Making a splash

Innovative knee surgery gets MU diver back to breaking records

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Welcome to the second issue of MU Health, a magazine featuring stories about patient care, education and research at the University of Missouri Health System.

These are exciting times as we are expanding our clinical and educational facilities to meet the needs of Missourians.

In June, we broke ground for an 85,000-square-foot expansion to the Missouri Orthopaedic Institute in Columbia. The four-story expansion will help us meet patient demand by adding operating rooms, hospital rooms and clinical areas. It also allows us to expand space for the institute’s innovative research projects for bone and joint treatments.

In May, Gov. Jay Nixon approved $10 million in fiscal year 2016 funding for the MU School of Medicine’s planned class expansion in Columbia and for a clinical campus in Springfield in collaboration with CoxHealth and Mercy health systems. We anticipate the expansion will provide more than 300 additional doctors in Missouri, and more than $390 million annually to Missouri’s economy and create 3,500 new jobs.

To learn more about the great work and accomplishments at the University of Missouri Health System, visit our websites, muhealth.org and medicine.missouri.edu, or give us your feedback on our social media sites. We look forward to hearing from you.
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MU medical students are in high demand for residency training throughout U.S.

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Worth the 10-hour drive

“I want to thank all the staff at the E.R. for their prompt attention to my husband, Jerry. My husband was traveling from Alabama on his way to Idaho and became nauseated and dizzy. He stopped at a nearby rest area thinking he only had a virus that would soon pass. Many hours later he was no better. I drove 10 hours from Alabama to his location. He was very dehydrated and still experiencing nausea and dizziness. I saw the signs for University Hospital on the drive to my husband’s location.

“We were both very nervous about going to a hospital out of town. The staff put us both at ease. We had zero wait time and everyone he encountered showed concern.

“My husband was treated for dehydration and symptoms for vertigo. Our visit to University Hospital ranks as the No. 1 best of any of our past hospital experiences. We would highly recommend this hospital to anyone. Great Job!”

Benita Parker
Section, Alabama

Awesome ultrasonographer

“I had my yearly mammogram and received a call to come back for more views as well as an ultrasound. Cathy called me and was so very nice as well as reassuring. She was able to schedule the follow-up views very quickly.

“It was a concern to be asked to come back, but I was taken care of in a prompt and caring manner. I want to say a huge thank you to Courtney Camp, who did my ultrasound. She was awesome! From the welcoming smile to the professional manner to the extremely kind and caring way she did the exam, she made the entire experience so much easier and made me feel so much better. MU Health Care is very lucky to have such a delightful and caring person on their staff. Thank you, Courtney!”

Vicki Babb
Columbia, Missouri

Quality care, quality people

“We were so grateful for the wonderful care during my husband’s stay. The staff on the general surgery floor (7 West) at University Hospital were outstanding. We wish to specifically note Dan, Karen, Brooke, Robbie and James. They went above and beyond to care and accommodate every need.

“Though the hospital was very busy and crowded during our stay, we never once felt rushed, put on the back burner, or like we were a burden to them. Everyone mentioned was exceptional and friendly, and very careful to explain everything in a way we could understand. While all needs were met as soon as they were mentioned, many were met beforehand. We appreciate the quality of care and the quality of people.”

The Nicholas Geisert Family
Owensville, Missouri
Picking the Best Provider

Where should you turn when your regular doctor isn’t available? When you’re injured or have a sick child, the last thing you want to do is try to decide where to get care.

When you need to see a health care provider immediately with no appointment, you can drop by one of three Mizzou Quick Care clinics in Columbia, Missouri. Our Quick Care clinics are open to everyone two years and older who might need treatment for routine illnesses or common conditions. The clinics also offer employment screening physicals, sports physicals, pregnancy tests and limited adult immunizations. For patients who do not have a primary care physician and those who need follow-up care, Mizzou Quick Care clinic staff can help you find a primary care physician and schedule an appointment. The Quick Care clinics are conveniently located inside each of the three Hy-Vee supermarket stores in Columbia and are staffed by nurse practitioners, who can prescribe medication.

Urgent Care is designed to complement services provided by your primary care physician when your doctor’s office is typically closed or you need immediate medical treatment. The clinics treat patients of all ages. Our urgent care facilities are located at the South Providence Medical Park building and MU Women’s and Children’s Hospital. We provide X-rays and some lab work. Our Urgent Care clinics are staffed with board-certified family medicine and urgent care specialists.

Emergency rooms at University Hospital and MU Women’s and Children’s Hospital offer care for major or serious life-threatening illnesses and injuries. If you or your loved one are having a medical emergency, please call 911 or immediately go to the closest emergency room.

Cut out this page and display it on your refrigerator for quick reference.
In the Nick of Time

Stroke patient's journey proves that every second counts

On most afternoons, Latisia Wiggins’ pet Chihuahua keeps her company while her daughter, Lorinda Webb, is at work. So, it was a strange coincidence that on the afternoon of Jan. 29, 2015, her daughter happened to be at their home in Brookfield, Missouri.

“One minute I had fixed her a grilled cheese and she was sitting down to eat it and the next I hear her moaning from the living room,” Lorinda said.

What Lorinda thought was the sound of her mom’s moaning was actually Latisia trying to talk to her. But the left side of her face had become paralyzed. Latisia was having a stroke, and, in addition to the sharp pain she felt on the right side of her head, she was panicking because she could not move her arms or legs.

“I told her that God intended for her to be there because had she not been there, I would have died,” Latisia said.

Minutes later, the ambulance crew arrived and the decision was made to transport Latisia via helicopter from Pershing Memorial Hospital in Brookfield, Missouri to Columbia. Lorinda requested that her mother be taken to the University of Missouri.

The next thing Latisia remembers, she was being awakened after surgery by a nurse in University Hospital’s Neurological Intensive Care Unit.

Fifteen minutes before Latisia’s helicopter touched down, the stroke team at University Hospital in Columbia was activated and waiting for her. By the time daughter Lorinda completed the 1.5-hour drive from Brookfield to University Hospital, Latisia was already in recovery. The stroke team updated her along the way.

Latisia received clot-busting medication, tPA. Latisia’s clot is removed during a surgical procedure.

Twelve miles outside of Moberly, Missouri, Lorinda received several phone calls within five minutes. First, a pharmacist called to let her know about the medication being administered to her mother, then a nurse called to let her know Latisia would receive medication to break up the clot. Vikas Gupta, MD, neurological interventionalist, then called to let Lorinda know they were taking her mother in to surgery.

**Making every second count**

The longer a stroke goes untreated, the greater the potential for brain damage and disability. In 2014, the stroke team at MU Health Care treated approximately 61 percent of eligible stroke patients with the clot-busting drug tPA in less than 45 minutes after they arrived at University Hospital’s emergency room. Nationally, only 24 percent of eligible patients are treated in less than 45 minutes.

Latisia Wiggins received tPA within 32 minutes of her arrival.

**TIMELINE OF LATISIA WIGGINS’ STROKE AND CARE**

**JAN. 29, 2015**

1:15 p.m. Latisia Wiggins experiences a stroke at her home in Brookfield, Missouri. Daughter Lorinda Webb calls 9-1-1.

