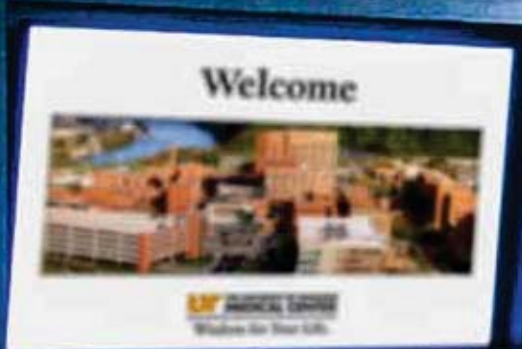


FALL 2014

For Alumni and Friends

# Frontiers

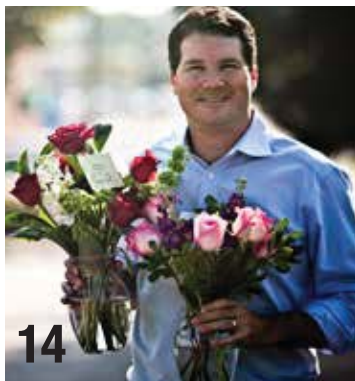
The University of Tennessee Medical Center & the University of Tennessee Graduate School of Medicine



# DISCOVER

Personalized Health Education

Come Discover the New Health Information Center



## Features

- 4** A Year of Healing
- 8** Team Member Spotlight
- 10** A Multidisciplinary Approach
- 12** Volunteer Spirit
- 14** One Bright Idea
- 16** To Serve and Protect
- 20** UT LIFESTAR's 30th Anniversary
- 22** Pastoral Care in Crisis and Illness
- 24** Health Information Center
- 26** Enhancing Medical Education
- 28** Discoveries of the Conscious Mind
- 30** A Breakthrough Standard in the Prevention of Strep B

## In Every Issue

- 19** Continuing Education Course Calendar
- 23** 5 Minutes With a Pharmacist
- 31** Ask the Expert: John Bell, MD

The University of Tennessee  
Medical Center and the  
University of Tennessee Graduate  
School of Medicine *Frontiers*

### Fall Issue 2014

#### Editor

Becky Thompson

#### Publishers

Joseph Landsman  
James Neutens, PhD

#### Contributors

Katie Bahr  
Kristen Bass  
Brian Hitch  
Kandi Hodges  
Bonnie Horner  
Larsen Jay  
Sandy Oelschlegel

#### Design/Creative

Dean Baker

*Frontiers* is a magazine produced  
by The University of Tennessee  
Medical Center and the University  
of Tennessee Graduate School of  
Medicine. It is designed to showcase  
the unique benefits of having an  
academic medical center in  
East Tennessee.

Copyright © 2014  
The University of Tennessee  
Medical Center  
All Rights Reserved  
EEO/TITLE VI/TITLE IX  
Sec. 504/ADA

#### Contact us at *Frontiers*

2121 Medical Center Way, Ste. 300  
Knoxville, Tennessee 37920-3257  
Telephone: 865-305-6845  
Fax: 865-305-6959  
E-mail: [frontiers@utmck.edu](mailto:frontiers@utmck.edu)  
[www.utmedicalcenter.org](http://www.utmedicalcenter.org)  
or <http://gsm.utmck.edu>



Wisdom for Your Life.



#### On the Internet...



Visit us online for more  
information about *Frontiers*.  
[bit.ly/UTFrontiers](http://bit.ly/UTFrontiers)





## Dear Alumni & Friends,

Within the walls of The University of Tennessee Medical Center and UT Graduate School of Medicine are skilled team members, physicians, residents and volunteers committed to providing the highest-quality medical services. As you'll see in this issue of *Frontiers*, all of us are dedicated to the mission of fulfilling our community's healthcare needs with compassion, excellence and personal commitment.

Here at the region's only academic medical center, not only do we deliver excellent care and deploy the latest technologies and treatments, we also provide sophisticated training for future physicians, clinicians and scientists and conduct research to discover the cures and treatments of tomorrow. For the third consecutive year, this dedication on the part of our healthcare providers has been recognized by the "America's Best Hospitals" edition of *U.S. News & World Report*. The Best Hospitals report spotlights medical facilities that excel in their region and nationally for treating patients facing the greatest health challenges—an area in which we're recognized in 11 specialties.

This has been an exciting year for the medical center, and together with our team members, we look forward to sharing our stories of healing, education and discovery. In this issue, you'll learn more about the grand opening of the Health Information Center and the important benefits it offers our community. One year after a tragic bus accident in our community, we'll tell you about those recovering patients and their joyful reunion with the medical center team members who cared for them. And we'll celebrate 30 years of service by LIFESTAR, the medical center's aeromedical transport. These are just a few examples of the work accomplished every day at The University of Tennessee Medical Center and Graduate School of Medicine.

Whether you're staying with us as a patient, visiting a loved one or considering us for your healthcare, we're committed to providing you with the best possible experience and outcome. Thank you for your ongoing support, and we hope you enjoy reading this issue of *Frontiers*.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe R.", written over a white background.

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

A handwritten signature in black ink, appearing to read "James J. Neutens", written over a white background.

James J. Neutens, PhD  
Dean  
UT Graduate School of Medicine

**Our Mission** | To serve through healing, education and discovery

**We Value** | Integrity • Excellence • Compassion  
Innovation • Collaboration • Dedication

**Our Vision** | To be nationally recognized for excellence in patient care, medical education and biomedical research



## Dear Alumni & Friends,

Within the walls of The University of Tennessee Medical Center and UT Graduate School of Medicine are skilled team members, physicians, residents and volunteers committed to providing the highest-quality medical services. As you'll see in this issue of *Frontiers*, all of us are dedicated to the mission of fulfilling our community's healthcare needs with compassion, excellence and personal commitment.

Here at the region's only academic medical center, not only do we deliver excellent care and deploy the latest technologies and treatments, we also provide sophisticated training for future physicians, clinicians and scientists and conduct research to discover the cures and treatments of tomorrow. For the third consecutive year, this dedication on the part of our healthcare providers has been recognized by the "America's Best Hospitals" edition of *U.S. News & World Report*. The Best Hospitals report spotlights medical facilities that excel in their region and nationally for treating patients facing the greatest health challenges—an area in which we're recognized in 11 specialties.

This has been an exciting year for the medical center, and together with our team members, we look forward to sharing our stories of healing, education and discovery. In this issue, you'll learn more about the grand opening of the Health Information Center and the important benefits it offers our community. One year after a tragic bus accident in our community, we'll tell you about those recovering patients and their joyful reunion with the medical center team members who cared for them. And we'll celebrate 30 years of service by LIFESTAR, the medical center's aeromedical transport. These are just a few examples of the work accomplished every day at The University of Tennessee Medical Center and Graduate School of Medicine.

Whether you're staying with us as a patient, visiting a loved one or considering us for your healthcare, we're committed to providing you with the best possible experience and outcome. Thank you for your ongoing support, and we hope you enjoy reading this issue of *Frontiers*.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe R.", written over a white background.

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

A handwritten signature in black ink, appearing to read "James J. Neutens", written over a white background.

James J. Neutens, PhD  
Dean  
UT Graduate School of Medicine

**Our Mission** | To serve through healing, education and discovery

**We Value** | Integrity • Excellence • Compassion  
Innovation • Collaboration • Dedication

**Our Vision** | To be nationally recognized for excellence in patient care, medical education and biomedical research



This photo was taken by a UT LIFESTAR flight nurse en route to the crash site.

# A Year of Healing

## Front Street Baptist Church's Road to Recovery After the I-40 Bus Crash



Watch the Emergency & Trauma Services tribute video at <http://bit.ly/1q6u2Mo>

2 p.m.

1st EMS medic unit, sheriff and fire department arrive at scene.

2:06 p.m.

EMS personnel started pulling survivors off the bus.

2:15 p.m.

2:05 p.m.

911 center receives 1st calls about a wreck on I-40 in Jefferson County.

2nd EMS unit arrives. Crews begin triage and treatment.

2:10 p.m.

5 Jefferson County EMS units at the scene request assistance, including LIFESTAR helicopter.

The Fall Jubilee was always the highlight of the year for the Young at Heart, a church choir group from Front Street Baptist Church in Statesville, North Carolina. The annual trip to Gatlinburg, three days of “singing, laughing and preaching,” became an unforgettable tragedy as they returned home on October 2, 2013.

