Frontiers (4th Quarter 2007) - Stories From Within an Academic Medical Center

University of Tennessee Medical Center

University of Tennessee Graduate School of Medicine

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We are proud to humbly dedicate the 4th Quarter 2007 issue of *Frontiers* to the thousands of employees who continue to serve as the unwavering backbone and support system for The University of Tennessee Medical Center and the Graduate School of Medicine. Throughout this issue, we'll take a look at some of the events, decisions, and challenges that inspired and encouraged our employees to become the friends, advisors, and confidants they are today.
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Dear Alumni and Friends,

The University of Tennessee Medical Center is a unique organization and is the area’s only academic medical center. We provide a wide range of patient care, education, and other special services to the people of our region. Being an academic medical center is fascinating in itself, and playing a big part in that are the extraordinary talents, skills, and interests of so many members of our Medical Center partners.

Their expertise and compassion as healthcare professionals are on display every working day—but a number of our physicians, dentists, nurses, clinicians, and support staff also exercise some unique skills and talents outside the Medical Center, in pursuing their personal hobbies or participating in community organizations.

Their “humanness” shines through making them strong professionals and even stronger friends and colleagues. While some of these employees are “behind the scenes”, they are essential to the mission of the Graduate School of Medicine. Throughout my years here I have heard the same comment repeated many times over, “I love working here and the main reason is the people.” These stories may help you understand why. I trust you will enjoy them as much as I did.

Sincerely,

Joseph R. Landsman, Jr.
President and Chief Executive Officer
University Health System, Inc.

This issue of Frontiers: Stories From Within provides a glimpse of the excellent people we have at The University of Tennessee Medical Center and Graduate School of Medicine. While we all appreciate the medical knowledge and technical expertise of those who work within our walls, these stories reveal their hearts and emotions. The excellent caring they have “on the job” is demonstrated in their daily lives outside of work. As you will see, their experiences have not only shaped their own lives but also those of others.

It is our feeling that people who do their crucial work with skill and talent complemented by talent and skill that come into their own at home and elsewhere in the community, simply add another margin of excellence to the care we give our patients and their families every day. We are pleased and honored to recognize a few of those talented individuals in this issue of Frontiers.

Sincerely,

James J. Neutens, PhD
Dean
UT Graduate School of Medicine
As people everywhere begin to enjoy this season of thanks with their families and friends, the Medical Center and the Graduate School of Medicine are once again reminded of how fortunate we are to have such a committed and caring family of our own. It’s our family of employees, physicians, benefactors, community members, and other supporters who have made us what we are today. They are our guardian angels and we thank them for so generously donating their time, talent, treasure, and compassion so that we can continue working to fulfill our mission of excellence in patient care, education, research, and public service.

In this spirit of thanksgiving, we’re pleased to announce the introduction of a new recognition program and giving opportunity—the Guardian Angel Program.

Our patients often express gratitude for the excellent care they receive using a variety of methods, from kind words and smiles to letters of thanks and financial contributions. The Guardian Angel Program has been established to enable patients, family members, and loved ones to say thank you and to honor their own guardian angel—a nurse, physician, cafeteria worker, X-ray technician, or other hospital staff member who made their experience here a positive one.

Thanking someone for a job well done is one of the most meaningful forms of support you can offer. Personal experience at The University of Tennessee Medical Center and the Graduate School of Medicine gives you first-hand knowledge of the high quality of care provided by staff members who have chosen to work at this academic medical center with its unique mission. In return, your participation in the Guardian Angel Program demonstrates that you value the roles they play in allowing us to provide superior patient care, outstanding medical education, and innovative research opportunities.

Being part of the Guardian Angel Program is easy. Once you identify the person you wish to honor, he or she will be notified that you have made a donation and are naming him or her as your guardian angel. All you have to do is complete the attached envelope and return it to the Development Office. Thank you again for your continued support and commitment to the mission of The University of Tennessee Medical Center and the Graduate School of Medicine.

If you have any questions about this program, please contact the Development Office at 865-305-6611.
As a law enforcement officer at The University of Tennessee Medical Center, Brian Hitch has safety and security on his mind. Even when he’s not at work, he’s alert to what is going on around him. That attentiveness to detail even in his off-duty hours has enabled him to save lives—on not one but two separate occasions.

A few years ago, Hitch was driving to work from his house and noticed smoke rising from a home nearby. A fire had started on the deck outside and was traveling up the walls. Hitch leaped out of his vehicle, ran toward the house while calling 911, and then beat on the door to warn anyone who was inside and get them out. The house’s occupants, a woman and her disabled daughter, were unaware of any danger. As they made their way outside, Hitch dipped water from a nearby swimming pool to slow the flames’ progress until firefighters arrived on the scene. Then, with melted shoes and smoky clothes, he headed off to work at the Medical Center—an exciting start to the day.

