

MU Medicine

University of Missouri School of Medicine

Summer 2019

WHY I CHOSE MEDICINE

NATALIE RODRIGUEZ ARRIVED
IN AMERICA WITH VERY FEW
POSSESSIONS BUT A BIG DREAM.



LETTER FROM THE DEAN



If you had asked me last year where my administrative career was headed, I would have predicted a direction that included more time for research, fly fishing, pampering my grandson and watching Turner Classic Movies. I had planned to retire as the chair of the Department of Family and Community Medicine two years from now.

Before that could happen, I was asked to serve as interim dean of the School of Medicine. I accepted the position knowing I would not be a temporary placeholder. I

would be devoted to making our school a better place so whoever follows will begin in the best possible position.

Let me begin by giving credit to the person I am following, Patrick Delafontaine, MD, who returned to Tulane University this spring. It's clear to me that he was committed to not just talking about a more diverse School of Medicine but actually making substantial investments in diversity and inclusion. A good example is the new Pathways to Success (PAWS) program that will help us recruit the best underrepresented minority undergraduate students on our own campus to our medical school.

I've spent my entire career here — medical school, residency and 35 years as a family medicine faculty member, including 11 as a department chair — so I certainly have institutional knowledge of the School of Medicine and MU Health Care. But much of my first two months as interim dean has been devoted to listening to the thoughts, concerns and suggestions of students, staff, faculty and department chairs. These conversations have helped me establish priorities for my time in this role.

First, we want to ensure we distribute the money we receive in a way that is thoughtful, metric-driven and transparent. We all have a stake in the success of our school's mission, and we want all parties to grasp why financial decisions are made and understand the expectations and responsibilities that go along with those decisions.

Second, the School of Medicine will work closely with our partners at MU Health Care to align our strategies and day-to-day operations. As an academic health system, we're in this together. We will look for more ways to work together on human resources, development, space planning and clinical planning. Patient safety and quality care are our joint responsibilities.

Third, we will mesh our health system's strategic plan with the campus' strategic plan. As we collaborate more closely with MU Health Care, some of the revenue generated by clinical operations will drive School of Medicine research initiatives that are consistent with the priorities of campus leadership. Together, we can develop strategic plans that support our shared missions and the mission of our campus.

Tackling those issues should keep my fly rod in storage for the near future. When you begin a new role, it's easy to focus on the challenges. While we face some challenges, we also find opportunities. Even more opportunities will emerge as we refine our direction and invite you to participate in the process.

Steven Zweig, MD '79, MSPH '84
Interim Dean
Professor of Family and Community Medicine
University of Missouri School of Medicine

MU Medicine

MISSION STATEMENT

MU Medicine is published twice yearly to share updates that highlight the accomplishments of the MU School of Medicine's community of researchers, clinicians, students and alumni.

EDITOR

Joe Walljasper

DESIGNER

Ann Ellebracht

PHOTOGRAPHER

Justin Kelley

WRITER

Joe Walljasper

SUBSCRIBE OR UNSUBSCRIBE

To request additional copies of MU Medicine, to be added to the mailing list, to change your address or to be removed from the mailing list, please contact the Office of Communications at 573-884-1115 or email social@health.missouri.edu.

The University of Missouri does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age, disability or status as a qualified protected veteran. For more information, call Human Resource Services at 573-882-4256, the Director of MU Equity/Title IX Coordinator at 573-882-9069 or the U.S. Department of Education, Office of Civil Rights.



ON THE COVER:

At age 7, Natalie Rodriguez came from Peru to the United States with very few belongings but with a dream to one day become a doctor. Learn what drove Rodriguez and three other MU medical students to become doctors.



4 RESEARCH



Dana Duren's findings on accelerated skeletal maturity could help pediatric orthopaedic surgeons provide the best care to patients.



Asgar Zaheer's quest to stop degenerative brain diseases before they start leads to new study on soldiers.

8 WHY I CHOSE MEDICINE



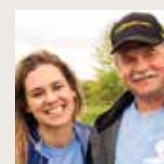
As a 7-year-old girl, Natalie Rodriguez came to America from Peru with little more than the clothes on her back, but she had a dream to become a doctor.



Seven years of serving marginalized groups — and serving drinks — prepared Sam McMillen for a career in medicine.



Kyle Warren came to medical school for scientific reasons. He now places greater importance on building meaningful relationships with patients.



Natalie Kukulka was inspired to pursue medicine by her father, who sacrificed his own career as a doctor in Poland to create a better future for his family in the United States.

14 EDUCATION



The PAWS program helps underrepresented minority students become competitive medical school applicants.



With the help of the Minority Medical Scholarship, Busha Hika pursues a dream that began as a child in Ethiopia.

19 ALUMNI NEWS



Dustin Smith attacks the opioid epidemic by creating a free treatment clinic in St. Joseph.



Keep up with comings and goings of MU School of Medicine alumni in Class Notes.