1:30 p.m. Paramedics arrive and determine that Latisia should be life-flighted from Pershing Memorial Hospital in Brookfield to University Hospital.

3:00 p.m. The stroke team at University Hospital in Columbia is activated.

3:15 p.m. Latisia arrives via helicopter and is rushed inside. The stroke team immediately begins assessing her.

3:47 p.m. Latisia receives clot-busting medication, tPA.

4:00 p.m. Latisia’s clot is removed during a surgical procedure.

Latisia Wiggins, shown with her dog, Darla, at home in Brookfield, Missouri, is thankful for the emergency care she received at University Hospital following a stroke.
about Latisia’s case is that less than 24 hours after she arrived in our care, she had just trace weakness on her left side. Her symptoms were pretty much completely resolved. “If Latisia’s stroke wasn’t treated at the right time by a specially trained team, she might have been permanently disabled. “There are three key factors in this case that likely contributed to Latisia’s outcome,” Nanda said. “First, she was transferred rapidly. Secondly, the team at MU Health Care was able to complete all of the imaging needed and administer the tPA medication quickly. Third, we were able to get her to the catheterization laboratory very quickly after that.”

Both Latisia and her daughter agree that while they didn’t like the reason they were there, the care they received at University Hospital was phenomenal. “I’ve never seen a doctor care for a patient in the way that they do,” Latisia said. “You have some of the best nurses and doctors ever, and I would recommend them to anyone who needs neurological care.”

“The timing of this case really exemplifies our streamlined approach to stroke care of all of our patients that arrive in the emergency room and it is just getting better,” said Pradheep Sahota, MD, professor and chair of the Department of Neurology.

“The stroke team was wonderful,” Lorinda said. “They told me when she arrived at University Hospital that she had a 50 percent chance she wouldn't be able to use the left side of her body again, but she can.” Latisia and her daughter have been impressed by the level of follow-up care. Gupta calls weekly to check on Latisia’s condition.

“I tell everyone that GNG saved my life (God, Nanda and Gupta).” - Latisia Wiggins
Medical Students Thank Legacy Teachers

Unique program celebrates patients’ role in teaching future doctors

The University of Missouri School of Medicine celebrated the important role that patients and their families play in the education of medical students with its 10th annual Legacy Teachers luncheon on April 17 in MU’s Reynolds Alumni Center.

The Legacy Teachers™ Program, which culminates with the luncheon, invites third-year medical students to submit essays, artwork or poetry describing the patient they recognized as one of their greatest teachers. Patients and their families are invited to the luncheon, where medical students honor their Legacy Teacher. An MU original program, it was started under the leadership of Betsy Garrett, MD, and Linda Headrick, MD, and their colleagues. This year, 24 third-year students honored dozens of these special teachers at the luncheon.

The individuals honored are called Legacy Teachers because they have taught their students important lessons that will last throughout the physicians’ careers and positively affect future patients, creating a powerful legacy for generations to come.

“The Legacy Teachers™ Program provides a way for students to thank and honor these very special teachers,” said
Learn more about MU’s Legacy Teachers Program™ at medicine.missouri.edu/legacy.

Linda Headrick, MD, senior associate dean for education at the MU School of Medicine. “It helps students learn to reflect on their experiences and develop a better appreciation for patient-centered care.”

The ability to deliver effective patient-centered care is a hallmark of MU’s medical school. It is one of the eight key characteristics MU faculty emphasize to students to achieve excellence in during training and practice. This care includes respect for individual patient values, preferences and needs, as well as shared decision-making and active patient participation.

“The program is one of the ways we ensure that our graduates’ care will be marked by compassion, empathy and patient advocacy,” said Betsy Garrett, MD, the William C. Allen Professor in Family and Community Medicine and the program’s foremost champion and organizer. “During the process of caring for others, our students learn a great deal about themselves and the type of physicians they will become.”

The University of Missouri School of Medicine created the Legacy Teachers™ Program in 2005 to recognize that patients are among the best and most memorable teachers for physicians. With the program well established at MU, efforts are underway to expand the program to other medical schools.

Representatives from several schools, including Case Western Reserve University, Tufts University, University of Kansas — Wichita and University of North Carolina, joined MU faculty, staff, students, patients and their families to experience the event. Following the luncheon, the group met with MU’s organizers to discuss implementing the Legacy Teachers™ program at their own medical schools.

“The program has a great impact on our medical students’ understanding of the doctor-patient relationship,” Garrett said. “Now, the goal is to share the lessons we’ve learned during the past 10 years and expand the program to other medical schools. We’re excited to spread the word about Legacy Teachers and hope that one day patients will be celebrated as the tremendous teachers they are in every medical school in the country.”
Ties that Bind
Son donates kidney to father

Riding his motorcycle, hunting and camping are on Bob Mullett’s to-do list this summer. Since undergoing a kidney transplant at the University of Missouri in January 2015, Mullett said he feels like he has a second chance at life.

“I feel fantastic,” he said. “I wouldn’t wish kidney disease on anyone, but if you get a chance to get a transplant, I fully recommend University Hospital.”

“Bob used to take three to five naps a day,” said Bob’s wife, Vickey Mullett. “Now he has more energy than I’ve seen in years.”

The Mulletts, married 38 years, live in Eldon, Missouri. Bob and Vickey’s close-knit family includes daughters Michelle and Tina and son Bobby, who donated his left kidney to his father.

“I can’t understand people saying that I’m a hero for donating a kidney,” Bobby said. “Lots of people say they couldn’t give a part of their body, but I think if it comes down to someone in their family, they could.”

Addressing the need
High blood pressure, or hypertension, caused Bob Mullett’s kidneys to fail. Two years ago, his doctor told him that his kidneys were functioning at 50 percent. By the time he underwent his transplant procedure at University Hospital, his kidneys were working at 14 percent. If not for the transplant, he would have been required to undergo a rigorous dialysis schedule multiple times weekly.

Bob, 70, accepted that he might require dialysis and be placed on a waiting list for a donor kidney. It was harder for him to accept his son’s willingness to donate one of his healthy kidneys. Once Bobby, 34, knew his father needed a kidney transplant, he was adamant about donating one of his.

“Waiting was the hardest part,” Bobby said, referring to the extensive medical screening process to ensure that a volunteer donor is a good match and in top mental and physical condition.

The screening process takes approximately six months. Prospective donors must undergo a battery of tests that
include blood draws, EKGs, ultrasounds, X-rays and a stress test. To be a good match, the transplant team looks for the same blood type and six specific antigens, or proteins on cells, that are markers for a good match. As Bob’s son, Bobby was guaranteed to have at least three of the same antigens. Tests revealed they had four matching antigens, a good sign.

A silver lining

University of Missouri Health Care’s renal transplant program was founded in 1972. More than 1,100 patients have undergone kidney transplants at MU. MU Health Care’s nephrology program is ranked among the top in Missouri by U.S. News and World Report’s 2014-15 rankings.

Ramesh Khanna, MD, said hypertension, diabetes and a disease named glomerulonephritis are the most common causes of kidney failure. Khanna, the Karl D. Nolph, MD, Chair in Nephrology, is a nephrologist, or kidney specialist, and co-director of University of Missouri Health Care’s kidney transplant program. In his 32 years at MU Health Care, Khanna has seen numerous patients through dialysis treatments as well as transplants.

