

TMC | PULSE

VOL. 4 / NO. 1 — JAN. / FEB. 2017

NEWS OF THE TEXAS MEDICAL CENTER

The Sports Issue

Carl Lewis

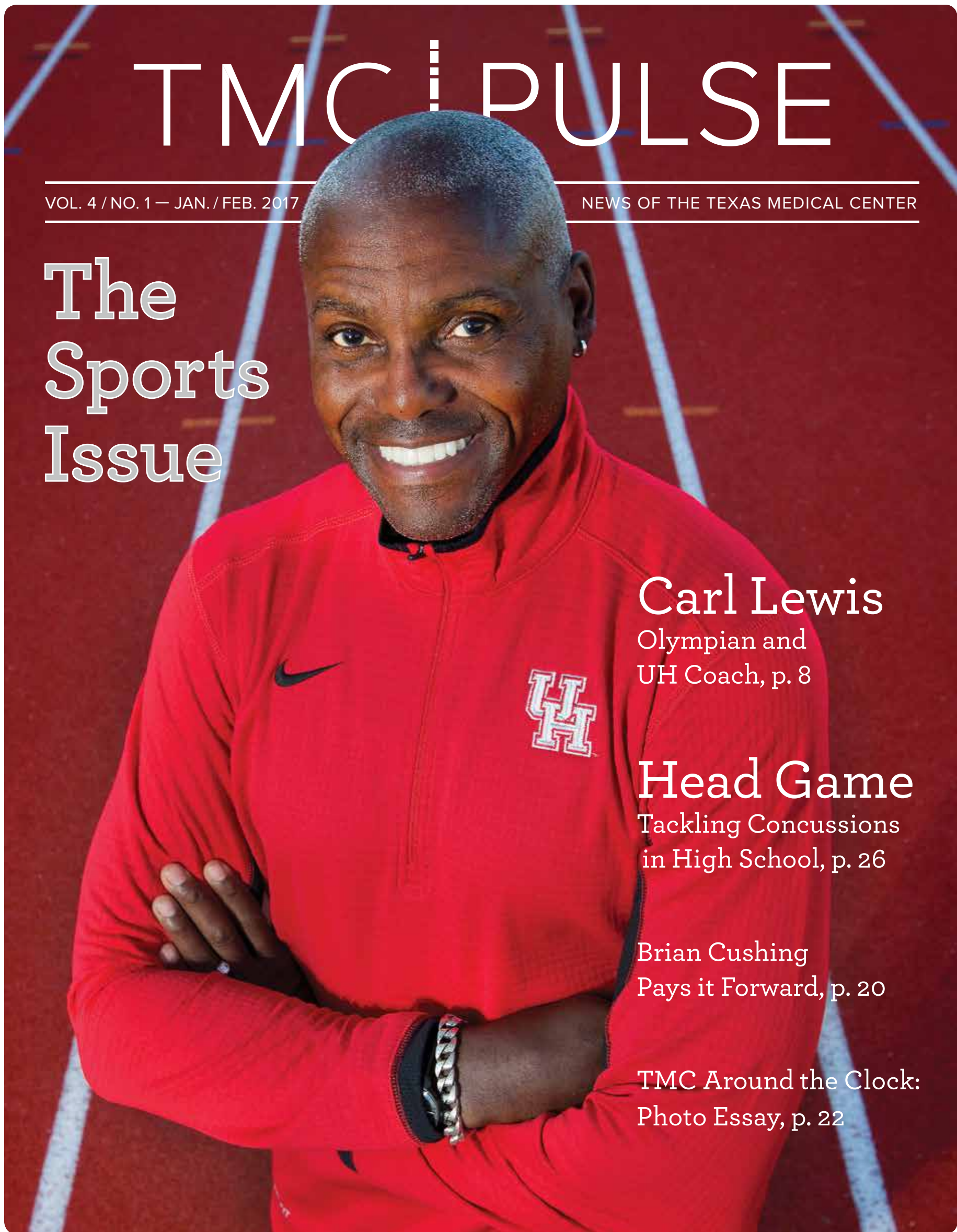
Olympian and
UH Coach, p. 8

Head Game

Tackling Concussions
in High School, p. 26

Brian Cushing
Pays it Forward, p. 20

TMC Around the Clock:
Photo Essay, p. 22





THE TEXAS MEDICAL CENTER *is proud to sponsor the* HOUSTON SUPER BOWL HOST COMMITTEE

*The Texas Medical Center (TMC) is excited to support
the Houston Super Bowl Host Committee for the Feb. 5 game.*

Boasting a stellar roster of physicians, nurses and researchers, the TMC is a champion of human health. As one of the founding sponsors of the Houston Super Bowl Host Committee, the Texas Medical Center celebrates with a series of events leading up to the game and shows what it means to be a winning team in advancing research, education and patient care.

Championing Human Health



OFFICIAL SPONSOR OF THE
HOUSTON SUPER BOWL HOST COMMITTEE



TREATMENT FOR THE MOST COMPLEX NEUROLOGICAL CONDITIONS.

At Houston Methodist Neurological Institute, our physicians collaborate across specialties to diagnose and treat common to complex neurological disorders. As the highest nationally ranked neurology and neurosurgery hospital in Texas, we offer clinical trials and advanced technologies, bringing advanced treatment options to those who have few.

Our team of physicians treats a variety of disorders, including

- ALS
- Alzheimer's disease and memory disorders
- Back and neck pain
- Brain and spinal tumors
- Cerebrovascular disease
- Cranial and spinal disorders
- Epilepsy and seizures
- Headaches and migraines
- Movement disorders
- Neuromuscular disorders
- Stroke

For more information on our comprehensive neurological services in the Texas Medical Center, visit houstonmethodist.org/ni, or to schedule an appointment, call **713.441.3850**.

HOUSTON
Methodist
NEUROLOGICAL INSTITUTE



The highest nationally ranked neurology and neurosurgery hospital in Texas.





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

On Feb. 5, Houston hosts Super Bowl LI. At the Texas Medical Center, we've been waiting a long time for February.

The TMC is proud to be a founding sponsor of the Houston Super Bowl Host Committee, a sponsor of Taste of the NFL, and a sponsor and host of 1st & Future, a pitch competition presented in conjunction with the NFL.

Working with organizations like the NFL gives me a chance to tell the world about the TMC, a truly unique team of nearly 60 member institutions.

When I arrived on this campus in 2012, I saw a huge opportunity to transform the future of medicine by finding ways to help these institutions collaborate. Over the past four years, I've watched the TMC gain recognition in Texas and around the country, but the thing that will catapult us to international acclaim is the TMC³ campus. Our ambitious plan to build a research translation hub south of Houston's downtown will bring researchers from multiple institutions into one shared, state-of-the-art space. There, we'll be perfectly positioned to lead the fourth industrial revolution, which will integrate the physical, digital and biological spheres.

But like the road to the Super Bowl, TMC³ is a monumental challenge. Competing on a global stage with Boston, San Francisco, Shanghai, Singapore and other meccas of medicine is only possible with teamwork.

When TMC³ is finished, people will say, 'Wow, all these institutions finally found a way to work together in this big new world where collaboration is imperative.'

In our case, of course, the end game is everything: improving health and humanity, one patient at a time.

Robert C. Robbins

TMC | PULSE

Vol. 4 No. 1

January / February 2017

President and Chief Executive Officer

Robert C. Robbins, M.D.

Vice President of Communications

Christen David

Pulse Editor

Maggie Galehouse

mgalehouse@tmc.edu

Digital News Editor

Shea Connelly

sconnelly@tmc.edu

Staff Writers

Alexandra Becker

Shanley Chien

Christine Hall

Britni N. Riley

Photojournalist

Cody Duty

Contributing Photographer

Scott Dalton

NEWSROOM

713-791-8812

news@tmc.edu

ADVERTISING

Felicia Zbranek-Zeitman

713-791-8829

newsads@tmc.edu

DISTRIBUTION

Daniel Martinez

713-791-6136


distribution@tmc.edu


READ US ONLINE

tmc.edu/news

FOLLOW US

 @TXMedCenter

 @texasmedcenter

 @thetexasmedicalcenter

TMC Pulse is an award-winning monthly publication of the Texas Medical Center in Houston, Texas. Permission from the editor is required to reprint any material.

Table of Contents

JAN./FEB. 2017

4

En Pointe

Karina González danced her way to the United States.

6

Mental Toughness

D.J. Hayden fights back after injuries.

14

TMC Timeline

The history of the Texas Medical Center spans nearly 150 years.

18

Kicking It

High school junior Claire Jeffress plays soccer and varsity football in Pearland. ►

32

Team Paige

The life of Paige Lejeune inspired Christian Covington, defensive end for the Houston Texans.

8 TMC Spotlight: Carl Lewis

35 Curated: *Gridiron Glory*

36 TMC Spotlight: Benjamin K. Chu, M.D.

40 Solutions

41 On the Side: Dian Ginsberg, M.D.

42 Field Notes

44 Calendar

ON THE COVER: Carl Lewis poses on the track at the University of Houston.

En Pointe

With leading roles, car commercials and full days of training, Houston Ballet principal Karina González is dancing her destiny

BY ALEXANDRA BECKER



Karina González. Credit: Claire McAdams, courtesy of Houston Ballet.

When Karina González was 7 years old, she and her sister were given the wrong directions on their way to a folk dancing class in their hometown of Caracas, Venezuela. Instead of upbeat tempos and full, ruffled skirts, González found herself walking into a ballet audition. Almost immediately, she was granted admission to the competitive school.

For nine years, González trained at the Gustavo Franklin Ballet School in Caracas, then joined the national ballet company upon graduation, where she danced professionally for two years.

“I remember when I came to this country, the first thing my mom said was, ‘Try your best every single day, and be happy and enjoy what you’re doing.’”

— KARINA GONZÁLEZ

Principal dancer at the Houston Ballet

One day, when González was 17 years old, the director of the Tulsa Ballet in Oklahoma flew down to Venezuela to hold auditions.

She was offered a contract.

“It was one of the most difficult decisions because it was my first time leaving my family,” González, now 30, recalled. Her mother and two of her three siblings still live in Venezuela, which is currently suffering from a devastating economic crisis.

“We are a very close family—I have two brothers and one sister—and I’d never been away from my family at all,” González said. “I kind of knew that was my only opportunity to leave the country and dance in another place, and I remember going home and telling my parents that I had this opportunity to go to the States. I remember my mom and dad said, ‘Okay, well this is what you want to do.’”

At the time, González did not speak any English. She had never left Caracas or even been on an airplane. She remembers crying as soon as she boarded, but also the kindness of strangers who kept her from changing her mind before the flight took off.

“For me, in my mind, I didn’t know when I was going to get to come back and see my family,” González said. “But it was great, and six months later, I went home for Christmas.”

That was 12 years ago, and González is still living in the U.S.

Up close, she is a petite powerhouse—every muscle perfectly sculpted, her body lithe, her posture impeccable. But to execute routines the way she does, to command the stage, requires more than exquisite form.

“I remember when I came to this country, the first thing my mom said was, ‘Try your best every single day, and be happy and enjoy what you’re doing,’” González said. “And she said if I didn’t enjoy it, to just come back home and be with my family. So I feel like I have done that in my career. I take ballet very seriously and I try to work as hard as I can. The other thing, though, is to just believe in

who you are. I think I struggle a little bit with that, but you should just believe in who you are because you have something special. That’s what people will see if you’re confident in yourself.”

Although González still misses her family and Venezuelan culture, she has, quite simply, watched all of her dreams come true. She is the first Hispanic woman to be named a principal dancer at the Houston Ballet. She has danced coveted roles for some of the world’s most sought-after choreographers, traveled the world, and headlined a national ad campaign for Honda. Recently, she even married her longtime love.



Karina González and Connor Walsh, of the Houston Ballet. Credit: Taylor-Ferné Morris, courtesy of Houston Ballet.



Karina González in Houston Ballet's *Romeo and Juliet*. Credit: Amitava Sarkar, courtesy of Houston Ballet.

"It gives me motivation to keep working and dreaming, to get higher and higher, because now you are an example for the new generation," she said. "I want to show that you can achieve your dreams. Even when I was little, I remember dreaming about all of this, and now that I have it, I just feel like I've been completely blessed."

It hasn't come without hard work—countless hours of it.

González's workday begins at 10 a.m. with a prep conditioning class that lasts an hour and a half. It is followed by rehearsals—six solid hours of learning and practicing choreography—and usually ends around 7 p.m. The training schedule puts enormous pressure on the dancers' bodies; add pointe to the equation and every square inch of their frames, all the way down to their toes, demands constant maintenance.

"I think not many people know that it is actually really hard," González said. "When you come to a show you see a beautiful performance and we make the dancing look easy and smooth, but it takes a lot of training."

Outside of her schedule at the Houston Ballet, González practices Pilates and yoga and stretches religiously.

"I feel like that's my secret: stretching after. Even before I go to sleep, I have these little things next to my bed that help me stretch my calves, and I

think that's what keeps me out of injuries," she said. "I always say that our body is our tool, so if it's not in the right condition, it's hard to perform your best."

Balanced nutrition is crucial for elite athletes like González, who, thanks to recent tracking on an Apple Watch, learned that she can burn nearly 600 calories in just one class. González makes it a point to eat healthy, consuming plenty of fruits and vegetables, but she'll also allow herself burgers and plates of pasta because, as she puts it, "We actually need to eat a lot."

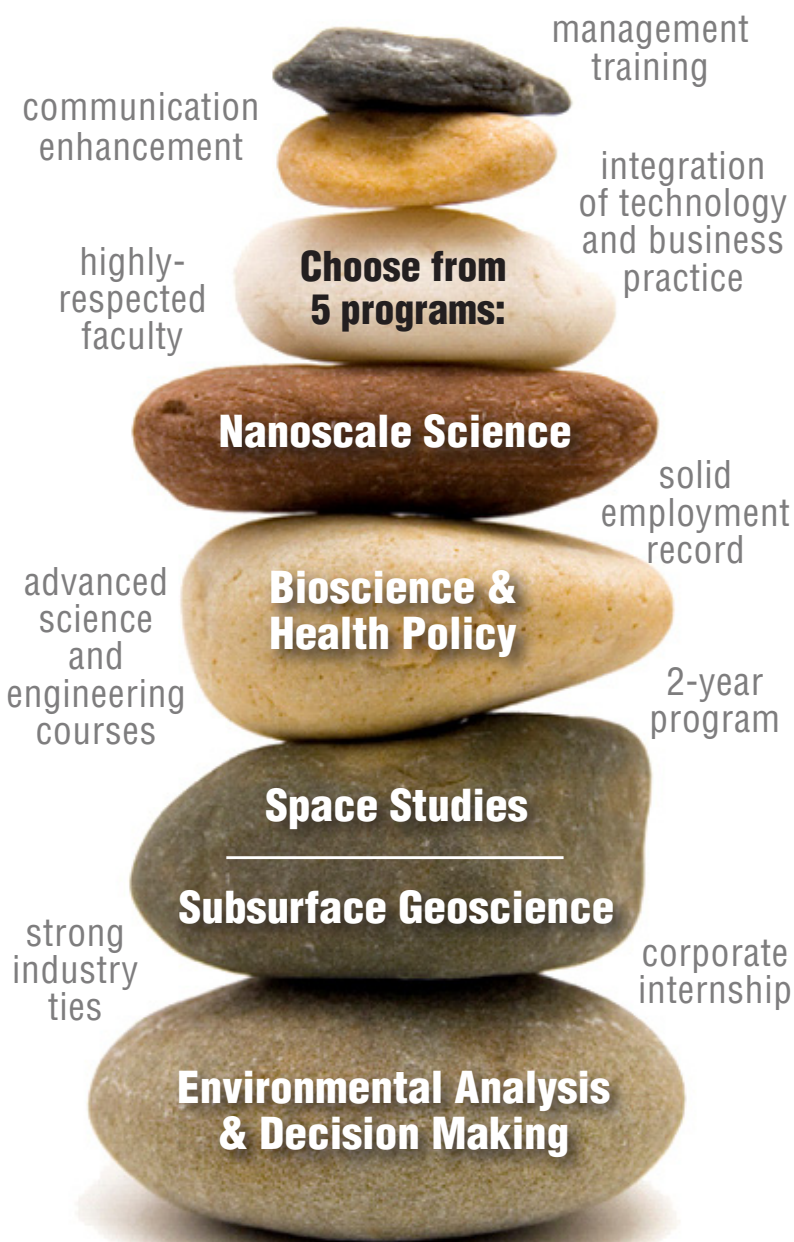
She and her fellow dancers love coconut water and peanuts, too. "We can't have bigger plates while we're rehearsing, so you always have to be snacking," she said. "That's our routine."

It's exactly that regimen, her days in the studio and the hours upon hours of training, that she cherishes most. Every new ballet begins with a clean slate and, soon enough, she's learned a new dance by heart.

"I don't know if it was destiny or if it was God, but I feel like there's somewhere my life is supposed to go," González said. "I don't actually know what I would be doing if ballet didn't happen—I can't even imagine. I know I've worked really hard to get to where I am, but I also feel like there's a plan for me." ■

Professional Science Master's Program

Building a career in science through a balanced curriculum



RICE

profms.rice.edu

RICE UNIVERSITY • HOUSTON, TEXAS

Mental Toughness

NFL cornerback D.J. Hayden knows how to fight back after injuries

BY BRITNI N. RILEY



Oakland Raiders cornerback D.J. Hayden. Credit: AP/Paul Jasienski, courtesy of the Oakland Raiders

An 18-inch scar runs the length of D.J. Hayden's torso, from the notch between his collar bones all the way down to his navel.