Brian Hitch started work at the Medical Center in 1983, only 13 years after hospitals began to establish their own police departments. In the 1970s laws had been passed to give hospital security personnel the authority to take on expanded duties as law enforcement officers. They were required to meet higher standards of training and education by attending police academies. Today officers at the Medical Center attend the Knox County Sheriff’s Department training academy or the Walter’s State Community College police academy.

“Our officers are trained to try to calm a situation, assist the family, and solve their issues—a very proactive approach in law enforcement.”

Brian Hitch

The primary goal of the Medical Center’s security department is to provide for the safety and welfare of everyone in the facility at all times. Uniformed officers and marked patrol vehicles create a sense of security and protection on the part of families and patients as well as employees. And they provide invaluable support services: aiding distressed motorists, managing crowds, directing traffic, offering safety escorts, and much more.

Because The University of Tennessee Medical Center is a Level I Trauma Center, many patients and visitors arrive in connection with traumatic events like automobile or ATV crashes or other injury-causing accidents. The officers help protect these stressed, vulnerable patients and visitors and defuse tense situations.

When there are problems of this kind, they’re often domestic in nature. “If an individual is involved in a traumatic situation with injury or illness, their family members can sometimes be very emotional and act irrationally,” says Hitch. “Our officers are trained to try to calm a situation, assist the family, and solve their issues—a very proactive approach in law enforcement.”

To put it another way, the Medical Center officers are trained to identify risks and take measures that will best secure the safety of all involved. During times when “emotions are high and reasoning is low,” an officer’s presence can help stabilize the situation. Intervening to reestablish order and safety, then following through to make sure all parties are comfortable with the outcome, gets to be second nature to officers on and off duty.

Not long ago, again on his way to work, Brian Hitch noticed smoke coming from a vacuum-repair business. He knew the owner sometimes slept there, and called 911 immediately. The building was already in flames, and when firefighters arrived he told them he thought someone might be inside. Sure enough, the owner was asleep in the building. He was carried out by the fire crew, gasping for air. And Hitch? His uncanny ability to be at the right place at the right time was all in the day’s work.
Critical care. The mere mention of these two words is likely to bring a flood of emotion, because it usually means that someone has an acute, life-threatening injury or illness. Also known as an intensive care unit, a critical care unit consists of highly trained, multidisciplinary staff and specialized equipment designed to help patients whose medical condition is precarious.

One set of key team members in the care of seriously ill patients are the critical care nurses. Their role is not only to provide the highest level of skilled nursing, but also to be the patients’ advocates and the facilitators of communication among all those involved in care. The specialized expertise and constant presence of critical care nurses allow them to recognize even subtle changes in a patient’s condition.

Almost seven years ago Weber, then 34 years old, suffered a spontaneous ruptured cerebral aneurysm that left her in a coma for 18 days and hospitalized for almost a month. She experienced multiple organ failure and several times was on the brink of death. But to look at her today, you’d never suspect it. After four months of occupational therapy, Weber regained her ability to swallow, talk, and walk. Today she cares for her patients with the compassion and commitment others showed toward her.

Asked if she’d change what happened to her if she could, she replies that she sees the experience as a blessing and wouldn’t want to alter it. “You can’t come that close to death without being changed,” she says.

“I love what I do, and the fact that the Medical Center is so good at treating critically ill patients is because we have a great team.”

Stephanie Weber

The Medical Center has many skilled professionals whose work includes advocating on behalf of patients unable speak for themselves because of illness or injury. They carry out this advocacy with respect for the patients’ basic rights, values, and beliefs and a determination to help the patients’ family make the best decisions. Stephanie Weber is one of those professionals. With her experience as both a nurse and a patient in a critical care unit, she has a very personal perspective on the miracles such skilled care can make happen.
Because she knows what certain procedures feel like, Weber is more sensitive to the patient side of tracheotomy (a breathing tube inserted in the neck when a ventilator will be needed for a long period of time), general lack of control, and other experiences associated with hospitalization. She has discussed with her family the roller coaster of emotions they experienced, so she also has what she describes as “a heightened awareness now of what the families of patients go through.” One of her most valued discoveries is the importance of pastoral care.