“If my patients are eligible for transplantation, that is generally what I recommend,” Khanna said. “Kidney transplant is a silver lining for patients with chronic kidney disease. I find it’s a life-changing treatment.”

Surgery and recovery

Bob, who parachuted from planes as a paratrooper in the 82nd Airborne Division of the U.S. Army in the 1960s, has a simple philosophy for facing fear: tackle it head on.

“If you let your fear incapacitate you, you’ll be afraid forever,” Bob said. “Being in the military, you learn that you have to trust your ability and the ability of those around you. I trusted Dr. Wakefield and everyone at the hospital.”

On Jan. 13, 2015, the Mullett family gathered at University Hospital. While Bob and Bobby underwent their operations, Vickey and Bobby’s fiancée, Blair Hendricks, received updates from the staff on the procedures.

Urologist Stephen Weinstein, MD, led a three-hour procedure to remove Bobby’s left kidney. Minutes later, urologist Mark Wakefield, MD, the director of University Hospital’s renal transplant program, began the five-hour surgery to transplant the kidney into Bob. Wakefield attached the organ to the renal artery above Bob’s bladder. Bob’s two failing kidneys were not removed and will either continue to function poorly or die. His body now depends on the donated kidney from his son. Bob’s new kidney began working almost immediately after the surgery.

“Our experience at University Hospital was wonderful,” Vickey said. “They would ask me, ‘what do you need?’ I felt like they cared about me as much as my husband and son.”

Neither patient remembers much about their week in the hospital following the surgeries. Bob immediately started taking immunosuppressant drugs and must take them for the remainder of his life to keep his body from rejecting the donor kidney. Both endured pain shortly after the surgeries.

“The pain was tolerable,” Bobby said. “It hurt but it was tolerable. My dad gave me life and I was able to give him his life back.”

Following surgery, Bobby’s remaining kidney was functioning at 52 percent. At a follow-up visit in March, it was up to 78 percent and Khanna expects that it will return to nearly 100 percent. Both father and son are pleased with their recovery and praise the transplant team, which includes nurse coordinators, dietitians, social workers and pharmacists, in addition to urologists and nephrologists.

“I wouldn’t wish kidney disease on anyone, but if you get a chance to get a transplant, I fully recommend University Hospital.”- Bob Mullett

“The people are just outstanding,” Bob said. “I’ve never had such a great group as the transplant people.”

Six months after the operation, Bobby is preparing to attend a police academy following his graduation from Columbia College with an associate’s degree in criminal justice. Bob and Vickey are making travel plans. Their first long-distance motorcycle trip following Bob’s transplant took them to a bike rally in Arkansas.

“I see a brighter Bob,” Vickey said. “His color is much better. I see a more intense bond between Bob and Bobby now. They’ve always been close, but I think this brought them closer.”

Kidney specialist Ramesh Khanna, MD, chats with Bob Mullett at a follow-up appointment in April 2015, nearly three months after Bob’s kidney transplant.

Bob and Vickey Mullett, right, enjoy spending time with their family, which includes son Bobby, middle, and grandchildren Brent, Robby and Nevaeh.
“IT’S AMAZING THAT I WASABLE TO COME BACK AFTER SUCH A BAD INJURY. I AM REALLY GRATEFUL.”
- LOREN FIGUEROA
Loren Figueroa’s knee injury nearly ended her athletic career as a diver on the University of Missouri’s Swim and Dive team.

“I cannot imagine my life without this sport,” Figueroa said. “It is my life. I always wanted to dive in college. In high school, I drove an hour every day to practice.”

The Houston, Texas, native chose to attend Mizzou in large part for its diving program. She made a big splash her freshman year in 2012, claiming five first-place finishes in the 1-meter dive and one first-place finish in the 3-meter dive in the regular season. Advancing to finals, she was named the Big 12 Diver of the Year and earned All-American honors after finishing second on the 1-meter dive at the National Collegiate Athletic Association (NCAA) Championships.

Figueroa injured her knee while warming up at the NCAA Championships. Her foot swung out in front of her and her heel hit the springboard, hyperextending her knee. She competed through the pain, but two days later her knee locked up and she couldn’t straighten it.

A cutting-edge procedure

James Stannard, MD, an orthopaedic surgeon and medical director of the Missouri Orthopaedic Institute, performed an arthroscopic procedure on Figueroa’s knee. She had torn all the cartilage on her medial femoral condyle on her left knee.

“We tried a microfracture technique, which is a ‘gold standard’ for this type of injury, and it failed,” Stannard said.

If Figueroa had not been at the Missouri Orthopaedic Institute, she may have been told that she would have to give up sports. Too young for a total knee replacement, athletes with knee injuries like Figueroa’s often retire early and cannot exercise beyond walking.

“Articular cartilage injury is an area that causes a lot of patients to lose the ability to use their knee joint because of a small area of arthritis,” Stannard said. “Think of a pothole in a road. A pothole can make it difficult to use that road. Articular cartilage is the surface that allows you to bear weight on that knee in a painless manner when you bend and straighten that knee. If you get a hole in that cartilage, it’s like a pothole where it no longer smoothly bends and straightens and it can cause a great deal of pain. In an older patient, joint replacement is the treatment of choice. In a younger patient, that is not an option. A lot of patients have lost the ability to do what they love to do.”

Finishing her freshman year with an injury, Figueroa worried that her first year of college competition would be her last.

“I saw my dreams going down the drain,” she said.

Fortunately, Stannard excels at a new, regenerative cartilage transplant technique in which live cartilage is transplanted into an injured area.

“We’re putting in live cells that, if they take, will keep replenishing the cartilage and matrix around that cartilage to where, just like your own cells, they’ll keep replenishing it for your lifetime,” Stannard said. “The tissue is alive and rebuilding itself.”

Stannard has performed the surgery on hundreds of patients and described the procedure to Loren Figueroa and her parents, Salvador and Maria Figueroa.

“If you have a large pothole, or large portion of damaged cartilage, we can replace that whole area with a fresh graft of donor tissue,” Stannard said. “It can take a patient from limited ability — barely able to walk — to being back to where he is functional in life, and in some cases, back to doing athletics.”

A key to a successful cartilage transplant is getting a graft of a comparable size. Figueroa’s knee was measured and then they would wait until a matching graft became available. For patients who are an average size, a match might be available in a week.

Stannard warned Figueroa that because of her petite size of 5’2,” her wait could be as long as six months.

Four days later, Stannard called Figueroa. A match was available.

Stannard performed the surgery in May 2012 at the Missouri Orthopaedic Institute. Figueroa was discharged from the hospital a week later. Maria stayed with her daughter the first two weeks after the surgery.

“The whole process of recovery was challenging,” Loren Figueroa said. “After a while, I could walk again but nothing else. I was so used to being physical. My whole life was lifting weights, going to class, training for competition and doing homework. Now I couldn’t do any exercise except walk for nine months.”

Back to the boards

Figueroa redshirted her sophomore year, setting out the 2012-2013 season but retaining her eligibility.

“We had just joined the SEC when I hurt my knee,” Figueroa said. “Everyone thought I would quit.”