"The scar is a daily reminder of God's plan for me," said the Oakland Raiders cornerback. "I know he has a plan for me, and I just need to follow through with it."

Hayden, who grew up in Missouri City, Texas, and played football at Elkins High School, likes to compare himself to a phoenix rising from the ashes. He's had one football injury after another—at the University of Houston and then as a pro for the Raiders.

But he keeps making his way back to the field. Hayden's most severe injury occurred during a full-pads practice at UH in 2012. The Cougars were preparing to take on the University of Tulsa Golden Hurricane, and Hayden was making a play he had executed hundreds of times before. But this time, he collided with fellow cornerback and friend Trevon Stewart.

Mike "Doc" O'Shea, head athletics trainer at UH, will never forget that day. Although he doesn't make it to every practice, O'Shea was on the sidelines Nov. 6 when Hayden was hit and fell to the ground.

"Something just told me to put him on the medical cart and take him into the locker room, instead of having him walk," O'Shea said. "We had a TV on and he told me that it started to get blurry. I knew it wasn't a head injury because I had seen the hit and he didn't hit his head. I knew right then there is something going south on us really quick."

Hayden was taken by ambulance to what is now Memorial Hermann Red Duke Trauma Institute. There, trauma surgeon Ron Albarado, M.D., stepped in.

Albarado and his team realized Hayden was losing blood, but didn't know the source. To find it, they cut open Hayden's chest and broke his sternum. The injury turned out to be a massive tear to the inner vena cava of Hayden's heart, an injury more typical of a high-speed car accident or wartime combat. The average fatality rate for a tear to the inner vena cava: 95 percent.

"Everything went right that day and God was on our side," O'Shea said. "He put his hand on us, and if things wouldn't have happened within that hour, D.J. wouldn't be where he is today. We didn't do anything special; we just went with our instincts and we probably had someone on our shoulder from up above telling us what to do."

In a remarkable, even unimaginably quick recovery, Hayden was released from the hospital after six days. The 5'11" athlete, who typically weighs close 190 pounds, dropped 25 pounds and, at first, struggled to climb stairs. But he persevered. Just four months after his near-death experience, he ran a 4.3-second 40-yard dash at UH's Pro Day.

"I still wanted to play football, and I had to be where I had to be, and I had to go where I wanted to go," said Hayden, now 26. "It was just a process. It took me about three to four months, and basically I just had to keep working hard to get healthy and just challenge myself. I would go work out, and push myself to get through the workouts. I read the Bible."

The following year, spring of 2013, Hayden went 12th overall in the first round of the NFL draft to the Oakland Raiders.

"At the time, you just hoped he would walk out of the hospital and live a normal life," O'Shea said. "But he got drafted, played pro football. It's quite remarkable."

Hayden has spent the past four years with the Raiders. Foot and groin injuries took him off the roster for parts of 2013 and 2014. And in December 2016, he was placed on the injured reserve list for a hamstring injury, ending his season.

“The scar is a daily reminder of God’s plan for me.”

— D.J. HAYDEN
Cornerback for the Oakland Raiders

Come March, for the first time ever in his professional career, Hayden will be a free agent. Time will tell if this means a major career shift or if he will rise from the ashes, once again, to play pro ball. Either way, he's prepared.

"I learned to trust my body a lot," Hayden said. "Your body knows how far you can go. And I feel like I have become a great judge of my own mind. I have a better hold on how I can prepare myself mentally for different trauma situations."

Until March, his plans are relatively low-key.

"I'm taking everything day by day," Hayden said. "I'm looking forward to going home to see my family and stop at Pappadeaux while I'm there. I am really a homebody. I love to stay at home with my daughter, Dylan, and take it easy." ■



Hayden celebrates with a teammate during a Raiders game.
Credit: AP/ Ben Margot, courtesy of the Oakland Raiders

SAVE THE DATE

HOUSTON HEALTHCARE SOLUTIONS SUMMIT



BachHealth

LOCATION

Junior League of Houston
1811 Briar Oaks Lane
Houston, Texas 77027

Space is limited at this must-attend event register today at

BACHHEALTH.COM
(385) 529-6925

February 16, 2017

The Houston Healthcare Solutions Summit provides a one day event of networking and collaboration between employers, healthcare professionals & providers, insurance carriers and brokers.

Prepare for evolving ACA health reform mandates, explore best-practices and emerging models of healthcare innovations and employer health benefit solutions.

KEYNOTE SPEAKERS



Arthur (Tim) Garson, Jr.
MD, MPH, MACC
Dir. Health Policy Institute
Texas Medical Center



Mike Biselli
President
Catalyst HTI

Track and field star **CARL LEWIS** won nine Olympic gold medals and eight World Championship gold medals over his 17-year career. Lewis spoke with *Pulse* about his family, his “terrible” jogging, and coaching at his alma mater—the University of Houston.



Q | *You were born in Birmingham, Alabama, in 1961. Tell me about your parents and their involvement in the Civil Rights Movement.*

A | They ended up in Montgomery, Alabama, after college. My mother became friends with Rosa Parks. When the bus strike happened, it just so happened that my parents were teachers and had a car. Because of that, it was all hands on deck. If you have a car and if you see someone walking to work, pick them up. That's what drew them into it.

Then we became close with Dr. Martin Luther King, Jr., and the family. We were part of the church, and my brother was baptized by Dr. King. When they moved to Birmingham, we moved to Birmingham, where my sister and I were born.

We were on the front lines. My parents were marching and doing all the things that were happening at that time.

Then in 1963, we moved to Willingboro, New Jersey, where they were just finishing up a civil rights lawsuit for equal opportunity housing. Willingboro was founded as an all-white community. There was a gentleman named W. R. James who sued to get in, and that was part of the equal opportunity housing act.

Civil rights have always been a part of my upbringing, and we just happened to go places where it was put in the forefront.

Q | *I can tell your parents played key roles in shaping who you are today.*

A | I think my father was a lot like the people of his era. He wasn't the kind of guy who would say, 'I love you.' I don't even remember him saying it more than a couple of times in my life, but he showed it. Dad had your back. He was really strict on discipline and structure. We always said, 'Bill Lewis did not play.' He did not like bad kids. He not only understood how to raise a young man (and daughter, like my sister, Carol), but also a black man. I didn't realize until I got older—and especially when I had my son—that there was a difference. We're starting to see there's a different way to raise a black man, unfortunately, than other men. Dad was very good at that because he and my mother were coaches in the community and they were teachers.

“I only want to recruit a kid who wants to become an Olympian. That's it. That doesn't mean you're going to be, but I want someone with that vision.”

My mother was a visionary. When she moved to New Jersey, she wanted track and field. In the '60s, they mainly had softball, field hockey and basketball, but they didn't have track and she was like, 'Girls should have a track program, too. Why do the boys have track and girls don't?' That's how the Willingboro Track Club started, because she was like, 'If they won't put it in the schools, then I'm going to start my own club.'

Our summers revolved around the track program. I lived 40 minutes from the Jersey shore, but I never went one time in my life. I did not know it existed because we were at track meets or this or that. They were down eating saltwater taffy and I was at track meets eating cold chicken.

Q | You ended up attending the University of Houston. What made you choose to become a Cougar?

A | There were three powerhouses: Villanova, Tennessee and Houston. I originally wanted to go to UCLA, but that didn't work out. It came down to these three.

When I came to Houston on a visit, it was the worst. I got here, a guy took me around and it was boring. He just talked my ear off. He wanted to talk about the past, but I wanted to talk about the future.

The head coach asked me to meet him at the track office and he would take me to the airport. I get there and the track was a dirty track. It was just ridiculous. I'm saying, 'This is such a waste of my time.'

When I went into that meeting with the head coach, he pulled out some videos and we watched them in his office in a rickety old building. He's talking about the long jump, he's talking about the jumpers, and I'm like, 'Wow, this guy understands the long jump!'

He said, 'You're tall. You're fast. I think you can break the world record and be an Olympic champion.' That was it. That's what I wanted to hear, but I didn't know it until I heard it.

Q | You're back at the University of Houston as a coach. How do you incorporate that 'be the best you can be' attitude into your track and field program?

A | Renu Khator [UH president and chancellor of the UH system] and I have become very good friends. We've won conference every year I've been here. Every time I see her, she says, 'How many Olympians?' And that's the visionary in her. She's seeing the program beyond college. Being someone who wasn't born in America, she sees the world in a different way.

I only want to recruit a kid who wants to become an Olympian. That's it. That doesn't mean you're going to be, but I want someone with that vision.

We're an Olympic-based program, so if you're not thinking of that—whether you make it or not—you don't fit here.

Q | You've won 10 Olympic medals and 10 World Championships medals. You broke and set world records. You've been named 'World Athlete of the Century,' 'Sportsman of the Century' and 'Olympian of the Century.' What would you say is your proudest achievement?

A | My greatest accomplishment, I'd say, is the longevity in my sport. Jesse Owens, who is a huge idol of mine, didn't have a chance to go back to the Olympics or he would have been 'Athlete of the Century.' I think it's the fact that I went 10 years in a row without losing a long jump against anyone. I won four Olympics in a row, and was No. 1 in the world over 10 years in the sprints. These are things that may not happen again. It's the longevity, the fact that I improved as I got older because I had to meet the challenges.

Q | You became a vegan in 1990. Did it help your athletic performance?

A | I wanted to keep my weight down, but I did it by not eating. I would skip breakfast every day, skip lunch most days, and eat dinner. It was just unhealthy. I started doing some research on what I had to do to maintain a better diet. It came out to a vegetarian and vegan diet. The biggest challenge wasn't shifting to that diet because that was easy for me. It was changing my mindset to eat more. I had gotten used to turning away breakfast because I'd gain weight, so early on, I was calorie-deficient and listless. I was eating 2,500 calories a day, that's it. We were training, so we were burning thousands of calories.

It took a while for me to get used to eating three vegan meals a day. After that, I really loved it because I could eat these huge meals and snacks. My chef became so creative in the way she cooked, cooking vegetarian lasagna with spinach and soy cheese. But I'll eat meat sometimes. I don't trip out on it.

Q | You say that you don't like running, but as an Olympic sprinter and long jumper, that seems kind of counterintuitive.

A | No, I don't like jogging at all! Actually, I've never liked distance running, never liked jogging. Coach Tom Tellez at UH used to always laugh and say, 'It's good, because you're the worst-looking jogger. You look terrible jogging!'

 Carl Lewis' Olympic Medals		
MEDAL	YEAR/LOCATION	EVENT
Gold	1996 Atlanta	Long jump
Gold	1992 Barcelona	Long jump
Gold	1992 Barcelona	4 x 100 m relay
Silver	1988 Seoul	200 m
Gold	1988 Seoul	Long jump
Gold	1988 Seoul	100 m
Gold	1984 Los Angeles	Long jump
Gold	1984 Los Angeles	4 x 100 m relay
Gold	1984 Los Angeles	200 m
Gold	1984 Los Angeles	100 m

Q | You ran for New Jersey State Senate in 2011, but were disqualified because officials said you did not meet the four-year state residency requirement. What did you learn from that experience?

A | I ran because I wanted to make a difference. In South Jersey, there were a few things. Number one, I was at a restaurant and denied service. It was bizarre to me, because I had been around the world, but five miles from my home, some woman said she's not serving me. I thought, 'Well, that story needs to be told.'

Someone also needed to fight for pension issues and plans. South Jersey has one of the most segregated public school systems in America. I grew up there, had a wonderful time and loved it. Then I moved to Houston and to California. I traveled to over 200 countries and started seeing the world.

I started saying, 'Wow, this place is so backwards.' So I wanted to make a difference.

I wasn't afraid to stand up to the government at the time. Everyone was like, 'Oh my God!' But I just said, 'Dude, are you kidding me?' I would have been an outspoken senator.

I ran and they fought me at the state level, from Gov. Christie all the way down, and kept knocking me off the ballot. Finally, I realized that the reason I was running was because the people who were there weren't stepping up to have the community they wanted.

(continued)

It was probably the community they were happy with, but it wasn't a community that I was happy with. I finally saw it this way: If everyone says one thing and you say something else, maybe it's you. I realized it was me, so I moved back to Houston. I didn't leave pouting. I just was in the wrong place.

Q | *As someone who stays incredibly busy, how do you unwind?*

A | I love nature, so I garden. I love my yard. We cut down every single tree in the yard and replanted 75 plants. I enjoy doing that. If there's a tree that needs to get cut, I'll cut it. But I won't cut grass. I hate cutting grass; I had to do it when I was young.

I love to ride my bike and zip through the city, especially Houston, where they have so many bike trails now. This is the great thing about Houston: It's an international city, so let's step our game up. The parks are beautiful. We already know the culture's there, and the museums and the theater scene are fantastic. I know they say it's hot and everything, but we want to make the outdoor opportunities as great as we can, like Memorial Park.

I love history, too, whether it's reading about history or watching documentaries. Matter of fact, we used to have documentary Sundays. Growing up, it used to drive my son crazy. He admits it wasn't that bad, though.

“My greatest accomplishment, I'd say, is the longevity in my sport.”

Q | *What's the worst nickname you've ever been given?*

A | That came from people in track. When I was a kid, I had the nappiest hair. Kids used to call me 'spit' because my hair was so nappy growing up. It was horrible. Back in the '70s, I used to put those blowout kits in my hair because if I didn't, it'd be really nappy and lint would catch in it. People would be like, 'It looks like people spit in your hair.'

Q | *And the best nickname?*

A | I have an Indian spiritual name. It's Sudhahota, but a lot of people call me Sudha. It means 'unparalleled sacrifice for immortality.' Sri Chinmoy, the Indian spiritual leader, gave me that nickname. He's passed away now, but we were friends for years, and he gave me that name back in 1983. ■

Carl Lewis was interviewed by Pulse reporter Shanley Chien. This interview has been edited for clarity and length. Read the full interview at www.tmc.edu/news/



Lewis poses with a bronze statue of himself inside the University of Houston Athletic Department's Hall of Honor.



drhorton.com/houston

MODEL HOME:
12102 Paseo Place
Houston, TX 77047

From the \$190s

**MINUTES from the MEDICAL CENTER,
RELIANT CENTER and the GALLERIA AREA!**

Mention this ad to receive a
**Move-In Package
with home purchase!**
NOW - FEB 26th!



Call our Online Sales Counselor at
281-853-8418 for more information
or to make an appointment!

Why rent when you can own?

Prices, plans, features, options and co-broke are subject to change without notice. Additional restrictions may apply. Square footages are approximate.



Valentine's Day Primer

Falling in love is different than staying in love

BY BRITNI N. RILEY

What is it that makes us fall in love? Is it a scent? A kind smile? Beautiful hair? Were we born to be with one particular person?

Scientists don't have precise answers.

Pheromones—chemical substances produced by animals that serve as stimuli to other animals of the same species—are, in part, responsible for attraction. But humans are a unique type of animal.

"We know that animals actually have a specific organ, the vomeronasal organ (VNO), to detect pheromones to mate," said Dolores J. Lamb, Ph.D., Lester and Sue Smith Chair Basic Urologic Research; director of the Laboratory for Male Reproductive Research and Testing; and professor in the departments of urology and molecular and cellular biology at Baylor College of Medicine. "Animals are very driven by lots of different scents. Humans are far less olfactory-based and we lack the VNO organ."

Yet there are specific, physical feelings humans associate with love, including "butterflies" in the stomach when someone special comes along.

"When people have that sense of love at first sight, it didn't happen to everybody in that room," Lamb said. "There is a very clear connection there between the two people, and defining that has been elusive for scientists because there is a lot of personality involved."

It is hard to find a viable connection between pheromones and love in humans because people seek out relationships for so many different reasons.

"Humans are more complicated beings than animals and insects," said James H. Bray, Ph.D., associate professor of family and community medicine at Baylor College of Medicine. "It's not just about reproduction, which is what animals are about. For humans, it's somewhat about reproducing, but also about other high-order things like love, intimacy, feeling safe."

Depending on our own love languages and preferences, Bray said, we determine what we want in a partner. Some people have a set trait or quality they are looking for, others have no idea what they are looking for, and some are waiting for a "weak in the knees" feeling when they meet someone.

And once we have found our partner, there is still plenty of work to be done.

"One thing to understand is that—and this probably comes from evolution—we get attracted to people and

there are these positive feelings of love and being in love," Bray said. "But that is just to get us together. Over time, it is natural for many of those things to wane, and that is where true intimacy comes in. Butterflies

tend to drop off within six to 12 months of being in the relationship, and that is very normal. If people need to have that, then they need to work at it. We are wired to connect and then once we have connected and formed the relationship, we don't need that because we have made a commitment."

To keep the feelings of love alive and maintain a long-term relationship, Bray recommends remembering why



Dolores J. Lamb, Ph.D., poses in her laboratory at Baylor College of Medicine.

you fell in love with your partner in the first place.