Reflecting on her success as a critical care nurse, Weber says, “I love what I do, and the fact that the Medical Center is so good at treating critically ill patients is because we have a great team.” It’s important to note that she and one of her team members took it upon themselves to find a better way of monitoring their patients’ temperature—an important advance, since in a critical care unit even a few tenths of a degree can make a big difference.

Their study monitored thermometer accuracy and the costs associated with less-than-accurate measurements. The result? A switch to more accurate thermometers, which are now used throughout the Medical Center. It’s just one example of how our critical care staff ensures the best and most cost-effective care for its patients.
Some of his patients soar to great heights. Others have soared across a lined field. Still others peacefully engage in everyday activities at work or play. But they all have something in common: they suffered from some degree of pain or swelling in their arms or hands…and they were all fortunate enough to find David Cassada, MD, an associate professor and vascular surgeon in the Department of Surgery at UT Graduate School of Medicine.
Athletes Soaring
Specialized Surgery Helps Athletes and Others

Cassada joined UT Graduate School of Medicine in 2002 to teach and perform surgery, and with him came a surgical skill never before available in East Tennessee. He completed residency programs at UT, then traveled the world researching the treatment of thoracic outlet syndrome, an upper-extremity neurovascular compressive disorder. Now UT Graduate School of Medicine and The University of Tennessee Medical Center’s Heart Lung Vascular Institute is the only place in a five-state region to offer this treatment. Before Cassada returned to UT with this skill, the closest place for treatment was in St. Louis.

Thoracic outlet syndrome (TOS) is a disorder affecting the nerves in the neck and armpit. The thoracic outlet is the area between the base of the neck and the armpit through which blood vessels and nerves pass. “The syndrome can cause continual pain, numbness, lack of blood flow, or swelling, and if left untreated the person could lose his arm or hand,” says Cassada. The diagnosis can be difficult, he explains, and greater public awareness and clinical knowledge are needed to apply the appropriate treatment, ranging from resting the arm and physical therapy to surgical techniques.

Today Michael Hogue is fully recovered and reaching higher toward his dream of making the Olympic trials in pole vaulting. David Cassada, MD, has helped make that dream more attainable.
In most cases, physical therapy relieves the symptoms of TOS, but in severe cases—particularly where major arm blood vessels are involved—surgery may be required. In simple terms, surgery to alleviate TOS decompresses the affected nerves. Specifically, the surgery can involve the removal of part of the muscle surrounding the nerves and an assessment of whether the compression is being caused by the first rib. Blood-vessel involvement tends to increase the risk of permanent injury or disability, prompting surgical therapy. “TOS is caused by repetitive action or trauma to an upper extremity, such as someone hyperextending his arm during exercise,” says Cassada. “People from all walks of life suffer from TOS, from athletes to assembly-line workers.” Unfortunately, many don’t know they have it and go untreated.

Such was the case with Michael Hogue, a Memphis native and successful pole vaulter for the University of Tennessee. Late in 2005 he was experiencing swelling in his arm but believed he had “just landed wrong at the meet the night before,” he says. He had no pain, but the swelling was increasing. Hogue and an athletic trainer realized the situation was serious. In the UT Medical Center emergency room, Scott Stevens, MD, a vascular surgeon, explained to Hogue that he had a blood clot and would need immediate surgery to remove it. After the surgery, Hogue met Cassada.

“He explained what the clot had done to my subclavian vein,” Hogue says, “and he told me about the TOS procedure. He was very clear about my options, but my only chance to get back to vaulting was to do the surgery. I wanted to get back out on the track with my teammates, so I consented to the surgery, even though Dr. Cassada said the recovery usually is six to eight months.”

That was in December 2005. Two months later Hogue had indeed made it back to the track and his teammates and jumped in the SEC championship. Which he won.

“Physical therapy has helped my recovery, and I haven’t had any trouble with my arm. I’m back to 100%,” he says.

Since his first SEC championship in 2006, Hogue has gone on to win SEC championships in both inside and outside seasons, and he has achieved All-American status twice. His long-term goal is to make the Olympic trials, then to make the American Olympic team in track and field.

“I have one more season at UT,” Hogue says. “We’ll see if I can keep going.” Cassada believes he will make it. “These achievements are more to his credit than Post-Accident Condition

Compression of the neurovascular elements as they traverse the thoracic outlet and the shoulder girdle.

These anatomic cutaways show the typical points of compression of the neurovascular elements as they traverse the thoracic outlet and the shoulder girdle. Both physical therapy, and in some cases, surgical therapy is required to decompress these delicate structures to prevent permanent damage.
mine,” says Cassada, “but the surgery represents a skill set that was unavailable to our athletes prior to 2002.”

