

# TMC | PULSE

THE OFFICIAL NEWS OF THE TEXAS MEDICAL CENTER SINCE 1979 — VOL. 36 / NO. 10 — AUGUST 2014

## Elevating Trauma Care

.....  
*Memorial Hermann Life Flight  
marks 38 years of trauma care  
in and around Houston*



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**CHARLES D. FRASER JR., M.D., CHIEF OF CONGENITAL HEART SURGERY AND CARDIAC SURGEON-IN-CHARGE AT TEXAS CHILDREN'S HOSPITAL, HAS ALWAYS BEEN A PROBLEM SOLVER. SO WHEN HE MET A YOUNG GIRL WHO OVERCAME A POTENTIALLY DEBILITATING GUNSHOT WOUND, FRASER BECAME DEDICATED TO HELPING YOUNG PATIENTS GO ON TO LIVE FULL, HAPPY LIVES. HE DISCUSSES THE MENTORS WHO HELPED SHAPE HIS CAREER, AND THE UNIQUE CHALLENGES OF TREATING SERIOUS CARDIAC MALFORMATIONS.**



**ROBERT C. ROBBINS, M.D.**  
*President and  
Chief Executive Officer,  
Texas Medical Center*

Looking back on the last several months, I am pleased with the progress that has been made in generating new ideas, and building upon longstanding ones, as our member institutions come together in support of our design teams. The synergy within the medical center is exciting, and we continue to find more compelling reasons to support the sharing of both phenotypic and genomic data across all of the TMC institutions.

Data is central to the work of each of the teams—health policy, clinical trials, innovation, regenerative medicine and genomics—from developing a common IRB for clinical trials, to the creation of a TMC Biobank and Biorepository. All are important to the successful implementation of the TMC-wide strategic plan objectives, and all require collaboration and data sharing.

There is exciting and substantial potential to leverage the power of information for the improved health of humanity. And I see no place more capable of amassing the sheer volume or diversity of game-changing data than the Texas Medical Center. By compiling and sharing clinical information—from patients of all races, male and female, old and young—new drugs can be developed, new medical devices built, and novel IT solutions implemented to improve health around the world.

I look at the work being done through the Texas Medical Center Genetics (TexGen) project, founded by Drs. James Willerson and Eric Boerwinkle, as an outstanding example of the power of data sharing. Since 2001, TexGen has been amassing a database of genetic information, volunteered by patients, to help better understand the leading causes of cardiovascular disease, cancer and stroke. And as a collaborative effort, the information is contributing to research across the medical center.

By harnessing the power of information, there is tremendous potential for TMC researchers and physicians to help unlock the mysteries of disease and human health.

*Robert C. Robbins*

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## You could say this couple trusted their gut to UTMB.

Linda and Arthur Triplette love to travel. Last year their plans were interrupted by not one, but two surgeries.

It began with Arthur not feeling quite right. He visited his UTMB primary care doctor who arranged for same-day x-rays. They showed a tumor in his stomach. Arthur's surgery was scheduled and went exactly as planned. A few months later, Linda's routine colonoscopy revealed polyps that had to be removed surgically. The same seamless care resulted in Linda's quick recovery.

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Left: G. Nicholas Verne, MD, Director, Division of Gastroenterology and Hepatology

Center Left: Gurinder Luthra, DO, Gastroenterology

Center Right: Aakash Gajjar, MD, FACS, FASCRS, Colon and Rectal Surgery

Right: Taylor Riall, MD, PhD, Liver and Pancreatic Surgery

*The four clinicians featured here are representative of the whole team of specialists spanning our gastrointestinal services.*

*The University of Texas Medical Branch  
Member, Texas Medical Center*



Working together to work wonders.™



# A Solid Foundation for Biomedical Research

**THE GALVESTON NATIONAL LABORATORY PROVIDES RESEARCH SPACE AND INSTRUMENTATION TO SAFELY DEVELOP THERAPIES, VACCINES AND DIAGNOSTIC TESTS FOR NATURALLY OCCURRING EMERGING DISEASES**

BY ALEX ORLANDO

Entering the Biosafety Level 4 (BSL4) facility at The University of Texas Medical Branch at Galveston (UTMB), often described as “a submarine inside of a bank vault,” is an intricate process. Even before stepping inside the building, researchers must pass through a security checkpoint, manned 24 hours a day, before navigating a series of locked doors, elevators and stairwells, all of which require electronic or other forms of security clearance. Closed-circuit cameras dutifully monitor the entire journey between the building entrance and laboratory entrance.

As researchers prepare to cross the threshold into the sealed capsule of the laboratory itself, they must pass the final locked door to enter a buffer corridor around the lab. Ensuring

that security is air-tight, negative air pressure throughout the buffer corridor and the lab itself maintains air flow from “safer” areas into the BSL4 area—another redundancy built into the system to counteract the remote potential for infectious particles to escape into the air. Once they’ve donned positive-pressure suits to protect against any infectious material that might become airborne within the containment lab, scientists pass through an airtight door into the laboratory area. After all that, holding your breath hardly seems necessary.

“The complexity and redundancy in our systems ensures that we’re secure because we take great care in making sure that everything that leaves the laboratory is completely

inactive, whether it’s in the wastewater or the air that you breathe,” said James LeDuc, Ph.D., director of the Galveston National Laboratory (GNL) at UTMB. “About half of the building is dedicated to mechanical space just to ensure environmental safety. We have a staff of highly trained professionals working on those systems.”

Consisting of 96,000 square feet of total laboratory space and a projected economic impact of \$1.4 billion stateside over the course of 20 years, work within the Galveston National Laboratory complements and enhances UTMB’s decades of prominence in biomedical research. The facility serves as a crowning achievement upon a series of advances that have taken UTMB’s infectious disease

program from a local point of pride to an internationally renowned resource.

“We have several main thrusts—it’s all about bringing the academic community into the response for both national security, in terms of biodefense, as well as emerging infectious diseases,” explained LeDuc. “Through that, we strive to really harness the research capabilities of the academic community to really understand how these unique diseases cause illness in humans.”

Formally dedicated on November 11, 2008, the Galveston National Laboratory provides much needed research space and instrumentation to safely develop therapies, vaccines and diagnostic tests for naturally occurring emerging diseases such as SARS, West Nile encephalitis and avian influenza—and for microbes that might be employed by terrorists. Investigations within the GNL have the potential to spur the emergence of products such as novel diagnostic assays, improved therapeutics and treatment models, and preventive measures such as vaccines.

Since the early days of the 20th century, when UTMB physicians provided care for victims of the 1918 influenza pandemic and outbreaks of the bubonic plague and yellow fever, UTMB has been actively engaged in influencing infectious disease research. In the past few decades, emerging and reemerging infectious diseases have posed a steadily growing threat, thanks to rises in human population size and density, rapid environmental change, and increases in the speed and volume of transportation.

Microbes once limited to remote regions of the globe have shown the potential to penetrate the developed world—viruses like SARS and West Nile. For germs in a world where transportation barriers are eroding, international boundaries mean little.



*The Galveston National Laboratory was formally dedicated on November 11, 2008.*



“ It’s all about the people here. It’s great that we built this incredible building, but it wasn’t until we commissioned it and brought the people in that we started to see the magic happen, which is what drives scientific discoveries. ”

— JOAN NICHOLS, PH.D.

*Associate Director of Research and Operations for the Galveston National Laboratory*



Joan Nichols, Ph.D.

This escalation prompted David Walker, M.D., director of UTMB’s Center for Biodefense and Emerging Infectious Diseases, to propose the creation of the United States’ first full-scale Biosafety Level 4 laboratory on a university campus. In the mid-1990s, Walker’s recruitment of eminent virologists Robert Shope and Robert Tesh, who left Yale for Galveston in 1995, commanded global attention while simultaneously stimulating the expansion of UTMB’s infectious disease program. They brought with them the World Reference Center for Arboviruses, a priceless collection of thousands of different virus strains collected from all over the globe and freeze-dried for storage. As Walker enlisted a talented troupe of scientists to join his expanding team in Galveston—including Alan Barrett, Ph.D., an eminent pathologist and current director of UTMB’s Sealy Center for Vaccine Development, and Scott Weaver, Ph.D., a pathology professor who would become scientific director of the Galveston National Laboratory—he realized the necessity of a maximum containment lab to work on the diseases that interested them, from tick-borne encephalitis to chikungunya.

After an extended approval process while community support was garnered and fears were assuaged, the Robert E. Shope M.D. BSL4 Laboratory broke ground in 2002 and was officially dedicated in 2004. “The Shope Laboratory turned out to be incredibly visionary,” recalled Weaver. “It opened up new opportunities for our research programs and gave us experience not only in running this facility but interacting with the community here to develop the kind of relationship that you need to secure that level of trust.” UTMB faculty meet regularly with their Community Advisory Board, a group of approximately 60 members of professional and civic organizations, to keep them informed on the important work being done at UTMB and to get their



help in sharing the information with the community at large. A seven-member GNL Community Liaison Committee also meets regularly, acting as UTMB's eyes and ears in the community as well as a sounding board.

"The Shope Laboratory was a revolutionary thing—it proved that we could run a BSL4 laboratory safely and securely," said Walker. "After the community had accepted us, I hired consultants and brought groups of people here on a regular basis, people who ran labs like this at other places like the Centers for Disease Control and Prevention, and they helped us figure out how to proceed."

In spite of the tremendous success of the Shope Lab, it wasn't large enough to conduct certain types of experiments, especially those that involved work with animals larger than rodents. In the wake of September 11th and the subsequent anthrax attacks, the United States government vied for the creation of more facilities to provide research to help defend against bioterrorism attacks. Under the direction of the U.S. Congress, the National Institute of Allergy and Infectious Diseases/National Institutes of Health (NIAID/NIH) began a nationwide search for a location to build a National Biocontainment Laboratory.

"The Shope Lab was running around the same time that we drafted our application, and the committee that determines the funding for these types of programs came to visit for a site inspection," said Weaver. "They came down, and, lo and behold, a tropical storm was coming through. Some people thought that this was the worst possible luck, but the university was still open for business and the lab was running smoothly. I think that helped us convince them that we can build these facilities safe enough to withstand any storm."

One of two National Biocontainment Laboratories constructed with funding awarded in October 2003 by the

NIAID/NIH, the Galveston National Laboratory broke ground in 2005. The sturdy foundations of UTMB's new facility would be unexpectedly put to the test several years later, when Hurricane Ike struck the Gulf Coast in 2008. "Hurricane Ike was devastating," said Walker. "But there was one really good outcome, an unmitigated, beneficial effect: it proved that the GNL had been designed appropriately. It was the only building that was completely undamaged. Everyone was criticizing us for building a BSL4 lab on a barrier island that's constantly hit by hurricanes, but this proved that we had designed our facility soundly and it could function safely." The GNL was formally dedicated just a few short months after the hurricane, and has been running ever since.

Propelled forward by a critical mass of expertise, and drawing from the richness of the academic community, infectious disease research at UTMB has consistently tread new territory. Earlier this year, Thomas Geisbert, Ph.D., a UTMB professor of microbiology and immunology, received a \$26 million grant for Ebola research, work of critical importance as nations struggle to deal with the current outbreak in Africa. Courtesy of a \$4.4 million grant from the National Institute of Allergy and Infectious Diseases and led by co-principal investigator Slobodan Paessler, DMV, Ph.D., a professor in the UTMB department of pathology, researchers are working to create a universal flu vaccine—one that could eliminate the need for an annual flu shot. At a time when research budgets are under stress, UTMB received more than \$76 million in NIH funding for federal fiscal year 2013.

"It's all about the people here," said Joan Nichols, Ph.D., associate director of research and operations for the GNL and an expert on influenza. "It's great that we built this incredible building, but it wasn't until we commissioned it and brought the

“The complexity and redundancy in our systems ensures that we're secure because we take great care in making sure that everything that leaves the laboratory is completely inactive, whether it's in the wastewater or the air that you breathe.”

— JAMES LeDUC, PH.D.

*Director of the Galveston National Laboratory*



Scott Weaver, Ph.D.

people in that we started to see the magic happen, which is what drives scientific discoveries."

"What's unique about the Galveston National Laboratory, as well as all of our other research facilities, is that they're such high functioning entities on a university campus," added Walker. "It's mutually beneficial, but I think that the GNL benefits even more from being at a university than the other way around. Adding up those benefits, it's amazing to have all of these colleagues right next door with the ability to interact with one another. The collegial spirit that we've cultivated is less common than you might initially imagine. I've seen it grow a lot in my time here." Imparting that collegial mindset upon future generations, the National Biodefense Training Center at UTMB is poised to become a prime site for training aspiring researchers to work in BSL3 and BSL4 facilities across the country.



James LeDuc, Ph.D.

At the juncture between the private and the federal world and embedded in a textured academic community, UTMB's research facilities provide incredible value, from the microcosm of the local Galveston community to the macrocosm of global infectious disease research. "We really are a national resource," said LeDuc. "We have a lot of bright folks here that are doing remarkable work, which could propel us into collaborations with others across the nation and around the world, using these facilities to address larger issues. The idea is for the Galveston National Laboratory to interface with the greater academic community to conduct those experiments that require access to live pathogens. That's really our sweet spot." ■





**CHARLES D. FRASER JR., M.D., CHIEF OF CONGENITAL HEART SURGERY AND CARDIAC SURGEON-IN-CHARGE AT TEXAS CHILDREN'S HOSPITAL, TALKS ABOUT HOW A BACKGROUND IN MATHEMATICS HELPS HIM TO SOLVE CHALLENGES IN SURGERY, AND HOW INNOVATION HAS DRIVEN FETAL DIAGNOSES TODAY.**

**Q | Tell us about your early years in Midland, Texas.**

**A |** Midland Texas was, and is, a very special and unusual place. As you know, the economy is very active out there today. I believe this is the third boom cycle that I have experienced in my life and it's amazing to contemplate all of the opportunities I had growing up. My dad is a petroleum engineer. He and my mom moved out to Midland in about 1960, and he is still there. I think when I graduated high school there were only about 60,000 people living there, but we had extraordinary public educational opportunities. For a city its size, I believe Midland has enjoyed an usual, perhaps unique, concentration of intellectual capital and there was, to my view, a very robust public school system where we students were offered quite an advanced educational paradigm. For example, after graduating from high school, I was admitted to the University of Texas at Austin where I placed out of essentially a year and a half of courses just based on my high school preparation and advanced placement testing. This was a real advantage for me as a student.