In her first meet back in 2013, Figueroa broke Mizzou’s record in the 3-meter dive. She won her first 10 meets in the 1-meter dive and entered the NCAA championships undefeated. She earned the SEC Female Diver of the Week honors a league-high three times during the season. Again, she earned All-American first team honors.

She ranks second all-time at Mizzou in the 3-meter dive and holds the school’s 3-meter record.

In April 2015, at the end of her senior year, Figueroa retired from diving. While it was bittersweet, she knew that one day her college diving career would end.

“If it weren’t for Dr. Stannard and the cartilage donor, there’s no way I would have been able to return and finish my diving career,” Figueroa said. “It’s amazing that I was able to come back after such a bad injury. I am really grateful.”
Missouri Made
MU Health Care ranks among nation’s top academic medical centers

University of Missouri Health Care has gathered its share of awards, including recognition as one of the top hospitals in the state by U.S. News and World Report and being ranked nationally as “Most Wired” for technology advances.

To the leaders and employees at MU Health Care, though, one award is especially meaningful because it recognizes what matters most to patients and their families: high-quality care and safe care. In 2014, MU Health Care was one of 12 academic medical centers among 141 nationwide to receive the University HealthSystem Consortium Quality Leadership Award.

“Quality and safety are top issues at all hospitals these days, so for us to rank among the top performers in a crowded and impressive field makes us very proud,” said Stevan Whitt, MD, an internal medicine physician and chief medical officer for the University of Missouri Health System. “I am grateful to our physicians and hospital staff. We’re fortunate to have them here in Columbia.”

The University HealthSystem Consortium (UHC) is a national organization for nonprofit academic medical centers. The top 12 centers are chosen based on data that demonstrates high-quality, safe, efficient, patient-centered and equitable care. University of Missouri Health Care is in good company, joining the ranks of Mayo Clinic, Rush University Medical Center and Cleveland Clinic, to name a few.

“We’re proud to be recognized for the superior care we provide to our patients,” said Mitch Wasden, EdD, chief executive officer of MU Health Care. “Because several teams helped make this ranking possible, our trophy is being shared and displayed by employees in various departments and offices.”

One of the first groups to display the trophy is the housekeeping team. Cleanliness is one of the measures used by UHC to determine the rankings. In fact, in the first quarterly report by UHC in 2015, MU Health Care ranked No. 1 in cleanliness and No. 3 in quietness, which are both important for patients and families.

“To me, patient-centered care means a family-oriented environment,” said Betty Wilson, a custodian at the Missouri Orthopaedic Institute. “We always pull together to get the job done for the patient as a team.”

Another team that has displayed the trophy is an infection control team focused on decreasing catheter-associated urinary tract infection rates. While the housekeeping and infection control teams both work behind the scenes, they also both enhance the overall patient and family experience.

“This honor means a lot to us because it compares us to our peers – the nation’s best research and teaching hospitals,” said Kristin Hahn-Cover, MD, chief quality officer. “It reflects our aggressive push to continually improve quality of care and patient safety.”

In Good Company
The 2014 UHC Quality Leadership Award Winners are:

- NYU Langone Medical Center
- Mayo Clinic Hospital – Rochester
- The Ohio State University Wexner Medical Center
- Beaumont Hospital, Royal Oak
- Rush University Medical Center
- University of Utah Health Care
- The University of Kansas Hospital
- Emory University Hospital
- University of Missouri Health Care
- Cleveland Clinic
- Houston Methodist Hospital
- Memorial Hermann-Texas Medical Center
Award-winning care

Patients and families who choose University of Missouri Health Care have access to several unique resources, including:

- The University of Texas M.D. Anderson Cancer Network through its collaboration with Ellis Fischel Cancer Center
- The region’s only Level I trauma center at University Hospital
- The region’s only emergency room staffed 24/7 with board-certified pediatric emergency medicine medical teams at MU Children’s Hospital
- The region’s largest and most comprehensive orthopaedic hospital, the Missouri Orthopaedic Institute
- The region’s only emergency room staffed 24/7 with board-certified pediatric emergency medicine medical teams at MU Children’s Hospital
- Convenient primary care for minor illnesses and injuries at three Mizzou Quick Care clinics at all three Columbia Hy-Vee stores
- More than 50 primary care doctors from the Department of Family and Community Medicine, which has been ranked in the top 10 such medical departments nationwide by U.S. News and World Report for more than 20 consecutive years

Read about MU Health Care’s latest accolades at muhealth.org/about/awards.
Breast Density
What you need to know

Your mammogram results are in, and you’ve been told that you have dense breasts. Now what? While this term might leave room for confusion or even panic, there’s no need to be alarmed.

“Dense breast tissue is not a condition or abnormality. It simply refers to the ratio of fibroglandular tissue to fat in your breast on mammograms,” said Megha Garg, MD, assistant professor of radiology at the University of Missouri and director of the breast imaging program at Ellis Fischel Cancer Center. “But knowing whether you have dense breasts is important because dense tissue might make cancer detection more difficult on mammograms.

Missouri became the 19th state to enact a breast density notification law. Effective Jan. 1, 2015, the law requires health care facilities that perform mammograms inform patients about breast density.

Dense tissue appears white on a mammogram. Lumps, both benign and cancerous, also appear white, so mammograms can be less accurate in women with dense breasts.

“If you have been told you have dense breasts, it is to raise your awareness and should be seen as a conversation starter to assess your risk for breast cancer,” Garg said. “You’ll want to talk to your physician about the presence of other risk factors as breast density alone has a small impact on breast cancer.

“If your mammogram reveals you have dense breast tissue and risk assessment shows overall high risk for getting breast cancer, you could benefit from supplemental screening in addition to mammograms.”

Megha Garg, MD, radiologist and assistant professor of radiology, stands by a breast tomosynthesis mammography machine at Ellis Fischel Cancer Center. The technology allows physicians to acquire 2-D and 3-D mammogram images at the same time to better investigate hidden cancers.

Dense Breasts Facts

WHAT IS BREAST DENSITY?
Breasts are considered dense if they have a higher ratio of fibrous and glandular tissue compared to fatty tissue. Density may decrease with age and changes in the body’s hormone levels, but for most women this change is negligible.

WHO DETERMINES BREAST DENSITY?
Your radiologist determines breast density based on your mammogram. There are four categories of breast density, and you’ll be assigned to one based on your results. Then, your physician can tell you whether you have dense breasts based on where you are on the density scale.

IF I HAVE BEEN TOLD I HAVE DENSE BREASTS, ARE THERE OTHER TESTS TO CONSIDER?
Consult with your physician about your breast cancer risk assessment. If you’re found to have a high risk, determine what additional screening options might be best for you. Studies have shown that ultrasound and magnetic resonance imaging (MRI) can help find breast cancers that can’t be seen on a mammogram.

IF I HAVE DENSE BREASTS, DO I STILL NEED A MAMMOGRAM?
Yes. A mammogram is the only medical imaging screening test proven to reduce breast cancer deaths. There are certain manifestations of cancer that are only seen on mammograms. Many cancers are seen on mammograms even if you have dense breast tissue.

For more information about breast density, please visit the American College of Radiology website at www.acr.org.
Women have unique health care needs that deserve specialized care. Common problems like pelvic floor pain and other conditions involving the pelvis can be difficult to talk about. Symptoms and treatment options are often misunderstood.