CONNECT WITH US | MEDICINE.MISSOURI.EDU



FACEBOOK
facebook.com/missourimedicine



TWITTER
[@mumedicine](https://twitter.com/mumedicine)



INSTAGRAM
instagram.com/muhealth



YOUTUBE
youtube.com/MUHealthCare



THEY GROW UP SO FAST THESE DAYS

By studying bones, MU researcher finds evidence of accelerated development in children

As an undergraduate anthropology student at the University of Missouri, Dana Duren wondered why humans walk on two feet while their closest animal relatives get around on four. Duren's mentor, Carol Ward, PhD, suggested she compare X-ray images of the thigh bones of humans and chimpanzees.

"If you look at an infant human femur and an infant chimp femur, they look very similar," Duren said. "But an adult of each of those looks completely different."

The radiographs showed that as humans grow, their femurs start angling in from the hips, positioning their feet under their center of gravity. Chimps' femurs grow straight, giving them a stance too wide to walk comfortably on two legs.

The evidence was all there in black and white.

That project piqued Duren's interest in what other human-development questions could be answered by examining bones. This interest led to her current position as the MU School of Medicine's director of orthopaedic research and professor of orthopaedic surgery. Duren is now in the ninth year of a study funded by the National Institutes of Health that examines trends in skeletal maturity. It has yielded noteworthy results.

In September 2018, she published an attention-grabbing article in the journal *Clinical Orthopaedics and Related Research* that showed children are growing up faster than before.

"Our findings show there is a 'new normal' for timing when kids' skeletons will reach full maturity," Duren said.

Once again, the proof was in the X-rays, if you knew where to look.

THE TRUTH IS IN THERE

After earning her PhD in biological anthropology at Kent State University, Duren began her career in 2001 at Wright State University's School of Medicine. It was a good fit for her interests, because the school was managing a long-running human development project called the Fels Longitudinal Study.

Beginning in 1929, parents in the small Ohio town of Yellow Springs enrolled their children in the study. In the name of science, the participants regularly were measured, monitored and scanned as they grew into adulthood. They often enrolled their own children in the research project, which ended in 2018.

The Fels study created a rich vein of data for Duren to mine, first at Wright State, then at MU, starting in 2016. For the latest project, Duren and her team examined radiographs of the left hands and wrists of 1,292 children born between 1915 and 2006.



▲ MU Health Care pediatric orthopaedic surgeon Daniel Hoernschemeyer, MD, consults with the team of Dana Duren, PhD, when he assesses the right timing for scoliosis treatments.

To completely analyze a hand-and-wrist X-ray using the established Fels Method for Skeletal Maturation requires a meticulous review of 98 features, but Duren and her team focused specifically on epiphyseal fusion.

Growth in long bones takes place in the cartilage plate near the end. When the end — the epiphysis — builds a bone bridge across the cartilage plate to the shaft of the bone, that is known as epiphyseal fusion. It signals the bone is done growing.

The research showed boys born in 1995 reached skeletal maturity in some bones about seven months faster than those born in 1935, while girls matured almost 10 months faster.

Duren's study did not address the cause of the acceleration, and she doesn't see earlier maturation as inherently good or bad — it's just important information for clinicians. In fact, the research is already being applied at MU Health Care. Pediatric orthopaedic surgeon Daniel Hoernschemeyer, MD, collaborates with Duren's team as he assesses when scoliosis patients need treatment, such as vertebral body tethering.

"When we consider VBT surgery for a child with scoliosis, there are concerns with overcorrection," Hoernschemeyer said. "Understanding maturation and growth helps us with the timing of surgery to lower the risk of this issue."



▲ Above, Dana Duren, PhD, studied the radiographs of 1,292 children born between 1915 and 2006 and found modern kids reached skeletal maturity far sooner than their grandparents did. Below, doctoral student Melanie Boeyer played a key role in analyzing the data in the study.



JUST GETTING STARTED

As an undergrad, Duren found a valuable mentor in Ward, who is currently a curator's professor in the MU School of Medicine's Department of Pathology and Anatomical Sciences. Now, Duren is the mentor.

One of her star pupils is PhD candidate Melanie Boeyer, who shares Duren's enthusiasm for the subject matter.

"Halloween was always my favorite day," Boeyer said. "I dressed up as a skeleton. I wore anything that had a skull on it. You know the plastic skeletons you put out in your yard to scare people? I had those in my room as decorations all year long."

After reading one of Duren's previous publications, Boeyer asked to join Duren's Skeletal Morphology Laboratory at MU. For the latest study, Boeyer helped to analyze the data and served as first author.

"We assume we know a lot about how kids grow and develop, but we have a lot more to learn," Boeyer said. "This is a pretty good way to assess what we know and what we don't know."

What we're seeing is kids now are not the same as kids way back when."

As helpful as the Fels study was in showing bone fusion changes over time, it has its limitations. Ninety-eight percent of the participants were white. Moving forward, Duren and her team want to further modernize skeletal maturity standards.

"We don't want to be looking at an African-American boy today and be comparing him to a white boy from the 1930s. That just doesn't make any sense," Duren said. "My grant through NIH updates those methods. I've started collaborating with colleagues who have conducted a study of bone-mineral density in childhood that has groups of children from five different sites across the U.S. We have African-American, Asian-American, Hispanic and white — all born after 1990. With 8,000 films from those kids, we're redoing this."