"Sometimes people drift apart, develop different interests," Bray said. "People get swept up in their careers and do not spend time working on their relationship. One of the key things I do is help people remember why they

fell in love with their partner, and I tell them to practice the 'silver rule' of relationships. You know the 'golden rule' is to treat others as you would like to be treated, but that doesn't work for marriage. The silver rule is to treat your spouse or partner as *they* would like to be treated." ■

BE GONE Dietary Trial



Beans to Enrich the Gut Microbiome vs. Obesity's Negative Effects

The goal of the trial is to test whether adding cooked dry beans to the usual diet can improve healthy bacteria in the digestive system to improve overall health and reduce cancer risk.

Who is Eligible?

MD Anderson patient, age 30-70, with a body mass index (BMI) score of 25 or higher, colorectal cancer survivor or diagnosed in the past 5 years with a precancerous colorectal polyp.

THE UNIVERSITY OF TEXAS
MD Anderson
Cancer Center
Making Cancer History®

If interested call **713-792-2062** or
email **BEGONE@mdanderson.org**
<https://clinicaltrials.gov/show/NCT02843425>

Baby, It's Chili Inside

Tips for Super Bowl treats and a little bit of indoor exercise

BY CHRISTINE HALL



THIRD COAST RESTAURANT | Chef Jon Buchanan's Super Bowl Chili

Ingredients

- | | |
|---|--|
| 4 tablespoons canola oil | 12 garlic cloves (crushed and chopped) |
| 4 ancho chilis (stems and seeds removed) | 4 Roma tomatoes (halved and seeded) |
| 4 guajillo chilis (stems and seeds removed) | 2 pounds beef tenderloin (ground) |
| 2 large red bell peppers, chopped | 4 Lone Star beers |
| (stems and seeds removed) | Salt and pepper |
| 1 large yellow onion (chopped) | Yield: Eight servings |

Directions

In a hot Dutch oven, brown the ground beef in two tablespoons of canola oil. Remove browned meat from the pot, strain the oil and set aside. Next, in the remaining oil, add the chilis, onion, garlic and red bell peppers and cook until caramelized. Add the tomatoes and cook until they begin to break down (about five minutes). Next, add beer and bring to a simmer. Once the vegetables are cooked through, remove from heat and purée in a blender until smooth. Strain the vegetable purée through a fine strainer to remove any seeds or solids. Last, add the ground beef and purée back into the pot, season with salt and pepper, bring to a simmer and cook until the beef is very tender. Top with pico de gallo, avocado, tortilla strips and sour cream.

The Super Bowl is a great excuse to gather with family and friends and enjoy some tasty food.

It's definitely not a day for dieting.

In recent years, the U.S. Department of Agriculture determined that Super Bowl game day is the biggest food consumption day in America after Thanksgiving. Fans watching at home can easily down 2,400 calories and 121 grams of fat in one sitting, dietitians say.

"For the average-size person not working out, that is more than they should eat for the whole day," said Melissa Markofski, Ph.D., an assistant professor in the Department of Health and Human Performance at the University of Houston. "Plus, the foods are calorically dense, like bowls of chips, dips, wings and nachos, all the tasty calorie-bomb stuff."

Although sports fans often crave warm and meaty fare, there are ways to sneak fresh ingredients into your Super Bowl snacks and even a little exercise into game day.

"Chili is so versatile," said Jon Buchanan, executive chef of Third Coast restaurant in the Texas Medical Center. "It can sit in the middle of the Super Bowl spread or be a side dish."

To wow the crowd, he suggests making it as much from scratch as possible, using fresh ingredients such as chili peppers instead of chili powder. Buchanan likes to use ground beef tenderloin scraps in his recipe, but for those looking for leaner choices he suggests turkey, ground chicken or venison.

"You can also put out a number of fresh condiments like peppers, onions, cilantro and tortilla strips," Buchanan said. "Or put out hot dogs for chili dogs, or put out bags of Fritos for Frito pie."

For those who don't want meat in their chili, Nicole Cornelious, a clinical dietitian with Memorial Hermann Heart & Vascular Institute-Texas Medical Center, suggests replacing meat with beans or another plant-based protein, which lessens the amount of cholesterol and fat. Not a fan of beans, or want something extra? Try adding a whole grain like barley, which offers texture and is a great source of fiber.

Other great meat substitutions include savory grilled vegetable kabobs or grilled fruit kabobs, Cornelious said. She also likes to trade out beef for portobello mushrooms or black bean burgers. For die-hard beef eaters, she suggests a leaner beef like sirloin.

"If you like pizza, don't add meat or cheese," she said. "Really, it is the meat and the cheese that is loaded with fat and salt that is making the food worse for you."

Cornelious and Markofski both recommend taking standing breaks during commercials or even going outside to throw a football around during the Super Bowl. Or, when a player makes a touchdown, drop to the floor and do as many pushups as the score of the winning team.

“Try to make it fun, like whoever can do the most jumping jacks in a certain period of time can have the recliner when the game comes back on,” Cornelious said.

Instead of spreading food out in front of the

“Chili is so versatile. It can sit in the middle of the Super Bowl spread or be a side dish.”

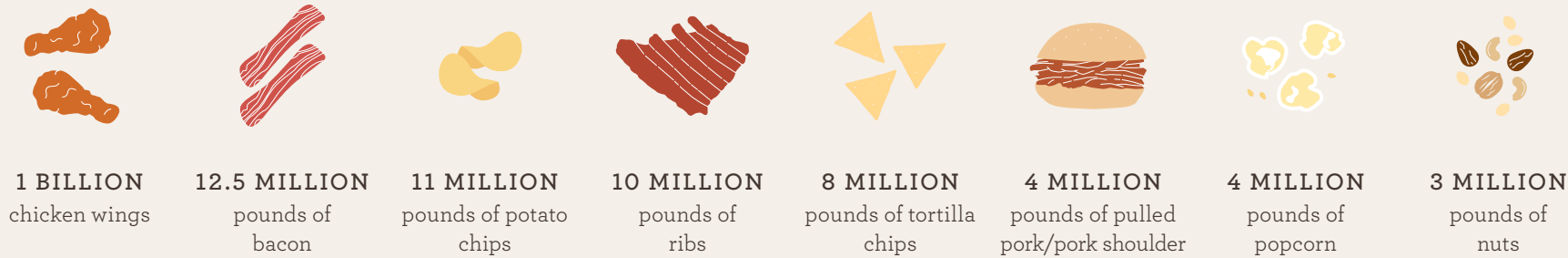
— JON BUCHANAN
Third Coast Executive Chef

television, Markofski recommends keeping the food in the kitchen so people have to get up and walk for it. Trick everyone into thinking they’re filling up by

using smaller plates. And because soda and alcohol have so many calories, keep plenty of water on hand so people can rehydrate and reduce calories at the same time.

“One day of eating like this isn’t going to give you heart disease,” says Markofski, who studies the effects of exercise and nutrition on muscle function and biomarkers associated with disease risk. “But a continued pattern of eating foods high in fat and carbohydrates is not helping your risk.” ■

CHEW ON THIS | Food consumed around the country on Super Bowl Sunday



Sources: National Pork Board, Snack Food Association, National Chicken Council, National Restaurant Association

Specialized Care & Treatment for Young Athletes

Orthopedics & Sports Medicine Locations

- Texas Children’s Hospital **Clinical Care Tower**
6701 Fannin Street
Houston, TX 77030
- Texas Children’s Hospital **West Campus**
18200 Katy Freeway
Houston, TX 77094
- Texas Children’s Health Center **Cy-Fair**
11777 FM 1960 West
Houston, TX 77065
- Texas Children’s Specialty Care **Kingwood Glen**
19298 W. Lake Houston Parkway
Humble, TX 77346
- Texas Children’s Health Center **Sugar Land**
15400 Southwest Freeway, Suite 200
Sugar Land, TX 77478
- Texas Children’s Hospital **The Woodlands**
17580 Interstate 45 South
The Woodlands, TX 77384

832-22-SPORT



1941

The **University of Texas** creates the **MD Anderson Hospital of Cancer Research**. It is the first member institution of the **Texas Medical Center** (TMC).¹



1945 The **Texas Medical Center** is officially chartered and filed with the state of Texas.

1946 The **University of Houston College of Pharmacy** is founded.

1950



Leopold Meyer, a retail merchant and medical fundraiser, starts building **Texas Children's Hospital**.¹

1954 **St. Luke's Episcopal Hospital** is founded by the Episcopal Diocese of Texas.

The **Houston Academy of Medicine Library** receives a building gifted from **Jesse H. Jones**, although the library's origins date back to 1915. By 1975, the building gets an addition and the library assumes its current name, the **Houston Academy of Medicine – Texas Medical Center Library**.

1957

Harris County Commissioner's Court establishes the **Office of the Harris County Medical Examiner**, now known as the **Harris County Institute of Forensic Sciences**.

1960

Texas Woman's University, based in Denton, establishes a presence in Houston.



Dr. Michael E. DeBakey performs the world's first coronary artery bypass at **Houston Methodist Hospital**.¹

At **Texas Children's Hospital**, **Karen and Kimberly Webber** are born joined at the chest. The hospital separates the conjoined twins, establishing itself as a leader in pediatric care.

1964

1943



The **City of Houston** provides 134 acres next to **Hermann Hospital** to establish a hospital district.

Baylor University College of Medicine moves from Dallas to Houston and becomes a member of the **TMC**.

Hermann Hospital becomes the first hospital in Texas to receive penicillin.

Texas Children's Hospital opens with three stories and 106 beds.

1953

1955

The **Institute for Spirituality and Health** is founded. Originally known as the Institute of Religion, it is dedicated to the idea that spirituality is vital to health and healing.



Dr. Denton A. Cooley, right, founds the **Texas Heart Institute**.¹

1959

The **Texas Institute for Rehabilitation and Research**, or **TIRR**, opens as one of the country's first rehabilitation hospitals.

1962 1963



Ben Taub Hospital opens. The charity hospital is named for a Houston philanthropist and medical benefactor, shown left.²

The **Harris County Hospital District** is created by voter referendum.

1965

1965



Dr. Denton A. Cooley performs one of the world's first successful heart transplants at the **Texas Heart Institute**.³

1968

1970

The University of Texas Medical School at Houston, now the **John P. and Kathrine G. McGovern Medical School at UTHealth**, welcomes its first class of students.

1971



Texas Children's Hospital collaborates with NASA to construct a plastic isolator bubble for a boy born with a severe immune disorder.⁴

Texas Medical Center Hospital Laundry Cooperative Association is founded.

1975

St. Dominic Village, a continuing care retirement community and a ministry of the Archdiocese of Galveston-Houston, is founded.

1976



Hermann Hospital and **Dr. James "Red" Duke, Jr.**, launch Life Flight, a critical care air medical transport service based in Houston. It is the first air ambulance service in Texas and the second in the U.S.¹

1980

Houston Hospice is founded to provide compassionate care to individuals with life-limiting diagnoses.

1985

Texas' first heart/lung transplant is performed at Houston Methodist Hospital.

1965

Thermal Energy Corporation – TECO takes root as the **Houston Natural Gas Corporation**, a central steam and chilled water plant that serves buildings on the TMC campus.

1969

Shriners Hospitals for Children – Galveston enters the burn care field.²

1972

The first high school for health professions in the nation opens in Houston with 45 students attending classes at Baylor College of Medicine. Since then, the **Michael E. DeBakey HSHP** has been educating students seeking careers in medicine, health care and the sciences.

The University of Texas Health Science Center at Houston (UTHealth) is established by the The University of Texas System Board of Regents.

1981

Ronald McDonald House opens in Houston with 21 bedrooms.



Memorial Hermann Children's Hospital, later renamed **Children's Memorial Hermann Hospital**, is founded and becomes the primary teaching hospital for the pediatric and obstetrics/gynecology programs at what is now **McGovern Medical School**.

What is now the **Texas A&M University Health Science Center – Houston Campus** joins the TMC.

1986

1966



¹ Courtesy of McGovern Historical Center, Texas Medical Center Library
² Credit: Harris Health System
³ Credit: Texas Heart Institute
⁴ Credit: Texas Children's Hospital

1989



Lyndon B. Johnson Hospital opens.²

1991



Texas Heart Institute releases the first patient in the world with an electric, portable, battery-powered heart pump.³

1999

Texas A&M Health Science Center begins operation.

2006

TIRR joins the Memorial Hermann Healthcare System, becoming **TIRR Memorial Hermann**.

Researchers from **Rice University** and **Baylor College of Medicine** discover a way to grow blood vessels and capillaries.

2011

The **TMC** launches the **TMC Innovation Institute**.



The **TMC** completes a member-wide strategic planning process that outlines five collaborative institutes and **TMC³**, a translational research campus.
(Credit: Gensler)

2014

2015

Jim Boysen receives the world's first partial skull and scalp transplant. Doctors from **Houston Methodist** and **MD Anderson** perform the surgery.

The **TMC** launches the **TMC Health Policy Institute**.



1987

Life Gift is established to help anyone in need of a life-saving organ or a tissue transplant. It was originally named **Gulf Coast Independent Organ Procurement Organization**.

Dr. Richard E. Smalley, a chemist and **Rice University** professor, shares the **Nobel Prize in Chemistry** for his work on "buckyballs," a new form of carbon.

1996

1997

Ronald McDonald House Houston opens Holcombe House, with 50 private bedrooms.

Memorial Hospital System merges with **Hermann Hospital**, forming the **Memorial Hermann Healthcare System**.

2003

The Menninger Clinic, founded in Kansas in 1925 to lead psychiatric treatment, research and education, relocates to Houston.



Baylor International Pediatric AIDS Initiative at Texas Children's Hospital (BIPAI) opens a 21,000-square-foot clinical care center in Kampala, Uganda. After receiving 6,000 transfer patients on opening day, it becomes the world's largest pediatric HIV/AIDS center.

(Credit: Smiley N. Pool)

2008

2012



Texas Children's Pavilion for Women delivers the Perkins sextuplets at 30 weeks. All six babies—three boys and three girls—survive.⁴

MD Anderson launches the **Moon Shots Program**, to improve cancer prevention.

Johnson & Johnson opens **JLABS @ TMC**, where emerging companies can bring innovative solutions to patients.

AT&T Foundry for Connected Health opens at the **TMC Innovation Institute**.



2016

Kicking It With the Boys

Pearland teen Claire Jeffress is a kicker for Dawson High School's varsity football team

BY CHRISTINE HALL

On the tree-lined streets of suburban Pearland, yard signs planted outside many homes tout the accomplishments of the students who live inside.

Cheerleading. Band. Baseball. A coveted 5 on an AP exam.

But the sign that greets visitors to the home of Claire Jeffress, a Glenda Dawson High School junior, shows a football helmet. It's a sign no other female at Dawson can claim.

Claire is a kicker on the Dawson Eagles varsity football team. She's not the first female to play local high school football, but she is among an elite group of young women with a spot on a varsity men's roster.

Claire has been playing soccer since she was 4 years old. By the time she reached seventh grade, she had an easy rapport with her middle school coaches. So when the football coach needed a kicker, Claire did a spur-of-the-moment tryout—kicking the football in volleyball shoes.

"It ended up working out, and I enjoyed it, so I kept on doing it," said Claire, seated on her family couch wearing a Dawson High T-shirt and her signature side braid.

Claire was so excited to join the football team that she forgot to ask two important people if it was all right.

"She came home that day and asked if she could play football, but by that time she had already tried out and made the team," said Isabelle Jeffress, Claire's mother. "She had also already told the coach she would be on the team."

Claire's mom was nervous about her daughter playing with boys twice her size.

"I took it one year at a time," Isabelle said. "Because she started off with a great team in seventh grade, those are the same boys she has played with every year. They know her well and are really protective of her. She is like their little sister."

Claire enjoys the team atmosphere.

"I like knowing they are my

“At the beginning, I did have to push a little hard to prove myself, but I always asked the coaches to look at me like any other person.”

— CLAIRE JEFFRESS

Junior, Dawson High School in Pearland, Texas



brothers," she said of her teammates.

"I have met my best friends on the football team."

Of course, there were growing pains.

In seventh grade, Claire's locker room was nowhere near the boys' locker room, so she never knew exactly when to head onto the field for practice. Once, while herding the team onto the bus

for an away game, the coaches didn't realize Claire wasn't aboard. She ultimately made it on the bus, but they had to come up with a system: coach would blow the whistle outside the girl's locker room to signal Claire it was time to go.

And then there are the reactions of the opposing teams. It's been normal for the Dawson team to have a girl,

because Claire and the other players grew up playing football together. But other players and parents are often shocked to discover that the kicker is female. And many have been skeptical of Claire's skill.

"At the beginning, I did have to push a little hard to prove myself, but I always asked the coaches to look at me like any other person," Claire said. "I didn't want to make the team because I was a girl—I didn't want it to be some special factor. I wanted to make it because I deserved to be on the team. They understood that."

Protection

Getting comfortable in a football uniform was a strange experience for Claire. She had to get used to running and kicking in shoulder pads. She also had to wear a football girdle: a long, stretchy garment fitted with thigh and hip pads.

"The first time the coaches brought the girdles out for me to try on, they brought one that was so small that it would only fit around one thigh!" Claire said. "The second one they brought out was huge—I could have put three of me in there. Finally, they brought one that was the right size around my waist, but too small around my thighs. They let me cut holes around the thighs, and that finally worked."

Football is a tough sport and injuries can happen with every play. Claire isn't too worried, because she takes a lot of hard hits in soccer. Most of her bruises come from soccer, not football, she said.

"The guys I have protecting me on the line, I trust so much," Claire added. "I have not gotten touched so far this season."