Tennessee Highway Patrol investigators later determined that something in the road—no one knows what—damaged a tire on the bus. Fifty miles down I-40 in Jefferson County, the driver, Randy Morrison, realized that he had missed a turn. As he turned the bus around, the damaged tire blew. The bus skidded across a median and crashed into an SUV and one tractor-trailer truck traveling in the opposite direction. The bus came to rest on its side, the truck caught fire, and wreckage scattered across two lanes and into the median.

### 2 P.M.

The 911 call center received the first of 15 calls from the scene of the accident and immediately dispatched emergency personnel. Early calls described multiple injuries and fatalities, and EMS personnel sent out a request for additional assistance and a LIFESTAR aircraft from The University of Tennessee Medical Center.

The first medical and fire units arrived on the scene within five minutes. At 2:06, a second medic unit arrived, and EMS personnel began to assess and treat patients.

Among the first to arrive was state trooper Erik Raines, one of three who received Lifesaver Awards for their work that day. “I still pray for all of the victims and their families,” Raines said, “And I’ll continue to pray for them the rest of my life and always feel a connection with them.”

EMS crews worked quickly, removing the passengers from the bus to protect them from heat and flames. Fourteen were injured, many critically. That day, eight people died at the scene, including all three drivers.

At 2:10, when EMS personnel pulled survivors off the bus, one of them, Sandra Boyer, kept count. “I only counted six,” she said. She couldn’t find her husband, Marvin. “I started asking for him as soon as the bus stopped,” she said. “I didn’t know about Marvin’s whereabouts until 8:30 that night.”

Within 15 minutes, personnel at the scene had triaged all victims and prepared them for transport to area hospitals. Approximately 100 local responders, 75 local mutual aid responders and 100 state responders were on the scene, including five Jefferson County EMS units. The Jefferson County 911 call center alone handled more than 800 radio transmissions.

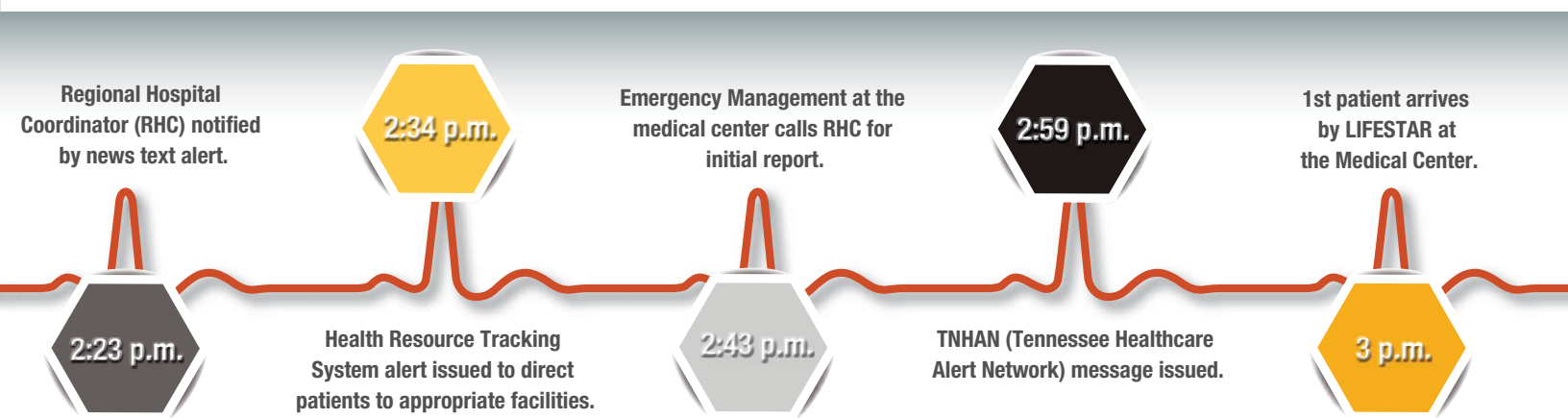
“The image that still stands out for me was the plume of smoke rising from the crash scene, visible from the helicopter just after takeoff from the airport,”

said flight paramedic Andrew Slem. “Radio traffic on the flight over gave an invaluable description of the severity of the event, and in turn what the trauma center could anticipate.”

At 2:43 p.m., Emergency Management at the medical center called the Regional Health Authority for an initial report. The Emergency Department began to make preparations for the influx of patients. At 2:59 p.m., a TNHAN (Tennessee Health Alert Network) message was issued, communicating pertinent information about the bus crash, including the number of individuals involved. That enabled state and local emergency preparedness personnel, multiple hospitals, and multiple EMS agencies to immediately begin preparing and allocating resources and personnel to help manage this large-scale incident. Through the TNHAN system, the information was conveyed electronically by e-mail and telephone with one click of the mouse.

### 3 P.M.

The first patient arrived at the medical center at 3 p.m. One minute later the Regional Medical Communications Center (RMCC) confirmed seven fatalities, with 10 injured patients en route to the medical center. “We had team members calling and asking if we needed help,” said Jennifer Radtke, nurse manager for Trauma/Surgical Intensive Care and neuro critical care. “The entire hospital pulled together to ensure that all patients, not just the bus crash victims, were cared for as quickly and efficiently as possible.”





## 4 P.M.

Only one patient arrived with identification, a state of affairs that created confusion among the families. Shortly after 4 p.m., the American Red Cross began working with the medical center to set up a family reception area for emotional support. “When I approached the crash victims’ families and friends, and had all eyes turning in my direction in hopes of helping them find their missing loved ones, it was overwhelming,” said Niki Rasnake, RN, “I wrapped my arm around one of the daughters while walking down the Intensive Care hallway in an attempt to identify her father. It was literally a short distance, but it felt like the longest walk of my life.”

## 5 P.M.

By 5:21 p.m., the Emergency Department had received 14 patients, including eight with critical injuries and two in serious condition. At one point there were 13 ambulances in the emergency department bay. Cooperation across departments and among agencies was crucial. The medical center achieved a textbook response to the high volume of critical patients, successfully treating incoming patients without compromising care for other patients. The Radiology Department completed 48 scans in six hours. Team members in Environmental Services received high praise for turning over rooms quickly.

“The level of cooperation, from the field to the RMCC and partners to the hospital staff, was the key to a favorable outcome and something I will always be proud of,” Slemp said.

The medical center’s Pastoral Care and public relations personnel, with the Red Cross, held joint briefings daily. Their efforts assisted families with transportation, counseling, lodgings on a busy football weekend and the task of working with the Forensic Center to transport the bodies of those who had died at the scene. The partnership is now used as a model for future emergencies.

## Later That Night

The job of identifying and treating patients was enormous, especially given the many severe injuries. The most badly injured was Marvin Boyer Sr., who required the highest level of treatment and resources available. Boyer came in with no pulse, multiple broken bones and lacerations, severe blood loss, and organ damage.

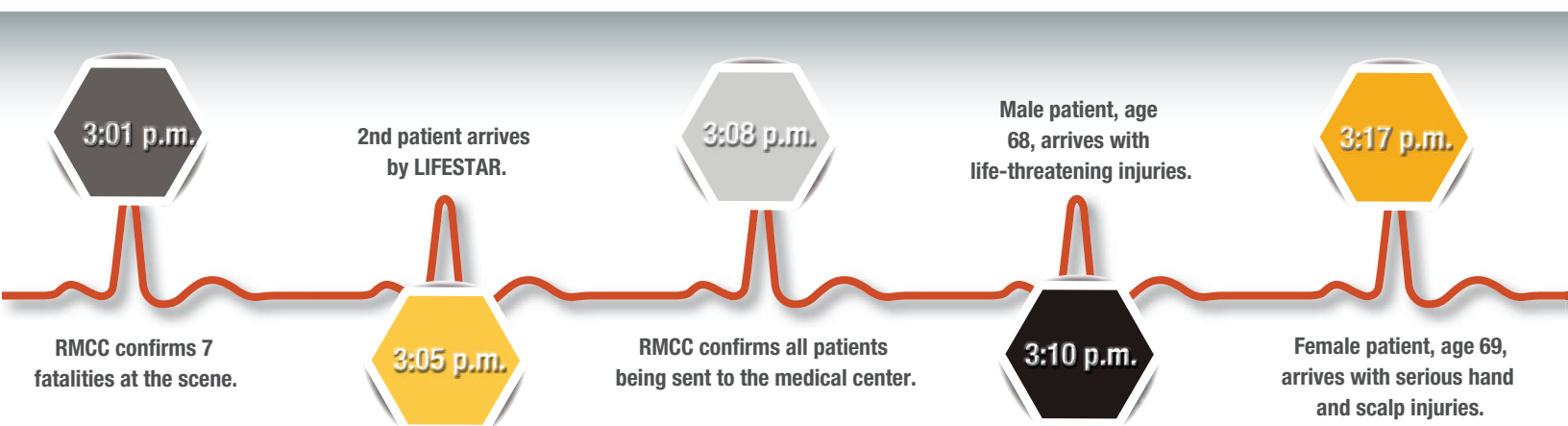
Around 8:30 p.m., nurses asked Sandra Boyer’s daughters to help identify a patient whose head wounds had made him unrecognizable. They recognized Marvin, who loves to play the piano, by the unique shape of his hands. At first he’d been misidentified as the bus driver, who died at the scene.