When the project is finished, Duren's team will deliver the most comprehensive method for skeletal-maturity assessments that is applicable to modern children of multiple backgrounds, which will help clinicians make the best decisions for their growing patients.



LEARN more about Dr. Duren's research at medicine.missouri.edu/faculty



▲ From left, Charlotte Phillips, PhD; Kevin Everett, PhD; Julie Kapp, PhD; Illhoi Yoo, PhD; and Jaume Padilla, PhD, received pilot funding from the Institute of Clinical and Translational Sciences at Washington University in St. Louis to fund research studies.

FIVE TEAMS RECEIVE PILOT AWARDS

Five University of Missouri faculty members received pilot funding from the Institute of Clinical and Translational Sciences at Washington University in St. Louis. The recipients of these pilot awards received approximately \$50,000 per team to advance their research.

The following projects received funding:

- “Therapeutic Potential of Myostatin (GDF8) and Activin A Inhibition on Murine Osteogenesis Imperfecta,” by principal investigator Charlotte Phillips, PhD, associate professor of biochemistry.
- “Acute and Chronic Pain Management Using a Mobile Pain Monitoring System,” by principal investigator Illhoi Yoo, PhD, associate professor in the Department of Health Management and Informatics.
- “TRAF3IP2 as a Novel Target to Restore Endothelial Insulin Sensitivity and Function in Type 2 Diabetes,” by principal investigator Jaume Padilla, PhD, assistant professor in the Department of Nutrition and Exercise Physiology.
- “Developing an Intervention to Mitigate Obesity Risk in a Child’s First 1,000 Days,” by principal investigator Julie Kapp, PhD, associate professor in the Department of Health Management and Informatics.
- “Identifying Factors that Impact Implementation of Tobacco Use Treatment in Health Care Settings,” by principal investigator Kevin Everett, PhD, associate professor in the Department of Family and Community Medicine.

TO LEARN MORE about new discoveries by University of Missouri scientists, visit medicine.missouri.edu/research.



MU SCIENTISTS STUDY EFFECTS OF TRAINING ON SOLDIERS’ BRAINS



ASGAR ZAHEER, PHD

Asgar Zaheer, PhD, the director of the MU School of Medicine’s Center for Translational Neuroscience, has spent four decades studying neurodegenerative diseases such as Alzheimer’s and Parkinson’s and trying to determine what causes them.

“Our main objective is to see how neurotrauma or traumatic brain injuries — which many times are invisible unless they are severe injuries — eventually develop into cognitive dysfunctions,” Zaheer said.

His latest study will examine Army recruits and instructors going through basic training at Fort Leonard Wood near Waynesville, Missouri. During training, they are exposed to explosions, although it’s uncertain whether those cause mild brain trauma.

The researchers will take samples of the soldiers’ fluids and compare them to fluids donated by civilian volunteers. This will provide three distinct groups — those with no exposure to blasts (civilians), those with recent limited exposure (recruits who have spent less than 10 weeks participating in basic training) and those with longer exposure (instructors who have spent as many as three years leading basic training).

Zaheer and his team will examine the fluids and look for signs of neuroinflammation. If they find new biomarkers that indicate brain trauma, they can start research in animal models seeking ways to inhibit those proteins. Potentially, they could reduce the risk of Alzheimer’s or Parkinson’s disease at the source.

“The goal is to see how you can treat injuries quicker so they don’t result in prolonged suffering,” Zaheer said. “If you know a specific biomarker, as soon as the injury occurs, you can take care of it. Chances are, it won’t go further.”

FACULTY SPOTLIGHT

ACCOLADES



MOHAMMAD AGHA, MD, MHA, assistant professor of clinical physical medicine and rehabilitation and clinical orthopaedic surgery, was recently identified as “The Trailblazer” for the HiMSS19 Champions of Health Unite Program. Agha is the chapter advocacy director for the Healthcare Information and Management Systems Society (HiMSS) Midwest Gateway Chapter. He

is dedicated to using technology to improve the quality of care and patient access while reducing costs.



DAVID GOZAL, MD, MBA, PhD (HON), chairman of the Department of Child Health, earned an honorary doctorate from the University of Barcelona on March 27. Gozal was honored for his expertise and ongoing research in the fields of pulmonary and sleep medicine, and for helping foster a premier and top-ranked bioengineering program in Barcelona.



JOHN JARSTAD, MD, associate professor of clinical ophthalmology, along with resident eye surgeon Van Nguyen, MD, and graduating medical student Carli Wittgrove beat out 900 other entries for “Best Paper of Session” and earned the “Best of The Best” research award at the American Society of Cataract and Refractive Surgeons’ annual meeting in San Diego.

“Our research helped to provide an answer to solving the No. 1 complication after routine cataract surgery, which is high pressure afterward,” Jarstad said.



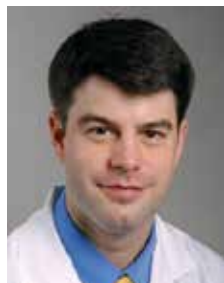
PETER WILDEN, PHD, won the Jane Hickman Teaching Award, the highest honor bestowed by the MU School of Medicine, on April 24 during an Education Day awards ceremony. Wilden is an associate professor of medical pharmacology and physiology. He serves as faculty director of the school’s MedPrep and pipeline programs.