And for the guys, there are distinct advantages to having a girl on the team.

Claire has become "the sounding board for every girl problem" that the boys are having, according to her mother.

Claire quickly explains that her teammates understand that she is not into drama, but they know they can



*Left: The ball in motion just after a kick.
Above: Jeffress poses after practice.*

Express soccer practice from 7:45 to 9:30 p.m.

“We don’t usually get home until 10 p.m., so if we don’t have that two-hour block in between for homework, Claire ends up having late nights,” Isabelle said. “It has been a study in time management, playing year-round soccer along with football. She will come to a point where she is physically too tired to do what she needs to do, so she will ask for a day of rest. Her coaches understand that and don’t push her past her physical limitations.” ■

always come to her with issues, and vice versa.

Claire’s father, Jeff Jeffress, put his foot down about dating during football.

“He told me, ‘Let’s not start any drama with the football team,’” Claire explained.

She did at one time have a boyfriend on the football team, but she prefers to keep her personal life separate from her athletic life, even with club soccer. She would rather her school friends not attend those games because she wants to be completely focused. The same goes with football.

Listening to her body

Health-wise, Claire makes sure to get lots of sleep and stay hydrated.

She’s also very ritualistic about her eating habits. She likes to eat very plainly prior to games: a sandwich and

fruit—nothing heavy. She says some of the guys will go out and have burgers and fries before a game, but she doesn’t like a lot of food in her stomach.

During soccer season in the spring, Claire plays center midfield, a position that requires a lot of running. She also plays competitive club soccer with Houston Express Soccer Club. Many of her school breaks are spent with the club at showcases designed to draw collegiate scouts.

“I am trying to play soccer in college, so the recruiting process has been heavy this year,” Claire said.

Both of her parents went to Rice University, and her brother goes to Rice, as well. Claire has grown up with an appreciation for the school, and is considering it and other schools with strong academic reputations. She is interested in studying neuroscience, psychology or sociology.

In the meantime, Claire’s high school days are filled to the brim.

She is at school from 7:15 a.m. to 2:15 p.m. During fall semester, she had football practice until 4:30 p.m., after which she went home, ate dinner and did homework until her Houston

Jeffress, right, takes a knee with her teammates at Dawson High School.



A Pear-fect Stay in Pearland

Whether you’re taking advantage of the world renowned Medical Center or events at NRG Park, Pearland offers a convenient solution for an affordable stay with great dining and shopping.

Choose from 11 Pearland Hotels

- Best Western
- Candlewood Suites
- Comfort Suites
- Courtyard by Marriott
- Hampton Inn by Hilton
- Hilton Garden Inn & Conference Center
- Holiday Inn Express & Suites (2)
- La Quinta Inn & Suites
- Sleep Inn & Suites
- SpringHill Suites by Marriott



281.997.5970 • VisitPearland.com
pearlandcvb@pearlandtx.gov



Paying it Forward

Brian Cushing honors his family's military past by helping present-day veterans

BY SHANLEY CHIEN



Texans linebacker Brian Cushing. Credit: AP, courtesy of the Houston Texans

Brian Cushing is a force. At 6'3" and 255 pounds, the veteran inside linebacker for the Houston Texans executes tackles with military precision.

And there's good reason for that. Cushing attributes his unwavering focus and determination to growing up in a strict military household, "where there were no other options other than being successful and getting the job done."

His great-great-uncle, Alonzo Cushing, was a Union Army artillery officer who died at the Battle of Gettysburg and was posthumously awarded the Medal of Honor in 2014 by President Barack Obama. Cushing's father, Frank Cushing, served as an intelligence officer during the Vietnam War. His mother,

Antoinette Cushing (née Lukaszewicz), was born in 1944 inside a Nazi Germany concentration camp. During that time, at least 1.5 million Polish citizens were torn from their homes and relocated to forced-labor camps, prisons and concentration camps in Germany.

"The older I got and the more I understood what my parents went through and came from, it gave me a much better understanding of who they were and what they dealt with," Cushing said. "Just knowing that, I complained less and really got after a lot more things."

Cushing played for the Trojans at the University of Southern California before starting his professional career with the Texans in 2009. He was named NFL Defensive Rookie of the Year in 2009, Team MVP in 2011, and is the all-time leading tackler in the franchise's history, with 648 tackles.

"I think Brian Cushing has done an excellent job of leading that defense," said head Texans coach Bill O'Brien during a recent press conference. "He's the heart and soul, right in the middle."

For all of Cushing's NFL glory, his career has also been punctuated by game suspensions for taking a performance-enhancing drug, as well as season-ending injuries, including torn muscles in the knee and fractured bones in his back. But he is nothing if not resilient.

"Having to come back off of the injuries was definitely ... physically and mentally challenging," said the 30-year-old linebacker.

"I decided a long time ago that football was going to be my profession and I wasn't going to let anything get in the way of that." Cushing said he probably would have pursued a career in the military if it weren't

for football. But he's able to maintain a connection to the military community through his charity work.

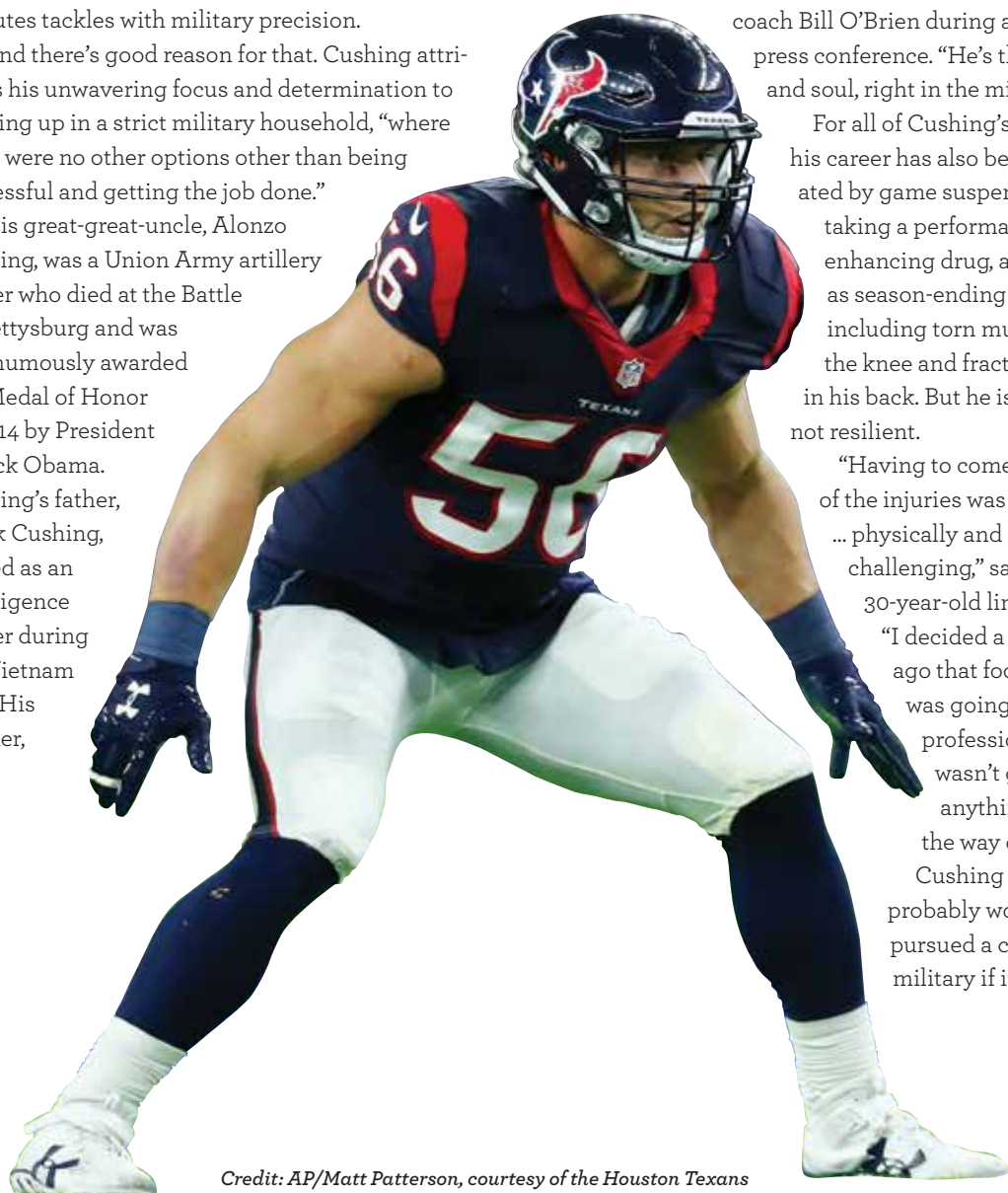
In 2015, Cushing and his wife, Megan, created the Brian Cushing Foundation to support Houston-area veterans and their families. Through the foundation, Cushing launched a program called Cushing's Corner to provide electronic equipment—including headphones, DVD players and iPads—to nearly 500,000 local veterans and their families. In May 2016, Cushing selected the Michael E. DeBakey Veterans Affairs Medical Center to be the recipient of the first Cushing's Corner, followed by the Ellington Field Joint Reserve Base in October 2016.



First Lt. Alonzo H. Cushing, 22, died in combat while commanding Battery A of the 4th U.S. Artillery at the Battle of Gettysburg. Above, an image of Cushing, who graduated from West Point in 1861. Credit: West Point Public Affairs

"When it was time for me to start my foundation and start my charity work, it was just one of those things I wanted to do," he said. "Knowing how much people in my family were tied to the military, it was just a no-brainer."

Because of his commitment to serving veterans, the Texans nominated Cushing for the Walter Payton NFL Man of the Year Award, which recognizes an athlete's outstanding philanthropy and charitable efforts. The winner will be announced on Feb. 4., the evening before Super Bowl LI. ■



Credit: AP/Matt Patterson, courtesy of the Houston Texans

A Safer Hit

Breakdown of the new VICIS helmet

BY CHRISTINE HALL

Sam Browd, M.D., a pediatric neurosurgeon, was saddened by the many young athletes he had to “retire” from sports participation due to concussions.

As head of the Seattle Sports Concussion Program at Seattle Children’s Hospital and an independent neurological consultant for the Seattle Seahawks, Browd wanted to keep athletes in the game.

So he approached Per Reinhall, Ph.D., chair of the University of Washington’s mechanical engineering department, to explore new helmet designs. Together, they brought in Dave Marver, an entrepreneur and veteran of the medical technology industry, and launched VICIS Inc. in 2013.

Four years later, the company is ready to put its football helmet on the heads of athletes in the National Football League and the National Collegiate Athletic Association.

The ZERO1 helmet, created for high school play and above, aims to slow the forces of impact from several directions using multiple layers of protective material. The helmet retails for \$1,500, about five times the price of an average adult football helmet.

“The design of football helmets hasn’t changed for 40 years—a hard outer shell with foam padding inside,” Marver explained. “The ZERO1 is a completely new approach to helmet design. The helmet’s multiple layers are designed to work together to provide improved impact absorption and a comfortable, anatomically optimized fit.”

Unlike traditional helmets with hard exterior shells, the outer shell of the ZERO1 works like a car bumper, giving way during a collision and returning rapidly to its form in time for the next impact. The process slows impact forces in milliseconds and is invisible to the naked eye, Marver said.

Although the ZERO1 helmet cannot prevent concussions, a core layer of polymer columns inside the new helmet has been specifically calibrated to respond to impact velocities found in elite levels of football.

“While the ZERO1 features certain materials that have never before been used in football helmets, most of the performance and safety advantages derive from the helmet’s sophisticated structure,” Marver said. “Generally, we selected materials that were extremely durable and maintained their properties at a wide range of temperatures.”

The helmet had a trial run last August with players from the University of Washington and the University of Oregon football teams. Because of issues with fit and comfort—the ZERO1 is a little heavier than traditional football helmets—VICIS pulled the helmet back to refine a few features. Some of the players experienced forehead pressure, so VICIS added padding in the front of the helmet. VICIS also reinforced the chin strap.

The new helmet comes at a time when the number of concussions reported in NFL games is still on the rise. In January 2016, the NFL reported that the number of diagnosed concussions had grown by 32 percent in 2015; the 271 total includes preseason and regular season games, as well as practices.

Multiple concussions can lead to chronic traumatic encephalopathy (CTE), a degenerative disease of the brain that has afflicted several NFL players, including Frank Gifford,



The four layers of the VICIS ZERO1 helmet include:

A LODE SHELL | Softer shell absorbs impact load by deforming like a car bumper, then bouncing back.

B CORE LAYER | An inch-and-a-half-thick layer of vertical struts bend and buckle to slow down impact forces.

C ARCH SHELL | A hard plastic layer protects the skull.

D FORM LINER | Waterproof textiles and foams create a form liner that mimics mattress-like memory foam for fit and comfort.

Credit: VICIS

Ken Stabler, Junior Seau, Tyler Sash and Mike Webster, the Pittsburgh Steeler whose brain was autopsied by neuropathologist Dr. Bennett Omalu. Omalu’s revelations about football and CTE were featured in the 2015 film *Concussion*, starring Will Smith.

VICIS has performed tens of thousands of impact tests on the ZERO1 helmet, both internally and through independent labs, Marver said. The helmet has already been certified as compliant with the National Operating Committee for Standards on Athletic Equipment. The company has also conducted extensive on-field testing, some

of which informed key improvements made in the final stages of product development, Marver said.

Meanwhile, Marver expects to see NFL and select NCAA athletes wearing the ZERO1 in 2017.

“Elite players and the expert staff who advise them, like equipment managers and athletic trainers, are eager to explore new technologies that promise improved safety,” he said. “They have actively and generously provided guidance during our development process and are encouraged by our design and ongoing test results. This sport is ready for a new and improved helmet.” ■

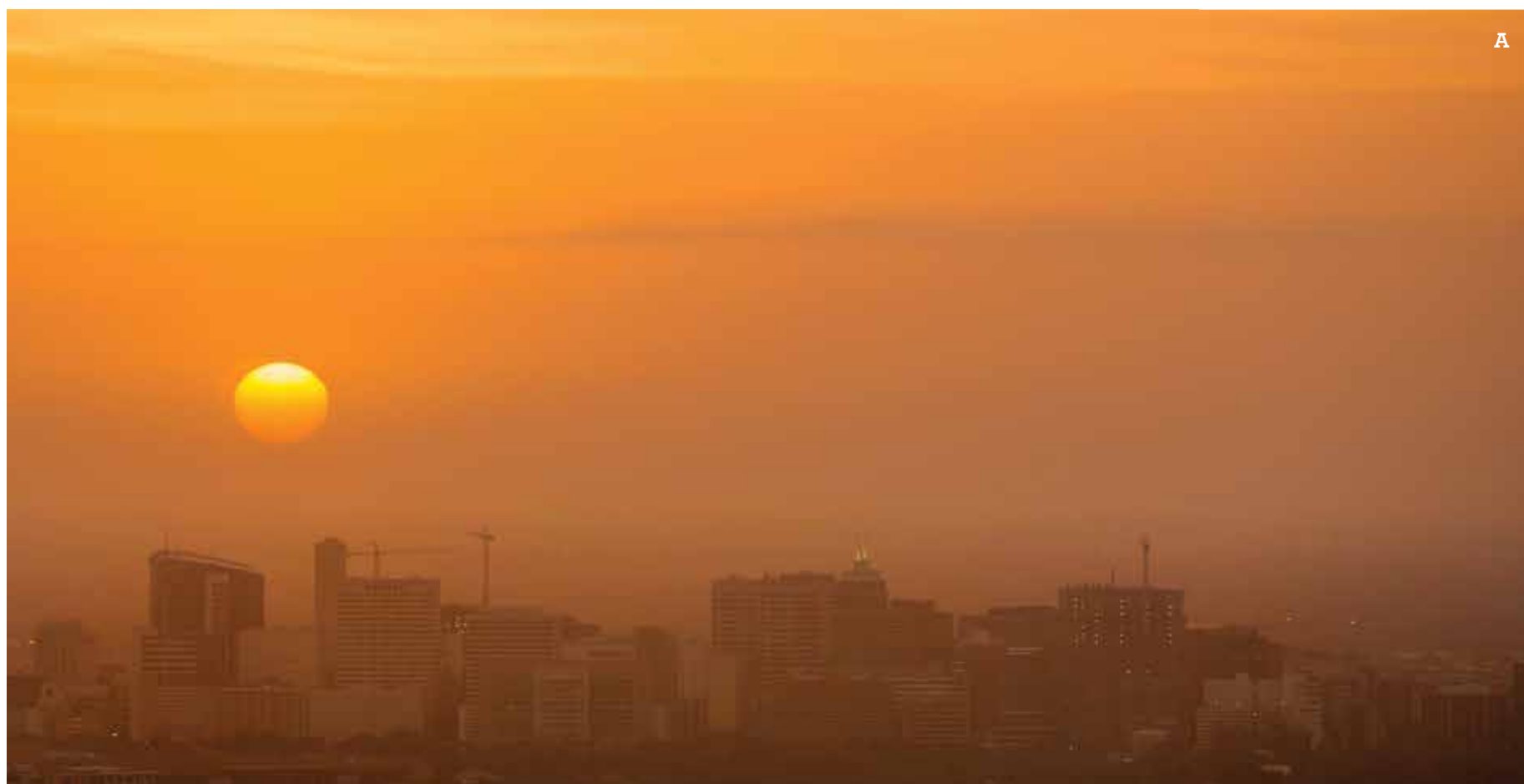
“The helmet’s multiple layers are designed to work together to provide improved impact absorption and a comfortable, anatomically optimized fit.”

