Scholarship

"My scholarship has helped me bridge the financial gap between school and family. It has allowed me to devote my full attention to being a student without having to get a job. It's important to invest in the future. We are the nurses of the future, and scholarships like these help make our dreams a reality."





Class Act

Nursing and kinesiology graduates marched together for the first time in the 2014 Winter Commencement of the College of Nursing and Health Innovation held in College Park Center.

It was also the first commencement presided over by Dean Anne R. Bavier, who told graduates they would join the college's more than 19,000 alumni who are making significant health contributions to the people of Texas and beyond.

"We want to hear from you, we want to know about your accomplishments, and we want you to come back when you seek your next degree—and you will," she added.

UT Arlington is the largest producer of baccalaureate-degree nurses in Texas.