Another UT athlete can credit Cassada with not just successfully treating TOS but also probably saving his arm altogether. Inquiris “Inky” Johnson, a defensive back on the UT football team, suffered a devastating tackle during a September 9, 2006, game against Air Force.

Cassada performed surgery on Johnson in September 2006. “The treatment allowed Inky to keep his threatened arm after the tackle that nearly caused limb loss,” he explains. Johnson also received treatment at the Mayo Clinic and continues physical rehabilitation to regain full use of his arm. Although the injury ended his football career, his talents are still being appreciated by the team, and his future is bright. He mentors incoming players to help them adjust to college football, and he is a student assistant to the coaching staff. Johnson will graduate in December 2007 with a degree in political science—showing that you can soar in many different ways.

Athletes aren’t the only ones to suffer from TOS, and not all patients require surgery. Some can be treated with physical therapy, and some require both surgery and therapy.

To date, more than 300 people have been helped, and the University of Tennessee has gained national recognition as a location for excellence in the treatment of TOS.

UT football player, Inky Johnson, had TOS surgery after a devastating injury during a 2006 football game.
It was great to be just plain J.B. this morning. Today he didn’t have to wear the name tag on his crisp white jacket announcing that he was Jujhar Bains, MD, internal medicine resident at UT Graduate School of Medicine. Today he was just J.B., avid hiker and camper, capturing his first up-close view of the Great Smoky Mountains National Park. The riverside drive was absolutely beautiful, and he wished he could keep from thinking about the events that had led him to leave Cincinnati, his friends, and Caesar, the big bear of a dog that seemed to think J.B. was his charge.

Growing up in Indianapolis and Chicago had provided a pleasant upbringing. J.B. and his older sister had been born in the U.S., to parents from India. After earning his University of Chicago undergraduate degree focused in ethics, he had convinced his best friend to join him on an odyssey to experience the world. For the next two years, the two had trekked across India into Nepal, hiked across the Himalayas on the Annapurna Circuit, and made their way into east Asia and down through Malaysia and Indonesia on less than $500 apiece, camping, backpacking, and discovering whatever each day revealed.

After returning to the States, he had embarked on the next phase of life—medical school at the University of Pittsburgh followed by a general surgery residency in Cincinnati. Life was harried but filled with good times and a terrific girlfriend. Why, then, had he looked for something more?

It was not that he had wanted something more. He’d longed for something different, something in his career that he felt deep passion for, something inspirational for each and every day. He had discussed his concerns with the Cincinnati faculty and learned that there might be an answer—an academic medical center opportunity in a community setting. His mentors suggested he consider applying for a program at the University of Tennessee Graduate School of Medicine. They explained that the academic program was highly respected, was large enough to offer excellent hospital facilities and equipment to its physicians and patients, yet small enough to allow the physicians on faculty to work very closely with the resident physicians. And as an added bonus, UT was hard at work creating new fellowship programs like its cardiovascular disease fellowship, one of few in the country, that J.B. would be interested in exploring.

And now here he was. In a new residency program, in a new region, in a new city. He couldn’t help smiling about the strangeness of it all.

J.B. was pleased with his decision to enter UT’s program. The move to Knoxville was uneventful. He admired the faculty physicians who were his professors, and he enjoyed getting to know his colleagues. On top of everything else, he was using this welcome weekend off work to experience his first outing in the Great Smoky Mountains. This morning he had risen early from his solitary overnight camp near the

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Journey of Discovery

How an Unexpected Turn Kept One Man On Track

Although he had taken a wrong turn, J.B. settled back in the driver’s seat to enjoy that “It’s about the journey, not the destination” feeling you read about in motorcycle ads. He caught a glimpse of the gas station ahead as he reflected on how he had ended up moving south to Tennessee. Little did he know that the peaceful tranquility he felt at this moment was getting ready to go south, too. Much further south.
Top:  
Cardiologist Jeffrey Hirch, MD mentors J.B. Bains, MD as he begins his new educational pathway at UT Graduate School of Medicine.

Right:  
Before enrolling in medical school, J.B. Bains went on a two-year trek with friends old and new to discover the world beyond the U.S.
Appalachian Trail and was driving into the foothills, listening to his favorite jazz CD.

The tree canopy over the road gave way to sky, and the road signs indicated that he was now in Townsend—“The Peaceful Side of the Smokies,” a sign read. Convenience market in sight, he signaled a right turn, pulled to a stop, and bounded from the car intent on giving the cashier his cash, pumping gas, and getting on his way with plenty of time for a slow cruise back to Knoxville. There was no way he could have imagined what lay beyond the double glass doors.