From the standpoint of exposure to medicine, the citizens of Midland have been blessed by really outstanding doctors and a very good hospital. From early in life, I had very positive experiences with the doctors who took care of me. I had a big event when I was around 10 years old—traumatic spleen injury that required surgery—which exposed me to some really special caregivers; surgeons, pediatricians, nurses. This experience did, in a strange way, plant the seed of interest in medicine.

**Q | You have a background as a mathematician. Do you think there is a correlation between mathematics and surgery?**

**A |** I do think probably there is. People have often commented on that during

the course of my career. One obvious corollary is between geometric thinking and complex reconstructive surgery. In pediatric cardiac surgery, we are often faced with the challenge of congenitally malformed hearts with complicated structures that need to be rebuilt and often reconfigured. It is an advantage, perhaps it is mandatory, for the surgeon to be able to think in a three dimension way and essentially mentally envision the reconstruction in advance of doing the actual repair. We also need to think in terms of the patient's somatic growth and make allowances for appropriate dimensions during the course of life. From a planning perspective, I also see the development of surgical strategy as being, in many ways, mathematical. Many of our patients require multiple, complex cardiac operations over the course of life and in many instances, there are important decision points where the surgeon is faced with options that may have huge short or long term impact on the patient's ultimate outcome. As such, a paramount issue is to be able to think critically about the possible permutations of a particular decision pathway that will have long-term consequences, both positive and negative. Unfortunately, we sometimes see patients in whom a relatively 'easy' short-term solution may translate into an extremely problematic long-term situation. Again, this is mathematical thinking, much as one would have to do to perform a complicated proof of a theorem, beginning with the end in mind and working through the various steps—which will not necessarily be either linear or obvious—to get to the ultimate outcome solution.

**Q | Did you just have a natural affinity for medicine? What turned you in that direction?**

**A |** I guess you never really know you have an aptitude for something until you have a chance to experience it.



**“ If you walk through our cardiac ICU, it is just remarkable how the kids just do things that we can't do as adults. They respond, they get better and off they go. ”**

Some of my medical professors did comment, from very early on in medical school and then consistently throughout my residency, that I seemed to have a technical aptitude for surgery. So that always bolsters your interest and confidence when people are saying that. I hope it was true.

I went to medical school at UTMB Galveston. I decided in medical school that I wanted to be a children's surgeon. In fact, I didn't really like surgeons all that much in medical school. They seemed to me to be a bit misbehaved—always gruff and pretty unhappy and unpleasant. So I had this perception that maybe that was necessary, particularly in cardiac surgery. If you were going to be a successful surgeon, you would have to be pretty rough. So I went to Johns Hopkins as a subintern, pretty well intent on not being a cardiac surgeon, but having more interest in

pediatric surgery. I was lucky enough to get a match for residency there in general pediatric surgery.

I can remember the day Bruce Reitz and Bill Baumgartner walked in. They are nice guys, gentlemen and brilliant surgeons. Certainly you would never say they were anything but courageous as surgeons, but they did it in a way that was very appealing to me. So we just got along really well. And as you might expect, they surrounded themselves with tremendous people at Hopkins. So Bruce came to me after I did my cardiac rotation as an intern and said, 'Look, don't cut off your nose to spite your face. You seem to have an aptitude for this. Why don't you come and join us on the cardiac service side?' So I changed from pediatric surgery to heart surgery.



(Credit: Texas Children's Hospital)

Children are so amazing in the sense of how well they tolerate surgery and how quickly they recover. I can remember an epiphanous case that really opened my eyes to the notion of being a children's surgeon. It was a child who had a gunshot wound. At that time, at UTMB, we took care of the whole of the state, because every child that came from a county that didn't have a county hospital came to UTMB for care. So we had a huge children's hospital there. Now they don't, unfortunately. But this little girl was from somewhere up in North Texas, and she had a terrible gunshot wound to the buttocks. And I remember wondering how she would ever possibly recover from that horrible injury. And I'll be darned if she didn't just heal. It was just remarkable how well she healed. And I remember thinking that this was almost miraculous.

So I started learning about the physiology of children, and this notion that you could do these operations that would transform lives for decades was very appealing to me. And also just the way that the children respond to treatment. If you walk through our cardiac ICU, it is just remarkable how the kids just do things that we can't do as adults. They respond, they get better and off they go. So it is very gratifying. And I just started to see that fit with my personality. You see a problem, you fix it, you see an immediate result. And I kind of liked that connection to therapy.

**Q | Looking at innovation, what are some things that you are doing today that you couldn't have done five years ago?**

**A |** Well, we are almost uniformly making fetal diagnoses for all newborns. It is an aberration to have a newborn who comes to us and is diagnosed post-natal. I just operated yesterday on a child who was a post-natal diagnosis, and we were all shocked. And this child came through a sophisticated health care system.

The imaging has just gotten better and better, and the knowledge has gotten better. So that has allowed us to move into the realm of fetal planning. Fetal intervention is still pretty much experimental in the cardiac world, but definitely fetal planning, that's part of our norm now. We start seeing these children early in gestation, we meet the families, we plan for delivery, and we discuss contingencies. That's a big change in the last five to ten years. It's sort of a standard of practice now for newborn management, and it has, of course, allowed us the proposition of fetal intervention.

**Q | What are the cases that you find the most satisfying?**

**A |** Well, I tend to be referred a lot of challenging cases. That's been my reputation of late. I just came down from the clinic, seeing a child who's got a lot of complicated problems, cardiac and non-cardiac. So, to me, that's intriguing, because every child that comes through that referral network, we have to do a lot of head-scratching. Each one is different from the last one. And in some of them, no one has seen cases like theirs before. We had one just this week, no one had ever seen it, no one had ever heard of it. And that's quite amazing.

**Q | What do you do with that kind of case, when there is no precedence from which to work?**

**A |** Well, that's the great thing about being in our field. I think you do have to innovate and improvise a lot. That can be from a technological standpoint, applying something that you didn't apply to that before. And then, even in the categorical conditions where you think it would become more boilerplate, there are always nuances in difference with anatomy, presentation and physiology. But as far as operations, my signature operation is probably the arterial switch operation. I've just done lots of them, and had a really good track record.



“ I said, almost as soon as I got here, that I wanted to build a program that was the same when I’m here as when I’m not here. A program that I would bring my children to. And that’s what we have. This place never closes. ”

**Q | Tell us about some of your mentors.**

**A |** I can go way back. In high school, I had some great teachers, great educators. I had a great doctor in Midland, who I was very close to. I had a traumatic spleen injury when I was about ten, so I had to have an operation and spent a lot of time in the hospital, and that actually changed my life. Because I couldn’t play sports that summer, I ended up doing other things. And then in the fall, my dad didn’t want me playing football, so I started playing tennis, and I became a tennis player. We actually lived right across the street from tennis courts, so I started hanging out over there and playing tennis. So that really changed the trajectory of my athletic life. Then I became very close to the doctor when I was sick, so he kind of mentored me through childhood.

And then I had an amazing experience in medical school. I had a couple of doctors who were very influential. But at that time, UTMB had, and still does I think, between your first and second year, you have two months off. It’s the only time you have off in medical school there. And they really encouraged the students to go out and do something practical. They had an office that would assign you places. So I got assigned to a hospital out in Andrews, Texas, which is far West Texas. It was a very unusual community, probably five or six thousand people, one hospital... I think we had two operating rooms, probably the whole hospital was 50 beds. It had an emergency department. I lived in the hospital, and worked for a general surgeon who was the most amazing man. And we did everything. We operated, we delivered babies, we took care of rattlesnake bites, we did breast augmentations, we did hysterectomies, we did children’s surgeries, we went all over West Texas and did emergencies. It was unbelievable. I think about that experience as a rising second year student, and the things I got to see and do. And this guy was very

important to me from the ministry of medicine, and the way he went about it.

And then, you know, as I went along, residency, there were others that really influenced me. And then, I had a rotation in Australia, which was an extraordinary experience. The principle surgeon there was a guy named Roger Mee, and he really changed my professional life as a pediatric heart surgeon. He was the guy who really taught me how to do it.

**Q | What do you look forward to most about the future?**

**A |** I do think that there are going to be incremental breakthroughs in technology. I’m not personally betting on a mechanical solution for circulatory problems in childhood, because we have the problem of somatic growth. And I could be wrong about that, because when these pumps get more and more miniaturized, there is more opportunity for broader application.

But you know how children fiddle with things, and being tethered to a machine is also problematic. So I’m still holding on to the biologic solution, and bioengineering, and tissue regeneration. And we have developed and maintained an interest and collaborations. There is enormous unrealized collective potential here, and of course, collaboratively across the world. But that’s where I see some striking opportunities on the horizon. A tissue engineered heart valve for children would be transformative.

I think that on the scientific side of things, I see the next decade in pediatric surgery linked with tissue regeneration and some forms of cell therapy for surgical problems. But frankly, I think the bigger incremental upside is in the organization of care. I really do. I don’t think that patients get the right care out in the world.

We do so much remedial surgery here. I would say that half of the surgery that we do is remediation. There is not broad knowledge. Of course, my field

is super specialized, but there are a lot of super specialized enterprises in places like Texas Children’s in cancer, in neuroscience. And I think that we can continue to push the world of structural integration, of outcomes, measurement, and the right care at the right place at the right time. And in medicine, we are still very disjointed.

To toot the horn of Texas Children’s a bit, I think that’s an opportunity we have through our integrated delivery system. This system of pediatric practices, our relationships now, extend across the state and hopefully eventually across the world. Where we communicated effectively electronically, we have giant data repositories. We have a group of people that work on outcomes analysis. There are extraordinary things that we have been able to do and learn in the last few years. And for simple problems like appendectomies, we have been able to reduce the length of stay for appendectomies for this organization exponentially, just by looking at the way that antibiotics are administered, and the timing of antibiotics, and diagnostic assessment. And I see that, again, if outlook at the scope of influence, much bigger than building a heart valve. A heart valve is really cool, and it is going to really help, but when you think about the coordination of care, I’m betting on that.

**Q | What are you most proud of when you look back on your career to date?**

**A |** That’s an easy one. From a professional standpoint, I’m most proud of all of the people that I get to associate with here every day. I said, almost as soon as I got here, that I wanted to build a program that was the same when I’m here as when I’m not here. A program that I would bring my children to. And that’s what we have. This place never closes.

I work with four surgeons who are the most extraordinary surgeons anywhere. They are just brilliant technical surgeons, brilliant thinkers, and great people on top of that. And it just goes

on and on. We have fantastic colleagues in anesthesia, in cardiology, in critical care, our administrative team, our nursing team, our research team, and I look back, and none of it was here. So I am proud of the community that we have built. And I can’t say that I built it, I just helped catalyze it in some ways. But it keeps growing. So that is enormously gratifying. It also keeps me coming back. There is something exciting going on every day.

**Q | How do you describe the Texas Medical Center to people who have not been here?**

**A |** With great challenge. I’ll try not to be too trite about this, but I think the Texas Medical Center is Texas. Texas is a place that if you are from Texas, you are very proud of this side of things. If you are not from Texas, it can be thought of somewhat disparagingly. But it can be this unbelievable sea of opportunity. And that’s the Texas Medical Center. It’s just this swirling mass of opportunity.

We don’t always get it all right. I think Dr. Robbins would be the first to say there are some redundancies here that probably shouldn’t be. On the other hand, there are things that have happened here that probably wouldn’t have happened any other place, and some of it probably has come from the redundancies and the internal horserace. It’s just an energized place. It’s pulsing all of the time. You can just feel it when you come here.

And when I am trying to convince people to move here, that’s kind of what I try to tell them. It’s why I came here, frankly. There’s just an opportunity replete environment here. If you are ambitious, and energized, you can do things here that you are probably not going to be able to do anywhere else, or certainly not at the pace that we do. ■



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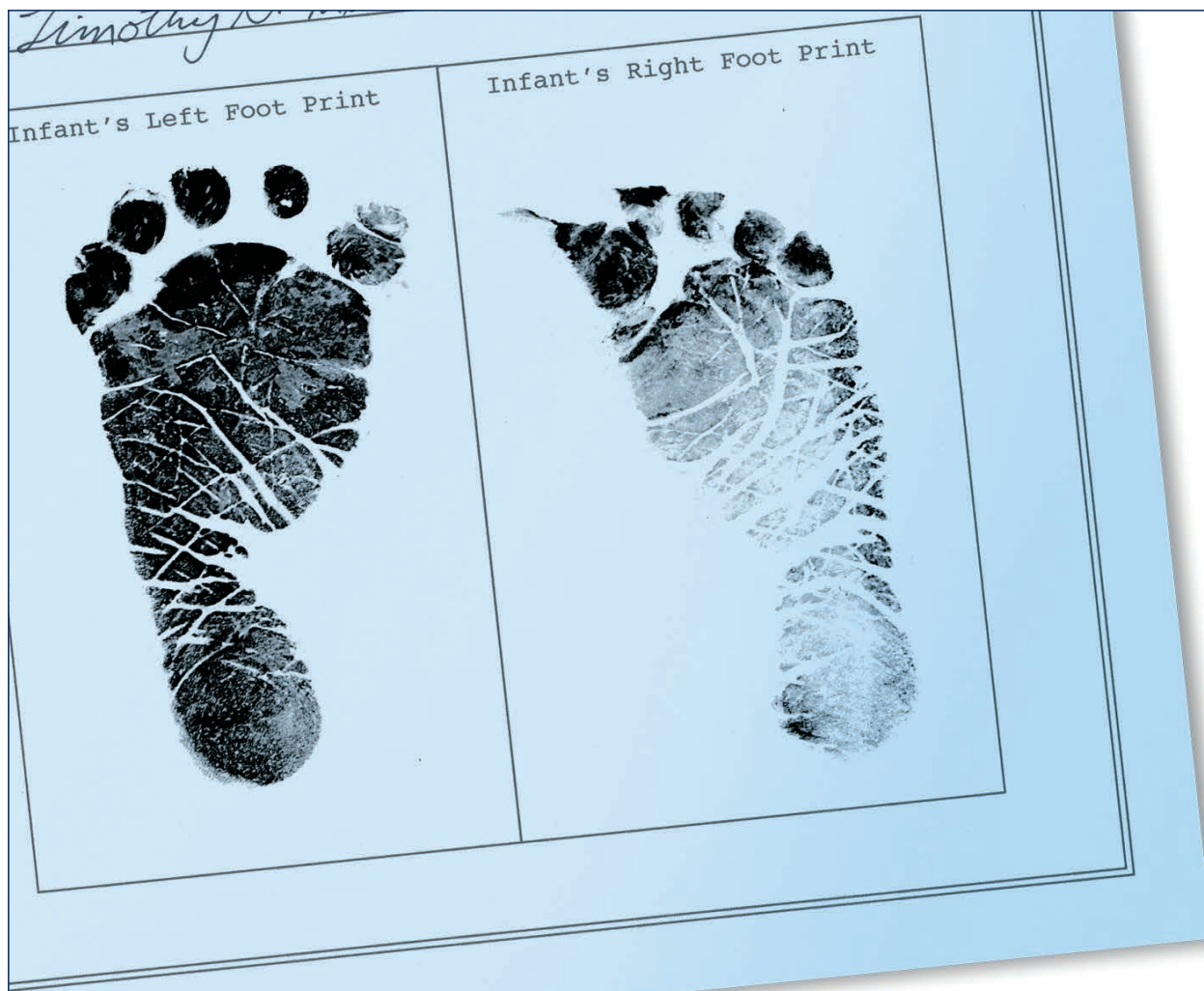