Marvin Boyer Sr. was alive, but the news was grim. He had suffered multiple injuries, including severe head injury, facial fractures, massive chest injuries and numerous road-rash wounds over his entire body. But after 29 days in the hospital, 25 of them in Intensive Care and 22 on a ventilator that breathed for him, a staggering number of medical procedures, and five months in a rehabilitation center, Marvin is back at home—and back at Front Street Baptist Church choir practice.

Other survivors are still recovering, both physically and emotionally. But they all agree on one thing: gratitude for the treatment they received at The University of Tennessee Medical Center, the region’s only Level I Trauma Center. Not only did every patient survive and return to an active life, they all received additional blessings in the form of encouragement, gifts and other acts of generosity.

Nearly one year after the day that changed the lives of many, the patients from the bus accident and other church members traveled to the medical center to honor those who saved their lives and who not only cared for their broken bones but, with skill and compassion, touched their hearts.



# A Reunion of Hope and Continued Healing

A group of seniors from Front Street Baptist Church in Statesville, North Carolina, returned to The University of Tennessee Medical Center in July to thank the medical personnel who treated their injuries after an interstate bus crash on October 2 of last year. Many are still recovering, but nine months after the crash they were able to shake the hands of the team members who helped them start the healing process. For some in the group, it was like meeting the staff for the first time. Others couldn't forget the people who cared for them during their stay at the medical center.

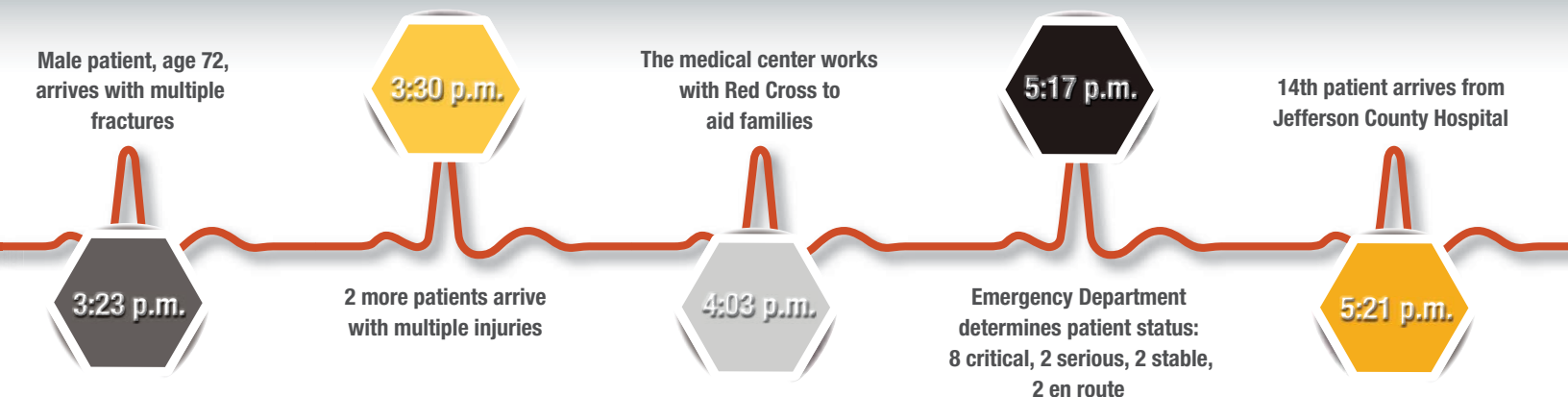
It's rare for team members to see patients again once they've healed enough to leave the hospital. The doctors and nurses who received the flood of injured patients after the crash remember that day as one of the worst in their careers. But for them and their former patients, the July 17 reunion was a joyful highlight filled with thankfulness and appreciation.



Kasey Woody, MA, CCC-SLP, a speech language pathologist at the medical center reunites with former patients at the reunion.



Theresa Day, RN, and nurse educator for trauma surgical intensive care unit reunites with fellow Front Street Baptist Church members.





# Culinary & Roots Local Heritage

Executive Chef Changes the Way Patients Experience Healthcare By Bonnie Horner

**C**hef Mark McKinney is a Tennessee native who has been in the kitchen his entire life. He spent many of his early years working with his father in their family restaurant, then, at 13, worked at a neighborhood market after school. That culinary foundation would later lead him to various five-star restaurants in Charleston, South Carolina, before his return to Knoxville as a chef at Blackberry Farm, whose foothills cuisine has received the highest dining marks in America.

McKinney also spent a few years at MD Anderson Cancer Center, working as a sous-chef on the development of the facility's room-service program—only the second in the country at the time. He has a passion for food and a love for the Great Smoky Mountains that brought him to The University of Tennessee Medical Center as executive chef.

McKinney and the nutrition services team have transformed the way employees, patients and the community dine by offering more healthy (and delicious!) alternatives. On any day, guests have many choices in the café, from traditional comfort foods to healthy choices at the fresh salad bar. Choices include Chef Jet, which is based on traditional Asian cuisine, and Sono, celebrating Latin American cuisine that is simple and fresh. Grill Nation features fresh burgers cooked on the grill, served with hand-cut fries and buns made locally by the Flour Head Bakery. The goal is to provide something for everyone, so if you're feeling like pizza or a sandwich, you can find that too.

More nutritionally balanced meals help patients at the medical center by making food part of the healing process, not part of the problem. McKinney also takes his culinary taste to the community by hosting regular cooking classes with the Healthy Living Kitchen, sponsored by Food City, conducting live demonstrations on local TV and at markets and food shows, and educating local businesses through the medical center's corporate wellness program. He said, "All the programs we do have really allowed me to have a lot of satisfaction, professionally and personally."

McKinney's expertise—that of a chef trained in the art of cooking who also embraces wellness—upholds the medical center's mission to serve through healing and to improve the health of our community through education.



## Healthy Recipes

To learn more about our tribute to those who serve every day, visit [bit.ly/UTRecipes](http://bit.ly/UTRecipes)



*Mark McKinney*  
Sr. Executive Chef

*“It has been a rewarding career, being an advocate for healthy eating and helping our patients and team members see a better side to cafeteria cuisine. Our visitors are unique in that some are sick or caring for a loved one. Whether it’s through a tasty meal or a kind word, I enjoy making their experience a little better.”*



# A Multidisciplinary Approach

Tumor Conferences Benefit Patient Diagnosis and Treatment Through Collaboration By Bonnie Horner



Keith D. Gray, MD, surgical oncologist at the Cancer Institute, and associate professor and chief of surgical oncology at the Graduate School of Medicine, describes patient scans to physicians and residents.

**W**hat started in 1978 as a small group of physicians conferring over X-rays has expanded into an extensive, multidisciplinary team that meets regularly to review tumor and cancer cases. It was clear that those early meetings improved patient outcomes, especially those with complex health cases. The medical center became the first facility in the region to organize and conduct dedicated conferences. Now the Cancer Institute at The University of Tennessee Medical Center holds a number of multidisciplinary meetings, known as tumor conferences, every week. The conferences play a critical role in patient care at the medical center, enabling physicians from different specialties to offer a range of perspectives as they participate in detailed prospective of patients' cases. Patients benefit from rapid initiation of care, the familiarity of all treating physicians with their case and multiple opinions that have been presented and discussed before the initial physician consultation.

### **What Is a Tumor Conference?**

It's a meeting of multiple specialties who focus on the diagnoses and courses of treatment for individual cancer cases. Commonly discussed issues include tumor characteristics, pretreatment evaluation, staging, treatment plans and enrollment in clinical trials. The conference benefits patients by providing a comprehensive, coordinated approach to cancer care for even the most difficult cases.