— DAVE MARVER
Co-founder and CEO, VICIS Inc.

AROUND *the* CLOCK AT THE TMC

A PHOTO ESSAY BY CODY DUTY

The Texas Medical Center never closes.
Twenty-four hours a day, 365 days a year, TMC employees are busy
caring for patients, finding cures for diseases and saving lives.





A | The sun rises behind the Texas Medical Center, as seen from Williams Tower.

B | A digital health company spokesperson pitches to TMC physicians, nurses and other stakeholders during the TMCx Expert Forum.

C | A man crosses Fannin Street on a rainy morning.

D | Scott Meier, TMC security officer, walks in front of the water wall at the John P. McGovern TMC Commons building.

E | Window washers dressed as superheroes clean the windows of Texas Children's Hospital – West Campus.

F | A young patient shoots an arrow during a hospital camp at Texas Children's Hospital.

G | Doctors perform brain surgery at Memorial Hermann Hospital.

H | A Houston Fire Department ambulance leaves the Ginni and Richard Mithoff Trauma Center at Ben Taub Hospital.

I | Alan Cagle stands in an Ekso exoskeleton at TIRR Memorial Hermann.

J | Children at the 'Road to Rio' party celebrate the Summer Olympics at Ronald McDonald House Houston.





L



M



N



O



P



Q



R



S



T

K | The moon sets atop the Sam Houston monument in Hermann Park. **L** | Christian Schaaf, M.D., Ph.D., investigator at the Jan and Dan Duncan Neurological Research Institute at Texas Children's and assistant professor at Baylor College of Medicine, in his lab. **M** | Leticia Rodriguez folds laundry at TMC Hospital Laundry Cooperative Association, which processes up to 70 tons of linens each weekday and up to 50 tons on weekend days. **N** | Robert Cruikshank, who sits on the TMC Board of Directors, seen through glasses at Third Coast restaurant. **O** | Buildings reflected in the water installation at the John P. McGovern TMC Commons building. **P** | Jon Buchanan, chef of the TMC's Third Coast restaurant, in the kitchen. **Q** | After completing his cancer treatment, patient Steve Gonzales rings the bell at the University of Texas MD Anderson Cancer Center as his family looks on. **R** | A woman comforts her son in the neonatal intensive care unit at Texas Children's Hospital. **S** | Life Flight employees prepare for takeoff on the helipad at Memorial Hermann – Texas Medical Center. **T** | Commuters wait for the bus on Bertner Avenue.



HEAD GAME

Tackling Concussions in High School

BY SHANLEY CHIEN

On the evening of Aug. 25, 2016, the St. John's Mavericks junior varsity football team faced off against the Concordia Lutheran Crusaders in the first game of the season.

It was a muggy 82 degrees on Skip Lee Field at St. John's School in Houston, as the junior varsity cheer squad pumped up the students and family members in the stands.

A few minutes into the first quarter, the Mavericks quarterback threw an interception that was picked up by the Crusaders' defense. Freshman Luke Venus, a Mavericks offensive guard, chased after the player who retrieved the ball. But before he could go in for the tackle, another player rushed him for the block.

In that split second, approximately 1,600 pounds of tackling force hit Luke as the two players' helmets collided. Luke, at 5'11" and 190 pounds, closed his eyes and flinched at the moment of impact. When he opened his eyes, he was still standing and ready to play. But the unseen damage to his brain was done.

He powered through the game, playing both sides of the ball as an offensive left guard and defensive tackle. He felt fine until he and his teammates returned to the locker rooms after the game.

"When I was getting out of my uniform and getting into the showers, I started getting this really bad headache," Luke recalled. "I told my teammates, and they were joking, 'You better watch out. You might have a concussion.' I was making jokes, like, 'I don't have a concussion. There's no way. My head is rock hard.'"

But by the time Luke returned home, he began experiencing an onslaught of symptoms. His headache turned quickly into a migraine. He started feeling dizzy and nauseous, and began

vomiting almost immediately.

The joke was a reality: Luke had a concussion.

Hard knocks

Concussions are a type of brain injury caused by a sudden impact or blow to the head or body that rattles the brain inside the skull. This damages brain cells and causes a chemical imbalance within the cells that disrupts blood flow and impairs the brain's ability to absorb oxygen and glucose, two essential energy sources for proper brain function.

While it can take days or weeks for the brain to regain its chemical equilibrium, people suffering from concussions can experience symptoms that include mental confusion, disorientation, headaches, nausea and sensitivity to light and noise.

A recent study published in the *Journal of the American Medical Association Pediatrics* examined concussions in football players ages 5 to 23, using samples of players from youth, high school and college levels. In the 2012 and 2013 seasons, nearly 22 percent of the reported concussions came from collegiate football and nearly 12 percent from youth levels. More than 66 percent of the concussions were sustained from high school football.

Why? Ambitious and overzealous student athletes are driven to succeed in hopes of scoring an athletic scholarship. Some high school football players are not as muscular as others, and size disparities give larger athletes an unfair advantage over smaller players. In addition, teams with a shortage of talent may require players to play both offensive and defensive positions. That was the case for Luke.

"My theory is, playing both sides of the ball caused the players to become tired more quickly

and, when they got tired, they started dropping and leading with their heads and started hitting with improper technique," said Jimmy Roton, Jr., director of sports medicine at St. John's School. "You can buy all the helmets you want, but if kids are not hitting properly and safely ... then the problem is just going to keep on going."

With high concussion rates affecting a large population of high school football players, lawmakers and medical experts are pushing to make football safer for young student athletes.

In 2011, Natasha's Law went into effect in Texas, requiring coaches and athletic trainers to take a two-hour training course on concussion protocol, including how to identify and react to concussions. The state law also requires a physician to approve students to return to play. Previously, coaches were allowed to clear players for practice or games as long as they were free of symptoms for 15 minutes post-incident.

"We are working on reducing the number of concussions with better helmet equipment, neck strengthening, education and rule changes. But are we there yet? No," said Kenneth Podell, Ph.D., director of the Houston Methodist Concussion Center and neuropsychological consultant for the Houston Texans, Houston Astros, Houston Dynamos, Houston Dash and Rice University Athletics.

(continued)

“Before I had my concussion, I would make jokes with my friends about it and say that it’s only mental. But after this incident, I’ve realized how severe this can be and how it can really impact your life and your future.”

— LUKE VENUS

St. John's School freshman and junior varsity football player



CTE:

REPEAT DAMAGE

A common misconception is that a single concussion can cause life-altering or long-term permanent damage to the brain, said Kenneth Podell, Ph.D., director of the Houston Methodist Concussion Center.

“We’re not sure that’s the case, though,” Podell said. “In fact, the evidence suggests that most people overwhelmingly can recover from a single concussion without significant or noticeable effects.”

But the damage from repeated concussions takes an irreparable toll on the body.

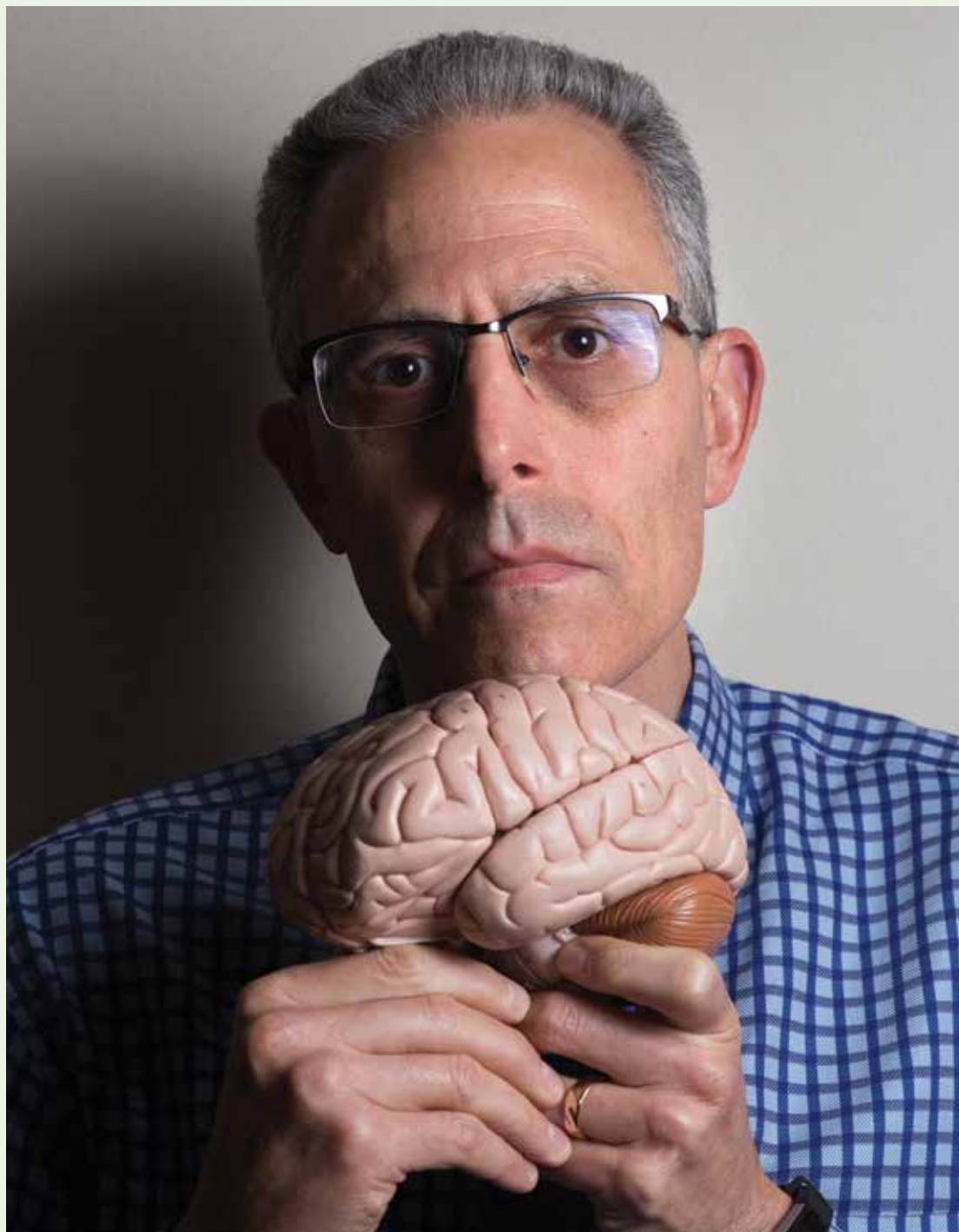
The 2015 film, *Concussion*, starring Will Smith, fueled widespread media attention on the degenerative brain disease known as chronic traumatic encephalopathy, which is caused by repeated blows to the head.

The condition, more commonly known as CTE, is characterized by a build-up of the tau protein in the areas of the brain that regulate mood, cognition and motor function. CTE can only be diagnosed posthumously. Many who suffer from CTE exhibit mental deterioration, including disorientation, memory loss, depression, erratic behavior, dementia and thoughts of suicide.

A recent study by researchers at Boston University showed that, of the 94 former NFL players autopsied, more than 95 percent tested positive for CTE. Among the collective group of individuals who played professional, semi-professional, college or high school football, 79 percent received the same diagnosis.

But the condition is still shrouded in mystery. Doctors and researchers are investigating CTE to better understand its pathology and to determine exactly how many hits to the head it takes to cause the degenerative brain disease.

Recently, the University Interscholastic League announced a new effort to track brain injuries among high school athletes in Texas. The study aims to determine the frequency of concussions throughout the state in order to gauge the effectiveness of the new game rules, new equipment and new recovery strategies designed to protect young athletes. ■



“My allegiance and my concern is for the health and well-being of my patients, presently and in the future. How that affects the continuation of the sport or the team, I really don’t care.”

— KENNETH PODELL, PH.D.

Director of the Houston Methodist Concussion Center and neuropsychological consultant for the Houston Texans, Houston Astros, Houston Dynamos, Houston Dash and Rice University Athletics

“We need to rethink how football is played at the younger levels. Should a high school player be playing both sides of the ball? How young can they start tackling?”

Because the human brain is not fully developed until an individual reaches age 25, children and teenagers take longer to recover from concussions than adults and are more vulnerable to serious, long-lasting brain injuries.

Podell and his team use a cognitive assessment tool called Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT) at

more than 350 schools and organizations across the greater Houston area. The test measures the severity of a concussion by analyzing the athlete’s attention span, reaction time, memory and problem-solving abilities. The results of the test are compared to the student’s pre-injury baseline test, administered prior to the start of the sports season, to determine the best course of treatment.

“You really can’t see a concussion, unlike a broken arm or something else that you can visually see and appreciate,” said Margie Venus, Luke’s mother. “You can’t see the brain when it’s

hurt and you can't see it when it's healed. But when you look at the numbers and you see the difference before an injury and after an injury, that's when you really realize the extent of the harm you can't visually see."

Before his concussion, Luke performed well on two ImPACT index scores that measured his reaction time and visual motor speed. But the injury to his brain significantly affected his numbers. For example, he scored in the 90th percentile for reaction time on the baseline test, but his scores dropped down to the fourth percentile after his concussion.

"It was eye opening to see the impact that one moment can have," Margie said. "Certainly, you hate to see this happen again."

Currently, there is no medication to cure concussions. The standard protocol is to rest, avoid strenuous physical activity and abstain from using electronic devices until the symptoms fade—challenging tasks for many passionate athletes.

"I started getting angry at myself because I wasn't able to play and that was something I wanted to do very badly," Luke said. "But I learned that I have to let my body heal because if I don't, there can be even worse side effects in the future."

After sustaining a concussion, it's common for students to experience difficulties remembering

lessons, concentrating in the classroom and managing schoolwork. In addition to the mental strain, the bright lights, screens and loud, noisy hallways in schools can also exacerbate concussion symptoms and prolong recovery time.

"Especially in the daytime, he appeared okay, but sometimes I would pick him up from school and I'd ask, 'What happened in this class or that class?' and he'd go, 'I truly don't remember much about it,'" Margie recalled. "It was very much like the lights were on, but nobody was home."

It took Luke about four weeks of rest before being cleared for football practice. During that time, he was not allowed to watch television or look at computer or phone screens.

To ease concussed students back into school, Podell recommends a modified class schedule and workload—including no school or half days, less homework and fewer tests, and no extracurricular activity until symptoms clear up.

Pros and cons

Over the past decade, the NFL and the National Collegiate Athletic Association have come under intense fire for failing to act when football players have sustained damaging hits to the head.

In 2016, researchers at Boston University linked the degenerative brain disease known as chronic traumatic encephalopathy, or CTE, to

dozens of former players, including Frank Gifford, Junior Seau and Ken Stabler. Currently, the condition can only be diagnosed posthumously by analyzing the brain tissue of athletes who have sustained repeated head injuries and concussions.

In response to growing criticism, the NFL and NCAA instituted new rules to mitigate risks and improve player safety.

In 2011, the NFL moved kickoffs from the 30-yard line to the 35-yard line to increase touchbacks and reduce kick returns, widely considered to be among the most dangerous plays in football.

The NCAA followed suit the next year and also moved touchbacks to the 25-yard line. This rule change vexed many coaches who believed it would jeopardize the nature of the game, though it proved to be effective in decreasing the number of concussions.

Spotters were placed in the press boxes to monitor the game and watch for players exhibiting concussion-like symptoms. More coaches began to pull their players out of games and get them into treatment earlier, and players started to be fined for violating concussion protocol.

It's not a perfect system and, most likely, never will be. Players will continue to get injured from crushing hits at every level of the game, yet football remains an inveterate obsession for many Americans, including Luke Venus.

(continued)

Luxury Apartments

THE
PARKLANE
www.theparklane.com



Both furnished and
unfurnished corporate
units available!



Corporate Units Available

For 3 Month+ Leases
Medical Stays

Visiting Academic and Medical Professionals

On Site Dog Park **NEW!**

Shuttle to all Major Hospitals in the

Texas Medical Center

Electric Vehicle Charging Stations

On-Site Storage Included

Assigned Garage Parking

No Water or Garbage Bills

24hr. Valet & Concierge Service

Pets Accepted

Minutes from Texas Medical Center

Sophisticated Surveillance System

Discount to Texas Medical Center Employees



1701 Hermann Dr. | 713.526.VIEW

"Football's my No. 1 sport," Luke said. "Ever since I could remember, I've always wanted to walk out into the stadium with thousands of people cheering me on, and be on national television."

He was indoctrinated at an early age. Since the age of 4, he has watched teams including the University of Notre Dame and Louisiana State University compete on the field. His father, who was an all-American high school football athlete in Mississippi and fullback for Ole Miss from 1971 to 1974, often shared memories of the good ol' days.

"My dad would always tell me stories of him and his friends in high school and college. That made me love football even more," Luke said. "He was my role model. I wanted to be him."

While violent, football can also benefit children and teens. The highly cardiovascular nature of the game helps combat obesity, heart disease, diabetes and other chronic illnesses. Football also encourages social and emotional growth by teaching sportsmanship, teamwork and the value of hard work.