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# Good Neighbors

*Human physicians and researchers lend their expertise to the Houston Zoo*

BY ZOE QUEZADA



*In addition to caring for patients at MD Anderson, Jose Banchs, M.D., works with the Houston Zoo to help treat primates suffering from heart disease.*

With the world's largest medical center located right next door, it is no wonder that the Houston Zoo has paired up with some of the best human physicians and researchers to collaborate on important issues that affect our ecosystem.

As experts in their respective fields, Jose Banchs, M.D., FACC, FASE, director of echocardiography at The University of Texas M.D. Anderson Cancer Center, and Paul Ling, Ph.D., a longtime herpes virus researcher at Baylor College of Medicine, extend their knowledge of human health issues to the vets at Houston Zoo.

Ling and Banchs work on separate projects with the zoo. Banchs helps care for the orangutans and chimps as part of the Great Ape Heart Project and Ling studies blood and trunk wash samples taken from the Asian elephants to monitor levels of elephant endotheliotropic herpes virus (EEHV), a virus that is the leading cause of death in juvenile Asian elephants in North America, and

may be contributing to their decline in the wild.

"We are very grateful for everything the medical center has done," said Houston Zoo Veterinarian Lauren Howard, DVM. "Being right across the street certainly helps facilitate our relationships with the institutions and helps us to provide great patient care."

Banchs and his team monitor the apes' cardiac health through the use of regular heart ultrasounds, performed while the animals are under anesthesia. They take heart measurements to evaluate cardiac function, and then work together with the zoo veterinarians to develop a treatment plan.

"To see that they have the exact same structure, an exact same fiber orientation in the heart to human beings, it's just very enlightening," said Banchs.

Heart disease an important cause of sickness and death in apes in captivity, and it is important for zoos to monitor cardiac health in their ape populations. Little is known about the incidence of heart disease in apes in the wild.

It's not uncommon for zoos to seek out input from human cardiologists when treating apes. Apes are closer in heart anatomy to humans than they are to any other animal. In fact, they are almost identical. For this reason, human cardiologists, rather than veterinary cardiologist, are more appropriate to offer assistance.

"Our preventative medicine protocols are always evolving, so when we wanted to participate in the Great Ape Heart Project more and do better cardiac exams on our great apes (orangutans at the time) we contacted several zoos to ask what they

did," said Maryanne Tocidlowski, DVM, associate veterinarian at the Houston Zoo. "Many of them had human cardiologists as consultants because of their expertise with the heart exam and cardiac equipment. Banchs and his technician Liza Sanchez came over and apparently became enthralled with our animals. They have been coming over to do our cardiac exams ever since. We are ever grateful to them for their assistance."

In 2009, when Banchs was first brought in to work with the zoo, he helped confirm that a Bornean orangutan, Doc, was suffering from severe heart disease. Taking advice from Banchs, the veterinarians put Doc on human heart medication, but unfortunately treatment was initiated too late to turn his illness around. Doc was euthanized in August 2001, due to severe cardiomyopathy—an inability of the heart muscle to contract effectively.

Before Doc was euthanized, Banchs and his team were present to perform one final cardiac exam, to learn as much as they could about Doc's condition. Banchs said his last moments with Doc really moved him.

"It was very sad to see him suffer so much," said Banchs. "You see that familiarity between the keepers and the animals and at that moment when a human who has been taking care of this animal for more than a decade or two realizes they are losing the animal who is like a relative to them, it was very moving."

The project continued after Doc's death and a few years later it was discovered that Rudi, another male orangutan was suffering from decreased cardiac function. This time, though Rudi was not showing any clinical

“The investigative abilities that Dr. Ling and his research team have provided have really opened doors in helping us understand and manage this disease.”

— LAUREN HOWARD, DVM  
Houston Zoo Veterinarian



symptoms of cardiac illness, the team decided to take a more aggressive approach.

Rudi was put on human medications for heart failure, a beta-blocker and ace inhibitor, and the keeper staff gives him his medications twice daily. Those medications, combined with an improved diet and enrichment-motivated exercise, have helped Rudi lose over 100 pounds.

“Clinically, Rudi acts perfectly fine and he probably doesn’t realize his heart is not normal,” said Howard. “Had we not done the routine heart exams that are recommend by the Great Ape Heart Project, we would not have noted his decreased cardiac function so early on, and he might be clinically ill by now. Because of the medication and assistance from Banchs, Rudi continues to lead a normal healthy life.”

Meanwhile, Ling heads up the research team that closely monitors the Asian elephants at the zoo. The project, a collaboration between Baylor, the Houston Zoo and Johns Hopkins University, is helping scientists and elephant caretakers all over the world learn more about the virus that is causing sudden deaths in the young elephants.

EEHV is a recently discovered virus that scientists have very limited information on. The virus can affect both Asian and African elephants, with the majority of fatalities occurring in young Asian elephants.

In 2008, a two-year-old elephant, Mac, passed away at the Houston Zoo due to EEHV infection. His death came as a shock to the staff.

The virus can cause illness very acutely, and by the time Mac started to show symptoms, it was too late for treatment to help him. He died less than 24 hours after displaying his first signs of illness.

“Baylor approached us when Mac died in 2008,” said Howard. “Alan Herron, one of the veterinarians at Baylor, reached out to us to express sympathy, and he asked if there was anything that they could do. That’s when we said ‘Yes, give us a virologist.’ Alan initiated the first meeting between Paul’s group and us.”

“All it took for me was one visit to the zoo,” said Ling. “The elephants are very charismatic animals and I thought how could I not want to save baby elephants? So I decided then that I would work on it and if there was a will there was going to be a way.”

Currently, the zoo has four juvenile elephants that are considered at high risk. Every week Ling tests samples from the elephants to watch for the presence of EEHV.

“The investigative abilities Dr. Ling and his research team have provided have really opened doors in helping us understand and manage this disease,” said Howard. “Not only for our elephants in the zoo but throughout the world. His work has had very far reaching effects.”

Initially, the collaborators worked under very tight finances. Luckily, with the help of private donors and the Houston Zoo, the team was able to establish the research program. Eventually the Houston Zoo received a \$500,000 grant from the Institute for Museum and Library Services, a highly competitive grant program.

“The medical center is used to million dollar grants but in the zoo world getting half a million dollars is pretty spectacular,” said Howard. “Zoo grants are normally between \$10,000 and \$50,000, so it’s a really big deal.”

With the help of this grant, and support from the Houston Zoo, the research program has divided its goals into three phases: diagnostics,

treatment and creating a vaccine. The team is well underway on their first goal and has created several successful testing methods.

Now, their focus is on the second phase, looking at better understanding the elephant immune system and how that will affect treatment options.

“We’re currently working on developing tests to look at elephant antibody responses and cellular immune responses to understand how the elephants respond and develop immunity to the elephant herpes virus,” said Ling. “Both of those are going to be important for helping elephants clear the initial infection and then maintain the lifelong immunity to the virus.”

Together, the collaborators host international conferences every other year to share their research with other scientists and elephant experts. They believe this issue is critical in maintaining the species and hope to soon develop an effective treatment plan and vaccine to help save elephants all over the world.

“Elephants are certainly a unique species,” said Ling. “It’s a flagship animal at almost any zoo that you go to and we know it’s killing elephants in the wild. I think solving the EEHV problem could be a critical piece that we’re going to have to do. It might sound a little melodramatic, but we’re going to have to solve this problem, potentially if we want to save the species.”

As Ling and his collaborators continue to search for answers, it is clear that the support of the Texas Medical Center physicians and researchers is incredibly important to the Houston Zoo.

“With all this talk of emerging diseases and zoonotic diseases, I think there is actually a unique opportunity for the zoo and the medical center and all the resources here to come together and look at some of these problems in a unique way,” said Ling. “What other place do you know of that has this number of high powered research institutions working on human health that are located right next to a very high profile and well respected zoo? I can’t think of any place.” ■

*In honor of the research that Baylor College of Medicine’s Paul Ling, Ph.D., has done with the Houston Zoo, the zoo named one of its baby elephants Baylor.*







MEMORIAL  
HERMANN  
*Life Flight*

# Elevating Trauma Care

**THE LIFE FLIGHT LEGACY BEGAN IN 1976, AND CONTINUES STILL TODAY WITH AN EMPHASIS ON DELIVERING THE BEST POSSIBLE CARE TO THE CRITICALLY ILL AND INJURED**

BY AMANDA D. STEIN

When the iconic red helicopters whirl over the Texas Medical Center, they command attention. Their deliberate, methodical descent shows no sign of the stress of the scene that they just left.

On the ground and in the air, the highly trained pilots, paramedics and nurses of Memorial Hermann Life Flight®, a nationally renowned air ambulance program, are saving lives every day.

Their dedication is what Life Flight is all about, says James “Red” Duke Jr., M.D., founding director of the program. Duke, himself a trauma surgeon, knows what it takes to care for critically ill or injured patients. He has done it for over fifty years, including the fateful day that President John F. Kennedy was assassinated. Duke was one of the surgeons who fought to save Texas Governor John Connally’s life that day in 1963, and later went on to help establish the Memorial Hermann-Texas Medical Center trauma program in 1972. The hospital’s air ambulance program would follow, four years later. Memorial Hermann-TMC is now home to the most active trauma program in the country.

“We began Life Flight on August 1, 1976. We made three flights that day and 45 the next month,” said Duke, who is also professor of surgery and the John B. Holmes Professor of Clinical Sciences at The University of Texas Health Science Center at Houston (UTHealth) Medical School. “It has been a real privilege to be involved in watching the incredible commitment from the Life Flight crews and everybody involved in making this program what it is.”

“I think that what makes our program great is the quality of work that is executed on a daily basis from each individual fulfilling their responsibilities,” he added. “They do it so well and with such dedication and commitment.

Our mechanics treat those helicopters like a baby. The pilots, paramedics and nurses are all real pros. They are all just a great group.”

Today, the Life Flight crews transport more than 3,000 patients a year, operating 24 hours a day, every day of the year. What began with a single Alouette helicopter has grown to include a fleet of six EC-145 twin-engine helicopters and a fixed-wing aircraft, operating on five bases across the Houston area, and serving communities within a 150-mile radius of the Texas Medical Center. In addition to landing at the scene of an accident or incident, Life Flight also helps transport critical patients from one hospital to another.

Memorial Hermann-TMC is home to the Texas Trauma Institute, a collaboration between Memorial Hermann and UTHealth. The hospital is one of only two adult trauma centers in the city of Houston, with the other being Harris Health System-Ben Taub General Hospital. The medical center is also home to two pediatric level one trauma centers, Texas Children’s Hospital and Children’s Memorial Hermann Hospital, the latter of which is housed within Memorial Hermann-TMC.

“Life Flight is really a regional asset,” said Texas Trauma Institute Medical Director, retired Col. John B. Holcomb, M.D. “Some people think we only transport patients to Memorial Hermann, but that is not the case. We take the patients to the closest location and the best place to go depending on the severity of illness both trauma and non-trauma for the patient’s benefit. We do what’s best for the patient.”

Each Life Flight helicopter is manned by a three-person crew that includes a pilot, flight nurse and paramedic. The pilots, many of whom have backgrounds as military pilots, are solely responsible for the safety of the aircraft.



James “Red” Duke Jr., M.D. (Credit: Memorial Hermann)

“ We began Life Flight on August 1, 1976. We made three flights that day and 45 the next month. It has been a real privilege to be involved in watching the incredible commitment from the Life Flight crews and everybody involved in making this program what it is. ”

— JAMES “RED” DUKE JR., M.D.  
Founding Director of Memorial Hermann Life Flight





“ The crew functions as a trio. It is a team effort [...] All have to be on their game, all the time—the pilot, the nurse, the paramedic, dispatch, the mechanic. They are rescuing people that have endured severe trauma, or are suffering from severe medical issues. We are talking from premature babies, all the way through geriatrics. ”

— TOM FLANAGAN

*Memorial Hermann-TMC Chief Operating Officer*

They carefully monitor weather, environmental conditions, and maintenance of the equipment, and are given the final word on whether their crew can safely respond to a call.

A nurse and paramedic make up the medical team aboard each flight, working together to deliver the best possible care for their patients. All of the program's medical personnel are licensed paramedics, while the flight nurses are also registered nurses. Beyond the flight crew, the Life Flight staff includes mechanics, dispatchers and administrators.