A typical tumor conference is attended by more than 50 healthcare professionals. The spectrum of specialists includes gynecologic oncologists, medical oncologists, neuro surgeons, surgical oncologists, radiation oncologists, radiologists, thoracic surgeons, pathologists and other specialists as needed. The group may also include nurse navigators, geneticists, nutritionists, clinical-trials staff and medical residents. An important principle in cancer care is that doctors don't make treatment decisions on their own but in collaboration with colleagues.

The tumor conference enables them to discuss patient cases, share opinions and jointly develop individual treatment strategies.

### **How Does a Tumor Conference Work?**

A physician submits a case to a conference coordinator who ensures that all the relevant materials—test results, pathology slides, scans, X-rays—are available for presentation. After the physician presents the case, everyone participates in a discussion of the diagnosis and treatment options. The process often provides patients with a second, third and fourth opinion on the most effective treatment for their individualized case. Patients' identities are protected by privacy standards, and all the information shared is confidential.

Tumor conferences, developed to promote collaboration and coordinate treatment options among specialties, offer cancer patients the best possible medical approach—which gives them the greatest chance of a cure.

### **Conference Schedule**

#### **Monday**

Head and Neck Tumor Board  
Biweekly

Neuro Tumor Board  
Biweekly

Gastrointestinal Tumor Board  
Monthly

#### **Wednesday**

Tumor Board  
Weekly

#### **Thursday**

Pulmonary Tumor Board  
Weekly

#### **Friday**

Breast Tumor Board  
Weekly

**do the remarkable!**

To learn more about the Cancer Institute and help them continue to "do the remarkable" go to [www.campaignforhope.com](http://www.campaignforhope.com)



# Volunteer SPIRIT

## Volunteering at an Academic Medical Center

By Bonnie Horner

Volunteers play a significant role in the success of the medical center by providing compassion and gracious support to patients and the community. They brighten the day and offer companionship to our patients and their family members. They also provide invaluable staff support services. The volunteers who walk the halls of the medical center contribute on average more than 30,000 hours per year of volunteered time, as well as resources and support for our team members.

Volunteers are involved in activities such as delivering flowers and gifts, cuddling NICU babies, and helping out in areas like the Cancer Institute. Hospital volunteers are also a valuable source of information for patients' families and friends, and they do especially important work in serving as liaisons during crucial times.



Volunteer Sue Todd assists visitor Janet Lundy.

Identified by their blue shirts and smiling faces, volunteers can be young adults or retirees, all ages and all backgrounds. Our nearly 300 volunteers are divided among Auxiliary workers, independent volunteers and junior volunteers.



First row from left: Barbara Kaminsky, Ethel Peterson, Barbara Tipton, Helen Kopp.  
 Second row: Stephanie Wayland, Carolyn Humberd, Garnet Hallock, Sylvia Poindexter,  
 Theresa Wright. Third row: Duane Johnson, Jolyn Davenport, Jim Grubb, Rusty Jackson,  
 Sue Hay, Gloria Blalock.

### Opportunities and Roles

- Provide companionship and support to patients of all ages who are hospitalized on nursing floors, in the ER or in other patient areas, so as to make their hospital stay as comfortable and pleasant as possible.
- Act as an advocate and liaison for patients and their families.
- Dispense information to patients, their families, and guests, either in person or on the telephone.
- Act as a messenger or patient escort.
- Distribute books, magazines, newspapers and games.
- Perform clerical duties.

### How You Can Help

By volunteering at The University of Tennessee Medical Center, you can help change our community and touch the lives of our friends, families and neighbors in a very special way. There is always a need for compassionate volunteers.

To learn how you can contribute, call **865-305-9515** or complete an online application at [utmedicalcenter.org/jobs/volunteering](http://utmedicalcenter.org/jobs/volunteering).

### Volunteer Contributions

Among our volunteers is the Auxiliary member group, which has its own board of directors. Members of the Auxiliary have a long-term commitment to service at the medical center, and they operate the gift shop and manage its profits as well as several other fund raisers on our campus. To date, the Auxiliary has contributed more than \$2 million to purchase equipment, support nursing scholarships and provide other medical resources that improve the lives of people in our community. Its support has contributed to various projects such as the private rooms in the Neonatal Intensive Care Unit and the completion of the new Health Information Center.

A special "Thank You" to all our volunteers who work hard every day to make sure our patients and family members have the best experience possible.

## Volunteer Spotlight

### Emergency Department

Volunteers in the Emergency Department assist the staff and help the trauma center function at its highest level. Volunteers attend to the needs of patients and their families, assist patient representatives, escort patients and visitors to their destination, stock blankets in the warmer, pick-up and refill supplies, collect wheel chairs and deliver samples to pathology lab. The Volunteers make a difference to our team members by providing additional support and also make a difference to our patients and family members by lifting their spirits with a warm smile and a caring touch.





# ONE BRIGHT IDEA & 45,000 DELIVERIES LATER

---

THE STORY OF  
HOW ONE MAN  
TURNED TRAGEDY  
INTO KINDNESS

By Larsen Jay



Larsen Jay, former patient at the medical center and founder of Random Acts of Flowers.

**I**t was during one of the darkest times in my life that I had an idea; a big, simple, exciting idea that would bring hope and a smile to more than 45,000 people.

The idea was born at The University of Tennessee Medical Center in July 2007, after I had been in a near-fatal accident. After treatment at the medical center, I embarked on a long recovery. In a generous outpouring of support, my family and friends sent flowers; lots and lots of flowers that made me feel loved and helped me recover.

When I was able to leave my room, my family took me for a spin in my wheelchair, and I saw a shocking contrast. My room was filled with flowers that gave me joy, but many other rooms had no flowers, no visitors, really no life. That's when I had an idea.

We went back to my room, loaded my wheelchair with flowers, and delivered them to my "neighbors": a man missing his garden, an injured woman with no visitors and no flowers. We couldn't fix her injuries, but the flowers lifted her spirits in seconds.

Six months later my wife, Adrian, and I used that experience to start Random Act of Flowers, repurposing flowers thrown away after weddings and other events and delivering them to hospitals, senior care facilities and hospice centers. Our goal continues to be bringing basic kindness and compassion to complete strangers, for no other reason than to create a smile by delivering flowers.

Our mostly volunteer organization is based on empathy and common sense: flowers make people feel better. Research shows that flowers can boost patients' positive attitudes and result in shorter hospital stays, less pain medication and less anxiety.

In a donated Knoxville warehouse, our volunteers deconstruct used arrangements and create new bouquets. We rely on nurses and caregivers to identify patients who need a little light and hope in their lives. It's a joy to be part of the change.

Since that impulsive act in 2007, Random Acts of Flowers has become a snowball of kindness. In 2013 we were able to take a little idea out of East Tennessee and spread the volunteer spirit across the country by establishing branches in Greeneville, Tennessee, and Tampa Bay, Florida with plans to seed branches in Salt Lake City, Cincinnati, Chicago, Silicon Valley, Indianapolis and Los Angeles in the next year.

With more than 45,000 deliveries in three markets, there is no shortage of people throwing away flowers and no shortage of individuals in the healthcare community who need a smile. We can't see why RAF couldn't be in every market across the country, or even, one day, the world.



Volunteers from the community came together to deliver the 40,000th flower delivery at the medical center on June 3.

*“Today was my first day of chemotherapy, and I was very scared and nervous. The flowers helped brighten my day.”*  
– Terry T.

*“We had to make the hard decision to move my grandmother to hospice. When we arrived in the room, the flowers from Random Acts of Flowers were definitely a bright spot in a hard day.”*  
– Kelly W.



# To Serve & PROTECT

*Two Belgian Malinois K-9's —Kimber and Koda— Join  
The University of Tennessee Medical Center Security Team*

By Brian Hitch

The two K-9 officers made their way to East Tennessee from Holland and ultimately to The University of Tennessee Medical Center to join its security department. The medical center is the first hospital in Tennessee to implement a dedicated, full-time K-9 program. The dogs, both Belgian Malinois, are Kimber, a 75-pound, 3-year-old female, and Koda, a 60-pound, 21-month-old male. They were certified by the internationally renowned training facility Cobra Canine, in Sweetwater, Tennessee. Their temperament, training and skill were selected to meet the needs of the security department and suit the environment of a healthcare facility. While the dogs are highly trained in responding to safety-related situations, their obedience training makes them quite approachable with permission from the handlers.