LAINE YOUNG-WALKER, MD '97, won the 2019 ATHENA Young Professional Award, sponsored by the Women’s Network-Columbia Chamber of Commerce, in a ceremony on May 2. Young-Walker also was honored by the MU chapter of the NAACP with the Image Award for Administrator of the Year in a ceremony on Feb. 13. Young-Walker is associate dean for student programs, chief of the Division of Child

and Adolescent Psychiatry and a professor in the Department of Psychiatry.

NEW APPOINTMENTS



JONATHAN DYER, MD '98, was named the interim chair of the Department of Dermatology. Dyer, an associate professor of dermatology and the director of pediatric dermatology, replaces Karen Edison, MD, who retired on May 2. Edison was the first woman to chair a School of Medicine department.



MICHAEL LEFEVRE, MD, MSPH, took over as interim chair for the Department of Family and Community Medicine on April 1. LeFevre replaced Steven Zweig, MD, MSPH, who left the post to serve as the interim dean of the School of Medicine. LeFevre had been the vice chair of Family and Community Medicine since 2008. LeFevre teaches residents and medical students in inpatient and outpatient

settings and maintains an active practice across the full breadth of family medicine.



LEARN about all the latest news at the School of Medicine at medicine.missouri.edu.



The inspiration to become a doctor is different for every medical student. We asked four students what drew them to medicine. Here are their stories.

AFTER LONG JOURNEY, RODRIGUEZ IS LIVING HER DREAM

As a 7-year-old girl, Natalie Rodriguez got off a plane in Tampa, Florida, with her mother and two younger sisters. They didn't speak English. They had no money. Their combined worldly possessions — blankets, clothes and family photos — fit into one suitcase.

She had a dream, though.

Back in Peru, her family had been trapped in poverty and sometimes couldn't afford basic necessities. Rodriguez recalled walking in on her mother crying as she held her seriously ill youngest daughter, Alex. Her mom apologized for bringing the girls into the world and not being able to give them what they needed.

"I told her, 'No, no, no, we all have a reason for being here,'" Rodriguez said.

Rodriguez said.

Soon afterward, she found her reason. A doctor visiting from the United States on a medical mission trip had set up a clinic in a church across the street from the house where the family was staying. He helped Alex.

"That changed our whole life," Rodriguez said. "I told my mom, 'I want to be a doctor.'"

COMING TO AMERICA

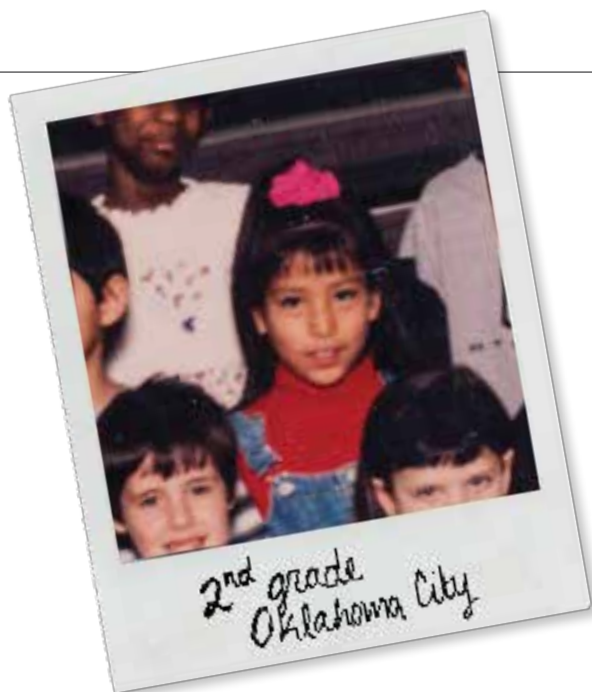


Rodriguez never let go of that idea — no matter how improbable it seemed — as she navigated a journey from Peru to the University of Missouri School of Medicine.

Rodriguez's father had applied for an immigrant visa to the United States as a young man before he married her mother. He was accepted years later, and he went to the United States first while his wife and daughters waited for their paperwork to go through. The family reunited in 1995 in Florida then moved to Oklahoma, where Rodriguez's father was offered a job as a waiter by a Peruvian acquaintance. Rodriguez began her American education in Oklahoma City and quickly revealed herself as a go-getter.

Each day, Rodriguez had to leave her homeroom and board a bus that took students to a class that taught English as a second language. It was fine at first, but every time a new batch of students joined the class, the whole group started from the beginning. She returned to her homeroom to see a chalkboard full of new math

◀ Natalie Rodriguez recently completed her second year at the MU School of Medicine. She decided to become a doctor as a child in Peru after a visiting physician on a medical mission helped her seriously ill youngest sister.



"That changed our whole life. I told my mom, 'I want to be a doctor.'"

— Natalie Rodriguez, medical student

problems and science terms. How was she ever going to catch up to her American classmates, much less become a doctor, if she spent half her day reciting the ABCs?