He heard the screams and saw the flailing arms before he had actually opened one of the doors wide enough to enter the store. An unshaven, barefooted man in his late twenties was jumping up and down and slinging his arms over his head to emphasize his “Help me, help me” mantra. Each swing of his right arm released a spray of bright red, which fueled the pitch of his plea to a higher level. Blood was spattered on the floor, across the ceiling, on the neatly stacked potato-chip bags that lined the path to the register.

Wide-eyed expression had spread from the flailer to the clerk, helpers, and customers whose feet seemed frozen to the floor. When J.B. cleared the threshold, he felt rather than saw all eyes move to him, imploring him to do something, anything, to get the young man to stop his panic. Without really thinking, J.B. moved. It seemed to take every ounce of persuasion to talk the flailer into allowing J.B. to examine the deep, to-the-bone gash across his right index finger, a digit that J.B. realized was lucky still to be attached to a hand.

He asked the clerk to call an ambulance before he went to his car, searching for the supplies he had not yet moved into his apartment. Luckily, boxes held sponges, bandages, and tape that helped ebb the flow of arterial blood, slowed in part by the fact that the man had calmed down enough to allow his heart to stop pumping so wildly.

Once the ambulance was making its way toward the hospital with the new patient aboard, J.B. was finally able to pump the gas that had led him to stop in the first place. He couldn’t help but shake his head in disbelief and thankfulness as the reality of the situation revealed itself.

This was affirmation. He was where he was supposed to be, doing what he was supposed to do. In that one bit of commotion, he had felt the passion of medicine alive inside him. It was the first time he had used his training outside the confines of an office or hospital, and he had been equipped to react. He had responded not only with skill and training, but also with insight, intuition, and the passion that he so vehemently searched for.

J.B. gave his sunglasses one last adjustment, put the car in gear, and pulled onto the highway. He wasn’t sure where this road was going to lead him, but one thing he knew for sure. This new journey at UT in East Tennessee was going to be one interesting ride.

Special thanks to UT professor Dr. Daphne Norwood, who submitted this story idea. Thanks also to the humble, soft-spoken J.B. Bains for allowing us to tell his story. We agree with his explanation “Any of my UT colleagues would have done the same thing.” Yes, Dr. Bains, but this day was your day.
Sylvia Tony, charge nurse on the neurological unit for stroke patients.
Sylvia Tony, charge nurse on the front lines at The University of Tennessee Medical Center, traveled some 7,000 miles to get here. Tony grew up in the Democratic Republic of the Congo, where, in the 1990s, one of the world’s worst civil wars endangered her family’s security and set her on the road to Knoxville.

Her father, who owns a trucking company in Kinshasa, the country’s capital, had a large family but only enough money to send one of his children out of the country. “There were so many of us,” Tony says, “that he couldn’t afford to have all of us go. I was one of the youngest, but I liked adventures, so I said, ‘I’ll try.’”

She came to Knoxville in January 1999. Her aunt, who had studied at The University of Tennessee earlier in the ’90s to earn a PhD in economics and accounting, advised her to attend UT. “She told me about the English program she went through,” Tony says. “She said, ‘They are international-student-friendly. They get people from all over the world. They teach the basic English that can get you ready for college.’”

Tony mastered English and entered UT’s College of Nursing. Her first clinical training took place at the Medical Center unit on 10 East, at that time a mix of trauma and neurological patients. In caring for those who had suffered stroke, Tony found her calling.

“My mom survived a stroke in 1996, and my dad had a stroke last year,” she says. She understood the particular difficulties the families of stroke patients were experiencing because she had gone through them herself. “You just saw them crying—the mama was the breadwinner and she was in bed, and the kids didn’t know what to do. I wanted to tell them, ‘I’ve been there, I know how you feel,’ and then try to do my best to help with the knowledge I had.”

What sets stroke, the destruction of brain tissue from bleeding or blood clots in the brain, apart from ailments like cancer or heart disease is the degree to which it disables its victims. Nearly five million stroke survivors are alive today, and many have problems such as impaired speech or an inability to bathe themselves.

Dealing with these difficulties can be costly for patients and their families. Americans paid about $57.9 billion last year to manage stroke and the disabilities resulting from it. “Stroke puts a lot of strain not just on the patient, but on the family as well,” says Debbie Stuart, nurse manager of the neurological unit for stroke patients on 5 South, where Tony now works.
The University of Tennessee Medical Center opened the neuro/stroke unit in the spring of 2007 as part of its ongoing effort to improve outcomes for stroke patients and their families. The previous fall, the Medical Center’s work had earned it a prestigious primary-stroke-center certification from the Joint Commission, the group responsible for accrediting hospitals and other healthcare organizations.