But because there's an inherent risk of concussion and injury in football, the onus is on parents to determine whether the benefits outweigh the risks. And the spectrum of risks is broadening.

Recent research findings from UT Southwestern Medical Center in Dallas showed



Jimmy Roton, Jr., director of sports medicine at St. John's School, helps Luke Venus with his helmet.

concerning changes and abnormalities in the brains of 24 high school football players over the course of one season, even though none reported concussions.

"We know that some professional football players suffer from ... CTE. We are attempting to find out when and how that process starts, so that we can keep sports a healthy activity for millions of children and adolescents," said the study's lead investigator Elizabeth Moody Davenport, Ph.D., a postdoctoral researcher at UT Southwestern Medical Center, in a press release.

For parents and young athletes, concussions are "a scary thing to think about," Roton said. "I think all we can do is give them the

information—the pros and cons—and help them make an educated decision."

Part of Podell's job is counseling parents on how to transition children into a different sport if football poses too great a risk to their physical and cognitive health.

"It's a difficult situation, but it's a very important life lesson where this is what you're dealt, so how do you make the best out of it?" Podell said. "My allegiance and my concern is for the health and well-being of my patients, presently and in the future. How that affects the continuation of the sport or the team, I really don't care."

For Luke, a concussion didn't compromise his love for the sport. He plans to continue playing football in hopes of getting recruited by his dream school, the University of Notre Dame. But he has a newfound appreciation for player safety and will be more cautious, play smarter and not be as "aggressive or stupid and charging at people with my head," he said.

"Before I had my concussion, I would make jokes with my friends about it and say that it's only mental," Luke said. "But after this incident, I've realized how severe this can be and how it can really impact your life and your future. Now, looking back, I realize this is an issue that needs to be fixed for this sport because this is a really great sport, but the safety of the people who play it is just as important." ■



Find the best outpatient mental health partners at Menninger



When someone in your family needs help to regain mental health, our specialists are ready to assist with:

- One-stop comprehensive psychiatric assessments for ages 6 and older with physician-led specialists
- Individual, family and couples therapy
- Medication management
- Addiction counseling

- Consultations for ADHD, suitable education or vocational setting, autism spectrum disorder and more

**Scheduling appointments within 2 weeks.
Call today. 713-275-5779**

MenningerClinic.com | Named a National Best Hospital in Psychiatry 27 Consecutive Years

Affiliated with Baylor College of Medicine

Houston's Dynamic Duo

Want something done? Call a Crosswell.

BY ALEXANDRA BECKER

It was 1955 and Emily Attwell was entering The Kinkaid School as a ninth grade student. She was anxious; it was a new school for her, and that meant a host of new faces and new things to learn. But between classes, Friday night football games and a brand-new boyfriend named Holcombe Crosswell, it soon became clear that everything would be fine, after all.

Emily and Holcombe Crosswell have now been married for more than 50 years, and they have four children, 12 grandchildren and an extraordinary legacy of philanthropic work to show for it.

"You have to experience all of life, and I think the Crosswells do a great job of doing that," said Ned Torian, a longtime friend of the couple.

The two wed as seniors at The University of Texas at Austin. After graduation, they moved back to Houston where both have strong family roots. Holcombe's grandfather, Oscar Fitzallen Holcombe, was the longest-standing mayor of the city, serving a total of 22 years. Emily's grandfather was an active civic leader and involved with what is now the United Way of Greater Houston. Both had family members on the commission responsible for the founding of the Port of Houston.

It's no surprise, then, that the pair have dedicated their lives to the city's development and growth, particularly the Texas Medical Center. The couple have carried the torch for their families, forever giving back to a city that, in many ways, built them.

"You ask what our impact has been on the TMC, and the real question is, 'What has its impact been on us?'" joked Emily, who began volunteering as a candy striper at Texas Children's Hospital when she was just 14.

Her long list of contributions to the city and the TMC include serving on

the advisory board to Texas Children's Cancer Center; chairing or co-chairing major fundraising events for Texas Children's Hospital; working as a member of the board of trustees and numerous committees for Houston Methodist Hospital; and serving as a founding member of the board for Ronald McDonald House Houston. She has also held major leadership roles at institutions including the Greater Houston Community Foundation, Denver Harbor Family Clinic, Houston Police Foundation, the Houston Museum of Natural Science, River Oaks Elementary School, the Junior League of Houston, DePelchin Children's Center, the Houston SPCA advisory board and Bo's Place.

Emily has loved every minute of it, but one experience, she says, will always stand above the rest.

"For me, it was working with the founding of the Ronald McDonald House," she said. "Any time that you are involved with the founding of a most meaningful organization, it becomes a part of you. This experience has been a great gift enriching my life."

Notably, Ronald McDonald House Houston was built next door to Houston Hospice—the site of Holcombe's grandparents' home, which was gifted to the TMC by his parents.

"You can tell our roots are really strong in this," Emily added. "It's just been a part of our lives. We grew up with it, you know?"

Holcombe—known to close friends as "OH," for his first and middle names, Oscar Holcombe—has an equally impressive list of accomplishments. Professionally, he has held leadership roles in the energy, real estate and investment sectors, including NorAm Energy Corp. (now CenterPoint Energy) and the Griggs Corporation. He has served as a director and chairman of the Metropolitan Transit Authority



Emily and Holcombe Crosswell have been married for more than 50 years. Holcombe Crosswell is chairman of the board of directors of the Texas Medical Center.

of Harris County and is currently the chairman of the board of directors of the TMC. He has also chaired boards, campaigns and committees for Texas Children's Hospital, the TMC, University of Houston-Downtown, The Kinkaid School, the "C" Club of Houston and The Joy School. He recently received a national honor from Sigma Alpha Epsilon (SAE), his fraternity at The University of Texas, in recognition of his philanthropic accomplishments.

"We love what we do and we're lucky to be able to do it," Holcombe said. "One of the things about us is that because we're both so involved in the medical center, we not only support each other's activities, but we understand the need of why we're doing what we're doing."

Indeed, the couple work as a team in every facet of their lives.

"They're so compatible and talented," said Torian, who was one of Holcombe's SAE pledge brothers.

"Both of them have given so much time and talent and energy. I can assure you that if someone wants something done, and they can get a Crosswell on the board, they are halfway home. I think that they're the two most giving people I've ever known, and I'm just proud to call them friends."

Despite their commitment to the community, family and friends remain a priority. Torian recalled yearly trips where his family would travel to the Crosswell's ranch in Hunt, Texas, to spend a week together.

"Those were the best times," Torian said. "We would go the day after Christmas and stay through New Year's. I think we did that 21 years in a row. Holcombe was always in the kitchen cooking; he's a great chef, maybe one of the best I know."

What's next on the horizon for the busiest couple in Houston?

"We just keep moving forward," Emily said, "focusing on what we're doing now and tomorrow." ■

Team Paige

Paige Lejeune, who lost her cancer battle, inspired Houston Texans defensive end Christian Covington

BY ALEXANDRA BECKER

For Christian Covington, a defensive end for the Houston Texans, the 2016 NFL season was especially meaningful, thanks to one special girl.

Paige Lejeune was 16 years old when she passed away from cancer in October. Covington wrote an Instagram post shortly thereafter, dedicating the rest of his season to her life and memory.

"It is with a heavy heart that I learned that the earth lost such a sweet girl early today," began Covington's post from Oct. 24. "My thoughts and prayers go out to all those who knew Paige and her family as they go through this hard time in their lives. To know that she is in a better place without pain and suffering allows this circumstance

to be lifted off of many shoulders. May God continue to bless the Lejeune family and keep a hedge around them. The rest of my season is dedicated to the incredible life and memory of Paige Lejeune."

Their friendship started back in July, when Covington and his teammate, fellow defensive end Devon Still, spent the day visiting patients at Texas Children's Hospital. Still's own daughter, Leah, now 6, is in remission from a Stage 4 cancer diagnosis.

Covington and Still hoped their visit to Texas Children's would help support patients, their parents and their caregivers. For many children, meeting these local heroes is an inspiration as they struggle with their health condition.



"My daughter was going through leukemia treatment for the third time when we met Christian," recalled Amy Lejeune, Paige's mother. "She wasn't feeling well so he came up to her room, and it was like we'd known him forever. He came in, sat down on the couch, and

he just started talking about anything and everything, and it was just very comfortable. We had some foam dart guns, and he started playing with them, and we all had such a great time—there was an immediate connection."

A few days later, Covington texted Amy to check in on Paige. Then he friended Paige on Facebook.

"When that happened, you would have thought the world stopped," Amy said. "She was so excited. He made it a point to keep checking on her and keep encouraging her. He even sent her a message on her birthday. That was really special."

As the season ramped up, Paige was invited to attend a game, enjoying on-the-field, VIP treatment.

"They made her feel special," Amy recalled. "It was a really big deal to be able to be around these people that she might not have had a chance to be with otherwise, but who could also be encouraging, and who wouldn't just sit and talk to her about cancer and be sad. Paige was not about being sad, and when we got to be around them or talk to them, it was a really uplifting experience."



“My daughter was going through leukemia treatment for the third time when we met Christian. She wasn't feeling well so he came up to her room, and it was like we'd known him forever.”

— AMY LEJEUNE
Mother of Paige Lejeune

Mother and daughter Amy and Paige Lejeune at Texas Children's Hospital. Credit: Texas Children's Hospital



Christian Covington, a defensive end for the Houston Texans, got to know Paige Lejeune and her family. Credit: AP / Wilfredo Lee

Texas Children's Hospital is the official children's hospital of the Houston Texans. While members of the team and cheerleaders visit patients and participate in scheduled events throughout the year, that is only a small piece of the partnership's mission. The two organizations also work together to encourage children through community and school-based events each year, including Houston Texans Jr. Cheerleaders, the Houston Texans Kids Triathlon, Houston Texans Running of the Bulls and Get Fit with TORO. Texas Children's and the Houston Texans have also partnered for the NFL's Play 60 program, a national health and fitness campaign encouraging children to be active for at least 60 minutes a day.

"Together with the Houston Texans, we are providing children and their families with tools and support to lead healthier, more productive lives," said Amber Tabora, senior vice president of development, marketing and public relations at Texas Children's. "In addition to the many community events we engage in each year, visits from our local NFL team mean the world to our patients."

Christian Covington and Paige Lejeune made a true connection.

“It is with a heavy heart that I learned that the earth lost such a sweet girl early today.”

— CHRISTIAN COVINGTON
Instagram post from Oct. 24, 2016

According to Amy, Covington was inspired by how strong Paige continued to be until the very end.

"He was actually in awe of how she was looking at it, because she was never, 'Woe is me, this is awful.' I mean, it was, obviously, but she never went there," Amy said. "And I think as much as it was good for her to have these really cool football players coming in and spending this time with her, I think it was good for them to see the impact of those visits, of what that can do for the kids, to see the attitude and the fight that kids have in them when they're faced with what they're faced with."

The fact that players take time out of their busy schedules to spend a day at the hospital "means more than I can really put into words," Amy said. ■

HOUSTON METHODIST and BAYLOR COLLEGE OF MEDICINE
CENTER FOR MEDICAL ETHICS & HEALTH POLICY

INTENSIVE

BIOETHICS COURSE

APRIL 18-21, 2017

Houston Methodist Hospital
6565 Fannin St. ■ Houston, TX 77030

This unique course focuses on the following topics:

- Fundamentals of medical ethics
- Communication strategies for facilitating family meetings
- The value and importance of clinical ethics services
- How to: conduct a consult, write a chart note, run an ethics committee, write effective hospital policy and conduct advance care planning conversations

This live activity has been approved for AMA PRA Category 1 Credits™ and education in medical ethics and/or professional responsibility.

events.houstonmethodist.org/bioethics

HOUSTON
Methodist
LEADING MEDICINE

Baylor
College of
Medicine
CENTER FOR
MEDICAL ETHICS
& HEALTH POLICY



**Gran
Fondo
Texas
TMC**

Benefitting the Texas Medical Center Orchestra and the National Multiple Sclerosis Society

April 9, 2017

Montgomery High School Football Stadium

Enjoy the beauty of Montgomery County
on routes of 38 to 100 miles along excellent hilly roads.

**2016 riders called our ride
"One of the Best"**

BP MS 150 Recommended Rides.



Key Sponsors **Registration & Ride Info:** www.granfondotexasmco.com



Special Thanks to:
WHR ARCHITECTS
the healthcare practice of EYP Inc.

Q&A: Vaccine Safety with Dr. Peter Hotez

BY ALEXANDRA BECKER

While a new administration settles into Washington, D.C., the future of health care continues to grip the nation's consciousness. One of the most divisive topics is U.S. immunization policy. Peter J. Hotez, M.D., Ph.D., dean of the National School of Tropical Medicine at Baylor College of Medicine and president of the Sabin Vaccine Institute & Texas Children's Hospital's Center for Vaccine Development, discussed the dangers of the anti-vaccination movement and the overwhelming science supporting the safety and importance of vaccines.

Q | The scientific and medical communities stand by the safety of vaccines. Can you briefly explain the evidence supporting vaccine safety in general?

A | Vaccines are probably one of the most closely-watched interventions in all of human medicine. There is a massive reporting database run by the federal government called VAERS, which stands for Vaccine Adverse Event Reporting System. There are rare complications of vaccines; the numbers show that of the two billion vaccines given between 2006 and 2014, serious adverse events occurred less than one in a million times. Your risk of being hit by lightning is one in 280,000, so you're four times more likely to be hit by lightning than you are to suffer a serious adverse effect from a vaccine.

Q | What are the consequences of the anti-vaccination movement?

A | The anti-vaccination movement has been around for quite a while, but it's taken on a new character in the last couple of years. What we have now is an effort to promote non-medical exemptions so parents can opt their kids out of getting vaccinated for school entry. Texas is up to 50,000 kids now that are not getting vaccinated, and the actual number could be much higher. What that usually means is that we're going to start seeing measles epidemics. My recent paper in the *PLOS (Public*



“Your risk of being hit by lightning is one in 280,000, so you're four times more likely to be hit by lightning than you are to suffer a serious adverse effect from a vaccine.”

— PETER J. HOTEZ, M.D., PH.D.

Library of Science) Medicine journal basically predicts measles in the next year or two, which is a highly deadly disease, killing 100,000 people a year.

Q | What does 2017 look like for vaccination efforts here in Texas?

A | We've got some important organizations in Texas that are trying to fight back. Our Sabin Vaccine Institute & Texas Children's Hospital's Center for Vaccine Development are very vocal about the harm that the anti-vaxxer community is doing. We also have Dr. Julie Boom and Dr. Carol Baker with the Center for Vaccine Awareness and Research at Texas Children's Hospital, as well as The Immunization Partnership, which is also based in Houston. I think we'll work hard with the legislature this year to close the loophole, because it's just too easy to opt out of getting vaccinated and it's a valid threat to kids in Texas. ■

Editor's note: This interview has been edited for clarity and brevity.

HOUSTON
Methodist
DEBAKEY HEART &
VASCULAR CENTER

2017 EVENTS • REGISTER NOW

Events hosted by the DeBakey Institute for Cardiovascular Education & Training

SECOND ANNUAL

Houston Heart Failure Summit

FEB. 10, 2017 ▪ Course Director: Jerry D. Estep, MD
events.houstonmethodist.org/houstonheartfailure

SEVENTH ANNUAL

Multimodality Cardiovascular Imaging for the Clinician

FEB. 24-26, 2017 ▪ Course Director: William A. Zoghbi, MD
events.houstonmethodist.org/cvimaging

INAUGURAL

Acute and Chronic Pulmonary Embolism Summit

MARCH 9-10, 2017

Course Directors: Alan B. Lumsden, MD, and Myung H. Park, MD
events.houstonmethodist.org/pulmonaryembolism

Houston Methodist CMR

A Weeklong Hands-on Workshop

APRIL 3-7, 2017 ▪ Course Director: Dipan J. Shah, MD
events.houstonmethodist.org/cmri

EIGHTH ANNUAL

Re-Evolution Summit

Minimally Invasive Cardiac Surgery (MICS): The Ultimate Hands-on Summit

APRIL 6-7, 2017 ▪ Course Director: Mahesh Ramchandani, MD
events.houstonmethodist.org/reevolution

Southwest Valve Summit 2017

MAY 5-7, 2017 ▪ San Antonio, Texas
Course Director: Stephen H. Little, MD
events.houstonmethodist.org/swvalve

INAUGURAL

Cardiology for the Non-Cardiologist

JUNE 17, 2017 ▪ Course Director: Alpesh Shah, MD
events.houstonmethodist.org/cardiology

All events take place in Houston, Texas, unless otherwise noted.