So she hatched a plan. One day, when it was time to catch the bus to English class, she took a detour to the bathroom and waited.

"I came back from the bathroom and sat back down at my desk," Rodriguez said. "My teacher said: 'Natalie, you missed your bus. What are you doing here?' I said in broken English: 'I'm not going anymore. I want to stay here and learn what you guys are doing.'"

After conferring with the principal, her teacher decided if this little girl wanted to learn that badly, she could stay with the rest of the class permanently.

After a few years in Oklahoma City, the family relocated to Liberty, Missouri. Her father pursued a degree in computer science while working, and her mother held various entry-level jobs. Money was tight, and Rodriguez felt obligated to do her part to support the family.

At age 15, she applied for a job as a Sonic carhop. She was told she would need a letter of recommendation because she was younger than 16. The next day after school, she went back and handed the restaurant manager a letter from her biology teacher.

"I remember the manager said, 'Man, kid, you just want to work, don't you? When can you start?'" Rodriguez said.

DREAM DELAYED

After high school, Rodriguez stayed on the fast track toward her dream. She enrolled in the University of Missouri-Kansas City's six-year BA/MD program, worked restaurant jobs and — as the only family member with a car — drove her younger sisters to their activities.

◀ Natalie Rodriguez couldn't speak English when she arrived in the United States as a 7-year-old girl. She was a quick study in the classroom and began working to help support her family at age 15.

Her time and attention were divided in too many directions. After her second year, she dropped out of the program.

"I thought: 'It's OK. It's just what has to happen right now. I'll finish my undergrad, I'll work and I'll get back in,'" Rodriguez said. "I told my sisters: 'We have to be a team. Try to work as little as possible. Don't do what I did. I'll pay for the apartment and pay for most things. You guys just need to go to school and do well.'"

"Years kept going by. I was managing a bar in Kansas City and also bartending. My middle sister Paula was about to graduate from dental school, and Alex was already an accountant. I was like: 'Oh, no, where did the time go? I need to reapply and try to get into med school. That's my dream.'"

Six years after completing her undergraduate degree, and with her 30th birthday approaching, Rodriguez was accepted into the MU School of Medicine.



REMEMBERING HER ROOTS

Rodriguez, who is now entering her third year of medical school, no longer needs to take care of her sisters or help her parents financially. She jokes with her siblings that the suitcases they pack for weekend visits are as big as the one that carried all their possessions to the United States.

But Rodriguez doesn't want to forget the hunger that got her started on this path to a career in medicine.

"We talk a lot about resilience," said Stephanie Bagby-Stone, MD '00, the School of Medicine's faculty liaison for student coaching. "She has gone through stressful, difficult times, and she made it through and took care of other people in the process. She has amazing empathy skills and a compassionate and generous heart."

Rodriguez isn't sure what specialty she will choose, but she wants to help patients who desperately need it, as that American doctor did for her youngest sister decades ago. She's already started.

Rodriguez served as the student leader of a medical mission trip to Guatemala in March 2019. After spending a week treating patients in the mission clinic, the students were free to see the sights and have fun on the final day. The trip's faculty leader, Jack Wells, MD, associate professor of clinical family and community medicine, announced he was going to spend the day visiting a hospital. One student, Rodriguez, volunteered to join him and serve as a translator.

That day, he saw her interact with one patient after another. He got a glimpse of the doctor she will become.

"She let them talk," Wells said. "They were telling her about their situation and how frustrated they were. The guys wanted to provide for their families, but they couldn't find work. She empathized with them. You could tell she knew what they were going through."

"The thing about Natalie is, I don't think she'll ever forget where she came from. I don't think she'll ever lose touch with that. That's what is going to motivate her to serve."



STAY UP TO DATE on the latest happenings at the MU School of Medicine at medicine.missouri.edu.



NOT ALL WHO WANDER ARE LOST

Gap years as social worker and bartender shaped McMillen's future

Sam McMillen spent much of his 20s preparing for a career as a doctor. There is a standard description of such a person: medical student.

But McMillen wasn't a medical student — not officially, anyway.

By day, he volunteered and held entry-level jobs in clinics that predominantly served the needs of the LGBTQ community in Kansas City and Chicago. Then, he worked on a Northwestern University pilot study that developed strategies to help teenage boys reduce their risk of HIV. These were satisfying jobs for someone devoted to helping marginalized groups get the health care they deserve, but they didn't pay the rent.

So by night, he tended bar. Whether a Chinese restaurant, a dance club or a craft cocktail lounge, he poured drinks and made conversation with anyone who walked through the door. That, too, taught him valuable lessons that apply to medicine.

"It's a matter of being able to connect with people and establish a rapport quickly so they can feel comfortable enough quickly enough that you can be efficient in your job," McMillen said. "Part of the problem in health care is people feel so uncomfortable in a clinical setting. They don't feel like they can communicate what they need."

At age 30, he felt ready to take the leap. He was accepted into the MU School of Medicine. Then he put his passion and people skills to use as the student director in charge of patient advocacy at the MedZou Community Health Clinic. MedZou provides free primary care and specialty services to uninsured patients. McMillen also helped organize and sustain a new MedZou gender-affirming clinic, providing care for transgender people.