The Belgian Malinois breed is used as a working dog for tasks including scent detection of explosives, accelerants in arson investigation, narcotics and the like; the tracking of human suspects in police work; and search and rescue. The breed is known to be active, intelligent, friendly, protective, alert and hardworking. Alongside their handlers, Koda and Kimber are considered canine officers of the security department. The dogs are teamed with handlers from that department, and live with them and their families.



*Lt. Brandon Ingram and canine officer Koda, both members of the Security Department, walk the halls of the medical center. Koda displays a calm demeanor and a sense of self confidence in his mannerism—always attentive to his handler Lt. Ingram.*



To learn more about the K-9 unit at the medical center, visit <http://bit.ly/K9UTMC>

To learn more about Kimber and Koda see next page. 



A typical day for the K-9 unit is spent patrolling the medical center's campus. The dogs serve as a calming influence for patients, visitors and staff while also providing an extra layer of safety at the region's only academic medical center. Their presence is expected to be of great benefit during a time of rapid growth.

The K-9 program was funded with a \$25,000 grant from the medical center's Auxiliary that helped cover the purchase of the dogs. Volunteers with the Auxiliary hold fund-raisers throughout the year to provide additional equipment and meet other needs at the hospital.

*The Belgian Malinois breed is used as a working dog for tasks including scent detection of explosives, accelerants (in arson investigations) narcotics and the like; tracking of human suspects in police work; and search and rescue.*



**Koda**

**Name:** Koda, male

**Handler:** Brandon

**Weight:** 60 lbs.

**Birthday:** September 30, 2012, **Birthplace:** Holland

**Hobbies and Interests:** Most dogs love water, but Koda was born to swim—and of course protect.



**Kimber**

**Name:** Kimber, female

**Handler:** John

**Weight:** 75 lbs.

**Birthday:** August 11, 2011, **Birthplace:** Holland

**Hobbies and Interests:** Kimber is a hiking enthusiast and joins her handler on excursions near and far.



Kimber and her handler, Officer John Doogan, at the canine training facility in Sweetwater, Tennessee.

# Continuing Education Course Calendar

## October 24-25, 2014

Detection \* Diagnosis \* Treatment \* Survivorship

Holiday Inn World's Fair Park

It is projected that more than 1.6 million new cancer cases will be diagnosed in 2015. At the same time, more than half a million Americans are expected to die of cancer—nearly 1,600 people per day. Cancer is the second most common cause of death in the U.S., exceeded only by heart disease. However, nearly 16 million Americans with a history of cancer are still alive. This educational activity will provide up-to-date information for practicing healthcare providers regarding the latest in cancer detection and treatment. Presentations will include the roles of radiology, genetics and clinical trials and the implications of the Affordable Care Act.

**This activity is approved for AMA and ACPE credit hours.**

## November 3, 2014

Lean for Scheduled Healthcare

Haslam Business Building

University of Tennessee

Knoxville, Tennessee

This course uses the concept of lean processes, traditionally practiced in the manufacturing industry but applied now to improving efficiencies and eliminating waste in healthcare. It is appropriate for healthcare professionals, including physicians, nurses, pharmacists and others, as well as healthcare executives and those who impact medical and financial decisions in organizations.

**This activity is approved for AMA credit hours.**

## November 8, 2014

10th Annual Diabetes Regional Conference: Evolving Guidelines for Diabetes Management

University of Tennessee Conference Center

In the past few years, multiple clinical controversies have arisen over the management of diabetes mellitus and related diseases. This can be confusing to the busy primary care provider who may not have time to tease out all of the details of the literature. Some of these controversies include blood pressure treatment goals and medication selection; management of dyslipidemia, major depression; and chronic kidney disease, and providing care that is affordable to the patient. These clinical controversies have developed because of recent changes in treatment standards and new published data that should be highlighted for primary care providers.

Using case-based examples, the 10th Annual Diabetes Regional Conference: Evolving Guidelines for Diabetes Management will provide direct contact with individuals focusing on these health-related issues and offer guidance on treatment outcomes for patients in the area of diabetes mellitus and related diseases.

**This activity is approved for AMA, ACPE and AAFP credit hours.**

---

## College of Medicine Brings Alumni Reception to Knoxville

Chancellor Steve Schwab, Executive Dean David Stern, and Dean Jim Neutens invite all College of Medicine graduates, residents and faculty to an Alumni Reception, with Special Guest, Dr. Hershel P. Wall Friday, October 24, 2014, at 5:30 p.m. at the Cherokee Country Club in Knoxville. Please RSVP by October 16 to Pam Houston at [phouston@utfi.org](mailto:phouston@utfi.org) or 901.448.1164.

To register or for more information about these courses, visit our website at [www.tennessee.edu/cme](http://www.tennessee.edu/cme).



# Flying to Save Lives

## LIFESTAR Celebrates 30 Years of Service

By Bonnie Horner

On a clear day, look at the sky and you might see a white and orange helicopter flying over the ridges of the Great Smoky Mountains or above a rural town in southeast Kentucky. There's a "UT" on the helicopter's tail—the most telling indication that on board, three people are trying to save a life.

September marks the thirtieth anniversary of UT LIFESTAR's founding by Robert F. Lash, MD, to create the medical center's aeromedical critical transport. LIFESTAR serves eastern Tennessee,

southeastern Kentucky, southwestern Virginia and western North Carolina.

The University of Tennessee Medical Center in Knoxville is LIFESTAR's hub, as well as the tertiary referral center for 21 surrounding counties and the region's only Level I Trauma Center.



An early LIFESTAR Bell 222 helicopter landing at the medical center in 1985.

“ We are proud and honored to have provided such an invaluable service to the region for the past thirty years. During this time, UT LIFESTAR has transported more than 50,000 patients and has touched countless other lives throughout the region. We certainly could not have done this without the support of our colleagues in the region and our exceptional, dedicated flight teams. ”

— Jeff Gregory,  
director of Aeromedical Services

Last year LIFESTAR flew more than 2,000 patients to waiting medical teams at The University of Tennessee Medical Center and other area hospitals. The sight of those white and orange helicopters in the sky, and the thought of the crucial service they provide, will reassure the region's people for a long time to come.

Help is on the Way

Tuesday, April 22nd, 2014

“We live on top of a tall ridge in East Tennessee in a beautiful setting with a panoramic view of the Great Smoky Mountains. Frequently this serene setting is interrupted by the beat of the medical helicopter from The University of Tennessee Medical Center, which flies over our home on its way to the hospital.

When we first began noticing the helicopter, we were bothered by the noise. As time went on, we realized that each flight meant that someone was in dire medical need. Each time we heard the helicopter, we would pray—for the crew and the people involved with this mission of mercy, that all would work out well and according to God's plan.

One day we were able to see a profoundly brighter side to these situations. Yes, the medical helicopter is sent out in serious circumstances. But the mere fact that it is in transit implies that help is on the way.

Psalm 46:1 reminds us that “God is our refuge and strength, a very present help in trouble.” Today, we still pray for the helicopter crew and those receiving their services. But we also offer thanks that God is present, providing strength and comfort to each person.”

—Richard Armbrister (Tennessee, USA)

This material is copyrighted (April 2014) by The Upper Room, P.O. Box 340004, Nashville, TN 37203-0004, and is used by permission of the publisher.

Today LIFESTAR uses two American Eurocopter EC-135 helicopters and two Bell 407 helicopters, based at four different locations for the quickest transport to often lifesaving emergency care.

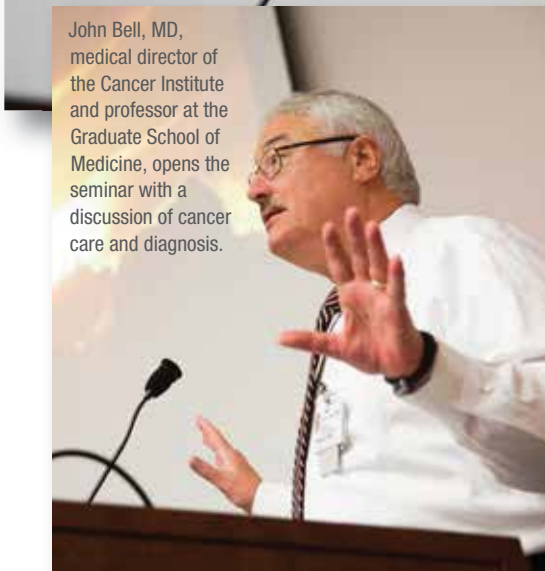


# Pastoral Care in Crisis and Illness

Continuing Education for East Tennessee Spiritual Leaders By Rev. Steve Sexton



Rev. Steve Sexton, director of the Pastoral Care Department, welcomes area spiritual leaders to their seasonal seminar.