“Pelvic pain is a surprisingly common problem, but it can be an uncomfortable subject to talk about,” said Sarah Hwang, MD, a physical medicine and rehabilitation physician at MU Health Care and an assistant professor of physical medicine and rehabilitation at the MU School of Medicine. “Pelvic pain can occur anywhere from the belly button to the bottom of the buttock, or it can involve pain in your lower back. It is often related to a group of muscles that run along the bottom of the pelvis. Those muscles are responsible for keeping women continent of urine, holding the pelvic organs in place and are even important muscles used when walking.”

Fortunately, MU Health Care offers a range of treatment options for women’s pelvic pain.

The Mizzou Therapy Services clinic, located at 4040 Rangeline Street, relies on measures such as physical therapy, medication management, injections and lifestyle changes. The clinic has one of the few physicians nationwide trained in treating these specific conditions. Hwang is one of approximately 10 physicians in the country specially trained in treating musculoskeletal problems in women, specifically with pelvic pain.

Hwang also sees patients at MU’s Female Continence and Advanced Pelvic Surgery clinic, located at 500 North Keene Street, Suite 306. Led by Raymond Foster, MD, urogynecologist and associate professor of obstetrics and gynecology, the clinic also offers physical therapy and non-surgical treatments as well as surgeries to correct issues like pelvic organ prolapse.

Pelvic organ prolapse is a condition that occurs when the normal support of the vagina is lost, causing the bladder, urethra, cervix and rectum to sag. The bulging also will commonly give women the sensation of pressure or fullness in the pelvis and may cause lower back discomfort. Over time, the effects of childbirth, straining, genetics and other health issues can contribute to the development of pelvic organ prolapse. All women are susceptible to problems that can be embarrassing or uncomfortable such as prolapse, bladder control problems or bowel control problems. These problems can greatly affect your quality of life, but women should know there is hope.

“It is similar to treating muscles in other parts of your body,” said Jennifer Stone, PT, clinical supervisor of rehabilitation services. “Many people don’t really know what pelvic muscles do, but once they understand their function, patients are empowered in their treatment.”

Whether your conditions require therapy or surgery, MU Health Care has specialists for many treatment options for women’s pelvic pain.

Sarah Hwang, MD, director of women’s health in the Department of Physical Medicine and Rehabilitation, is trained in treating women’s pelvic pain and is able to address other musculoskeletal problems in women, including pain during pregnancy.
To meet growing patient needs, University of Missouri Health Care began construction in June 2015 on a $40 million, four-story expansion of the Missouri Orthopaedic Institute. University leaders, employees and community members marked the beginning of construction at a groundbreaking ceremony June 3.

Opened in 2010, the Missouri Orthopaedic Institute at 1100 Virginia Ave. is the largest and most comprehensive freestanding orthopaedic care center in central Missouri. The expansion, which should be complete by 2017, will increase clinical space for surgical, inpatient, outpatient and physical therapy services from approximately 114,000 to almost 200,000 square feet. The fourth floor of the new addition will be dedicated space for research.

“Growing for Patients
Shovels turn for Missouri Orthopaedic Institute expansion”

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“Our original facility was designed and built with the needs of orthopaedic patients as its central focus,” said James Stannard, MD, medical director of the Missouri Orthopaedic Institute. “Because the demand for orthopaedic surgical services has grown so rapidly, we need to expand so that we can maintain an optimum healing environment for the patients we serve.”

Stannard is also chair of orthopaedic surgery and J. Vernon Luck Sr. Distinguished Professor in Orthopaedic Surgery at the MU School of Medicine.

“MU Health has been very successful in recruiting world-class orthopaedic surgeons to MU,” said R. Bowen Loftin, chancellor of the University of Missouri. “With the expansion of the Missouri Orthopaedic Institute, we will be able to offer a superior platform for patient care, education and research, which is the mission of our health system.”

The four-story, 85,462-square-foot expansion project will include:

- Five additional operating rooms, two finished and three shelled (for a total of 12 operating rooms)
“Because the demand for orthopaedic surgical services has grown so rapidly, we need to expand so that we can maintain an optimum healing environment for the patients we serve.”

- James Stannard, MD
Medical director of the Missouri Orthopaedic Institute

- 22 additional private inpatient rooms (for a total of 42 private inpatient rooms)
- Three additional digital X-ray rooms (for a total of seven digital X-ray rooms)
- 19 additional outpatient examination rooms, both finished and shelled (for approximately 70 exam rooms total)
- A fourth floor dedicated to orthopaedic research
- A larger restaurant for patients and visitors
- Addition of a coffee kiosk in the main entrance lobby

Once completed, the main entrance will include a circle drive for improved patient access to the building. A pedestrian walkway from the orthopaedic hospital to Virginia Avenue Parking Structure No. 7 also will be added.

“Our physicians and medical teams serve patients from every county in the state of Missouri,” said Patrick Delafontaine, MD, the Hugh E. and Sarah D. Stephenson Dean of the MU School of Medicine. “As part of an academic medical center, this facility also plays a vital role in medical education and research. With this expansion, we will advance our mission of healing, teaching and discovery.”

The Missouri Orthopaedic Institute houses approximately 400 staff, including 34 physicians who specialize in sports medicine, joint replacement, pediatrics, hip and knee, foot and ankle, shoulder, hand, spine, oncology and trauma care.
Some people get into nursing by accident. Others feel a calling. Every student at the Sinclair School of Nursing has a story about how they came to the nursing field. Fifth-semester students Dominic Chambers and Justin McNeely land on opposite ends of the spectrum when it comes to their motivation to pursue nursing.

Chambers came to the Sinclair School of Nursing from Kansas City, Missouri. He was 15 when he found his calling while volunteering at a local hospital. He noticed the nurses with their patients, and it was easy to envision doing their job. That vision has grown through the years, and now he wants to be a nurse more than ever.

“What really drew me to it was the human aspect,” Chambers said. “It’s really hands on. You’re talking to the patient. You’re listening to them. You’re the patients’ representative.”

But not everyone has a clear calling. McNeely was not sure what he wanted to do for a living, but he wanted a profession people admired. Nursing was the perfect choice.

“I wanted a profession people trusted, and nursing is definitely one of those professions,” McNeely said. “It’s a selfless act being there for that person.”

Chambers and McNeely are but two men to discover nursing, a workforce in which men are underrepresented. Although the number in the field has been rising since the 1990s, there is still a significant gender gap. According to statistics from the Department of Professional Employees, men in the nursing workforce make up less than 10 percent of registered nurses.

Male enrollment in the MU Sinclair School of Nursing is almost on par with the national average. At the beginning of the 2014-15 academic year, 117 out of 1,069 students (10.94 percent) who declared nursing as their major are men. Also, there are 22 graduate students out of 287 (7.66 percent) that are men. Men in the school believe stereotypes of the profession need to continue to change.

This belief is also a national belief. Men in nursing have become so prominent that there is now a national organization to support their professional growth, called the American Assembly for Men in Nursing.

“By the time the semester is over, gender isn’t even a consideration,” Chambers said. “We’re all just classmates and in it together.”