"He has a great ability to interact with people from all different backgrounds," said Debra Howenstine, MD '88, one of MedZou's faculty directors. "He understands other people's perspectives. He's been able to really pinpoint the challenges patients face. So often, for the patients we see, the challenges to getting care go beyond handing them a prescription for something."

McMillen, who grew up in the Kansas City suburb of Liberty, Missouri, hadn't seriously considered health care disparities until he started doing medical anthropology research as an undergraduate at Texas Christian University. He had toyed with the idea of becoming a doctor since junior high school, but he didn't really know the "why" until he considered the role he could play in helping minority groups get better care.

After graduating in 2009, McMillen decided to take time to soak up some real-world experiences before deciding on medical school. He and his younger brother, Dan, participated in the 15th season of the CBS reality show "The Amazing Race." They competed with 11 other teams circling the globe and placed second, just missing out on the million-dollar prize.

For the rest of his 20s, McMillen narrowed which aspects of medicine appealed to him most — interacting with patients and trying to make a difference in their lives — during his day shifts in clinics. He learned how to listen and connect with people from a wide range of backgrounds in barrooms. It added up to a well-rounded informal medical education before his official medical education.



▲ Sam McMillen spent his 20s preparing to become a doctor by exploring a variety of social work jobs by day and bartending at night.

McMillen, who recently finished his third year of medical school, is still pondering whether he wants to specialize in psychiatry or family medicine. Whichever he chooses, he feels ready to make a positive impact helping patients who feel marginalized.

"I'm the kind of person who doesn't have a strict idea of where I need to be at a certain age," McMillen said. "Medical school was definitely always on my radar. A lot of people would say, 'If you wanted to do it bad enough, you should have gone straight into it.' But I knew in the back of my mind that what I was doing at the time was only going to make me better."

THE GLOW FADES, BUT WARREN'S PASSION FOR MEDICINE REMAINS

If Kyle Warren had to pinpoint why he decided to pursue a career in medicine, it was the glowing mudpuppy.

In physiology class during his junior year at Truman State University, Warren injected dark blue and fluorescent green dyes into a mudpuppy — a species of salamander — and then watched in wonder. The bigger blue dye molecules stayed in the capillaries, and the smaller green dye molecules filtered through to the kidney tubules, lighting up the inner workings of the animal.

"You could see the outlines of these little capsules of blood vessels in their kidneys that form a permeable net, and that's how they filter blood," Warren said. "I was able to visualize these structures working. I was just blown away by how cool it was. I know that sounds like a strange way to initially be pulled into medicine, but I wanted to keep learning and wanted to see how the science applied to humans."

Warren is now entering his fourth year at the University of Missouri School of Medicine. He came for the science, but he stayed for the relationships.

"My attitude has changed since getting into the medical school," said Warren, a native of Farmington, Missouri, who is finishing his degree at MU's Springfield Clinical Campus. "I continue to be blown away by the science, but I've become more interested in some of the more personal or humanistic aspects of medicine."

His desire to understand patients and find solutions that work for them is best illustrated by a project he started after serving as the student leader of a medical mission trip to Guatemala in 2018. Dirty water is a serious health risk in Guatemala.

"I was listening to an audio book called 'Better' by Atul Gawande, and he was talking about a study done by a Stanford doctor," Warren said. "The basic conclusion was, if you wash your hands with soap, even if you're using dirty water and dirty towels to dry your hands on, evidence still supports the fact you can reduce the incidence of diarrheal and respiratory illnesses in children."

"There are interventions you can do to clean water, like iodine tablets, but because of cultural beliefs, a lot of indigenous people do not want to adulterate their water. I thought: 'Wow, this really gets around that. We don't have to clean their water and can still have a positive impact on their health.'"

Warren helped create a hand-washing protocol script that nurses at the ASELSI Father's Heart Medical Clinic in Chichicastenango could use when talking to patients. The nurses give patients a five-question survey about hand-washing before explaining the protocol. They survey the patients again at a follow-up visit to see if they remembered the information.



▲ As an undergraduate, Kyle Warren decided to become a doctor because of his love of science. He has since come to appreciate the importance of building relationships with patients.

It's a simple way to address a serious problem, and it's a solution born of empathy.

That glowing mudpuppy got Warren started, but what has carried him through medical school is a passion to make connections with people and improve their lives.

"It finally dawned on me that I can know every aspect of the science, make the right diagnosis every single time and know the perfect prescription regimen, but if I can't relate to my patients and get them to buy in to their own health, then it doesn't matter," Warren said. "It's these relationships in medicine that I'm most interested in now."



LEARN more about MU's outreach programs that help students interested in pursuing a career in medicine at medicine.missouri.edu/premed.

Natalie Kukulka, receives her hood from her father, Peter Kukulka, during the University of Missouri School of Medicine's graduation ceremony on May 18, 2019.