The team dynamic is as important as the training and skill, since each member of the crew plays an essential role in patient transportation and care. Memorial Hermann-TMC Chief Operating Officer Tom Flanagan knows firsthand the value of having

a confident, capable crew. Flanagan previously served as a Life Flight nurse for 21 years.

“The crew functions as a trio. It is a team effort. They are so interdependent. Once they get in that aircraft, their lives are dependent upon each other,” said Flanagan. “All have to be on their game, all the time. The pilot, the nurse, the paramedic, dispatch, the mechanic. They are rescuing people that have endured severe trauma, or are suffering from severe medical issues. We are talking from premature babies, all the way through geriatrics.

“It's a high stress, very highly visible role. You've got to be able to manage all of those emotions,” he said. “And with that understanding, they become very close in their professional working relationship because of what they endure every day.”

For the case of a traumatic accident or injury, the Life Flight crew also relies on first responders to make a lot of the preliminary decisions in patient care. Once the first responders determine that an air ambulance is needed to quickly transport a patient to the hospital, they place a call to the dispatch center, which then determines the closest available crew to respond.

Memorial Hermann works closely with EMS from all over the greater Houston area, police officers and firefighters to ensure that the ground crew at a scene is prepared to relay critical information to the aircrew, and is familiar with how to secure a safe landing zone at the scene of an accident or incident.

“We would not have seen the success that we have had for 38 years if it hadn't been for the EMS and

law enforcement in the community, because it really starts with them,” said Flanagan. “They are the first responders, and so they have to make some critical decisions in a pretty short period of time. Does the patient need to go to a Level 1 trauma center? How close is the closest Level 1? How critical is the patient? How quickly do we need to get them there? Hence, do we need to utilize the helicopter? So we have always had to work very closely with EMS and law enforcement.”

The goal for all is to get trauma patients back to a trauma center within an hour of their initial injury. This golden hour is believed to be the amount of time within which a patient should receive care in order to have the greatest chance of survival.

Beyond allowing the crew to bypass Houston traffic to get patients to the



hospital in a fraction of the time it would take for ground transport, each helicopter is fully equipped to give the medical team the tools to provide life-saving care.

“We have added a number of capabilities to the aircraft in order to better care for our patients by doing some of these procedures in the air, on the aircraft, on the route back to the level one trauma center,” said Flanagan. “

Holcomb, vice chair, professor and chief of UTHHealth’s Division of Acute Care Surgery, served as a top military trauma surgeon for the U.S. Army. Since joining the Texas Trauma Institute, he has helped add blood products into the Life Flight helicopters, allowing trauma patients experiencing significant blood loss to be given transfusions en route to the hospital. Holcomb is just one of many veterans serving on the Memorial

Hermann team, and sees the opportunity for battlefield trauma care and training to translate into better care for the city’s trauma patients.

“We really try to take the lessons learned over the last decade from being in Iraq, Afghanistan, and implement those on the trauma side. That’s a big part of what Life Flight does,” explained Holcomb. “With tourniquets, blood products, hemostatic dressings, warming of fluids on the helicopter...we’ve spent a lot of time taking those lessons learned overseas and trying to benefit the trauma patient population in the greater Houston area.”

In order to provide the greatest benefit to the community, Life Flight’s services are available as needed, often at the hospital’s own expense. Since no patients are denied life-saving transportation based on their ability

to pay, Memorial Hermann has a number of community outreach programs designed to help avoid the need for trauma care. Bicycle helmet, water safety and new driver programs are designed to help inform the public about how to avoid the more common types of critical injuries that the trauma team sees each year.

A high school outreach program, called Shattered Dreams, gives students a realistic look at the consequences of driving under the influence. The students spend the night in the hospital, view a transport by air ambulance and hearse, and are ultimately asked to promise their families that they will never drive while intoxicated. As much as Memorial Hermann-TMC hopes that these preventative measures help decrease the number of trauma calls they receive-they will always be

standing by, ready to transport patients back to the medical center.

“When Memorial Hermann made the commitment years ago to bring the helicopter into the community back in 1976, it truly was a commitment from the hospital and the board of trustees at that time that the program was for the community, to help the community,” said Flanagan. “Outreach programs are important, because although we are here to take care of those injuries, what we would really rather do is get out in front of the injuries and teach prevention. And that is really a commitment that Memorial Hermann-TMC took on in our philosophy as a trauma center.” ■



# Three's a Crew: Inside Memorial Hermann Life Flight

**BOBBY WISDOM**  
*Pilot*



**PAT SHERRER**  
*Flight Nurse*



**What brought you to Life Flight?**

I was drawn to Life Flight by the unique opportunity to be able to fly and help people at the same time, while operating the very best aircraft in the industry. I know that at the end of the day I have had the chance to make a difference, while doing something that I really enjoy. I've been with Memorial Hermann for 24 years, and I've stayed here for so long because of the great people I get to work with and the variety of flying that this job offers.

**What is the most rewarding part of this job?**

I think there are standout moments every month. I do this job because I feel that I can give back a little bit to the community. There are a lot of places that people can fly and can make more money, but this is truly a job that can be very rewarding.

**What do you enjoy doing in your spare time?**

Number one would be spending time with my family. Number two would be scuba diving. My wife and I scuba dive a lot. We're going to Fiji in October. Also, I do enjoy golf when I can.

**What brought you to Life Flight?**

I've been a flight nurse for about ten years and my goal was to always fly for Life Flight. So just being part of the organization, I knew that they were the top in the field but they have so many more tools for us to do our job, and with it being a teaching facility so many cool things come along. It's where I wanted to be.

**What is the most rewarding part of this job?**

Knowing that you can make difference with the little bit of time that you have with a patient is rewarding. You can make a huge difference in their ability upon discharge to be at their maximum functional level. So what you do in those couple of minutes, your ability to quickly decide what is going on with them and treat it appropriately, will make a difference in their outcomes.

**What do you enjoy doing in your spare time?**

I work on my house a lot. I enjoy gardening. I do a lot of artwork. I have a love for cars and a need for speed, so I have a fast boat and car. That's what I like to do in my spare time, although I don't really have any. I also enjoy spending time with my family. I wouldn't be where I am today if it wasn't for my family.

## The Life Flight Team

16

Pilots



17

Flight Nurses



17

Paramedics



12

Dispatchers



7

Mechanics



5

Administrators



**RYAN PRICE**  
*Flight Paramedic*



**What brought you to Life Flight?**

After two years with Washington County EMS, I started looking into flight medicine and how it was different from a ground ambulance, and started applying myself to obtain the right certifications and credentials necessary for the job. The adrenaline rush of flying in a helicopter 1,000 feet off the ground and having the opportunity to treat very sick patients are just two reasons why I love my job and am glad to be part of this great service.

**What is the most rewarding part of this job?**

There have been a handful of calls that I looked back on and thought, had it not been for what my partner and I did, that patient probably wouldn't have survived. It definitely makes this job worthwhile. Looking back and knowing that you did something to improve a patient's outcome is very rewarding. I have to say, this job is the best job in the world. Having the training and technology in our aircraft to save and prolong a patient's life until we get them safely to the trauma center is pretty cool.

**What do you enjoy doing in your spare time?**

I enjoy spending time with my wife and little boy who just turned 3 months old. We love the outdoors, watching late night movies and just spending time with our families and friends.

74

Life Flight Total Staff

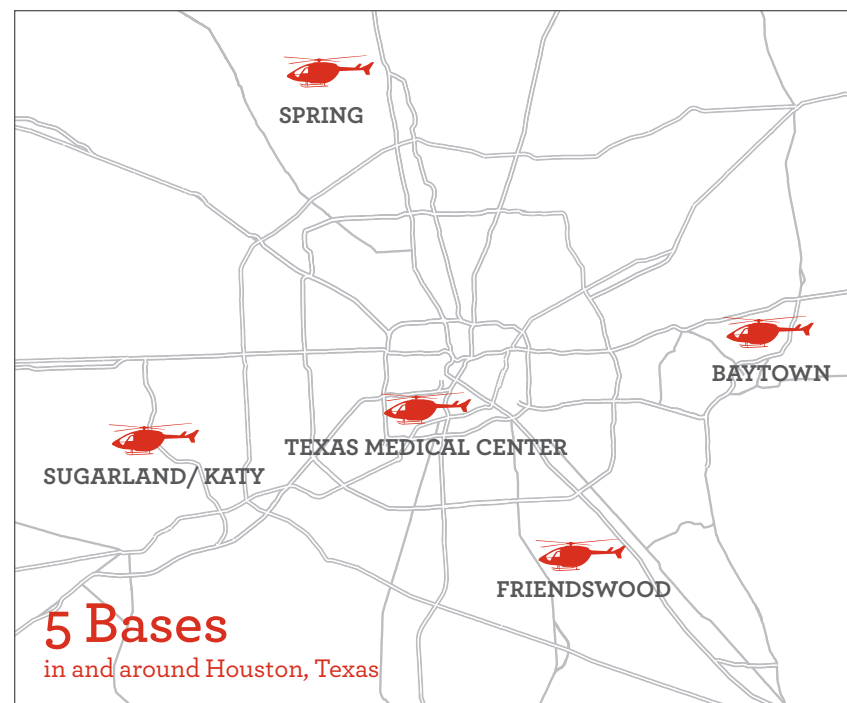


80%

Have a Military Background



## Fleet Facts & Figures



Memorial Hermann Life Flight began service on

**August 1, 1976.**

The program's  
**150-mile flight radius**  
covers part of Louisiana.



The crew has given over **650 units of blood** since the practice began.

Since its inaugural flight, Life Flight has flown more than  
**1,932,000 miles.**

The team completes over **3,000 missions** each year.

**24/7** Life Flight operates around the clock.

The fleet consists of **6 EC-145 twin-engine helicopters.**





**ED WULFE, CHAIRMAN AND CEO OF COMMERCIAL REAL ESTATE BROKERAGE, DEVELOPMENT AND MANAGEMENT FIRM WULFE & CO., SHARES A LOOK BACK AT HOUSTON'S COMMERCIAL GROWTH AND HOW THE TEXAS MEDICAL CENTER IS POSITIONED TO HELP SHAPE THE CITY'S FUTURE.**

**Q | What brought you to Houston?**

**A |** I grew up in San Antonio and had visited Houston on numerous occasions, and I was impressed with its activity and growth. I envisioned a great future for this young city and for those who were part of it to grow and experience the many opportunities it would foster for learning and succeeding.

After graduating from Texas A&M with a Mechanical Engineering degree, I moved to Houston and went to work for Texaco as a sales engineer and traveled all over the area. During that time, I sat across a desk from their in-house real estate manager and observed him making real estate deals. I saw how negotiations happened and, while it looked

challenging, it was obvious that it required hard work, persistence and creativity. And, most importantly, it looked like fun. I knew nothing about real estate, but became fascinated with it and took every course, attended every class, read everything I could while listening and learning from anyone in the business. After five years I left Texaco and jumped in the middle of commercial real estate, ultimately joining Weingarten Realty's team in its formative years, and in 1985 I established Wulfe & Co.

**Q | Describe the city at that time.**

**A |** The population in 1955 was about 600,000 and growing. It was the largest city in the state, but it was

“ The medical center itself has evolved into something really unique and special—it is a major complex unlike any of this magnitude, stature and potential. ”

basically a small city with a few high rise buildings, mostly downtown, with the 37 story Gulf building the tallest. The site of the Galleria was a truck farm. The Gulf Freeway was opened a few years earlier as Houston's first freeway. Gulfgate Mall had just opened as Houston's first mall. Meyerland Plaza, which I ended up redeveloping in 1993, opened shortly after I arrived. The city grew steadily step by step in almost all directions following suburban residential development. The evolution of the Medical Center was well underway. The City's strong cadre of local leaders was dedicated to growth and making things happen. People believed in Houston then as now and took pride in its opportunities and accomplishments.

**Q | It seems that developers are more focused today on building spaces for people to gather. Tell us about the evolution of that thinking.**

**A |** As the suburban residential expansion was underway, the first shopping centers evolved around supermarkets, followed by the next generation expanding to connect a supermarket with a drug store and other stores in between. Then regional malls began to multiply as people moved further out, followed later by the evolution of larger discount stores and big box retailers creating huge power centers. All of this was happening to accommodate the ever growing, mostly suburban, population. The latest evolution has been densification and urbanization, created by movement back into the urban city, to be closer to work and to partake in all of the amenities the city has to offer. And thus the concept of place-making came to fruition with mixed use developments combining office, residential and retail, creating a place for people to live, work, experience and enjoy. A more pedestrian friendly place with wider sidewalks became an important component.

Apartments went through the same evolution, starting with four to six units and duplexes, and progressing to what was called garden type apartments, which were usually two level, 50 or 100 units, or even 200 units with the larger spread out complexes. And now almost everything being built has a minimum of six floors, with residential high-rises reaching as high as 40 floors with over 400 units.

So it's all evolving as a result of several things. One is densification and urbanization. Another is more people wanting to live closer to where they work. A third is to address transportation and mobility

challenges. Of course, the major emphasis today is all about doing everything possible to improve all aspects of our quality of life. People want green space and the outdoors, people want cultural arts, people want entertainment attributes to experience and enjoy.

Our Bayou Greenway Initiative, which I helped start, is developing and connecting our ten bayous within the city with trails, bikeways, parks and amenities, touching almost all our diverse neighborhoods and communities. As we create more inviting people-friendly places to experience and enjoy coupled with more successful and expanded art and educational institutions, we attract the intellectual capital, young professionals, and the millennials that are so important to our economy, our higher educational institutions, our medical organizations with their research activities and our corporate leadership. These people place an emphasis on quality of life issues, whether it's green space or parks or trails or sporting activities or our thriving culinary, theatre and arts scene. They create the quality of life image of Houston and foster the unlimited opportunities to experience and enjoy this city.