To achieve the designation, which is regarded as the gold seal of approval for stroke care, the Medical Center established a multidisciplinary stroke team, including the nurses on the neuro/stroke unit as well as emergency personnel, physicians, dieticians, pharmacists, case managers, and physical, occupational, and speech therapists. “We were the first hospital in this region to be certified by the Joint Commission as a primary stroke center,” says Ann Giffin, vice president of the Medical Center’s Brain and Spine Institute.

Certain clinical standards must be met to maintain the designation. One of these is whether patients arrive at the Medical Center quickly enough to make it possible to use tissue plasminogen activator (tPA), a drug that dissolves blood clots but has to be administered within a few hours after the onset of stroke to be effective. The type of stroke must be identified by brain images. Once the stroke has been diagnosed, a patient’s ability to swallow must be evaluated before any food is given, and plans must be formulated for rehabilitation after the stroke. The sooner therapy begins, the better the chances that the patient will retain motion in the affected part of the body.

The Brain and Spine Institute’s expertise in treating stroke and other neurological disorders includes advanced capabilities in interventional neuroradiology, a minimally invasive approach for the treatment of vascular diseases of the central nervous system. At the institute’s biplane angiography suite, opened in 2003, two highly sophisticated X-ray units allow radiologists to view the blood vessels in the brain in three dimensions. By inserting a catheter into the femoral artery in the groin and using the 3-D X-ray images for guidance, neuroradiologists treat aneurysms (bleeds) and acute stroke (clots) to restore normal blood flow to the brain.

“When I see the needs of the neuro patients, I know I have to look after these people, just as a way to say thank you.”

Sylvia Tony checking her patient’s blood pressure.
Not all of the warning signs listed below occur in every case of stroke. Don’t ignore warning signs if they go away. You should note the time the symptoms started and call 911 immediately. Prompt treatment is critical for recovery and rehabilitation.

- Sudden numbness, weakness, or paralysis of your face, arm, or leg, usually on one side of your body
- Sudden difficulty in speaking or understanding speech
- Sudden blurred, double, or decreased vision
- Sudden dizziness, loss of balance, or loss of coordination
- A sudden severe headache or an unusual headache, which may be accompanied by a stiff neck, facial pain, pain between your eyes, vomiting, or altered consciousness
- Sudden confusion or problems with memory

On the Medical Center’s 18-bed neuro/stroke unit, the work is less technologically complex but just as important to stroke-patient care. Studies show that outcomes improve when patients are treated at one central location. The primary-stroke-center designation requires that nurses on the unit complete eight hours of continuing education in stroke care each year. The nurses on the unit, including Debbie Stuart and Sylvia Tony, also educate families, patients, and people at risk in the treatment, rehabilitation, and prevention of stroke.

The nurses on the neuro/stroke unit are proud of the team they’ve organized to advance stroke care and prevention, and Sylvia Tony believes her work is a way to give something back for the care her own parents received. “I like the people I work with,” she says. “It’s a great team. When I see the needs of the neuro patients, I know I have to look after these people, just as a way to say thank you.”
Changing Course
One Man Discovers His True Calling

Above: Jason McDonald assists in the operating room.

Right: The Medical Center’s radiology department is the only one in the region using the new PET rubidium scan to diagnose heart disease.
Jason McDonald put together his career in radiology at The University of Tennessee Medical Center from the inside out. Long before he ever took his first professional X-ray of a Medical Center patient, he was himself a patient here. The experience not only saved his life, it forever altered it.

“As I was going to the University of Tennessee to get my international-business degree,” McDonald explains, “I was diagnosed with cancer. I had 12 tumors in my lungs, besides the primary tumor in my hip. The initial prognosis was not very good.”

Fortunately, a year of extensive treatment at the Medical Center, including surgery, chemotherapy, and radiation, put the cancer in remission. McDonald returned to school, graduated, and took a job with an import-export company, but something was missing.

“It didn’t feel right,” he says. “I know this sounds kind of crazy, but it didn’t feel like I was doing anything to help humanity. I was simply helping a company make more money.”

Friends McDonald had made in medicine suggested that he consider a career in radiology. It indeed felt like the right thing to do. “I went to X-ray school right here at the Medical Center,” he says. The two-year program exposed him to different imaging technologies and taught him how X-ray technicians support diagnosis and treatment.