McNeely agrees that gender has no affect on his ability to do his work. He said pre-nursing classes prepared him for the ratio of women to men, but his ability to do his work and learn has never been compromised. The MU Sinclair School of Nursing is a place where he feels he belongs.

“It’s an encouraging environment for men and women,” McNeely said.

Chambers and McNeely are not sure why more men do not lose the gender goggles. With each completed class, they say, gender matters less and the focus on helping patients grows.

The two students hope more men have epiphanies as they did. Chambers and McNeely want their stories to help set trends in the nursing world and convince more men that nursing is a cutting-edge, scientific and highly advanced career path for either gender.

According to Minority Nurse, the top four reasons why men do not pursue nursing involve gender. The article states men do not pursue the profession because they feel they might have to work harder to level the playing field, they will be outnumbered, they will be treated differently or be ridiculed because they are a man. Chambers and McNeely have not experienced those fears at MU. They go into classes knowing they are outnumbered, but it is only a factor for a short while during their pre-nursing classes.

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“There needs to be more of us in here because it’s such a great career. A lot of men are missing out on it,” Chambers said.
Accepting Ability
One man’s journey to finding a new voice after stroke

Miguel Cepeda remembers the exact moment he realized his life would never be the same again. After suffering a stroke in 2009, the effects of which cost him his speech, peripheral vision and balance, Cepeda was restless, constantly searching for ways to reverse the damage done to his body — and to his life. Then during a phone call with a friend, he received the advice that would change everything. His friend simply said, “Accept it. Accept yourself. Accept your new reality and recognize that your life still holds possibilities.”

Now Cepeda, 50, is a daily participant at the MU Adult Day Connection, the only adult day health care center in Columbia. Located on the corner of Providence Road and Rollins Street in Clark Hall, the Adult Day Connection provides health services, activities and opportunities to socialize for adults who have experienced physical and cognitive changes.

Before his stroke, Cepeda was business manager for a company where he supervised 25 people. His social and communication skills were a part of the daily life that he enjoyed, and perhaps took for granted. Then the stroke stole those skills and Cepeda became frustrated with his inability to communicate. Before long, Cepeda was resigned to staying at home.

Cepeda’s partner and caretaker, Michael Gooden, sensed Cepeda’s frustration and knew he needed to make a change. They needed help. The transition from independence to assistance is a challenge for most people, and Cepeda was no different.

“I didn’t want to be treated like a child,” Cepeda said.

He was uneasy about entering a new social situation that would require him to do what he’d been avoiding: talking.

Four years ago, Cepeda decided to attend MU Adult Day Connection. Though he was tentative, Cepeda found that the staff and participants at the Adult Day Connection were patient and willing to learn how best to communicate with him.

Jan Klatt, LPN, a licensed practical nurse at the Adult Day Connection, remembers Cepeda’s first visits.

“He was pretty closed off in the beginning,” Klatt said. “But we are one big family here, and he’s part of our family now.”

Jerry Kiesling, director of the MU Adult Day Connection, said that the decision to seek and accept help can be an emotional one.

“It means acknowledging a loss of independence or other parts of your life,” he said. “For caretakers it’s overcoming guilt or feelings of inadequacy. It’s a big decision, but in Miguel’s case, it has been a very positive one.”

After four years at the Adult Day Connection, the staff and participants now refer to Cepeda as the "unofficial boss" because he is involved in everything from social activities to fixing the refrigerator.

The MU Adult Day Connection provides service for up to 24 participants from mid-Missouri per day. Participants experience a range of medical conditions including stroke, like Cepeda, but also brain injury, Parkinson’s disease, ALS and others. Adult Day Connection is the only state-licensed adult health care facility in Boone County. Staff members include a nurse, occupational therapist and life skills specialist in addition to the clinical director.

Kiesling said the goal is to help older adults remain at home longer, and to provide respite care so that primary caregivers can work and manage their other responsibilities.

“If we can keep a person at home for an extra year, or even more, before a full-time health care facility like a nursing home is a necessity, we’ve done our jobs,” Kiesling said.

MU Adult Day Connection is a part of the MU School of Health Professions, but it is self-funded and relies on the generosity of individuals and community organizations to maintain operations.

“Mutual support and success is the core of what we do here,” said Kiesling.

“After four years here, it’s a day by day journey for Miguel and for us,” he said. “We’re finding new ways to help him every day.”

Miguel Cepeda and Jerry Kiesling, MSW, LCSW, director of the MU Adult Day Connection, interact at the center in Columbia. Cepeda has attended the MU Adult Day Connection daily for four years.
Hair stylist Molly Deimeke was ecstatic in February when she passed a certified educator test for John Paul Mitchell Systems. Although she has aced the yearly certification exam many times, the 2015 test marked a milestone because it was her first test following a traumatic brain injury in May 2014.

“I lost my ability to read,” Deimeke said. “I had to start over, at the kindergarten level. The test was harder for me than it’s ever been. Before the accident, I would cram a week before. This time, I studied every day, beginning in December and all the way through January.”

Kristel Kronk, MS, CCC-SLP, speech language pathologist at Mizzou Therapy Services, helped Deimeke, 31, of Martinsburg, Missouri, regain her ability to read and speak coherently. It took a team of experts in speech therapy, physical therapy and occupational therapy to help Deimeke recover motor skills and cognitive function that she took for granted before her accident.

Deimeke started all three therapies in July, attending appointments twice weekly. In October, she completed therapy. Her physician cleared her to drive again. She has returned to styling hair and teaching other hair stylists.

“Speech therapy was the hardest for me,” Deimeke said. “Physical therapy was the easiest for me because I enjoyed it but balance was the hard part.”

Becky Edwards, MPT, MHA, clinical supervisor of Mizzou Therapy Services-Business Loop, said difficulty balancing is common for traumatic brain injury (TBI) patients.

“When you hit your head, it can cause damage to the inner ear and affect your balance, known as vestibular dysfunction,” Edwards said.

A self-described risk taker who loves to travel, Deimeke was overseas in Laos when she fell off a double-decker truck serving as a taxi. She fell approximately 10 feet onto the street and then rolled 20 feet down a hill, witnesses later told her. Deimeke doesn’t remember her injury or much of her early treatment, which included surgery in Thailand to stop her brain bleed and a long hospital stay in St. Louis before returning to her family home in Martinsburg, Missouri.

Deimeke does recall, however, all of her experiences in Columbia at Mizzou Therapy Services and the Physical Medicine and Rehabilitation Clinic with her physician, Peter Hwang, MD.

“If I wouldn’t have done the therapy, I would have stayed in a weird childhood place,” she said. “I didn’t know at that time I had to go through all of these steps to heal me but they guided me through the steps I needed to take here.”

Deimeke joined a support group for brain injury survivors in November and said it is helping her move forward. The group meets monthly on the second Thursday at Rusk Rehabilitation Center in Columbia.

“Hearing someone else has struggled with something that you are struggling with really helps you to see that you are not alone and gives you hope,” Deimeke said. “Now I want to teach other people by telling my story.”