**Q | Have there been any standout projects from your career?**

**A |** From a work point of view, I would say the most challenging and real game changer was the redevelopment of Gulfgate Mall. We took the forty plus year old mostly boarded up and abandoned project in a low-income, mostly Hispanic, area with little retail to serve the people, to a vibrant retail activity center. After my successful redevelopment of Meyerland Plaza, Mayor Lanier asked me to look at Gulfgate to see what might be possible to help revitalize the area and serve as a catalyst to encourage other redevelopment. Buildings and businesses were closed, cars had been abandoned, windows were boarded up and graffiti was everywhere. I told the Mayor that he couldn't be serious, but he said find a way to make it happen. We first did a study called 'hidden income research; which identifies people who don't show up on the census reports, and thus found that there were more people and more income in the area to support a new center. We then went around the neighborhoods and spoke to civic clubs and asked what kind of center and stores, they would want. They wanted a conventional retail center with a broad range of stores just like in other parts of the city. So after many trials and

tribulations, we came up with a concept, and took it to the neighborhoods for their input. The new Gulfgate has won many awards and received a great deal of recognition, but more importantly it has become a source of pride for all in the East End and has literally served as a catalyst for many improvements to the area, resulting in the creation of new jobs and businesses.

From a civic point of view, there are so many projects of which I am proud, being a firm believer in the importance of giving back to the community. I quite often speak to young professionals regarding my philosophy of having two careers—one professional and one volunteer. Many of the projects in which I'm involved pertain to quality of life issues. The most recent one of which I'm most proud is helping to lead the annexation of Memorial Park by the Uptown TIRZ to provide the leadership and millions of dollars of financial help to develop a master plan and begin the implementation of redevelopment and reforestation of the park, which would have not been possible with the city's minimal funds.

**Q | Looking at the Post Oak/Galleria side of town that you are currently very active in, how did all of that come together?**

**A |** Back in 2005, I saw an opportunity to seize the moment because not much had happened over the previous 25 years. We knew as the market matured, the time had come to help raise the bar and take the area to new heights. We envisioned extensive urban development possibilities and assembled 21 individual pieces of property to put the concept of BLVD Place together. The location clearly justified a mixed-use complex to capture the needs of the ever growing high profile market with a people friendly place to live, work and experience. New retail, restaurant, residential and office segments presented opportunities to serve the growing market, and would initiate activity and focus attention on the incredible potential of the area.

After going through the challenges of 2009-10, things started happening in the Uptown area, and since 2011, major projects of all types and magnitudes are coming to fruition and more are in the works. There are 17 different projects underway, mostly denser high-rise office and residential buildings. Even the Galleria is reinventing itself.



“Houston’s greatest asset has always been its people. They are open and welcoming to all, not only from around the country, but also from around the world—evidenced by Houston becoming the most ethnically and culturally diverse city in the country.”

**Q | What are your thoughts on the vision for the future of the Texas Medical Center?**

**A |** Creating synergy within the Texas Medical Center is timely and more important than ever. It’s the absolute next bold and necessary giant step. I applaud the leadership and vision that Dr. Robbins has demonstrated with his emphasis on the big picture and potential benefits to all, particularly his vision for major research and laboratory facilities. The medical center itself has evolved into something really unique and special—it is a major complex unlike any of this magnitude, stature and potential. It is a world class complex made up of world class institutions and it is critical that its institutions come together as never before to find more and better ways to work together, to share and collaborate. Harnessing the strength, capabilities, knowledge and experience of all will lead to an unlimited future.

And I must mention the \$2-3 billion of construction underway now and possibly another \$2-3 billion in the foreseeable future. These are staggering investments in the institutions and the medical center and must all be focused on the highest possible goals for state-of-the art health care. Furthermore, an aggressive commitment to research and research facilities is long overdue, and should be augmented by an energized program to encourage entrepreneurship, such as what is being initiated in the imaginative Nabisco facility. With all of this institutional activity, the time is now for the private sector to develop nearby office, residential, hotel and mixed-use projects to serve the ancillary needs of all.

**Q | It seems more than ever that the way in which land is developed is critical. What are some things on the table today that might not have been considered 20 years ago?**

**A |** Number one is designing and including green space, extensive landscaping and trees in our developments as a very important amenity. Successful examples include Midway’s CityCentre, Trademark’s Market Street in the Woodlands, and Martin Fein’s Willow Park residential project under construction. Even developers of high-rises have gotten creative and are providing green spaces on upper levels of buildings or parking garages. In a reverse situation, look at what an incentive for development of residential and office towers in the eastern part of

downtown Discovery Green provided. In all developments, business and residential, green space has become an amenity desired by tenants, employees, residents and visitors alike. In addition to green space, energy and water conservation have also become paramount considerations in the design of new buildings and projects.

**Q | When building out large spaces, what are your thoughts on people movers?**

**A |** The Uptown area is the perfect example of an area in need of a people mover. Originally, the Uptown TIRZ proposed light rail on Post Oak, to connect the planned Bellaire and West Park Transit Center to the Northwest Transit Center on the Katy Freeway. However, since light rail was not an option without the needed federal funding, a bus rapid transit system in dedicated lanes is planned to serve the 60-65 percent of the over 100,000 people who work in Uptown, but live in the suburbs and drive their cars to work. This way they can use a park and ride, take the bus to Northwest Transit Center or the new West Park Transit Center, and use the new bus rapid transit to move up and down Post Oak. We have got to do more of this.

**Q | If you could make one or two changes to the city, what kinds of improvements would you like to see?**

**A |** Rail, rail and more rail. Rail is expensive, but we’ve got to be able to move more people. As the inner city becomes denser with ever increasing numbers of residents, it is more important than ever to entice people to get out of their cars, and, for whatever reason, rail is a much more attractive incentive than buses. However, a more efficient workable bus system, together with more park and ride operations, is an important component of our public transit system.

In addition to light rail within the city, commuter rail is also needed to serve Sugarland, Katy, and communities out Highway 290 and 45 North. Mobility and connectivity will greatly influence the future.

The second necessary change, or I should say improvement, is in our public education system starting with pre-K for all through 12th grade, along with an expanded and improved community college system and our universities commitment to preparing all of our students to fulfill the needs of tomorrow’s workforce.

**Q | What do you hope the city looks like in 10 years?**

**A |** With the expansion of the Port of Houston and of the IAH international terminal together with the new international terminal at Hobby, Houston will become one of the nation’s most important gateway cities, capitalizing on our location and our economic vitality. We will build on our great advantages of a low cost of living, a no-state income tax economy, and a booming job market—all coming together in the perfect storm for us, which has really driven a lot of the activity. And the energy industry has certainly been paramount in that happening. Trees, green space and lush landscaping will be in high demand. Downtown will flourish with many new residential and hotel projects along with more office towers. Development of the East End will grow and our port and petrochemical industries will continue to be major economical engines. And with the estimated population growth, much of which will be outside the city limits, commuter rail as well as the merger of more city and county services, will be a must.

**Q | Any closing thoughts?**

**A |** Houston’s greatest asset has always been its people. They are open and welcoming to all, not only from around the country, but also from around the world—evidenced by Houston becoming the most ethnically and culturally diverse city in the country. They exhibit a can-do attitude and are willing to tackle the most imposing issues and goals. They include visionaries who can foresee the needs and possibilities for the future and power brokers who can make things happen. The many successes of the multitude of our non-profits is due to the thousands of volunteers who so willingly give of their time and effort to serve many worthwhile causes, as best demonstrated by the thousands of volunteers who showed up on a moment’s notice in the wake of Katrina. It is truly the people who make Houston the great city that it is. ■



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# Caring for Justice

*Beyond gathering evidence and testifying in court, forensic nurses strive to deliver objective care to patients, suspects and perpetrators*

BY ALEX ORLANDO



The overlap between nursing and forensic science is more prominent than one might think. Equipped with cameras and tripods, ultraviolet lights to identify specific places to swab for biological evidence, and even specialized cameras that allow the user to see bruising beneath the skin when no visible marks are apparent, forensic nurses provide high quality care for crime victims, suspects and perpetrators. Within the Harris Health System, the community-owned health care system for the nation's third most populous county, the forensic nursing program allows nurses to treat patients, interface with law enforcement officials, and pave the way to accommodate legal needs through the collection and preservation of evidence.

"Our program was established in 2008," explained Stacey Mitchell, DNP, director of the forensic nursing program for Harris Health. "There was a community need that was identified to address sexual assault patients, but after looking, learning and identifying gaps, we realized that there were other victims of crime, violence and injury that we could focus on as well.

We expanded rapidly and extensively to include various types of patient populations." Mitchell was instrumental in establishing the department and expanding its range of treatment—Harris Health's forensic nursing program now sees patients who have been victims of adult sexual assault, child sexual assault, elder abuse, domestic violence, physical injury, human trafficking and even occupational injuries.

Sitting at the intersection between health care and the legal system, forensic nursing is one of the fastest growing nursing specialties in the world, generating interest among both practicing and prospective nurses. Blending biomedical knowledge and critical thinking skills with an understanding of both the principles of law and human behavior, forensic nurses are poised to address physiological needs, acknowledge psychological trauma and prioritize legal concerns.

"Our focus is on that intersection," said Mitchell. "We have the responsibility to not only look at the medical needs of the patient, but any potential legal needs and responsibilities, as well. That's where forensic science and the legal system interact with health care. If a forensic nurse can collect evidence and clothing and preserve them, so that down the road they can be processed in a potential case, and maybe have a positive outcome or some sense of justice for that patient, then we've done our job."

"It's kind of a neat collaboration—we do everything that we can to stay oriented towards not re-victimizing the patients," added Khara Breeden, M.S., BSN, one of the nine forensic nurses at Harris Health System. "It's really a multi-pronged partnership between us, the physicians, who we work with to guide the patient's care, and law enforcement officials, as well as different partners and advocates from our community."

Trained to collect medical evidence

in instances where a crime may have occurred and communicate those findings to law enforcement officials, when necessary, forensic nurses begin their work in the examination room. "The first thing we do is to interview our patients, and write down whatever they say, word for word," said Breeden. "As we go through that process, I'm making a mental checklist of all the places that I need to look for evidence—it helps guide my physical exam. After the interview, I might look at particular body parts for bruising, abrasions or visible trauma, using my camera or any other necessary equipment. By the time we collect swabs of specimens for evidence, we've established a real relationship with our patients."

The personalized care that forensic nurses can provide, and the ability to devote hours to patients, differentiates them from other nursing specialties. "Our forensic nurses are taking care of only one patient at a time for as long as they need our help," said Mitchell. "An emergency room nurse may have five, ten or fifteen patients depending on the size of the emergency room and how busy they are. We're solely focused on that one person, which allows us to take the time to identify the things that they might need and help coordinate those resources."

An invaluable aspect of the care they offer, forensic nurses are able to provide resources that can help patients even after leaving the hospital, from a phone number for a women's shelter to the location of support groups for sexual assault survivors. "Coordinated care allows us to understand the role of everyone else in that investigation who's going to intersect with that patient," said Mitchell. "We have a great advantage because we're right in the middle of everything—we know where everyone is and what they're doing."

This past year, Harris Health's forensic nursing program consulted on over 778 criminal cases. Although they

work closely with the Houston Police Department, as well as other jurisdictions within Harris County, Breeden and her colleagues are careful to distinguish themselves from law enforcement. “It’s a common misconception, and I don’t want a patient to think that we’re playing a different role,” she said. “While we mostly see victims of violent crime, we see perpetrators and suspects, too. Our role is objective—we’re not on anybody’s side, we’re just here to gather information. The story tells itself.”

The information and treatment that they provide is nonetheless a huge asset to law enforcement agencies. “Harris Health’s forensic nurses help the Houston Police Department with our follow up investigations involving victims of sexual violence and domestic abuse,” said Shamara Garner, lieutenant of the Adult Sex Crimes Unit, Special Victims Division at the Houston Police Department. “The trauma informed services that they render help the complainant be at ease with the medical and emotional aspect, which filters its way up to the investigation by furthering their recovery and making it easier for us to come alongside and take care of the criminal investigation. Their specialty helps strengthen our case, and their scope of involvement extends from the victim to the community at large by helping us possibly identifying perpetrators.”

Harris Health’s forensic nurses are also expected to testify in court, both as a fact and expert witness, when called upon. “We’re able to provide an opinion about those injuries and what they mean in the overall scheme of the case,” said Mitchell. “We’re bound by the same rules as anyone else who testifies in court, even though we’re often qualified as experts, and don’t testify outside of our scope of practice.”

Maintaining objectivity and reserving judgment are both prerequisites for this unique nursing specialty, although they both pose their own set of challenges. “As nurses, we are patient advocates, but as patient advocates within this context we have to adopt a different perspective, because we’re also an advocate for the process itself,” reflected Mitchell. “We want to ensure that all of the procedures are followed so that the patient can have justice. At times, it can be challenging to sustain that objectivity, but it’s something that, consciously, a forensic nurse has to

ensure that they do—it’s essential.”

For Breeden, the necessity of keeping emotional distance was a skill that she had to learn to cultivate. “You really have to learn to put it somewhere else,” she said. “My first few months, I didn’t think I was going to be able to do it because it was too hard; you see too many things that make you question how people can do this to each other. After a particular patient interaction, I realized I was doing the right thing. Once you know that, you’re able to put it in a different box. I just do the best I can and treat everyone with kindness.”

As the field of forensic nursing continues to expand, so does the necessity of community engagement and education. Harris Health’s forensic nursing program provides community education to both law enforcement officials and victim advocates like the Rape Crisis Center and Child Protective Services. According to Mitchell, the medical component can be complicated in terms of the significance of their findings. “Educating community partners can help make their jobs easier,” she said. “Our nurses are also required to take two classes, totaling over 80 hours of classroom time, to learn about the types of patients that they’ll be seeing and how to collect and preserve evidence, as well as provide proper documentation.”

With four full time nurses on-site at Ben Taub Hospital’s emergency center and five nurses who take calls, and respond to cases at Lyndon B. Johnson Hospital and any other community health centers within the Harris Health System, Mitchell and her team are expecting even more consults in the next year. As the only program in Houston to focus on all victims of crime, violence, abuse and neglect, rather than just sexual assault patients, Harris Health’s forensic nursing program is uniquely positioned to benefit their community.