John Bell, MD, medical director of the Cancer Institute and professor at the Graduate School of Medicine, opens the seminar with a discussion of cancer care and diagnosis.

As the only academic medical center in East Tennessee, The University of Tennessee Medical Center is addressing the needs of the community by providing local spiritual leaders with low-cost seminars offered by its Pastoral Care Department. The seminars' topics are centered on the spiritual and emotional elements of patient care, crisis ministry, bereavement and grief support.

More than eight in 10 physicians believe that better clinical outcomes can result directly from a patient's spiritual well-being. Yet pastoral care programs are often not accessible owing to a lack of resources.

The pastoral care seminars are funded by a grant from Trinity Health Foundation of East Tennessee and supported by the medical center's donations of resources, personnel time and fund-raising aimed at sustaining future workshops and educational seminars. In their inaugural year, the seminars and mentoring have brought more than 175 spiritual leaders together from across East Tennessee to

network with various community religious and medical leaders. Seminar participants from widely differing creeds have found common ground in their skill-sets and goals, and continue to consult with one another long after the seminars end.

The speakers have included members of the Pastoral Care Department, physicians, medical staff and psychologists. Their expert knowledge provides attendees with useful information about medical treatments and the emotional and spiritual issues surrounding crisis and illness, as well as discussions about the art of offering pastoral care to those in the community.

To learn more about upcoming seminars, call 865-305-9704.

# 5 minutes with a pharmacist

Expert advice from Shauntá M. Ray, PharmD, BCPS



Shauntá M. Ray, PharmD, BCPS, is an associate professor in the Department of Clinical Pharmacy at the University of Tennessee Health Science Center College of Pharmacy. She practices in family medicine with University Family Physicians at The University of Tennessee Medical Center.

## Testosterone Supplementation

### Q: How do I know if testosterone therapy is right for me?

A: An evaluation by your physician, which includes blood testing and a review of your symptoms, can help you and the doctor decide whether this therapy is right for you. Testosterone replacement therapy can be employed as a treatment for low testosterone, but using it to treat that condition alone isn't currently recommended. To find out whether testosterone therapy is the best treatment for you, talk to your doctor.

### Q: What testosterone levels are considered low?

A: The normal range for blood measurements of total testosterone concentration is usually about 300 to 800 nanograms per deciliter. However, low testosterone levels alone don't

Watch any football game or news program and you're likely to see one of those commercials about how testosterone supplementation can banish the "low T" blues and put spark back into your life. In fact, testosterone therapy has been a hot topic in doctors' offices for decades, and its benefits are up for debate in many health studies.

What are the established facts about testosterone supplementation? We asked our clinical pharmacist to give you answers to the most common questions.

require treatment. A complete evaluation of symptoms and testosterone levels is needed.

### Q: What are the symptoms of low testosterone?

A: They include a low sex drive, erectile dysfunction, a low energy level, depression and irritability. Many of these symptoms may overlap with symptoms caused by other medical problems and may not be due to low testosterone levels.

### Q: If my testosterone is low, will taking supplemental testosterone help?

A: If you have symptoms of low testosterone in addition to a low testosterone level, supplementation therapy may lessen the symptoms. But testosterone replacement is not without risks, and currently it isn't recommended for treating low testosterone levels in the absence of symptoms.

### Q: What are the risks of testosterone supplementation?

A: Some of the risks include acne, breast enlargement, fluid retention, increased aggression and mood swings, high numbers of red blood cells, worsening of sleep

apnea, worsening of prostate issues, and decreased sperm count. Additionally, some recent studies have shown a higher risk of cardiovascular problems and blood clotting in men taking testosterone therapy.

### Q: What are the benefits of testosterone supplementation?

A: Although the response to this therapy can differ in every man, improvements in energy level, mood, sex drive, bone density and muscle mass have been seen.

### Q: I'm a woman, so why do I need a testosterone test?

A: Women have small amounts of testosterone in their bodies, produced by the adrenal glands and ovaries. Testosterone levels that are too high or too low can cause symptoms and other problems in women as well. Information that supports routine testosterone replacement therapy for women is currently limited, and a woman who has concerns about her testosterone levels should discuss them with her doctor. Again, testosterone replacement is not without risks. In women, it has been associated with breast cancer, heart disease and blood clots.





# DISCOVER

## Personalized Health Education



To learn more about our Health Information Center and take a 360° virtual tour, visit <http://bit.ly/UTHIC14>

By Sandy Oelschlegel

Health education is a cornerstone of our patients' recovery and plays a vital role in their continued health. Yet, only 12 percent of the American public has proficient health literacy. Health literacy is the degree to which consumers can obtain, communicate, read and understand basic health information and services to make appropriate health decisions. Patients and family members who visit the medical center use health information to understand their choices in health care, communicate their preferences and decide which services best match their needs. To help address this issue, the newly opened Health Information Center at The University of Tennessee Medical Center provides our community, patients and families with the information they need and the experience of certified health information specialists that they deserve.

The Health Information Center is located within the main lobby, providing patients, family members and the community with valuable information on the latest health news and free research for specific diseases or illnesses. It is a point of entry that showcases an extensive health library and connects patients and the community to the outstanding physicians and clinical services of our hospital.

The new Health Information Center is staffed by professional medical librarians and library associates who are also certified consumer and patient health information specialists. Additional staffing is provided by graduate students from the School of Information Sciences at the University of Tennessee. It also provides dedicated space, resources and services to patients,

# Health Information Center



Martha Earl, MSLS, AHIP, helps a patient research reliable medical information related to her condition.



Professional medical librarians assist patients and family members in the Health Information Center.

their families and the community. The completion of the 10,500-square-foot Health Information Center marks the conclusion of a \$4.1 million campaign solely supported by philanthropic dollars.

The Health Information Center offers an extensive health library, digital and print resources, walk-in assistance, and help with research on specific health conditions—all free of charge. “When patients understand their medical condition and the options available to them, they can work more effectively with their team of physicians and other healthcare providers to design a customized treatment plan optimal for them,” said Joe Landsman, president and CEO of The University of Tennessee Medical Center.

**Hours of Operation:**

Mon. - Thurs., 8:30 a.m. - 9 p.m., Fri. 8:30 a.m. - 5 p.m.  
Sat. 9 a.m. - 5 p.m., Sun. 1 p.m. - 9 p.m.

Within the Health Information Center is Preston Medical Library where physicians, residents and medical students research pertinent health information. Preston’s founder was Howard Preston, a banker with a keen vision of the importance of information and libraries. In 1967, as chairman of the board of Knoxville’s Hamilton National Bank, he made a gift of \$25,000 that transformed a room full of books and journals into the Preston Medical Library. For nearly 50 years, healthcare providers and consumers have visited Preston Medical Library as their resource for health information. Today, members of the community and our patients have a new, easily accessible collection of health information delivered by expert medical librarians within the Health Information Center.



# Enhancing Medical Education

## New Programs Address Tennessee's Healthcare Needs

By Kandi Hodges



Hien Le, MD (right), is the first fellow participating in the Minimally Invasive Surgery/Bariatrics Fellowship, directed by Gregory Mancini, MD (left).

**Tennessee ranks No. 2 in the nation for obesity. Approximately one-third of the state's population age 18 or older is obese**

The University of Tennessee Medical Center and Graduate School of Medicine are enhancing medical education with three new fellowships that focus on obesity, children with special needs and facial birth defects. These fellowships at the Graduate School of Medicine are designed to address healthcare areas of interest in Tennessee.

### **Minimally Invasive Surgery/Bariatrics Fellowship**

Gregory Mancini, MD, associate professor of Surgery, specializes in bariatrics, a surgical treatment for weight loss. Through the Department of Surgery, he has created a Minimally Invasive Surgery/Bariatrics Fellowship that will educate surgeons in this obesity treatment as well as enhance research and general surgery residency education.

With its robotics component, the fellowship is considered the first of its kind. Mancini says that minimally invasive robotics is a growing field of medicine with several benefits. The tools used to perform the surgery can move in multiple directions, unlike those in traditional laparoscopic surgery, so physicians have better range of motion. Also, a camera shows the operation on a monitor, providing surgeons with better visualization throughout the procedure. With the Comprehensive Robotics Program available at The University of Tennessee Medical Center, the Graduate School of Medicine is on the cutting edge of advanced technology education.