THE ULTIMATE GRADUATION GIFT

Kukulka honors her father, who sacrificed his career in medicine for his family

Natalie Kukulka spent most of her childhood in Poland while the country established itself as a democracy after decades of Soviet-influenced communist rule. Her father, Peter Kukulka, was an anesthesiologist during a chaotic period for the country's health care system. It got so bad in 1997 that the nation's anesthesiologists went on a hunger strike protesting poor working conditions.

"I remember him coming home, sometimes in tears, sometimes frustrated, often exhausted," Natalie said. "He would say things like, 'Don't ever go into medicine unless you absolutely know this is what you want to do.'"

She heard what he said but paid more attention to what he did.

"He would get up the next morning and go to work," she said. "Sometimes he just stayed in the hospital for days at a time, not knowing if he would be able to come home to his family at night. He would never turn a patient down and always advocated for them. Giving to another person is always what drew him to medicine."

In 1999, Peter decided he could no longer support his family in Poland. The Kukulkas had previously lived in Chicago for four years — Natalie was born there — so he decided to return to the United States alone. Once he established himself, he

would ask his wife and daughters to join him.

Medicine was the family business. Peter's mother, Janina Kukulka, was a pediatrician who practiced out of her home in Tarnow, Poland, until she retired in her mid-80s. But Peter's Polish medical degree meant nothing in the United States. He couldn't afford to start all over again as an American medical student. So he put his own career aspirations aside and found a job as a plumber.

"He sacrificed everything for us," Natalie said.

FINDING HER CALLING



Five years after Peter left Poland, his wife, Anetta, and daughters Natalie and Klaudia reunited with him in Chicago. Natalie was 13 and had some catching up to do on American culture.

"All I remembered was Pop-Tarts and Barney," she said.

Natalie was a talented ballroom dancer and photographer, but when she started thinking about a career, she wanted to follow the path of her father and paternal grandmother into medicine. As an undergraduate majoring in biology and neuroscience at Lake Forest College, she began conducting research on Parkinson's disease. She quickly became fascinated by the mysteries of the human brain and was among the first students to sign up for a neuroscience major.

"I thought, 'This is absolutely what I want to do,'" she said.

At the MU School of Medicine, Natalie threw herself into research and outreach projects. Raghav Govindarajan, MD, an

LEARN more about the educational opportunities at the MU School of Medicine at medicine.missouri.edu/education.





assistant professor of neurology, received an email from Natalie in January of her M1 year asking to work on a summer research project. He initially didn't have a spot for her, but when another student dropped out, he contacted her. She came to his office the next day eager to start researching the prevalence of infections suffered by patients with the neuromuscular disease myasthenia gravis.

Every time Govindarajan gave Natalie a new objective, she returned with her findings before he even thought to follow up. She earned the MU School of Medicine's 2016 Dean's Award for Outstanding Research for the project. That was one of many awards and scholarships she earned over her medical school career. It's a list that includes the \$10,000 Tylenol Future Care Scholarship, which is given to only 10 students nationally per year.

"I've had a lot of good students, but she stands out," Govindarajan said. "It's not just all the things she has done, it's the fact she is so humble and so hungry to learn. For me, that's a big thing. She's one of the most hard-working students I've seen in my career."

"In my culture, we talk about karma. I must have built some good karma, and that's how I was able to meet Natalie."

She showed a knack for organization, serving as the director of patient advocacy and referrals and then a research chair at MedZou Community Health Clinic; serving as the co-president of the Student Interest Group in Neurology (SIGN); copy-editing for the American Journal of Hospital Medicine (AJHM); chairing the Dean's Advisory Committee on Medical Student Research; and organizing the first and second editions of the Autism Awareness Walk at Columbia's Cosmo Park.

She doesn't believe in going halfway in her endeavors. The most recent autism walk included food trucks, a bounce house and a petting zoo. A llama led a procession of more than 200 walkers around a 1.2-mile loop.

Peter came down from Chicago to direct traffic and perform other duties as assigned. As the event wore down on a chilly April morning, he considered what it would mean to see his eldest daughter graduate from medical school.

"We never pushed her to be a doctor, because I know how hard it is," he said. "I'm proud of her. This is what life is all about."

THE BEST FOR LAST



In her final year of medical school, Natalie settled on a specialty — pediatric neurology — and learned on Match Day in March that she would begin her career as a resident physician in Washington, D.C.

Graduation was the last big event before she headed to the nation's capital.

Commencement includes a ceremony in which a faculty member places a hood on each graduate when he or she comes onstage to receive a diploma. In the fall, Natalie wrote a letter to MU's Office of Medical Education requesting an exemption to allow her father to do the honors when her name was called.

"My father is an incredibly humble and hard-working individual who has sacrificed his passion and medical profession for his family," she wrote. "If possible, I would like to honor him as my father, the doctor, who has inspired me to be a physician and has enabled me to get to where I am today. It is because of his sacrifice that my whole life has been made possible, and it is



Kukulka speaks to the crowd at the second annual Autism Awareness Walk on April 27, 2019. Kukulka organized the event, which drew more than 200 participants in 2019.

because of him that I strive for excellence."

Her request was granted. On May 18, with the rest of her family members watching from their seats at Jesse Auditorium, she climbed the steps to the stage and was greeted by her father. He capped her medical education with a hood and a hug.