“The biggest value that we provide is that we’re here for the citizens of Harris County,” concluded Mitchell. “Having these services is so important. An emergency room nurse is thinking about all of the lifesaving treatments that need to be done. We’re thinking about that, but also addressing the other areas, from legal needs to resources, that need to be encompassed. We’re here for our patients.” ■



“ While we mostly see victims of violent crime, we see perpetrators and suspects, too. Our role is objective—we’re not on anybody’s side, we’re just here to gather information. The story tells itself. ”

— KHARA BREEDEN, M.S., BSN  
Forensic Nurse Examiner for Harris Health System



Harris Health forensic nurses work alongside law enforcement officials to coordinate patient exams and retain crucial evidence for possible legal action against assailants. (Credit: Harris Health System)



# Watch Your Step

Experts weigh in on the best methods to treat snake envenomations

BY ZOE QUEZADA



Snakebites are most prevalent during the warmer weather months, between April and October. (Credit: Houston Zoo)

As more people head outside this summer to enjoy the great outdoors, Texas Medical Center doctors would urge all to watch out for snakes. More snakebites occur in Texas than anywhere else in the country. And the Houston area is home to six venomous snake species.

Spencer Greene, M.D., director of medical toxicology and assistant professor of medicine at Baylor College of Medicine, and consulting medical toxicologist for Texas Children's Hospital, led a conference on envenomations in June hosted by The National School of Tropical Medicine at Baylor, Texas Children's and the Houston Zoo.

With input from both medical and zoology experts, important issues were discussed, including the need to update and standardize first response treatment, how to properly treat different types of envenomations, facts and figures on antivenom treatments, and how to best handle the rare injuries from exotic venomous species.

In the lectures, speakers debunked several myths concerning snakebite treatment and pointed out errors in popular protocol procedures. Some of the myths that the experts urged

the public to avoid following include cutting or sucking out the venom, applying ice or heat to the affected area, constricting the area with a tourniquet, and applying ointments or creams to the area. All of the speakers agreed that the best thing to do when dealing with a snakebite is to go to the nearest emergency room.

"If you get bit by a venomous snake, go to a hospital and stay calm," said Houston Zoo curator of reptiles and amphibians Stan Mays. "You are going to hurt real bad and wish you were dead, but you will feel better for it if you go to a hospital. Let an expert take care of it and don't try to take care of it yourself."

While most of these common myths were not alarming to paramedics and physicians, the more surprising misconceptions came from popular, yet inaccurate safety protocol procedures, with effects that could increase the risk of damage.

It is not uncommon to find in first aid guides instructions to apply pressured immobilization techniques to the victim. Greene stressed that this technique can be incredibly harmful if applied to the wrong type of venomous bite, resulting in increased tissue

“Many of these first aid associations are far behind. We should not be doing pressure immobilization for pit vipers because of the potential for local damage. It is only indicated for bites from some elapid species, such as coral snakes.”

— SPENCER GREENE, M.D.

Director of Medical Toxicology at Baylor College of Medicine, and Consulting Medical Toxicologist for Texas Children's Hospital

damage. Additionally, the experts said that any protocol that instructs the victim to lower the affected area below the heart is inaccurate and harmful as well.

"Many of these first aid associations are far behind," said Greene. "We should not be doing pressure immobilization for pit vipers because of the potential for local damage. It is only indicated for bites from some elapid species, such as coral snakes."

In South East Texas, pit vipers account for over 95 percent of reported snakebites, and five of the six venomous snakes in the Houston area are pit vipers. In the case of pit viper bites, victims should elevate the affected area. Greene suggested that if the person is unsure of what type of snake caused the bite, the responder should keep the affected area in a neutral position until an emergency physician can examine the patient.

"We rarely see systemic toxicity, but we do see tissue damage," said Greene. "Any protocol that has it below the heart is wrong. If you look at the algorithm that was developed by experts, one of the very first things they say to do is to elevate it. Some local protocols may say differently, but that needs to be fixed."

On average, 7,000 people a year report being bit by a snake. Of those, generally fewer than ten people die from the attack. Statistics show that bee stings are more likely to result in death.

Treatments for snakebites have advanced so well due to the greater availability and proven effectiveness of antivenom. Currently there is one FDA approved antivenom, CroFab, which is used in the treatment of pit viper attacks. This drug has a high success rate and has been shown to reduce pain, swelling, bleeding and tissue damage, but the drug comes at a high cost.

Bottles of CroFab cost approximately \$2,300 per bottle and treatments often call for 10 to 14 bottles per patient. Add in the cost to administer the drug and the total actual cost comes out to about \$5,000 per bottle. Physicians debated at length about what could be done to lower the cost of this treatment and the need for more research to be conducted on the effectiveness of reduced administration amounts.

Fortunately, there is also a local resource for Texas Medical Center doctors treating a snakebite victim. The Houston Zoo keeps a stock of antivenom for physicians to administer to patients that have been bit by a coral snake or an exotic venomous snake.

It's not often that zoologists have to rush to emergency rooms to provide life saving antivenom, but thanks to collaborative research efforts, the ability to effectively treat venomous injuries is stronger now than ever before. It is important that paramedics, zoologists and physicians have a shared understanding of how to handle these venomous attacks in order to save lives. ■

# A Breakthrough in Bioengineering

*Rice University bioscaffold material degrades as bone grows to replace it*

BY ALEX ORLANDO

The field of bone tissue engineering might be getting a facelift. Rice University bioengineers have created a hydrogel that instantly turns from liquid to semisolid at close to body temperature—and then degrades at precisely the right pace.

Brendan Watson, a graduate student in the laboratory of Antonios Mikos, Ph.D., Rice University's Louis Calder Professor of Bioengineering and Chemical and Biomolecular Engineering, worked to develop a “smart” hydrogel system for the purposes of bone tissue engineering, or reconstruction. The gel has shown potential as a bioscaffold to support the regrowth of bone and other three-dimensional tissues in a patient's body, using the patient's own cells to seed the process.

The hydrogel created in Mikos' lab is a liquid at room temperature, but when injected into a patient, it becomes a gel that fills and stabilizes a bone defect until degradation, while natural tissue grows to replace it.

The new material, which was detailed in a study published in the *American Chemical Society Journal Biomacromolecules*, represents a bold step forward in the field of bone tissue engineering.

“We're looking to apply this technology to bone tissue in general,” said Watson, the paper's lead author. “Initially, this was designed specifically for non load-bearing constructs and craniofacial reconstruction, but the potential applications are much broader.”

“This study describes the development of a novel thermogelling hydrogel for stem cell delivery that can be injected into skeletal defects to induce bone regeneration and that can be degraded and eliminated from the body as new bone tissue forms and matures,” added Mikos.

Watson's hydrogel is a thermogelling polymer, which lends itself well to cellular work courtesy of a large makeup that is comprised mostly of water. “It resembles the extracellular matrix, the natural matrix within the body—these cells can grow in an environment similar to what they would naturally grow in. We specifically work on thermogelling polymers because of their instantaneous transition: whenever you increase the temperature of the polymer, this allows you to encapsulate cells within the hydrogel and have them form inside of whatever defect your filling.”

While stability of the hydrogel is necessary to build tissue, acting as a scaffold for cells to take root and proliferate, over time it needs to be replaced by organic tissue and bone. A novel approach to another obstacle in the field of thermogelling polymers, the inability of those gels to degrade in the body on any reasonable timescale, Watson's hydrogel is designed specifically for its own timely destruction. In addition, a patient's own stem cells can be encapsulated in the hydrogel in order to provide the opportunity for a quicker healing process.

“One of the advantages of the system is that it can be introduced into the body with minimal surgical intervention,” said Mikos. “The ability to solidify a gel without the use of any initiators or catalysts, which can elicit an inflammatory response, allows us to have a system that serves as a delivery vehicle for cell populations and bioactive molecules.”

Tackling the stabilization of thermogelling polymers, as well as the issue of degradation, was a task that would define the course of Watson's academic career, who is pursuing both a Rice doctorate and a medical degree in a joint program with Baylor College of Medicine. “The initial idea, taking into account all of these

design parameters, started right around the beginning of my Ph.D., which was four and a half years ago,” he reflected. “I felt like it was doable to try and address these two major hurdles in the thermogelling polymer realm and make them viable for cellular applications.” Rice University and Baylor College of Medicine have collaborated for over 30 years to jointly administer the M.D./Ph.D. Medical Scientist Training Program, where students receive an M.D. from Baylor and Ph.D. in bioengineering from Rice University.

Successfully coordinating all of these elements would not have been possible without the experience and expertise of Watson's colleagues and co-authors, including Paul Engel, Ph.D., professor in the Department of Chemistry at Rice University, and F. Kurtis Kasper, Ph.D., a senior faculty fellow in bioengineering. “It took over

the course of three years to successfully synthesize what I set out to synthesize and incorporate all of these aspects,” said Watson, a testament to the painstaking process of refining the hydrogel. “It looks like we may have just decided to try something and found that, ‘Hey, it worked!’ But that wasn't the case.”

Displaying enthusiasm for the clinical potential of his laboratory's research, Mikos is convinced that this success story showcases the benefits of collaboration. “What we have tried to do in our laboratory over the years is to design materials to address an unmet clinical need,” he concluded. “The development of materials like this requires having knowledge of material science but also biology and medicine. Having a student like Brendan, who is a part of Rice and Baylor's M.D./Ph.D. Medical Scientist Training Program, is a tremendous asset.” ■

“Initially, this was designed specifically for non load-bearing constructs and craniofacial reconstruction, but the potential applications are much broader.”

— BRENDAN WATSON  
Rice University Graduate Student



(Credit: Jeff Fitlow/Rice University)





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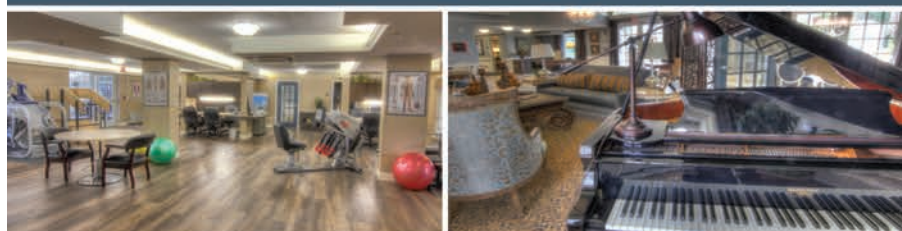
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# Enhancing Health Equality

## 12th Annual Disparities in Health in America Workshop: Working Towards Social Justice

BY ALEX ORLANDO

As innovative advances in health care sculpt a new standard for future generations, enhancing health equality is more important than ever. Health disparities, the population-specific differences in the presence of disease, health outcomes, and access to quality health care that exist across racial and ethnic groups, continue to expand a widening gulf between discovery and delivery. Promoting awareness in an effort to bridge that gap, the 12th Annual Disparities in Health in America: Working Towards Social Justice Workshop was held at Prairie View A&M University's College of Nursing this past June.

"The widening gap between discovery and delivery is multifactorial," said Lovell A. Jones, Ph.D., founder of the Health Disparities, Awareness, Research and Training (HDEART) Consortium. "The application of personalized medicine, new discoveries and innovative techniques are limited by an individual's disposable income. It also depends on how we value dissemination versus discovery. Discoveries receive headlines, while how effectively that discovery is disseminated may receive a byline."

The attendees were bolstered by the collective goals of achieving a comprehensive understanding of health disparities, investigating approaches to improving health equality, and providing participants with a broad base of knowledge to address health disparities faced by the medically underserved. Jones, who came to Houston over 33 years ago with a mission to change the face of cancer, launched the HDEART Consortium with similar goals in mind.

"The HDEART institutions were brought together to create a new paradigm in not only bringing attention to glaring health disparities, but to create solutions to these issues," he said. "Health care access alone will not solve the issue of disparities. By bringing together not only health entities, but full academic institutions



FROM LEFT: Beverly J. Gor, Ed.D., Lovell A. Jones, Ph.D., and Jasmine J. Opusunju, Dr.P.H.

along with other agencies, we might develop the foundation for a different paradigm that would include more than your usual suspects."

In 1999, Congress appropriated funds for the creation of the mandated Center for Research on Minority Health (CRMH), the first of its kind in the nation. Three years later, as an effort of the CRMH, the HDEART Consortium was established with seven institutions. Twelve years since its inception, HDEART now consists of 39 institutions, including a few in Mexico and the Federal Republic of Nigeria, attracting attendees and speakers from all corners of the United States.

"Over the past decade, we've touched the lives of over 4,000 individuals, the majority of our trainees," reflected Jones, currently professor emeritus at The University of Texas MD Anderson Cancer Center and research faculty at Texas A&M University Corpus Christi. "What is most gratifying, to me, is that today former attendees are now sending their own students to learn about our biopsychosocial approach to addressing health disparities."

The workshop ran from June 23-28, tackling topics such as population substructure, genomic technologies, and disparities in the communication and information needs of post-treatment cancer survivors. One of the presentations focused on CAN DO Houston (Children And Neighbors Defeat Obesity), a community-based organization founded by Jones to help low-income communities improve their access to opportunities for healthy eating and active living. Utilizing the biopsychological approach of CRMH, CAN DO Houston highlights real world solutions to health disparities happening in our own backyard through community engagement, capacity building, and environmental policy change.

"We're not just researchers and we're not just health promoters—we try and connect research to practice because we feel that is the way to really impact the public's health," said Beverly J. Gor, Ed.D., R.D., L.D., research associate for CAN DO Houston and instructor in health disparities research at MD Anderson. "We find that there are a lot of underpinnings and a lot of other issues that we have to address first before we can start talking about

childhood obesity. CAN DO Houston presents a better solution in the form of a community-designed approach."

Since 2008, CAN DO Houston has addressed the childhood obesity epidemic by supporting physical activity, nutrition, and healthy minds in children in the Houston metropolitan area. Creating and sustaining collaborations between individuals, institutions and organizations to maximize their impact, CAN DO Houston has grown into a consortium of over 40 organizations whose goals range from promoting healthy eating and physical activity to community empowerment.

"There is something completely different that occurs when you actively engage with a community versus just being present and talking to them—those are two very different things," added Jasmine J. Opusunju, Dr.P.H., MEd, CHES, executive director of CAN DO Houston. "Our primary focus is not programming—it is environmental and policy change. The arena where you really make a difference is when you meet people on their own terms, starting with their immediate needs and identifying where their interests lie. From there, you can begin to effectively engage community members in relevant solutions that will transform the healthy choice into the easy choice."