McDonald, who now works the second-shift as an operating-room X-ray technician, notes that the Medical Center’s status as a Level I Trauma Center both requires and promotes radiological expertise that’s unmatched by other hospitals in the region. For example, postoperative exams ordinarily performed in the X-ray department help surgeons confirm that their work has been successful.

As a Level I center, the medical center’s trauma unit receives patients with multiple injuries who often go to surgery and then return to the trauma unit. This means that postoperative exams have to be done portably, where the patients are. “Other hospitals typically don’t do that many portable X-rays,” McDonald notes. “You have to have more skill to get the same-quality exam at bedside.”

The Medical Center’s radiology department is also the only one in the region using a new type of PET/CT scan (see “Radiology’s Imaging Tools”—the PET rubidium scan—to diagnose heart disease. The test takes less than half an hour, compared with the less advanced three-hour procedures used in its place at other centers.

Though accreditation from the American College of Radiology (ACR) is required only in mammography, the Medical Center holds ACR accreditation in MRI, CT, PET/CT, and ultrasound imaging as well. Vanessa Bramble, the department’s director, says radiology is prepared to go the extra mile for patient care. “We see a little bit of everything,” she says, “and we’re committed to quality.” This dedication to excellence, combined with a wealth of experience, is what sets us apart.

Radiology’s Imaging Tools

Radiology as a discipline includes X-ray radiography and the other imaging technologies that are vitally important in the treatment of disease. These technologies serve a variety of purposes:

**X-RAYS** show the condition of fractures in bones, the presence of foreign objects, and evidence of pneumonia or cancer.

**MAGNETIC RESONANCE IMAGING (MRI)** uses powerful magnets to create two- or three-dimensional maps of different types of tissue in the body.

**COMPUTED TOMOGRAPHY (CT)** produces images in the form of two-dimensional “slices” of thin sections of the body.

**POSITRON EMISSION TOMOGRAPHY (PET)** uses radioactive tags to detect abnormally metabolizing areas in body tissue, such as cancerous tumors.

**PET CT SCANS** enable physicians to combine these two powerful diagnostic tools, locating PET’s images of metabolic processes in the anatomical structures depicted by CT.
“I’ve been here 23 years,” says Wes Priestley, a physical therapist at The University of Tennessee Medical Center, “and we have the ability, we’ve maintained the ability, to spend one-on-one time with our patients.” Priestley, who describes himself as “a hands-on kind of person,” has built a successful career in a hands-on physical therapy program that logged 20,000 patient visits to the Medical Center in 2006. Working in the center’s adult outpatient location and focusing on the treatment of back pain and injuries, Priestley makes his practice a therapeutic partnership with those he treats.

“I appreciate the quality time we spend with patients,” he says. “It’s rewarding, and I think it offers better care as well.”

Priestley has a history of tackling problems head-on. In his junior year in a forestry program at the University of Montana, he dropped out of school to become a lumberjack. “All the other kids I was in class with grew up in the woods, and I was a kid from the suburbs,” he says. “They’d all run chain saws, and I’d never seen one.”

Intending to get the practical experience he felt he lacked and then return to his studies, he became a timber faller but soon tired of the outdoor life (“I found myself looking at warm hospitals as I drove to work in the dead of winter and thinking, ‘There’s got to be jobs in there’”).
A friend’s wife in a pre-physical therapy program at the University of Montana encouraged Priestley to give the field a try. He went back to school, entered the program, and took to it immediately—"it was like swimming downstream," he says. After graduation, he entered a joint U.S. Army-Baylor University physical therapy program in Texas and received a full course of training. He came to The University of Tennessee Medical Center in 1983 after five years of service as a physical therapist in the military.

“I used to think I wanted to be a doctor,” Priestley says, “but halfway through PT school I said, ‘I really like this.’ I liked being able to walk through things with patients and watch them get better.” Priestley became adept at helping people, particularly those with back problems, make the changes needed to improve their lives.

Physical therapy is a special kind of healing. In the case of low back pain, for example, physical therapists can apply particular “passive” remedies, such as cold packs, electric stimulation, or ultrasound, to provide relief. For lasting solutions, though, they also work with patients to develop active exercise programs that stretch back muscles, ligaments, and tendons and increase mobility and flexibility. Other exercises can strengthen core muscles in the abdomen, back, and gluteus to reduce stress on the lower back. The idea is to devise a program that will not only relieve the problem but also prevent it from recurring.

The University of Tennessee Medical Center provides inpatient physical therapy to patients recovering from surgery or strokes, as well as therapy on an outpatient basis. Two outpatient clinics are located on the Medical Center campus, and four satellite clinics are spread throughout the region. Outpatients average four to six visits per treatment.