Back on Track
Brain injury patient thanks rehab team, Mizzou Therapy Services for recovery

For more information about Mizzou Therapy Services, visit muhealth.org/services/therapy To learn more about the brain injury support group, please call Dina McPherson, facilitator, at 573-884-2642.
Match Sparks Excitement

MU Medical Students in High Demand

Each year, a single day in March brings anticipation and hope for thousands of medical students. It's called Match Day, and it occurs simultaneously at medical schools across the country. Students receive sealed envelopes they rip open to reveal where they will spend the next three to seven years in their first jobs as physicians, training in their chosen specialties.

At the University of Missouri School of Medicine, 101 medical students had the opportunity to see what their futures would hold. Ninety-nine percent of MU graduates matched with residencies, a figure above the national average match rate of approximately 94 percent.

This annual event of the National Resident Matching Program pairs medical students across the nation with physician residency programs. Students rank their residency program choices in order of preference, and residency program directors rank their choices among the students.

With the information from students’ and residency directors’ rankings, the National Resident Matching Program determines the best matches for students and residency programs.

More than 41,000 medical school graduates competed for approximately 30,000 residency positions this year. The MU School of Medicine filled all 96 of its residency positions in the match. Many of our medical school’s class of 2015 were part of that match with MU’s residency programs, and therefore will stay on the MU campus for their residency training. Thirty-one percent of MU’s graduates matched with MU’s residency program.

Forty-six percent of the MU School of Medicine 2015 class will remain in Missouri, and 49 percent of this graduating class selected residency programs in high-need primary care fields, including internal medicine, pediatrics and family medicine.

Medical Student Couple Match in Same City

Woody Smelser, fourth-year medical student and president of his medical school class at MU, opened his envelope on Match Day and compared letters with his wife. Not only was Smelser anxious to know if he’d been matched for the residency of his choice, but his wife, Katie Smelser, was also a graduating medical student.

The national program allows for students to participate in the match as a couple. That meant the Smelzers had to agree to have their rank-ordered lists of preferred residency programs linked to each other so they could try to match to a pair of programs that suited both their needs. Woody is specializing in urology and Katie wanted a residency program in internal medicine and pediatrics.

On Match Day, they learned they had been matched close together, with Woody's residency at University of Kansas Medical Center and Katie at University of Missouri-Kansas City.

"Of all the emotions today, relief is the one that stands out the most because we will be together," said Katie.

"It is a journey that starts out the first day of medical school and to come to the end of it and have an outcome where we are both together, I don't think we could have asked for anything more," Woody said. "We get to have our careers and our family together. For us, it is a victory."

For a list of residency sites by specialty for MU’s Class of 2015, please visit healthsystem.missouri.edu/magazine.

Class of 2015 Matches
Nearly half of the MU School of Medicine 2015 class will remain in Missouri for residency training.

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Investigating America’s No. 1 Killer

Team awarded $1.7 million to study ethanol and heart disease

Studying microscopic cells in blood vessels that are thinner than a human hair, Ron Korthuis, PhD, has a very big job. He investigates cardiovascular disease, the leading cause of death in Missouri and the nation.

In February 2015, the National Institutes of Health (NIH) awarded Korthuis and his research team a $1.7 million grant to examine a biochemical signaling pathway shown to be helpful for patients suffering from heart attacks or strokes. Ethanol, which is present in alcoholic beverages such as wine and beer, kick starts a sequential series of biochemical steps that reduces tissue damage that occurs when the blood supply is re-established to organs that had their blood supply blocked off, as occurs in diseases such as heart attacks and strokes.

Korthuis is leading the study, “Daily Moderate Ethanol Ingestion Attenuates Postischemic Microvascular Dysfunction,” funded by the National Institute on Alcohol Abuse and Alcoholism.

“If we can understand the biochemical steps that are activated by ethanol to promote cell survival, we could possibly develop a rationale for new drug therapy that people could take all the time, and it would render them resistant to a heart attack or stroke — or if they did suffer one, they’d have less injury,” Korthuis said. “These new drugs would hopefully mimic the beneficial cardioprotective effects of ethanol, while avoiding the negative psychosocial and pathologic effects that can occur with consumption of alcoholic beverages.”

Korthuis holds the George L. and Melna A. Bolm Distinguished Chair in Cardiovascular Health and is professor and chair of the School of Medicine’s Department of Medical Pharmacology and Physiology. The department is ranked in the top quarter of similar departments at more than 100 medical schools in terms of research grant funding.

“A strong medical pharmacology and physiology department is vital to determining how human cardiovascular disease develops, and to developing new ways to treat and prevent heart and blood vessel disease,” said William Fay, MD, the J.W. and Lois Winifred Stafford Distinguished Chair in Diabetes and Cardiovascular Research and the director of the Division of Cardiovascular Medicine at MU.

Korthuis’ research team studies the smallest blood vessels in the body, collectively known as the microcirculation. They use intravital microscopy, a high-tech way of observing these very tiny vessels in real-time during reperfusion, or the process of restoring blood flow after a period of ischemia (reduced blood flow to a tissue). The scientists are able to record videos of the microscopic images to further study inflammation in the microcirculation during ischemia and during reperfusion. This technology is housed in the School of Medicine’s medical pharmacology and physiology laboratories, but the researchers are not confined by the medical school’s walls. Researchers in the department often collaborate with scientists and depend on resources at MU’s Dalton Cardiovascular Research Center, College of Veterinary Medicine, College of Engineering, and Christopher S. Bond Life Sciences Center for expertise and advanced tools for high-resolution imaging and analysis.

“MU has the strongest environment for collaboration of anywhere in the world that I have visited,” Korthuis said. “There is a genuine interest to do things for the good of science and ultimately for the good of patients.”

With high-powered microscopes, researchers can see extremely small parts of the body’s microcirculation. This image, captured by researcher Steven Segal, PhD, shows an inflamed venule and surrounding tissue. Segal is a Margaret P. Mulligan Distinguished Professor in Medical Research, Physiology and Education at MU.
Aging A Factor in Swallowing Disorder

Although you may find the fact that you’re aging tough to swallow, so to speak, University of Missouri researchers have discovered that aging is a key factor in the development of a swallowing disorder. Nearly 40 percent of Americans 60 and older are living with a swallowing disorder known as dysphagia. Although it is a major health problem associated with aging, it is unknown whether the condition is a natural part of healthy aging or if it is caused by an age-related disease that has yet to be diagnosed, such as Parkinson’s disease or amyotrophic lateral sclerosis (ALS). Following a recent study, MU researchers have established a model that identifies aging as a key factor in the development of dysphagia, which may lead to new therapeutic treatments.

“As people age, and especially once they’re 50 and older, their ability to swallow quickly and safely deteriorates with each advancing decade,” said Teresa Lever, PhD, assistant professor of otolaryngology at the MU School of Medicine and lead author of the study. “For years, we haven’t known why. Through our research with mice, we now know this disorder can occur naturally and independent of another disease. Our next step is to study this model to determine why age-related dysphagia, also called presbyphagia, occurs and identify ways to prevent it.”

Garlic Found To Protect Brain Against Disease, Aging

A team of University of Missouri researchers has discovered that another nutrient in garlic offers the brain protection against aging and disease. The finding provides more understanding of how garlic may prevent age-related neurological diseases such as Alzheimer’s and Parkinson’s.