That personalized approach is emblematic of the larger workshop, embracing the potential to create a community mindset through our common goals. "That's what this workshop has been and continues to be about—that cross dialogue that allows different people to learn that they actually have a lot in common," said Jones. "There's an opportunity to begin to work together and it's not a zero-sum game where by helping someone else, you're hampering your own advancement. It's about helping all of us move forward. The workshop, from what people have said to me, is life-altering because they leave with a different perception about what's valuable." ■



# Bringing the Outdoors In

*Camp For All 2U sets up camp at MD Anderson Children's Cancer Hospital*

BY ALEX ORLANDO



TOP: Archery was one of the many activities redesigned to work indoors, replicating the camp experience. LOWER LEFT: Camp For All 2U ran from July 15-18 and was held in Alkek Park, located on the second floor of MD Anderson Cancer Center's main building. LOWER RIGHT: Pat Sorrells, president and chief executive officer of Camp For All, talks with a camper enjoying lunch.



A mong a chorus of cheering and applause, a bow lets out a subtle ‘thwock’ as a plush arrow connects with its target. Armed with makeshift paddles of plungers and pool noodles, campers in life vests navigate their canoes, elevated on dollies for moving furniture and pushed by volunteer camp counselors, across the carpeted floor. A miniature zip-line hums in the background as campers fly across the side of the room from one point to another. Surprisingly, all of these activities took place inside of The University of Texas MD Anderson Cancer Center’s main building, where the second floor Alkek Park was temporarily transformed for a few days in the middle of July. Welcome to camp.

MD Anderson Children’s Cancer Hospital and Camp For All teamed up to bring the outdoor camp experience indoors to children and teens diagnosed with cancer, as well as their siblings. Known as Camp For All 2U, the activities ran daily from July 15-18, replicating a camp experience while enriching the lives of the participants.

“Our goal was to provide activities that were real camp activities, not things that would normally be done in a hospital setting to entertain kids,” said Pat Sorrells, president and chief executive officer of Camp For All. “Even though we’re still at MD Anderson, we wanted to provide kids with a different atmosphere to interact with. We want these kids to leave feeling normal, whole and with the belief that they can still do things, even in a clinical setting.”

Located in Burton, Texas, Camp For All works in conjunction with 60 different non-profit camps, providing a handicap-accessible, barrier free camp facility and presenting programs that are cutting edge, universal and inclusive. Embracing true partnership, these non-profit organizations close the gap by bringing the campers, medical staff and any necessary equipment, as well as “in-cabin” counselors. Regardless of the campers’ physical capabilities, there are activities available that everyone can participate in. Each June, more than 150 MD Anderson patients and their siblings pack their bags and head to Camp Star Trails, hosted at Camp For All’s facility in Burton, for a week of fostering friendships, creating new memories, and maybe acquiring a few bug bites.

“ Due to their medical restrictions, not all kids can come to camp, so this is a way for them to have a taste of that experience. Camping helps these kids learn what they’re capable of and allows them to realize that they’re not defined by their particular challenge. ”

— PAT SORRELLS

*President and Chief Executive Officer of Camp For All*

An extension of their longstanding collaboration with MD Anderson, a selection of Camp For All’s expansive catalogue of activities was made portable for Camp For All 2U thanks to the efforts of their program activity staff. Campers had the opportunity to zip line, learn archery, canoe, tell stories around a mock campfire, perform skits, make s’mores and even throw a pie at their doctors. Even further demonstrating the ingenuity involved in bringing the camp experience indoors, campers were grouped by age to inspire and replicate the bond of a cabin, sowing the seeds to build and strengthen friendships.

“The opportunity for these kids to have choice and control in an environment where choice and control aren’t typically available is great,” said Lauren Shinn, a child life specialist at MD Anderson Children’s Cancer Hospital. “One of the main goals of camp, in general, is to help with life skills like independence, making decisions and problem solving. By bringing those camp activities into a facility, like a hospital, where kids don’t have a lot of chances to flex those skill sets, it gives them back a little bit of control. It brings in some of their normal childhood experiences so that they can now have a positive association with the hospital.”

For many aspiring campers who struggle with challenging illnesses or have special needs, the ability to have that experience is hampered by their medical challenges. Whether at Camp For All’s facilities in Burton, or in the newly designed portable version at MD Anderson, campers can expect expert medical care along with a structure of solidarity and support. “This past year at Camp Star Trails we had a physician,

a pediatric fellow, two nurses, a psychology fellow and a child life specialist, to help with the psychosocial needs out there,” said Shinn. “The idea is to create a camping opportunity for these kids—even if they’re physically able and feeling well enough to go, most camps aren’t able to support them medically if something comes up. We’re able to do that.”

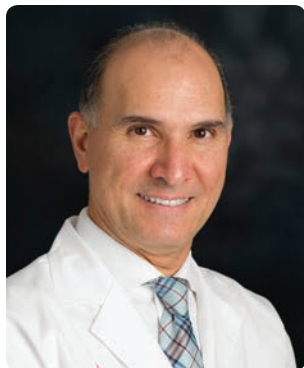
“The doctors here are really interested in getting these kids well,” added Sorrells. “They’re focused on the physical component of healing, but we can help them heal the whole child by focusing on the emotional healing process.”

The Texas A&M University Department of Recreation, Park and Tourism Sciences, conducted a multiple year study on Camp For All from 2007 to 2009 to understand outcomes associated with camp participation. According to Sorrells, they reached the understanding that kids left camp with a sense of hope, a growth in self-confidence and in an environment surrounded by people in the same circumstances, they realized that they weren’t alone.

“We want to learn from this experience and grow so that we can offer it to other partners here in Houston,” concluded Sorrells. “Due to their medical restrictions, not all kids can come to camp, so this is a way for them to have a taste of that experience. Camping helps these kids learn what they’re capable of and allows them to realize that they’re not defined by their particular challenge. We want to give them choices and chances to experience what they can do instead of what they can’t do. It’s not just camping—it’s changing lives.” ■



# ACCOLADES



**SHAWN S. ADIBI, DDS, MED**, of the UTHealth School of Dentistry has been elected to Fellowship in the American Academy of Oral Medicine. Adibi is an associate professor in the Department of General Practice and Dental Public Health, where he teaches assessment, treatment, planning and diagnostic sciences to dental students and acts as the director for several clinical courses. He also practices as a general dentist in Faculty Practice, where he treats patients with orofacial pain and temporomandibular disorders. Since Adibi joined the School of Dentistry, he has published manuscripts on the subjects of laser dentistry, oral pathology, oral radiology, conflict of interest in research and patient care.



**BHAVANI IYER, O.D.**, a low vision specialist at The University of Texas Health Science Center at Houston Medical School, was awarded a \$164,645 grant from the Lions Club International Foundation to help Harris County residents whose vision problems cannot be corrected with eyeglasses, medication or surgery. Iyer is using the three-year SightFirst grant to provide outreach programs as well as education and training for the thousands in and around Harris County with low vision. This is the first such grant to be awarded in Texas and the third largest in the country. The project has received an additional \$20,000 in funding from local sources.



**LORI ARMSTRONG, MSN, R.N.**, chief nursing officer at Texas Children's Hospital, was honored with the Dr. Jennifer L. Howse Award for Excellence in NICU Leadership at the annual NICU Leadership Forum in Florida. Each year the award is given to a recipient who has demonstrated the vision and courage of a strong leader, has wielded significant influence within and beyond the NICU walls, and leads with care and compassion for patients, families, colleagues and staff. Armstrong has been published multiple times, presented at 50 workshops, lectures and presentations in the United States and Asia, and is the recipient of numerous professional awards.



**JANE MAHONEY, PH.D., R.N., PMHCNS-BC**, associate professor of psychiatry at Baylor College of Medicine, Menninger Department, and director of nursing practice and research for the Menninger Clinic, has received the first annual Texas Medical Center Richard E. Wainerdi Nurse Leader Award. This award was funded to recognize the contributions of an outstanding emerging nurse leader working in the Texas Medical Center. Mahoney has demonstrated care, innovation, transformation and collaboration that support Dr. Wainerdi's vision for exemplary patient care, education and research.



**KIMBERLY DAVIS**, previously managing director of donor resources, has been named managing director of donation systems for LifeGift, a nonprofit organization that offers hope to individuals needing transplants in 109 Texas counties. In this expanded role, Davis will not only lead hospital donation system development in the greater Houston area, but in Fort Worth, Amarillo and Lubbock. Davis and her team will work collaboratively with health care teams at hospitals and transplant centers across LifeGift's designated service area to continuously monitor, enhance and improve their donation systems.



**LUCY PURYEAR, M.D.**, medical director of The Women's Place: Center for Reproductive Psychiatry and co-director of The Menopause Center at Texas Children's Pavilion for Women, and professor of obstetrics and gynecology at Baylor, was awarded the 2014 Kathryn Stream Award for Excellence in Women's Health at the Greater Houston Women's Chamber of Commerce sixth annual Conference for Women. Puryear was chosen as this year's recipient in recognition for her achievement in advancing women's health. Puryear has been instrumental in advocating for women's reproductive mental health awareness and education and is in the forefront of this effort nationally.



**RICHARD GIBBS, PH.D.**, founder and director of the Human Genome Sequencing Center at Baylor College of Medicine, has been awarded the prestigious honor of the Companion of the Order of Australia—an accolade issued by the Australian government that recognizes eminent achievement and merit of the highest degree in service to Australia or humanity at large. The announcement was made by the Australian government in celebration of The Queen's Birthday, a public holiday in Australia. Gibbs, the Wofford Cain Chair and Distinguished Service Professor in Molecular and Human Genetics at Baylor, is a native of Australia.



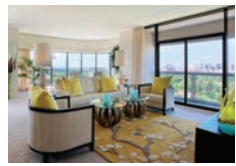
**CHERYL LYN WALKER, PH.D.**, director of the Texas A&M Health Science Center Institute of Biosciences and Technology, has been voted chair of the University Advisory Committee of the Cancer Prevention and Research Institute of Texas. Walker was nominated to the committee by John Sharp, chancellor of The Texas A&M University System. She also holds the endowed Welch Chair in Chemistry and joint positions in the College of Veterinary Medicine & Biomedical Sciences at Texas A&M and the Department of Systems Biology at The University of Texas MD Anderson Cancer Center.



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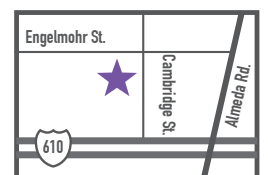
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## Mogie Helps MD Anderson Children's Celebrate Anniversary



Kathi Appelt, award-winning children's author of "Mogie: The Heart of the House," takes a moment with Mogie and a young patient at MD Anderson. (Credit: Ronald McDonald House Houston)

**“ Our partnership with MD Anderson Children's Cancer Hospital is invaluable to our staff and the families we serve at Ronald McDonald House Houston, and we were honored to introduce Mogie to the children, teens and staff at the hospital. ”**

— LESLIE BOURNE  
Executive Director of Ronald McDonald House Houston

On July 22, The University of Texas MD Anderson Cancer Center and Ronald McDonald House (RMH) Houston celebrated the first anniversary of the MD Anderson Children's Cancer Hospital with a party for patients, their families, staff and volunteers.

Since RMH Houston has a Family Room facility at MD Anderson Children's Cancer Hospital, permission was granted for the first time to have Mogie, the House's labradoodle, attend the party which brought incredible joy and excitement to everyone there. Additionally, award-winning children's author Kathi Appelt read her new book "Mogie: The Heart of the House" to all who attended the celebration. After the reading, each child received a copy of the book autographed by the author and paw-tographed by Mogie, played and took pictures with Mogie, and everyone was treated to ice cream and cake.

"Our partnership with MD Anderson Children's Cancer Hospital is invaluable to our staff and the families we serve at Ronald McDonald House Houston, and we were honored to introduce Mogie to the children, teens and staff at the hospital," said Leslie Bourne, RMH Houston Executive Director. "Our mission is to create a home away from home for families with critically ill children so having a presence at MD Anderson Children's Cancer Hospital is very significant to us."

Mogie lives down the street at RMH Houston's 50-bedroom Holcombe House where he serves as the Key Comfort Ambassador. Having a dog at the House creates a sense of normalcy and a comforting environment for the families and children who stay an average of 43 nights at the Holcombe House.

The RMH Houston partnership with MD Anderson Children's Cancer Hospital started with a small Cookie Corner and expanded in 2013 to a Family Room including two bedrooms, two waiting rooms and a kitchen and dining area for the families of children being treated at the hospital. Family Rooms serve as a comforting place to relax complete with a welcoming volunteer, snacks, chocolate chip cookies and other families with whom to share their experiences.

In 2013, RMH Houston's Family Room at MD Anderson Children's Cancer Hospital and four additional Family Rooms at Texas Children's Hospital touched the lives of over 28,760 families. The organization relies on the help of dedicated volunteers to maintain a warm and welcoming environment at its Family Rooms. ■

— Danielle Dunn,  
Ronald McDonald House Houston



# BIPAI Mission Continues as Co-Founder Retires from Texas Children's Hospital

After almost 25 years of service and dedication, Texas Children's Hospital and Baylor College of Medicine announced that Nancy Calles, MSN, R.N., PNP, ACRN, MPH, will be retiring from her position at the hospital, but will continue managing the research for the Baylor International Pediatric AIDS Initiative at Texas Children's (BIPAI) on a part-time basis.

A pediatric nurse is someone formally educated and trained in the care of sick children. Calles studied to become a pediatric nurse, but took the definition to an entirely new level. She joined Texas Children's as a staff nurse in the pediatric HIV/AIDS program in July 1990. At the time that Calles joined Texas Children's, the program was evaluating one or two newly HIV-infected infants and children each week. Without effective therapy, most were destined to lives of suffering and early death. Calles knew something needed to change in order to alter the destiny of children impacted by HIV/AIDS.