Hien Le, MD, General Surgery Residency alumnus, is the first fellow in the program.

### **Dental Operating Room Fellowship**

O. Lee Wilson, DMD, associate professor and chair of Dentistry, has initiated a Dental Operating Room Fellowship, the first of its kind, to fill a growing demand for treatment



A new Dental Operating Room fellowship will equip dentists to treat patients with special needs.

**For licensure, a medical doctor must complete a residency program in a specialized area of care. Following residency, the doctor may begin practice or may choose to complete a fellowship in an advanced skill. Fellowships are typically one-year programs. The UT Graduate School of Medicine now offers 10 fellowship programs in addition to 11 residency programs.**

While the Asian population has a higher incidence of cleft lip and palate, it is surprisingly common in the United States as well.

of special-needs patients. Wilson has been working with special-needs children for more than 27 years through the Department of General Dentistry, and he has found that the best method to treat overly sensitive patients is to take them into the operating room so that they can be put to sleep through anesthesia.

The one-year program will provide specialized dental education in the operating room as well as rotations in Anesthesiology, Family Medicine, and Oral and Maxillofacial Surgery. Participating fellows will also create and oversee simulated training exercises performed at the UT Center for Advanced Medical Simulation by dentistry residents and dentists in the community.

Practicing dentistry differs from practicing medicine in that dentists are not required to complete a residency for licensure. The UT Graduate School of Medicine has offered a one-year postdoctoral program in Dentistry since 1977, and recently several residents have continued through a second year. Dentists who complete residency gain more experience in the clinical setting as well as experience in a hospital and academic setting. John Coulter, DDS, a recent graduate from the General Dentistry Residency two-year program, is the first fellow to participate.

### **Cleft and Craniofacial Fellowship**

Brian Richman, DDS, Oral and Maxillofacial Surgery alumnus, initiated a Cleft and Craniofacial Fellowship to fulfill his interest in cleft lip and palate surgery and craniofacial surgery. He developed his interest while on a two-year mission trip to Taiwan prior to medical school.

It wasn't until Richman expressed his interest to Eric Carlson, DMD, MD, OMFS, chair and residency program director, that he realized the advanced medical education he needed was possible through the UT Graduate School of Medicine. By partnering with East Tennessee Children's Hospital's Cleft and Craniofacial Clinic, recognized by the American Cleft Palate-Craniofacial Association and Cleft Palate Foundation as an approved cleft palate team, Richman is developing in-depth knowledge and receiving hands-on training.

**According to the Centers for Disease Control and Prevention, each year 2,650 babies in the United States are born with a cleft palate and 4,440 babies are born with a cleft lip with or without a cleft palate.**

Carlson said, "As OMFS program director at the Graduate School of Medicine, it is my responsibility to ensure that every opportunity is available to residents during residency and after."

The one-year fellowship is offered through the UT Graduate School of Medicine at The University of Tennessee Medical Center.

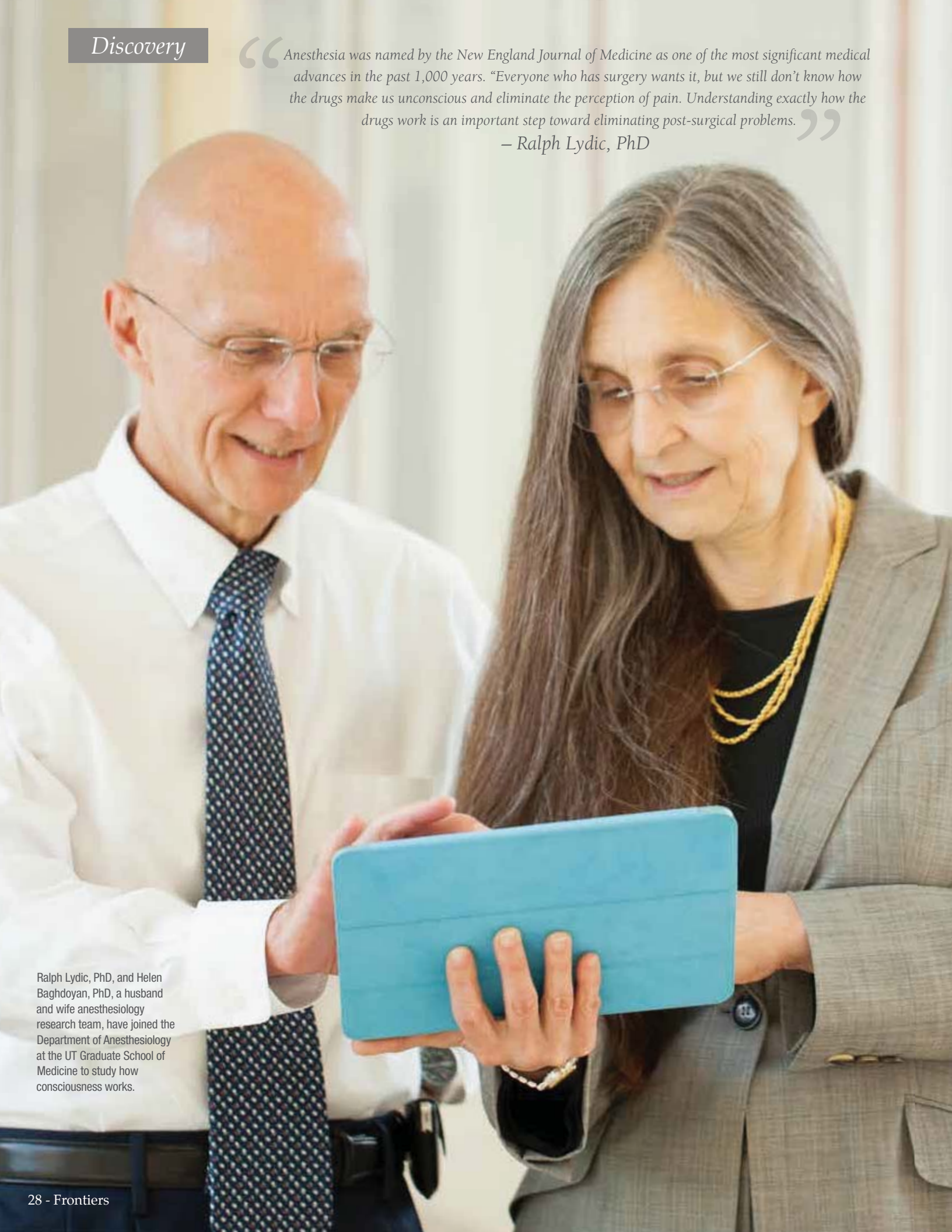


Brian Richman, DDS, fellow, developed an interest in cleft lip and palate surgery while on a two-year mission trip to Taiwan prior to medical school. His interest led to the development of a new fellowship in Oral and Maxillofacial Surgery.



“Anesthesia was named by the New England Journal of Medicine as one of the most significant medical advances in the past 1,000 years. “Everyone who has surgery wants it, but we still don’t know how the drugs make us unconscious and eliminate the perception of pain. Understanding exactly how the drugs work is an important step toward eliminating post-surgical problems.”

– Ralph Lydic, PhD

A photograph of two people, a man and a woman, looking at a tablet together. The man on the left is bald, wearing glasses, a white shirt, and a blue patterned tie. The woman on the right has long grey hair, is wearing glasses, a black top, a gold necklace, and a grey blazer. They are both smiling and looking at a blue tablet held by the woman.

Ralph Lydic, PhD, and Helen Baghdoyan, PhD, a husband and wife anesthesiology research team, have joined the Department of Anesthesiology at the UT Graduate School of Medicine to study how consciousness works.

# Discoveries of the Conscious Mind

## World Renown Neuroscientists Lead Brain Research in Knoxville

By Kristen Bass

New research in the Department of Anesthesiology is aimed at understanding the chemical and electrical differences between consciousness and unconsciousness, an effort that could also lead to better understanding of disorders such as autism and schizophrenia.

To lead this endeavor, Ralph Lydic, PhD, and Helen Baghdoyan, PhD, who are world renown neuroscientists and considered one of the most productive couple collaborations in the history of anesthesiology research, have brought their skills and expertise to The University of Tennessee Medical Center.

They hold joint appointments with the Department of Anesthesiology at the UT Graduate School of Medicine, the Department of Psychology at the university's College of Arts and Sciences, and Oak Ridge National Laboratory, creating an environment of collaboration among facilities with some of the most advanced technologies and researchers in the country.