Houston Methodist is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

These live activities have been approved for AMA PRA Category 1 Credit.™

For further information, contact

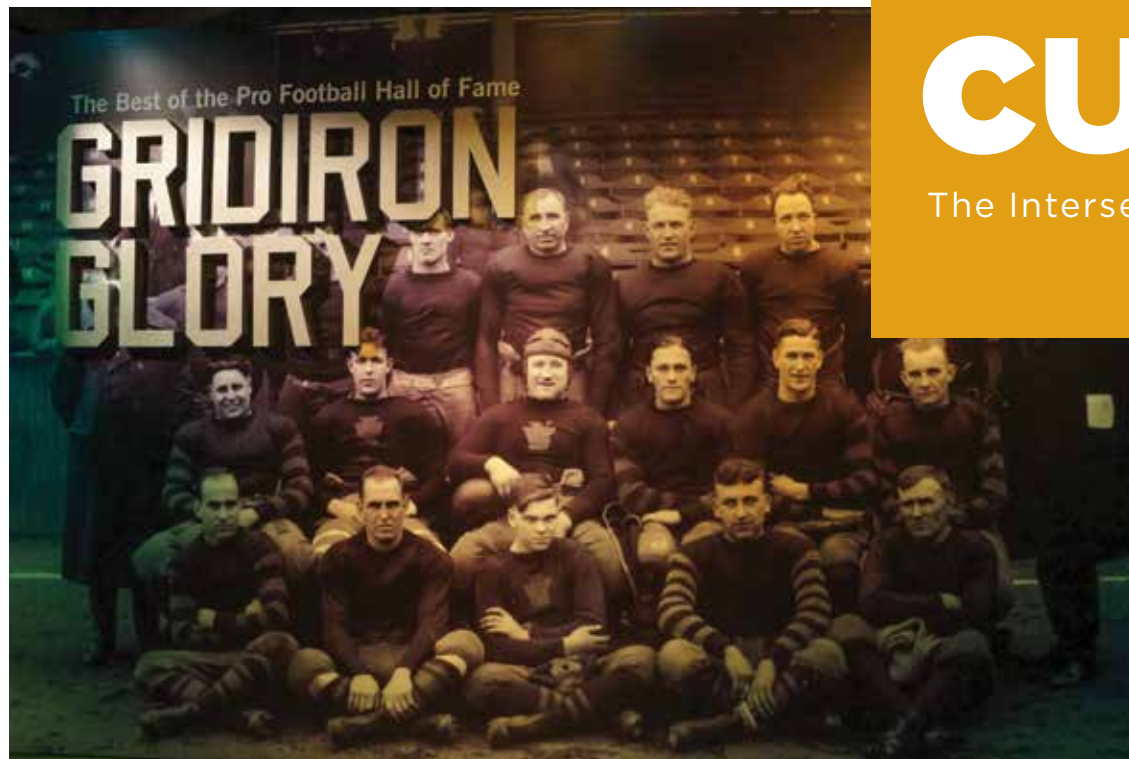
Houston Methodist Office of Continuing Medical Education
6670 Bertner Ave., R2-216, Houston, TX 77030

Phone: 713.441.4971 ▪ Fax: 713.441.0589 ▪ Email: cme@houstonmethodist.org

CURATED

The Intersection of ARTS and MEDICINE

By Britni N. Riley



Top: Historic photo. Lower left: Display showing the grips of quarterbacks Warren Moon, Jim Kelly and Troy Aikman. Lower center: Game ball from 1972 Pittsburgh Steelers-Oakland Raiders match featuring the Immaculate Reception. Right: Pads from professional football's early days.

Texas Southern University, the school that produced NFL greats Michael Strahan, Lloyd Mumphord and Julius Adams, will host a traveling exhibit on the history of football starting Jan. 30—just in time for the Super Bowl.

Gridiron Glory: The Best of the Pro Football Hall of Fame will fill TSU's University Museum with NFL memorabilia, interactive multimedia displays, videos, original artifacts, historic jerseys, pads and helmets. Visitors will see the evolution of the equipment and the game, from the first professional football contract signed in 1892, to Knute Rockne's 1919 Massillon Tigers helmet, to

Barry Sanders' game jersey from 1997, when he became the third player in history to rush 2,000 yards in a single season.

"It's really surreal to view this exhibit," said Eva Pickens, vice president for university advancement at TSU. "For a football fan this will be a dream come true. And for younger children, it will be a great place for them to learn the history of the game and have an educational experience."

Interactive displays include "You Make the Call," which allows visitors to see a play on the field as a referee would see it and then make the call.

"Our hope with the interactive exhibits is to introduce STEM (science, technology, engineering and mathematics) activities to students through the eyes of sports and show students the variety of careers in the sports industry other than being an athlete," Pickens said. ■

Gridiron Glory will be on display at TSU through April 30. Tickets are \$20 and can be purchased at the museum, by visiting sites.tsu.edu/gridiron/, or through Ticketmaster. TSU is located at 3100 Cleburne Street in Houston. Information: 713-313-7145.



A sampling of the jerseys on display in *Gridiron Glory: The Best of the Pro Football Hall of Fame*. Credit: Pro Football Hall of Fame



In June, **BENJAMIN K. CHU, M.D.**, was appointed president and CEO of Memorial Hermann Health System. It's the largest health system in southeast Texas, with 16 hospitals and more than 230 diagnostic and specialty centers. Chu spoke with *Pulse* about his first stethoscope, the mission of hospitals and using technology to increase access to quality health care.

Q | Where were you born and raised?

A | My parents are immigrants from Canton, China. I actually grew up in Chinatown in New York City. Just as provincial as you can get, right? I attended Stuyvesant High School, a New York City public school.

Q | What sparked your interest in health care?

A | I was 3 years old, and I had just been admitted to the hospital for a suspected case of rheumatic fever, which resulted in carditis. The treatment for this was three months of bed rest in a hospital! As you can

imagine, I grew restless during my time there, but one doctor provided me with a pretty interesting and novel toy to keep me entertained—a stethoscope. The first few sounds of a heartbeat had me so hooked that it's a bit of a surprise I didn't become a cardiologist. Since that time, I knew I wanted to work in medicine and take care of people. Years later, I would become an internist and my work with patients remains some of the most important work I've ever done.

Q | What led you to the hallowed halls of Yale University, and as a psychology major, no less?

A | I needed to get out of the city, but wanted to find a university not too far away and Yale seemed like the right fit. In the beginning, I was a mixed major because I was interested in anthropology and psychology, as well as how civilizations and cultures developed. But then, I ended up doing child psychology.

Q | *Beyond your experience with rheumatic fever, what led you to medical school and then to your initial work in public hospitals?*

A | When you're the child of immigrant parents, they want you to be a doctor or lawyer or some sort of professional, right? So that's what happened to me. I was channeled. I always had it in the back of my mind that I wanted to be a doctor, so after Yale, I ended up going to New York University (NYU) School of Medicine.

Due to my heart condition as a child, I received care in the New York public hospital system and that's where I started to develop my affinity for the mission of public hospitals. I also trained in public hospitals. I learned that in these settings there are always resource restrictions and that things don't always run as well as one would like. But when you're a young physician and fresh out of training, you think, 'I can change this.' When I would go to our medical clinic at Kings County Hospital—the busiest ambulatory care center in the country at the time—I could not stomach how we were treating our patients. So, when I finished my chief residency there, I talked the chairman of medicine into letting me run the medical clinic. I brought on a number of young colleagues—all fresh out of training.

Q | *You didn't know what you didn't know.*

A | We didn't know anything. (Laughs.) We just knew we wanted to provide people with access to care and treat them with respect during the care process. During that time I was part of the teaching faculty, and I led this medical clinic in a busy, busy city hospital. I did that for three years. But then, I realized that I didn't really know anything about management. When I was promoted and became chief of ambulatory care, I definitely didn't know enough to do that job. So, I decided I'd go back to school and get a master's degree in public health at Columbia University. It took me three and a half years. At the same time, I had started a family and had young kids, so it was a busy time. I then realized you could only do so much in an administrative position, and that many changes that needed to happen stemmed from public policy efforts. So, I applied for and received a Robert Wood Johnson Foundation Health Policy Research Scholarship and spent a year working with U.S. Sen. Bill Bradley.

Q | *How was your experience working with Sen. Bradley?*

A | It was great. Being a Robert Wood Johnson Policy Fellow was exquisite. At this point, it was 1989, 1990. I learned a lot about the legislative process and Medicare and Medicaid. The Americans with Disabilities Act passed in 1990. It was a big expansion year for Medicaid. And the first Iraq war started in 1990. All those things happened and it was amazing to watch them from that federal perspective. It was a bipartisan time. I learned how to get along with everyone. When my tenure with Sen. Bradley ended, I was offered the job as medical director of New York City Health and Hospitals Corporation.

Q | *How many hospitals were in the NYC Health + Hospitals system?*

A | There were 11. NYC Health + Hospitals cares for 1.3 million New York City residents in any given year. It was largely Medicaid and uninsured patients at the time.

Q | *What came next?*

A | I worked as an associate dean at both NYU and Columbia for an eight-year period. After Michael Bloomberg was elected mayor of New York City in 2001, he offered me the job of president of NYC Health + Hospitals. It was quite a surprise for me since I had written position papers for his opponent.

Q | *As president of NYC Health + Hospitals for three years, what was your main focus?*

A | I was part of building and rebuilding six hospitals. We were also focused on a patient-centered ambulatory care agenda. I probably would have stayed longer, but I was called by somebody who was recruiting for the regional president role in Southern California for Kaiser Permanente, one of the nation's largest not-for-profit health plans. When I got to Kaiser, they were still just beginning to put in electronic health records. In 2005, in Southern California, we were still film-based and paper-based. But within three years, we'd completed our conversion. I had an amazing 11-year run there. We grew from 3 million to 4.2 million members.

Q | *What led you to Memorial Hermann? With your passion and interest in technology, I think you're the perfect person for the job.*

A | The constant question in my career is: How do we do a better job for our patients? When Dan Wolterman, my predecessor, called me about this job, I was at a point in my career where I just wanted to run a system. I ran a big portion of Kaiser Permanente—40 percent of the company—but it wasn't running the entire company. I also thought it would be a great challenge. At Memorial Hermann, we are a complex system. But just because we are large and complex does not mean we cannot provide our patients with an exceptional end-to-end care experience each and every time. One of the big conundrums of health care is, we have all these fractured components that have divergent incentives. So, how do you bring everyone together? What could unify everyone? I believe the answer is simple—a focus on the patient's care experience.

Q | *How will technology play a part in evolving patient care?*

A | Before this digital revolution, the tools were very archaic. We had the telephone. So follow-up often didn't happen. We'd say to patients, 'Here are the instructions; call me if something goes wrong.' Now we have the ability to continuously touch our patients through technology. But the question is: How much? The most exciting thing, especially with phones and apps, is that you can break down the geographic and

“The constant question in my career is: How do we do a better job for our patients?”

temporal barriers to people getting care. Doctors can now have virtual visits with patients.

Q | *How do we use technology to give physicians and patients peace of mind?*

A | We haven't even begun to plumb the depths of cognitive, analytic tools. Your doctor doesn't necessarily have to review it all. You can build in these algorithms on these virtual tools that determine the appropriate medical attention for patients and then be referred to various members of their medical team who can actually deal with the problem in the best way.

Q | *Cars use technology that identifies problems before drivers are aware of them. Why can't we apply that to health care?*

A | I am confident smart technologies will develop. Not just the algorithms, but the ability to do artificial intelligence. One of the problems is that the data feeds can be voluminous. Over time, if we're smart enough, you can begin to see where we're going and that actually could be something that frees us up, and is better for our patients. One thing we've been talking about at Memorial Hermann is really focusing in on the end-to-end care experience. This means focusing on the totality of that experience; if we can achieve this, we're much more likely to get the better outcomes. ■

Dr. Benjamin K. Chu was interviewed by William F. McKeon, the executive vice president, chief strategy officer and chief operating officer of the Texas Medical Center.



Left and above: Dr. Benjamin K. Chu in a conference room at Memorial Hermann Memorial City Medical Center.

A Broadening Spectrum

Filling a gap, The Autism Center at Texas Children's Hospital offers applied behavior analysis therapy to patients

BY ALEXANDRA BECKER



“It’s really amazing when you look at the breadth of problems ABA can help address, as well as the breadth of skills it can help enhance.”

— LEANDRA BERRY, PH.D.

*Pediatric neuropsychologist and associate director of clinical services at
The Autism Center at Texas Children's Hospital*

One in 2,000. Just three decades ago, that was the prevalence of an autism diagnosis. Today, according to data collected from the Centers for Disease Control and Prevention, one in 68 children will be diagnosed with autism spectrum disorder by 8 years of age.

The numbers are alarming, but experts incite caution: a vast majority of this surge can be explained by increasing diagnoses—credited to a broadened definition and growing awareness—rather than a rise in cases. And while there is an ever-growing body of research focused on potential origins or triggers for the disorder (including genetic factors and exposure to environmental toxins), it is still unclear what, exactly, causes autism spectrum disorder.

One thing is certain: autism spectrum disorder can be exceptionally difficult for children and their families. But early intervention and a commitment to therapies has been shown to improve symptoms and enhance quality of life.

A dramatic difference

Autism is a neurodevelopmental disorder characterized by impaired verbal and nonverbal communication skills, social difficulties and repetitive behaviors. Individuals “on the spectrum” may be affected in vastly different ways. Symptoms include: struggling with empathy; an inability to regulate emotions, manifesting in outbursts and self-injurious behaviors such as biting, head banging and hitting; arranging and rearranging objects; repeating sounds and phrases; and extreme interest in a specific subject. Many individuals with autism have extraordinary talents in arts, music and academics, while others may deal with significant disabilities, including the inability to communicate verbally.

Most cases of autism are diagnosed in childhood, as early as 18 months, and empirical evidence unequivocally states that the earlier a child begins

therapy, the more effective it will be. These therapies range from occupational and speech therapy to social skills classes, psychotherapy, and even horseback riding or restrictive diets. Perhaps the most effective therapy, especially in treating emotional regulation and problem behavior, is applied behavior analysis, or ABA. The problem is, many insurance companies don't cover it.

ABA is a scientifically-supported approach to evaluating behavior and understanding how environmental and circumstantial factors contribute to that behavior. In the context of autism, ABA focuses on treating problem behavior by discovering the root cause and providing individuals an alternative means of managing their reactions. And it can make a dramatic difference.

"The assessment methodology for ABA has been around for over 30 years, and there is a lot of evidence to show that this is a very effective approach," said Jennifer Fritz, Ph.D., associate professor of behavior analysis at the University of Houston-Clear Lake. Fritz and two graduate students travel to The Autism Center at Texas Children's Hospital each week to provide ABA therapy to patients there.

Historically, The Autism Center focused primarily on diagnostic evaluation and follow-up care for children with autism spectrum disorders, but over the past few years, program leaders became increasingly interested in offering treatment and intervention opportunities for their patients and families, which led to the partnership between the Center and the University.

"We are invested in providing evidence-based care, and applied behavior analysis is the most evidence-based intervention available," explained Leandra Berry, Ph.D., a pediatric neuropsychologist and associate director of clinical services at the Autism Center. "It takes the knowledge about how people learn, and the value of rewarding and reinforcing behavior, and applies that to help promote gains in various skills and reduce problem behavior."

Bolstering desired behavior (rather than punishing bad behavior) could be considered the foundation for applied behavior analysis. When ABA therapists like Fritz and her students first meet with a family, their initial objective is to identify what kind of problems the child is facing and how they've been able to manage those behaviors. ABA



From left to right, Jennifer Fritz, Ph.D., associate professor of behavior analysis at the University of Houston-Clear Lake, and graduate students Kyle Dawson and Leah Smith.

therapists narrow their focus to the areas of greatest concern, such as injurious behaviors, and then try to assess why they occur, setting up different situations the child might face at home or in school that may trigger that behavior. They ask questions like: What are the factors that prompt the behavior? What does the behavior itself look like? What happens that probably functions to reward or encourage that behavior? Once the cause is determined, the therapists design alternative coping and communication tools centered on reinforcement-based strategies.

"Take, for example, biting," Fritz said. "If we notice that is happening when the child is asked to do something difficult that he doesn't want to do, we teach the child to ask for a break or we help caregivers figure out ways to make the situation less difficult. Or if it's happening when a parent is busy; we teach the child to ask appropriately for attention, or we work with parents on strategies that will allow them to provide more of the attention the child wants."

In addition to addressing difficult behavior, ABA can help improve language and communication skills, social skills, including eye contact and conversation, academic and learning skills, as well as play, feeding and self-care.

"It's really amazing when you look at the breadth of problems ABA can help address, as well as the breadth of skills it can help enhance," Berry said.

But it takes time.

"One of the differences between ABA and more traditional interventions like speech therapy or counseling is that ABA is intensive," Berry said. "Generally, we're making recommendations for 25-plus hours per week of intervention, whereas speech therapy is usually one, maybe two hours per week."

That commitment is a major part of ABA's success, as is the other hallmark of the therapy—parental involvement. ABA therapists are not only teaching patients, they're counseling parents as well, training them to implement ABA strategies and principles at home and in the community so that treatment doesn't stop when the therapy session is over.

"You see the most progress and really the best results when the parents are working in concert with the therapists, almost as co-therapists," Berry said.

Loopholes and exceptions

Since The Autism Center began offering applied behavior analysis therapy to patients in 2015, Fritz and her students have served 27 patients, with a 98 percent success rate. Berry said she is thrilled to offer these services for her patients at the Center, especially since most of them would not be able to access ABA therapy otherwise.

"Not only do Medicaid and CHIP [Children's Health Insurance Program] plans not pay for ABA therapy in Texas, but many private insurances don't

cover ABA either," Berry said. "If you look at the law, it suggests that most private insurances should cover it, but there are loopholes and exceptions."