The Medical Center’s role as a teaching institution gives its therapists special expertise, says Ann Giffin, vice president in charge of the Brain and Spine Institute, which oversees physical therapy. The Medical Center takes in students for practical training from some 25 physical therapy programs across the region—with the result, says Giffin, that “every one of our therapists is also a teacher. They have to stay sharp, they have to stay up-to-date, they have to know what the literature says about treatment of a particular injury or disability.”

Priestley says he enjoys the challenges and the sense of accomplishment that comes with meeting them. “You get to know patients and have a significant part in their return to function and escape from pain,” he says. “You really feel like their victories are your victories.”

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On his days off, Wes Priestley likes to return to the great outdoors for a little fly fishing.

“I get to know patients and have a significant part in their return to function and escape from pain. I really feel like their victories are my victories.”

Wes Priestley
FOURTH ANNUAL HEMATOLOGY CONFERENCE

February 2, 2008 • UT Conference Center • Knoxville

This fourth annual conference is an American Society of Hematology (ASH) international conference follow-up and briefing. The UT Graduate School of Medicine's annual update occurs as soon as possible after the ASH conference, while allowing time for our featured speakers to develop unique presentations that combine their areas of expertise with new information garnered from the ASH presentations. For more information, call 865-305-9190 or visit our website at www.tennessee.edu/cme.

FOURTH ANNUAL DIABETES REGIONAL CONFERENCE

Type 2 Diabetes in Youth and Adults: Challenges in Diagnosis and Management

March 8, 2008 • UT Conference Center • Knoxville

One of the major public health challenges of the 21st century is Type 2 diabetes. The World Health Organization estimates that by 2025 as many as 200-300 million people worldwide will have developed the disease. This includes an alarming increase in diagnoses in children. Consequently, findings of studies in young adults have suggested that the development and progression of clinical complications, such as heart disease, may accelerate when the onset of Type 2 diabetes begins earlier in life.

This CME course is intended to increase healthcare providers’ awareness of Type 2 diabetes in both youth and adults. By increasing knowledge and offering new information on diagnosing Type 2 diabetes as well as on methods of management, primary care providers should be more able to provide improved care and help patients to achieve better self management of their disease.

The UT Graduate School of Medicine recently launched a new fellowship program focusing on cardiovascular disease. It’s one of only 162 across the U.S.

During the three-year program, the UT fellows will receive specialty training in invasive cardiac catheterization, echocardiography, electrophysiology, nuclear cardiology, computed tomographic cardiac imaging, electrocardiography, exercise stress testing, and diagnostic cardiac catheterization. They will evaluate patients with cardiovascular disease, both in private practice as well as in a clinic setting.

“...The UT fellowship program will improve cardiac care and access to quality cardiac care in East Tennessee. And as our fellows graduate from the program and begin their medical practices, cardiac care across the nation will be improved,” says UT Graduate School of Medicine faculty physician Dale Wortham, MD, a cardiologist and the director of the fellowship program. Currently the U.S. is experiencing a shortage of cardiologists, Wortham adds, particularly as baby boomers age.

What is a Fellowship?

It's an educational program designed to provide licensed physicians with concentrated experience in a subspecialty, or specialized area of medicine. Subspecialties require fellowship training in addition to the nine to 14 years of medical education required to complete medical school and the subsequent residency period.
With a common vision of excellence in medical care and education, community members from throughout East Tennessee came together to celebrate the inaugural Evening in Orange gala on October 13. The event’s great success was due to the exceptional dedication of the Evening in Orange committee members under the leadership of co-chairs Beverly Bell and Leslie Klein, and to the generosity of our numerous sponsors, who share our mission of expanding the frontiers of academic medicine.

An Evening in Orange raised more than $280,000 to establish the Medical Simulation Center at The University of Tennessee Medical Center and Graduate School of Medicine. The Medical Simulation Center will be a state-of-the-art training facility reshaping patient care, facilitating innovative research, and modernizing medical education.

As a facility for healthcare professionals, the Medical Simulation Center will provide unique training opportunities in practicing medical procedures and processes under lifelike circumstances, using full-patient mannequins or virtual-reality simulators. The benefits of medical simulation are many and include improved patient safety, increases in successful patient outcomes, efficient and effective resident training and assessment, and improved clinical research techniques and procedures.

The University of Tennessee Medical Center and Graduate School of Medicine want to extend our sincere appreciation to all who made An Evening in Orange a tremendous success and the Medical Simulation Center an emerging reality.