When the opportunity presented itself, Calles filled an open research nurse role in the HIV/AIDS program at Texas Children's and coordinated a number of local and national studies that advanced the treatment of HIV-infected children. She, along with many others, helped transform the disease from one that was associated almost invariably with death to one that could be chronically manageable with medications. Children began living instead of dying. She and the team at Texas Children's also helped demonstrate that antiretroviral medicines given to pregnant HIV-infected women could prevent transmission of the virus to their fetuses. Calles helped changed the destiny of many children with HIV/AIDS.

In 1996, Calles' career in pediatric HIV/AIDS took a new path when she traveled to Romania and saw with her own eyes the devastating toll HIV/AIDS was taking on orphaned and abandoned children in that country. She began by helping to establish a first-ever training program in HIV/AIDS for nurses and physicians in Romania and, together with Dr. Mark

W. Kline, co-founded BIPAI. In 2001, the BIPAI team proved for the first time that lifesaving medications being used to treat pediatric HIV/AIDS in the United States could also be used in resource-poor settings with the same safety and effectiveness.

Over the next 13 years, Calles served as BIPAI's senior vice president for International Program Development, overseeing the expansion of BIPAI's global education and research programs, the training of thousands of nurses and doctors and the construction of a network of children's centers across sub-Saharan Africa. Today, BIPAI provides care and treatment to more than 200,000 children and family members, more than any other institution or organization worldwide. With Calles' leadership, BIPAI recently diversified geographically to Papua New Guinea and Colombia, as well as programmatically to include new activities in pediatric cancer, sickle cell disease, tuberculosis and several other medical conditions.

"Calles, likely, is the world's most experienced pediatric HIV/AIDS nurse specialist," said Kline, who is also physician-in-chief at Texas Children's and chair of the Department of Pediatrics at Baylor. "She has played a pivotal role in rolling out lifesaving treatment to hundreds of thousands of HIV-infected children worldwide. She literally has changed the world for children, families and communities across the globe. And, while she was doing all of that, she earned dual master's degrees in nursing and public health, and became a pediatric nurse practitioner and certified AIDS nurse-specialist. By any measure, Calles' nursing career has been both novel and remarkable."

Calles defines the meaning of the word nurse through everything she has accomplished during her career. She has changed the lives of thousands of children and families all across the world and her legacy at Texas Children's will continue. ■

— Tiffany Sexton,  
Texas Children's Hospital

“ [Calles] has played a pivotal role in rolling out lifesaving treatment to hundreds of thousands of HIV-infected children worldwide. She literally has changed the world for children, families and communities across the globe. ”

— MARK W. KLINE, M.D.

Physician-in-chief at Texas Children's Hospital and  
Chair of the Department of Pediatrics at Baylor



TOP: Nancy Calles, R.N., at work in Malawi in 2005. (Credit: Texas Children's Hospital)  
BELOW: (Credit: Smiley Pool)



# High School Students Explore New Frontiers in Biomedicine

The Health Museum hosted it's fifth annual Challenges & Solutions in Medicine in the 21st Century conference, July 8-11. This conference, exclusively for academically gifted, high school students with an interest in medical sciences, provided attendees the opportunity to explore the challenge facing modern day medicine.

Over 50 attendees met with leading experts from the Texas Medical Center and discussed topics ranging from cutting-edge diagnostic technologies to astounding advances in neuroscience and nanotechnology to debates surrounding national health care policy. These gifted students were given exclusive, on-site visits to Methodist Hospital, The University of Texas Health Science Center at Houston (UTHealth), The School of Health Professions at MD Anderson Cancer Center and Texas Women's University.

This year's conference theme was Exploring New Frontiers in Biomedicine. The 2014 conference session focused on the ways science is going beyond traditional boundaries of what we can see, understand or treat in order to find solutions for medical challenges of the 21st century.

Kenneth L. Mattox, M.D., distinguished service professor in the Michael E. DeBakey Department of Surgery at Baylor College of Medicine, chief of staff and surgeon-in-chief at Ben Taub General Hospital and former chairman of the board of The Health Museum, kicked-off the conference with Beyond the Imagination, a presentation on medical advances that seemed impossible just last year.

Throughout the week, attendees stayed on campus at Rice University and made their way through TMC, hearing from over 20 experts in

“This unique experience will deepen these high school students’ understanding of medical science and introduce them to a variety of medical-related career paths to explore.”

— ANNA HAWLEY  
Chief Operating Officer at The Health Museum

medicine and research technology. Some of these presenters included; Jefferey Jacot, Ph.D., assistant professor of bioengineering at Rice University, who spoke on the capabilities of growing heart tissue to be used as a repair for heart defects. Jun Gu, M.D., Ph.D., spoke on new technologies emerging for diagnostic tools in pediatric, adult and prenatal medicine. Elizabeth A. Noser, M.D., director of the Stroke Community Outreach and Education at UTHealth spoke on the Mobile Stroke Unit study and how it addressed some of the challenges in delivering acute stroke treatment.

“This unique experience will deepen these high school students’ understanding of medical science and introduce them to a variety of medical-related career paths to explore,” said Anna Hawley, chief operating officer at The Health Museum.

The Health Museum, whose mission is to foster wonder and curiosity about health, medical science and the human body, hosts this annual conference each July. ■

— Whitney Bennett,  
The Health Museum



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## Texas Wins in More Ways than One at Transplant Games of America

Houston made history this year during the Transplant Games of America, where more than 3,000 people participated in the biannual event to celebrate the gift of life and the advancements of life-saving transplant surgery, the largest turn out in the event's 22-year history.

Transplant recipients, living donors, donor families and their supporters gathered from across the country, with some traveling from as far as Puerto Rico, to come together for the five-day multi-sport festival.

Local organizers said they were thrilled to have so many people participate in the event, which aims to inspire more people to become registered organ donors.

"These Games symbolized hope in its greatest form for transplant recipients and donor families," said Kevin Myer, president and CEO of LifeGift. "For transplant recipients, the Games demonstrated that one can overcome remarkable odds and still live life to the fullest; for donor families, the Games were a way to pay tribute to those who have left lasting legacies through their generous gifts of organ, eye and tissue donation."

The event featured a variety of activities for the participants and the public. The opening ceremony was held at BBVA Compass Stadium and included a parade of athletes and volunteers, a presentation of a balloon sculpture created with the assistance of lung transplant recipients, fireworks and a performance by American Idol finalist Scott MacIntyre.

Rice University co-hosted the track and field and aquatic events, while downtown others gathered for cycling events, and at the George R. Brown convention center participants competed

in indoor sports ranging from ballroom dancing to volleyball. Throughout the week, there were tributes and special celebrations for donor families to honor the legacy of their loved ones.

On the final day of the games, medals were awarded to winners of all the competitions. Team Texas, by a combined effort of their 300 member team, took home the Spirit Award. The award was well deserved for a team whose state has more than doubled the number of registered donors in the past two years.

At the closing ceremony, new friends and old friends shared their goodbyes. Families celebrated their loved ones' achievements, whether they came in first or last. Everyone was proud of the collective efforts. Robert C. Robbins, M.D., president and chief executive officer of the Texas Medical Center and honorary chair of the Transplant Games of America Local Organizing Committee felt especially grateful for being a part of the event and the real-life connections he made.

"It was an honor and a privilege to have been involved in the Transplant Games, and to have had the opportunity to welcome all of the transplant recipients, living donors and donor families to the great state of Texas," said Robbins. "The energy surrounding the games was incredible, and it was great to see such tremendous involvement from the medical center and the local community. It was also personally rewarding to see a former patient of mine, a lung recipient from California, enjoying the games and celebrating the gift of life. Stories like hers, and those of all of the athletes we met during the games, truly demonstrate why organ donor registration is so important." ■

— Zoe Quezada, Texas Medical Center

“The energy surrounding the games was incredible, and it was great to see such tremendous involvement from the medical center and the local community.”

— ROBERT C. ROBBINS, M.D.

President and CEO of the Texas Medical Center, and Honorary Chair of the Transplant Games of America Local Organizing Committee

## Obese Firefighters Report No Weight Advice from Health Providers



Rena Sue Day, Ph.D., and doctoral candidate Michelle L. Wilkinson have focused their research on the health of firefighters across the country. (Credit: UTHealth)

Obese and overweight firefighters are not receiving weight management advice from their health care providers, according to new research from The University of Texas Health Science Center at Houston (UTHealth).

"There are a lot of firefighters who are in great shape, but many are not," said Rena Sue Day, Ph.D., primary author of the study and associate professor of epidemiology at the Michael & Susan Dell Center for Health Living at the UTHealth School of Public Health. "Bigger doesn't always mean stronger, there's a difference between fitness and being big."

National guidelines state that health care professionals (HCPs) should advise patients on the importance of maintaining a healthy weight. Firefighters have high rates of obesity, and cardiovascular events—often related to diet and weight—are the leading cause of line-of-duty deaths in firefighters. This study assessed the association of age and body mass index (BMI) with HCP weight recommendations among male firefighters.

Researchers used data on self-reported HCP weight recommendations and measured BMI from a 2011-2012 national sample of male firefighters. HCP recommendations were recorded

as no advice, maintain, gain, or lose weight, and BMI was categorized as normal, overweight, class I obese, and class II or III obese. We used multinomial logistic regression to estimate the odds of receiving weight advice by age and BMI categories.

Ninety-six percent of firefighters reported visiting an HCP in the past year. Sixty-nine percent of firefighters and 48 percent of class I to III obese firefighters reported receiving no weight advice. Higher BMI predicted HCP advice to lose weight. Younger firefighters were less likely to receive weight loss advice than older firefighters, except among those who were class II or III obese.

"Firefighters have extremely tough and stressful jobs," Day said. "But these are our first responders. They need to be cared for, and they need to be fit."

Day said she hopes the study will encourage doctors to screen all patients for weight and talk about how to lose it without waiting for a person to develop diabetes or hypertension.

The study was published in the July 10 issue of the Center for Disease Control's journal Preventing Chronic Disease. ■

— Hannah Rhodes, UTHealth



# August 2014

5 **Bio/Medical Technology Club of Houston Monthly Breakfast**  
Center for Cell & Organ  
Biotechnology presentation by  
Doris A. Taylor, Ph.D., Texas  
Heart Institute  
Tuesday, 7:00 a.m.-8:30 p.m.  
Jesse H. Jones Rotary House  
mansfielddeborah@aol.com  
713-201-4378

7 **Brain Tumor Center Distinguished Lecture Series**  
Presented by Duane Mitchell,  
M.D., Ph.D.  
Thursday, 11:00 a.m.-12:00 p.m.  
MD Anderson, Mitchell Building  
wenwilliams@mdanderson.org  
832-233-6339

12 **Sports & Extracurricular Activities with ASD. What Parents Need to Know to Promote Success**  
Presented by Natalie Montfort, M.A.  
Tuesday, 11:30 a.m.-1:00 p.m.  
Behavioral and Biomedical  
Sciences Building  
1941 East Road 77054  
margaret.thornsborg@uth.tmc.edu  
713-486-2783

14 **Department of Translational Molecular Pathology Distinguished Lecture Series**  
Presented by Michael A. White, Ph.D.  
Thursday, 11:30 a.m.-12:30 p.m.  
MD Anderson, Life Science Plaza  
bsadeghi@mdanderson.org  
713-834-6030

19 **Optimizing Surgical Pain Management to Improve Patient Outcomes**  
Tuesday, 7:30 a.m.-4:30 p.m.  
The Methodist Institute for Technology  
Innovation and Education (M.I.T.I.E.)  
1941 East Road 77054, 5th Floor  
mitievents@houstonmethodist.org

**Practicing Self-Regulation and Self-Management with Children with Autism Spectrum Disorder**  
Presented by Bryant Shaw, Ph.D.  
Tuesday, 11:30 a.m.-1:00 p.m.  
Behavioral and Biomedical  
Sciences Building  
1941 East Road 77054  
margaret.thornsborg@uth.tmc.edu  
713-486-2783

21 **Sport4Life**  
AIDS Foundation Houston annual  
art auction  
Thursday, 6:00 p.m.-10:00 p.m.  
BBVA Compass Stadium,  
The West Club  
kim@thepadgettgroup.com

26 **Crimes Against Children**  
Presented by FBI Special Agent  
Theo Williams  
Tuesday, 11:30 a.m.-1:00 p.m.  
Behavioral and Biomedical  
Sciences Building  
1941 East Road 77054  
margaret.thornsborg@uth.tmc.edu  
713-486-2783

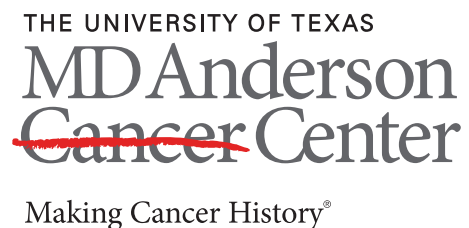
28 **Gulf Coast Healthcare Diversity Summit**  
Thursday, 8:00 a.m.-12:00 p.m.  
Houston Methodist Research Institute  
Auditorium, 2nd floor  
david.vanek@texasdiversitycouncil.org

**CHBE Seminar Series**  
Speaker Jason Papin, Ph.D.  
Thursday, 2:30 p.m.-3:30 p.m.  
Rice University, 212 Herzstein Hall

FOR MORE EVENTS, VISIT [www.tmcnews.org](http://www.tmcnews.org)

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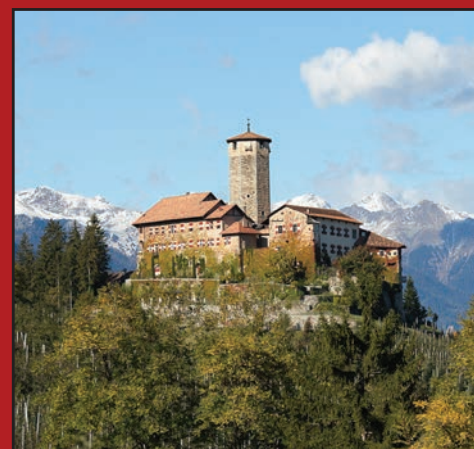
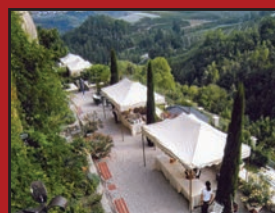


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