“Garlic is one of the most widely consumed dietary supplements,” said Zezong Gu, MD, PhD, associate professor of pathology and anatomical sciences at the MU School of Medicine and lead author of the study. “Most people think of it as a ‘superfood,’ because garlic’s sulfur-containing compounds are known as an excellent source of antioxidant and anti-inflammatory protection.”

“Scientists are still discovering different ways garlic benefits the human body,” he said. “Our research focused on a carbohydrate derivative of garlic known as FruArg and the role this nutrient plays in protective responses.”

Gu’s team looked at the nutrient’s ability to inhibit — and even possibly reverse — brain cell damage caused by environmental stress. Environmental stress could include the aging process, smoking, pollution, traumatic brain injury or excessive alcohol consumption.

In the future, Gu and his colleagues hope to study the effects of FruArg on other cells in the body associated with conditions such as heart disease, diabetes and cancer.

Research Leads to New Test for Trauma Patients

A test commonly used to assist in managing bleeding disorders in patients with traumatic brain injuries is unreliable, according to MU researchers.

Ashley Bartels, MD, a resident physician in general surgery at the University of Missouri, led a team of pathology, trauma surgery and neurosurgery researchers who reviewed the effectiveness of the Platelet Function Assay-100 (PFA-100) lab test for detecting platelet dysfunction in trauma patients.

“A lot of trauma patients are older and are taking aspirin or other antiplatelet agents, such as clopidogrel,” Bartels said. “Having a reliable test to detect these medications is important and helps guide our management of these patients.”

Because the medical history of trauma patients is often unknown, health care teams turn to lab tests to help them determine the best course of treatment. The PFA-100 is commonly used for trauma and neurosurgery patients.

The research group evaluated 475 cases in which PAF-100 tests were used during a 13-month period in 2013 and 2014. As a result of the study, University of Missouri Health Care started using another test, thromboelastography with platelet mapping (TEG-PM), for trauma patients instead of the PFA-100. The team hopes to expand the study to look at the underlying mechanisms of platelet inhibition and brain injury.

Bartels was lead author of a paper that explained the researchers’ findings and won first place for a clinical science paper at a regional meeting of the American College of Surgeons’ Committee on Trauma.
Health systems form MPact Health

University of Missouri Health Care is one of three health systems that formed a multi-state provider network in May.

MU Health Care joined forces with St. Louis-based Mercy and St. Joseph-based Mosaic Life Care to create the network, MPact Health. The three organizations have been meeting together for several years to share best practices, including service delivery transformation, information technology, preparation of the workforce for the future, and population health principles.

As the three founding members of MPact Health, the organizations collectively have more than 5,600 hospital beds, more than 47,000 employees and approximately 3,000 employed and affiliated physicians. The health systems serve patients in urban and rural areas of Missouri and surrounding states. Leaders will work together to share best practices in business, clinical and operational practices. The work of the network will be conducted by task forces comprising leaders and physicians from each health system.

To learn more about MPact Health, please visit mpact-health.com.

Community gives to Children’s Hospital

Kyler VanMatre, 6, of Columbia, entered the doors of MU Children’s Hospital on March 6 not as a patient but as a donor. VanMatre donated the contents of his piggy bank to the ninth annual Missouri Credit Union “Miracles for Kids” radiothon, which was broadcast from the hospital’s lobby March 5 and 6.

Along with VanMatre, hundreds from the mid-Missouri community rallied behind MU Children’s Hospital, raising $228,539. Local Zimmer radio stations 93.9 FM The Eagle, 94.3 FM KAT Country, 99.3 FM Clear 99 and 106.9 FM Y107 broadcasted live from the MU Children’s Hospital lobby during the event.

EMT illustrates compassion

Walt Goodman, EMT, uses his artistic talent to touch the lives of patients and families in University Hospital’s Emergency Room. Goodman often draws cartoons for patients and families and has a personal reason for
Robotic surgery offers more options

Surgeons at University of Missouri Health Care, the first health system in mid-Missouri to offer robotic minimally invasive surgery, began using the next generation of surgical robots in March.

The new da Vinci robot assists surgeons in performing complex minimally invasive procedures with even greater precision and control. The new robot is used during minimally invasive surgeries for complex diseases and conditions in colorectal, gynecologic cancer, urology, thoracic, cardiac and general surgeries.

“Robotic surgery brings many benefits to patients compared to traditional open surgery,” said Naveen Pokala, MD, urologist at MU Health Care and an assistant professor of surgery at the MU School of Medicine. “Patients can expect tiny incisions, minimal scarring, shorter hospital stays, less blood loss, a reduced risk of infection and quicker return to normal daily activities.”

Pokala led the first surgery using the new da Vinci Xi Surgical System — a procedure to remove a cancerous tumor from the kidney — at University Hospital on March 9. “This new technology allows us to offer minimally invasive surgery to even more patients who would otherwise need traditional open surgery due to their complex surgery needs,” Pokala said. “The new system is designed to simplify surgical procedures, especially those that require surgeons to access multiple areas throughout certain parts of the body like the pelvis, abdomen or chest.”

MU Health Care has two da Vinci systems, the da Vinci Xi Surgical System at University Hospital and the da Vinci Si Surgical System at Women’s and Children’s Hospital. Since 2008, surgeons at MU Health Care have used the surgical system for minimally invasive procedures in pediatrics, gynecology, urology, oncology, otolaryngology, gastroenterology and general surgery.

Program provides psychiatric care for local kids

A new program is bringing psychiatric care into local schools to help children with emotional or behavioral problems. The initiative, MU Bridge Program: School-Based Psychiatry, was launched in March in schools throughout Boone County, Missouri.

The Bridge Program is staffed by MU psychiatrists and two MU nurse managers, working in conjunction with school counselors and the families of children needing care. Children in the program receive an initial psychiatric evaluation with a child psychiatrist, prescriptions for medication as needed, and two to three follow-up appointments in their school at no cost to the child’s family. The program’s nurse managers communicate with parents and school staff, coordinating the child’s care and scheduling community psychiatrist appointments so the child can have ongoing care after completing the MU Bridge Program.

Laine Young-Walker, MD, chief of child and adolescent psychiatry at the MU School of Medicine, said the typical wait time for child and adolescent psychiatry appointments in Boone County is six to eight weeks. “We hope to bridge that gap where we get them immediate care in their schools, communicate between the parents, teachers and counselors and transition them to a community provider after two to three visits,” Young-Walker said. “The goal is to help children avoid crises and get back on track faster so they can learn, socialize and feel better.”

Parents and teachers can contact their school counselor if they believe a child may benefit from the program. The program, designed for grades K-12, is supported by funding from the Children’s Services Fund in Boone County.

‘H.I.T. Man’ honor goes to Selva

Thomas Selva, MD, chief medical information officer for University of Missouri Health Care, has been recognized by Healthcare IT News as a leader in health care information technology. Selva is one of three national leaders selected by readers to receive the publication’s “Enhancing Patient Care Through IT” award. He was honored at the sixth annual H.I.T. Men and Women Awards reception during the Healthcare Information and Management Systems Society (HIMSS) 2015 conference in Chicago in April.

“As a health care organization, we believe that information technology is an integral part of patient care,” he said.

Selva is also a pediatrician, professor of child health and chief of the Division of General Pediatrics at the University of Missouri School of Medicine.
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