Federal guidelines set forth by the Centers for Medicare & Medicaid Services (CMS) require states to provide coverage for medically necessary therapy services, but many insurance companies, including Texas Medicaid, dispute ABA as "medically necessary." They argue that it is just one of several treatments listed by CMS and, therefore, redundant if others—including speech, physical or occupational therapy—can be accessed. Texas also failed to pass a bill requiring the licensure of behavioral therapists, and then cited their lack of credentialing as a reason to deny coverage. In addition, lawmakers approved a provision in the state budget that called for \$350 million worth of cuts in pediatric therapy services.

Berry encourages parents and providers to lobby the legislature in Texas to change the law so that Medicaid, CHIP and private insurers are all required to cover ABA—and, perhaps most importantly, remove the current loopholes that exempt them from doing so.

"This is a huge, huge problem that is probably one of the biggest issues we face," Berry said. "Here in our clinic, we know it is effective intervention and we recommend it, but families have such a hard time accessing it." ■

Making small work of an enlarged prostate

BY CHRISTINE HALL

The prostate is a walnut-sized gland in the male reproductive system that is needed for fertility. It secretes a fluid that forms part of the seminal fluid, which carries sperm.

As men age, the prostate gland often becomes enlarged, causing a host of problems. Over time, an enlarged prostate, known as benign prostate hyperplasia, can lead to difficulty with urination, urinary tract infections, bladder stones, incontinence and damage to the bladder and kidneys.

Though the cause of enlarged prostate is unknown, it is quite prevalent. Fifty percent of men over the age of 50 experience an enlarged prostate, said Steven Maislos, M.D., who

specializes in urology at Baylor St. Luke's Medical Group.

Typical treatments include lifestyle and behavior changes—such as reducing the intake of liquids and timed voiding—and medication. When none of these options works, doctors recommend minimally invasive procedures including transurethral needle ablation (which uses heat to destroy prostate tissue) or surgery (a transurethral resection of the prostate to remove tissue, or a transurethral incision of the prostate to widen the urethra).

Holmium laser micro-enucleation for an enlarged prostate is a technique that is gaining exposure, and one that Maislos has introduced to St. Luke's.



A new, 120-watt holmium laser uses concentrated, high-energy waves and intense heat to destroy prostate gland tissue that obstructs the flow of urine or causes other complications.

“One is able to remove the tissue in the middle, and the benefit is much less bleeding than with the other methods,” Maislos said.

In addition to reduced bleeding, the 120-watt holmium laser offers patients a shorter recovery time and fewer complications, he says. With traditional surgery, the patient typically needs to have a special three-way catheter inserted for 24 hours to rinse out the blood so it does not clot and block the flow of urine. With the new laser, that is usually unnecessary because there is less bleeding.

But there are risks with the new laser, including infection, a hardening of tissues, and retrograde ejaculation—when semen enters the bladder instead of emerging through the penis during orgasm. That last one, Maislos said, even happens to men who are just taking the medication.

The 120-watt holmium laser can be used to eliminate other unwanted objects in the body, including kidney stones. Since few physicians are trained to use it for the prostate, Maislos is teaching other doctors this application. He uses the device at St. Luke's Sugar Land Hospital. The only other hospital with the device is the Michael E. DeBakey Veterans Affairs Medical Center.

“You don't have to vaporize the whole tissue, just some of it, and that saves time,” Maislos said. “I think we will see more and more of these new lasers in the future.” ■

Above left: The Lumenis Pulse 120H, a 120-watt holmium laser. Credit: Courtesy of CHI St. Luke's Health



THIRD COAST

*Breakfast is served
Monday through Friday,
7 to 10:30 a.m.*

Located in the heart of the Texas Medical Center, Third Coast is a perfect spot for morning meetings or to grab a bite with friends before work. Stop in for pancakes, omelets, huevos rancheros and other breakfast favorites.

Make a reservation today through *OpenTable* or by calling 713.749.0400.

John P. McGovern Commons
6550 Bertner Avenue, Sixth Floor
Houston, TX 77030

thirdcoasthouston.com |



ON THE SIDE

BY SHANLEY CHIEN

NAME: **Dian Ginsberg, M.D.**

OCCUPATION: **Obstetrician-Gynecologist at Memorial Hermann – Texas Medical Center**

INTEREST: **IRONMAN, Triathlons**

Dian Ginsberg, M.D., often rushes from seeing patients in her clinic to delivering babies in the operating room.

Staying still is not her strong suit.

The 52-year-old New Yorker and single mother of two boys is a Taekwondo black belt, IRONMAN champion, triathlete and 14-time marathon runner whose athletic accomplishments are fueled by her voracious appetite for trying new things and staying fit.

“You get to a point in your life when you’re done with med school and you’ve been

practicing medicine for five years, but life can stagnate,” said Ginsberg, an obstetrician-gynecologist at Memorial Hermann Hospital – Texas Medical Center. “I think a lot of people get there, but you have to do something that’s different. You have to step into something really different.”

Ginsberg preaches what she practices. As a women’s health professional, she advocates healthy living habits and aging gracefully when she’s on the clock. Off the clock, she follows a strict fitness regimen that often inspires other women to get active.

“With races and workouts that I do, patients tell me it’s motivating because it doesn’t matter how old you get,” she said. “I can show people, show my patients: don’t complain. Just do something.”

Every Monday, Ginsberg works out for an hour in her West University home with her personal trainer; she starts at 5:30 a.m., before rounds in the OR. She does a series of intensive strength-training exercises using a \$10 jump rope she bought from Academy Sports + Outdoors, a set of 15-pound barbells, a BOSU ball and ankle weights. After work, she swims laps for an hour at a nearby gym.

On Tuesdays, she spends her evenings interval training on the track at Lamar High School. On Wednesdays, she weight-lifts from 5 to 6 p.m., followed by an hour-long spin class at Angie’s House of Pain and a 1.5-mile run. Ginsberg runs six to seven miles on Thursday mornings and

caps off her week with a 12- to 22-mile run on Saturdays and a 30- to 100-mile bike ride around Memorial Park on Sundays.

It’s an exhausting weekly ritual, but it’s necessary to keep her in tip-top shape. She always wears a pair of socks with a running theme under her scrubs to remind her of her mantra: “The miracle isn’t that I finished. The miracle is that I had the courage start.” It’s a quote from marathon runner John “The Penguin” Bingham.

“It’s not just about race day,” Ginsberg said. “It’s about the motivation to train and about never giving up. It’s the road you take to get there.”

Ginsberg completed the USA Triathlon National Championships in Omaha, Nebraska, in August 2016. She continues to train in hopes of one day running the Italian Ferrari Memorial Marathon and China’s Great Wall Marathon. ■

[1] **WILLIAM F. McKEON**, executive vice president, chief strategy officer and chief operating officer of the TMC, with **HER ROYAL HIGHNESS PRINCESS ASTRID OF BELGIUM**, at the TMC.

[2] **CORLETTA ARIRIGUZO**, Texas Woman's University Ph.D. candidate, was named a Jonas Nurse Scholar.

[3] **BARBARA LEE BASS, M.D.**, chair of the department of surgery at Houston Methodist Hospital, is president-elect of the American College of Surgeons.

[4] **JOHN COOKE, M.D., PH.D.**, chair of the department of cardiovascular sciences at the Houston Methodist Research Institute, received one of five Best Manuscript Awards in 2016 for AHA's *Circulation Research* journal.

[5] **TORIN JARVIS**, left, and **JEREMY SHERMAN**, center, on a trip to Guatemala as part of the Orthotics and Prosthetics Program in the School of Allied Health Sciences at Baylor College of Medicine.*

[6] NFL Hall of Famer **ELVIN BETHEA**, wife **PAT BETHEA**, Café Annie chef **ROBERT DEL GRANDE** and Taste of the NFL founder **WAYNE KOSTROSKI** at Third Coast restaurant's Taste of the NFL Preview Party.

[7] **GRANT FOWLER, M.D.**, vice chair of family and community medicine at McGovern Medical School at UTHealth, was presented the Exemplary Teaching Award by the Texas Academy of Family Physicians.

[8] **LISA HOLLIER, M.D.**, director of the division of Women's Health Law and Policy at Baylor College of Medicine, has been named president-elect of the American College of Obstetricians and Gynecologists.

[9] **KIMBERLY LANDRUM**, Texas Woman's University Ph.D. candidate, was named a Jonas Nurse Scholar.

[10] **AMY MCGUIRE, J.D., PH.D.**, director of the Center for Medical Ethics and Health Policy at Baylor, was honored as one of the 2016 Women on the Move by Texas Executive Women.



1



2



3



4



5



6



7



8



9



10

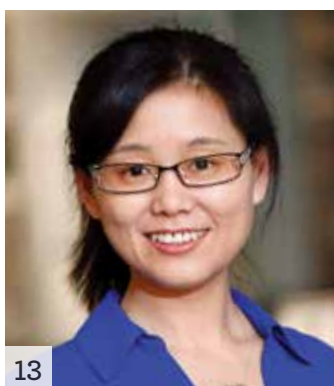
*Credit: Courtesy photo



11



12



13



14



15



16



17



18



19

[11] **CARLOS MORENO, M.D.**, chair of the department of family and community medicine at McGovern Medical School at UTHealth, won The Faillace Award in recognition of his contributions to community health.

[12] **BIN S. TEH, M.D.**, professor and vice chair in the department of radiation oncology at Houston Methodist Hospital, won the 2016 Phoenix Award.

[13] **MENG WANG, PH.D.**, associate professor in the Huffington Center on Aging and the department of molecular and human genetics at Baylor, has been awarded the 2017 Edith and Peter O'Donnell Award in Medicine from the Academy of Medicine, Engineering and Science of Texas.

[14] **JOY WOLFRAM, PH.D.**, postdoctoral fellow at the Houston Methodist Research Institute, made the Amgen Scholars Program's "Ten To Watch" list.

[15] **HUDA ZOGHBI, M.D.**, a professor at Baylor College of Medicine and an investigator at the Howard Hughes Medical Institute and the director of the Jan and Dan Duncan Neurological Research Institute at Texas Children's Hospital, with Baylor College of Medicine President and CEO **PAUL KLOTMAN, M.D.**, at the Silicon Valley ceremony where Zoghbi was awarded the Breakthrough Prize in Life Sciences.*

[16] **TEXAS CHILDREN'S HOSPITAL'S 2016 RADIOTHON** raised more than \$655,000. (credit: Allen Kramer, Texas Children's Hospital)

[17] **THE HEALTH MUSEUM'S ANNUAL TEDDY BEAR CHECKUP** lets children become doctors for a day.*

[18] **RICHARD STASNEY, M.D.**, was honored at the annual Houston Symphony holiday concert at Houston Methodist Hospital.

[19] The 10th annual **PUMPS & PIPES** symposium was held in December at ExxonMobil's campus in Spring, Texas.

DO YOU HAVE TMC EVENT PHOTOS YOU WOULD LIKE TO SHARE WITH PULSE?
SUBMIT HIGH-RESOLUTION IMAGES TO: NEWS@TMC.EDU

February 2017

Exhibit: Body Worlds RX shows details of common diseases and inner workings of the anatomy

Through April 23

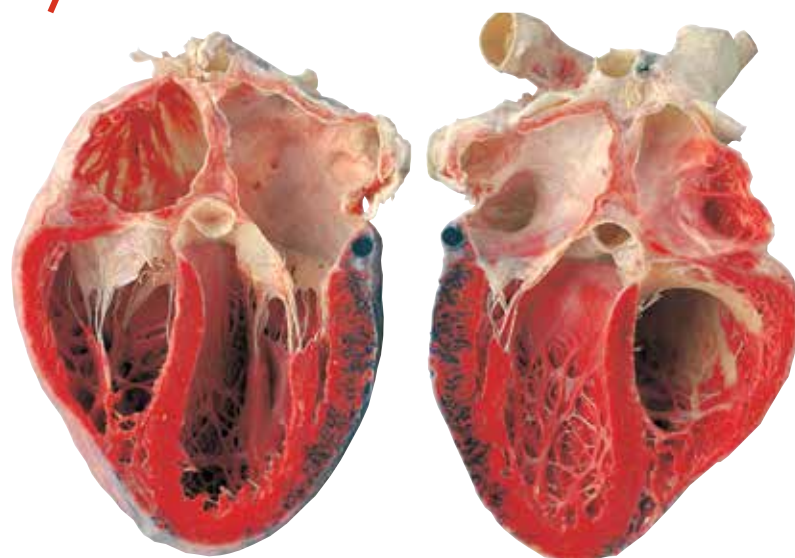
The Health Museum

1515 Hermann Dr.

\$10; \$8 children 3-12 and seniors; free children under 3 and members.

mhms.org

713-521-1515



Two halves of the human heart, part of the Body Worlds RX exhibit on display at The Health Museum.

Credit: © Gunther von Hagens' Body Worlds, Institute for Plastination, Heidelberg, Germany, www.bodyworlds.com. All rights reserved.

1-5 **Super Bowl Live**

Entertainment, games, live music

Wednesday – Thursday, 3 – 11 p.m.

Friday – Saturday, 10 a.m. – 11 p.m.

Sunday, 10 a.m. – 3 p.m.

Discovery Green

1500 McKinney St.

Free and open to the public

jkelly@housuperbowl.com

832-213-5116

6 **Prairie View A&M University College of Nursing Information Session**

Monday, Noon – 1 p.m.

Prairie View A&M University

College of Nursing

6436 Fannin St.

fdsmith@pvamu.edu

713-797-7031

7 **“Leadership Development in Health Care Organizations,” with guest speakers Benjamin K. Chu, M.D., president and CEO of Memorial Hermann Health System; and Brent Smith, Ph.D., senior associate dean for Executive Education at Rice University**

Tuesday, 5:30 – 8:30 p.m.

Rice University

McNair Hall, Loop Rd.

Tickets: \$50; \$40 alumni; free to current MBA students, Rice faculty and staff and Jones Partners individual and corporate sponsors.

jonespartners@rice.edu

713-348-6222

9 **“Inspiring Leaders” speaker series, featuring Bernard Harris, M.D.**

Thursday, 11 a.m. – 1 p.m.

JLABS @ TMC

2450 Holcombe Blvd., Suite J

\$45 at the door; \$35 general public in advance; \$20 students in advance

at eventbrite.com

rlongley@its.jnj.com

346-772-0302

12 **Pilates has Heart**

Sunday, 10:30 a.m. – 12:30 p.m.

Silver Street Studios Event Space

2000 Edwards St.

Tickets start at \$25; all proceeds benefit the Texas Heart Institute in honor of Terri Dome

info@wapilates.com

281-352-5791

22 **“Vaccination to Save Lives from Pneumonia and Neonatal Sepsis,” Dean’s Lecture by Keith Klugman, Director of Pneumonia at the Bill and Melinda Gates Foundation**

Wednesday, 4 – 5 p.m.

McGovern Medical School at UTHealth

6431 Fannin St.

msresearchcommittee@uth.tmc.edu

713-500-5530



FEBRUARY: AMERICAN HEART MONTH

Heart disease is the leading cause of death for both men and women in the United States and the leading cause of death for Hispanics, whites and African-Americans, according to the Centers for Disease Control and Prevention. More than 600,000 people die of heart disease every year—that’s about one in every four deaths. In 1964, February was recognized as American Heart Month to raise awareness of the disease. Heart Disease can be hereditary, but there are several measures people can take to reduce their risk, including eating healthy, exercising and avoiding tobacco products. Learn more about heart health at cdc.gov.

Get CME today. Put it into practice tomorrow.



PHYSICIANS. Get free CME on the go with Texas Health Steps Online Provider Education. All courses can be accessed 24/7 from your computer or mobile device. Choose from a wide range of topics with direct relevance to your practice, including many courses with ethics credit.

Learn more at txhealthsteps.com.



FEATURED COURSES



AADHD & ASD. Implement best practices for screening, diagnosing, and treating these conditions in a primary care setting.



CULTURALLY EFFECTIVE HEALTH CARE. Promote effective communication and improve health outcomes for culturally diverse patients.



TEEN CONSENT AND CONFIDENTIALITY. Establish practice guidelines that comply with legal requirements for providing health-care services to adolescents.



PHYSICIAN CME



SOCIAL WORK CE



NURSE CNE



PHARMACY CE



DENTAL CE



GENERAL CE

Accredited by the Texas Medical Association, American Nurses Credentialing Center, National Commission for Health Education Credentialing, Texas State Board of Social Worker Examiners, Accreditation Council of Pharmacy Education, UTHSCSA Dental School Office of Continuing Dental Education, Texas Academy of Nutrition and Dietetics, Texas Academy of Audiology, and International Board of Lactation Consultant Examiners. Continuing Education for multiple disciplines will be provided for these events.



***Boldly moving
forward***

with a new addition in heart care.

CHI St. Luke's Health, Baylor College of Medicine®, and Texas Heart® Institute are making bold moves forward in cardiovascular care. As part of this mission, **we're proud to welcome Dr. Joseph Lamelas to our ranks.**

With more than 10,000 open-heart procedures and 2,500 valve surgeries performed, Dr. Lamelas has played a pivotal role in the design of never-before-seen cardiac surgery methods. And now, he joins a team of world-renowned physicians and will contribute to a groundbreaking legacy of heart care.



Learn more about **Dr. Lamelas** and the breakthroughs happening at Baylor St. Luke's Medical Center by visiting CHISTLukesHealth.org/BaylorStLukes

Baylor
College of
Medicine




TEXAS HEART[®] INSTITUTE

In partnership with Catholic Health Initiatives-CHI