Robert M. Craft, MD, professor and vice chair of Anesthesiology, said, "I want to understand how consciousness works. Anesthesia reversibly interrupts consciousness and thus offers an opportunity to study both states in the same individual. Discoveries by Lydic and Baghdoyan have led anesthesia researchers around the world to use states of sleep as a tool for efforts to understand states of anesthesia.

"The aim is to find a common change in brain chemicals or electrical activity across the spectrum of anesthetic agents. Whatever process goes away and comes back with the onset and reversal of anesthesia—that is the minimum requirement for consciousness."

---

*The hope is that by discovering the basic requirement for consciousness through their research, they can also arrive at a fuller understanding of disorders of consciousness, such as autism and schizophrenia.*

---

Over the past 20 years, Lydic and his collaborators have shown evidence for the "shared circuit hypothesis," which contends that the brain regions and mechanisms involved in normal sleep have similarities with those in anesthesia-induced sleep.

Studying sleep from a different angle, Baghdoyan has concentrated her research on identifying the chemical differences between normal sleep, wakefulness and anesthesia as they relate to the brain's electrical activity. She has

shown that some of the systems involved in sleep cycles are also involved in anesthesia.

Craft hopes that by discovering the basic requirement for consciousness through their research, they can also arrive at a fuller understanding of disorders of consciousness, such as autism and schizophrenia. Establishing a broad neuroscience effort across multiple institutions in and around Knoxville is the ultimate goal in his recruitment of the two researchers.

Before coming to the medical center, Lydic and Baghdoyan established nationally recognized research programs, first at Penn State University and most recently at the University of Michigan, that have gained national fame for their contributions. Their research has been continuously funded since 1988 by grants from the National Heart, Lung and Blood Institute.

In 2012 the American Society of Anesthesiologists presented Lydic with its Excellence in Research Award. He is a founding member of the Society of Anesthesia and Sleep Medicine and serves on the board. In addition, he is chairman of the External Advisory Council of the National Space Biomedical Research Institute.

Craft said, "We are proud to have Dr. Lydic and Dr. Baghdoyan at our research facility, and we look forward to making new contributions toward an understanding of how the brain works."



# Newborns at Risk

## A Breakthrough Standard in the Prevention of Strep B

By Kandi Hodges

Good prenatal care includes a number of tests throughout pregnancy. Some of these screenings are well known, such as the glucose test at 28 weeks, and some are more mysterious, such as the strep B test at 35 to 37 weeks.

Group B streptococcus (GBS) is a type of intestinal bacterium, typically harmless in adults, that can be transmitted to newborn babies and cause serious illness. The percentage of babies born with GBS has dropped significantly over the past 50 years through prevention protocols and guidelines established by the Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists. It may continue to decrease thanks to research by Craig Towers, MD, an associate professor of obstetrics and gynecology at The University of Tennessee Medical Center. Currently one in 2,000 babies born in the U.S. are affected by GBS, according to the American Pregnancy Association.



Traditional GBS prevention in infants calls for the administration of penicillin to the mother during childbirth. However, in instances where women are at high risk for penicillin allergy, the alternative treatment of choice has been the antibiotic clindamycin. But resistance to this antibiotic has been on the rise for the past 20 years, and now Towers says that vancomycin is becoming “the first-line choice” for GBS prevention in penicillin-allergic patients.

With vancomycin treatment on the rise, Towers led a study—the largest one to date—to determine appropriate dosing. He found that current guidelines are inadequate and, on the basis of his research, recommends a more stringent regimen that is safe for both the mom and the baby.

“The main issue with the current guidelines is that if you undertreat for GBS, you may create resistance to vancomycin,” Towers said. “Then what options do mothers have to fight infection if they can’t take penicillin?”

Towers presented his research findings at the Society for Maternal-Fetal Medicine annual meeting, the largest obstetrical research meeting in the world. He says he believes that the dosing guidelines recommended in his study will become the new treatment standard.

Co-authors of the study include Cheryl Onwuchuruba, MD; Bobby Howard, MD; Mark Hennessy, MD; Lynlee Wolfe, MD; and Suzanne Brown, MD.

# ASK the EXPERT?



## New Screening Guidelines for Mammograms

John L. Bell, MD, medical director of the Cancer Institute and professor at the Graduate School of Medicine, specializes in breast cancer treatment and research initiatives.

Breast cancer is the most common cancer among women in the U.S. We know from decades of research that the key to survival is early detection.

The U.S. Preventive Services Task Force (USPSTF), a group of independent health experts convened by the Department of Health and Human Services, has made sweeping changes in its recommendations concerning breast cancer screening.

The USPSTF's new recommendations, based on its research are:

- Routine screening of average-risk women should begin at age 50 instead of age 40.
- Routine screening should end at age 74.
- Women should get screening mammograms every two years instead of every year.
- According to findings from several large studies, breast self-exams have little value.

The new recommendations may leave some women confused, since the American Cancer Society continues to recommend annual mammography screening for all healthy women beginning at age 40.

What's the bottom line on mammogram screening? The University of Tennessee Medical Center Cancer Institute asked its medical director and breast cancer expert, John L. Bell, MD, to answer some common questions about the new screening guidelines.

**Q: Why does the USPSTF no longer recommend routine screening for women at average risk before age 50 and after age 74?**

**A:** When the USPSTF looks at the available data from a statistical perspective, its conclusion is that screenings can cause more confusion than its benefit in younger and older women. The medical community doesn't uniformly accept this. For instance, at the Cancer Institute we continue to recommend annual screening mammograms for women without breast health problems, beginning at age 40 and continuing indefinitely if other medical considerations permit.

**Q: What if I find a lump and I'm younger than 50 or older than 74?**

**A:** It should be evaluated. The USPSTF's position applies only to women who don't have breast health issues. But if a woman notices a lump or any other unusual symptom, it should be evaluated regardless of her age.

**Q: Why is the USPSTF recommending routine mammograms every two years instead of every year?**

**A:** Because its analysis of the data failed to show a statistically significant value in annual screening versus screening every other year. This is extremely controversial, primarily because the studies the USPSTF reviewed didn't follow women long enough to see whether some developed cancer in the interval between one screening and the next.

**Q: The new guidelines don't apply to women at high risk for breast cancer. How often should these women be screened?**

**A:** At the Cancer Institute's Breast Center we screen high-risk women annually, and in some cases every six months. Women with strong family histories of breast or ovarian cancer or with a known genetic mutation that predisposes them to breast or ovarian cancer are often screened twice a year, once with a mammogram and once with an MRI.

**Q: Who can I call to make an appointment for a screening mammogram?**

**A:** Anyone who wants to make an appointment for a screening mammogram can call University Breast Center at 865-305-9069 or visit [utmedicalcenter.org](http://utmedicalcenter.org).

**Q: What effect have the new recommendations had on insurance?**

**A:** They can and have made it difficult to get some screenings approved. Under the Affordable Care Act, women's preventive health care—such as mammograms, screenings for cervical cancer, prenatal care and other services—generally must be covered by health plans. However, always speak with your health insurance provider for specifics about your plan coverage.



Non-Profit Org.  
U.S. POSTAGE  
**PAID**  
Permit No. 575  
Knoxville, TN

Wisdom for Your Life.

1924 Alcoa Highway  
Knoxville, Tennessee 37920-6999

[www.utmedicalcenter.org](http://www.utmedicalcenter.org)

## Recognized Nationally. Benefiting East Tennessee.



# BEST HOSPITAL IN EAST TENNESSEE

**GOLD NATIONALLY RECOGNIZED**

Pulmonology

**SILVER HIGH-PERFORMING**

Cancer • Cardiology & Heart Surgery • Diabetes & Endocrinology • Ear, Nose & Throat  
Gastroenterology & GI Surgery • Geriatrics • Gynecology • Nephrology • Orthopaedics • Urology

**UT** THE UNIVERSITY OF TENNESSEE  
**MEDICAL CENTER**

Wisdom for Your Life.

*Our Mission* | To serve through healing, education and discovery



**Subscribe**

Frontiers e-Newsletter is now available for readers who want a sneak peak at the print version. Frontiers is a publication of The University of Tennessee Medical Center and UT Graduate School of Medicine, published in the Spring and Fall to tell stories of healing, education and discovery. Subscribe to Frontiers today by scanning the QR code or visiting [bit.ly/UTFrontiers](http://bit.ly/UTFrontiers)