"Simply put," she said, "it was the best day of my life."



►Ariah Vaden, who recently completed her freshman year at the University of Missouri, participates in a Pathways to Success (PAWS) meeting at the MU School of Medicine.

PAWS PUTS STUDENTS ON PATH TO MEDICAL SCHOOL

Growing up in the southwest Missouri town of Webb City, Ariah Vaden enjoyed watching medical dramas on television and getting her hands dirty in science class.

"When most kids would say, 'Ew, blood,' I would say, 'That's so awesome,'" Vaden said.

As a strong student who showed an interest in medicine on her undergraduate application to the University of Missouri, Vaden was alerted to a new program called Pathways to Success (PAWS). She joined the inaugural 10-person PAWS class.

The program's mission is to help underrepresented minorities, first-generation and economically disadvantaged students become competitive medical school applicants. PAWS is designed to build a relationship between those students and the MU School of Medicine.

"Among our Mizzou students, we noticed we were losing a lot of them to other medical schools," said Laura Henderson Kelley, MD, who is the co-director of PAWS along with Susan Geisert of MU's MedOpp Advising Office. "We created a program that would help them get to know the medical school and hopefully matriculate here."

Students can apply to join PAWS before or during their freshman year at MU. If accepted, they receive tutoring, MCAT prep sessions and opportunities to shadow MU Health Care doctors.

"Coming here, I didn't know what to expect going pre-med. Once I got here, PAWS helped me understand the process. Knowing they're going to be here to help us through it, it's nice to not feel like I'm on my own."

— Ariah Vaden, undergraduate student

"Shadowing was helpful, because I know a lot of people have trouble finding a doctor to shadow and have to email like 10 people," said Zayd Al Prawi, who recently completed his freshman year. "PAWS set us up with our doctor. We just had to show up."

PAWS works in conjunction with Mizzou MedPrep, another program designed to help underrepresented students prepare for medical school. PAWS members will participate in MedPrep workshops as upperclassmen.

Students who stick with the PAWS program, post a 3.3 GPA in math and science classes and score at least a 503 on the MCAT are guaranteed an interview with the MU School of Medicine.

"Coming here, I didn't know what to expect going pre-med," Vaden said. "Once I got here, PAWS helped me understand the process. Knowing they're going to be here to help us through it, it's nice to not feel like I'm on my own."

TO LEARN MORE about the PAWS program, visit premed.missouri.edu/paws.





LEGACY TEACHERS™

PROGRAM CELEBRATES BOND BETWEEN MU MEDICAL STUDENT AND TINY PATIENT

◀ Melanie Pancoast, an MU medical student, holds Memphis Hall during the Legacy Teachers luncheon on April 18, 2019, in Springfield.

Jessica Hall was driving with the windows down when she received the call. The person on the other end said something about her baby boy, Memphis, winning a teaching award. That must be a mistake, she replied. When the caller persisted, she pulled off the side of the road and rolled up the windows so she could hear clearly.

She was told again that Melanie Pancoast, a third-year medical student at the University of Missouri's Springfield Clinical Campus, had selected Memphis as the patient who was one of her greatest teachers. MU's Legacy Teachers™ program honors these patients every year, and the Halls were invited to the inaugural Springfield edition of the event.

Jessica broke down in tears.

"Yes, whatever Melanie needs or wants, we will do," she said. "We owe her our son's life."

The effect Pancoast and Memphis had on each other is a perfect example of the relationship the Legacy Teachers program celebrates. The program began at MU in 2005 and, under the direction of Betsy Garrett, MD '79, has spread to other medical schools across the country. This year marked the first time MU held a separate ceremony for its Springfield class, and six of the 11 third-year students participated.

"With the growth of the Springfield campus, it seemed very natural to have a separate celebration down here so Springfield and the greater southwest Missouri area was aware of this program and to make it more accessible for patients in this area," Garrett said.

The location made the banquet convenient for the Halls, but they would have traveled almost anywhere to celebrate this occasion with Pancoast.

The relationship began last fall when Jessica and Levi Hall brought their feverish 3-month-old son to their pediatrician in Nixa, where Pancoast was completing her outpatient pediatric rotation. The pediatrician later noticed abnormalities in Memphis' blood and sent the Halls to Mercy Springfield Hospital. That's where Pancoast and the Halls reunited on the first day of her inpatient pediatric rotation.

LEGACY TEACHERS™ PROGRAM

- Created in 2005 at MU
- Honors patients who teach medical students important lessons about being a physician
- Adopted by six other medical schools
- Nearly 40% of MU third-year students participated in 2019

"It's difficult as a medical student to know what your role is in terms of patient care," Pancoast said. "That's something we all struggle with. But it was pretty great when I met Memphis and his parents and realized I do have an important role in the medical care of each patient. I can serve them with compassion and have a lot more time to spend with them than the attending physicians do, just because they're so busy."

Her interest in Memphis' health extended outside of her hours at the hospital.

"I think the second day we were there, she came in and said: 'Hey, I went home and did some research, and I think I've come up with something that might be what is going on with him. I talked to the doctor about it, and we're going to add it to the testing,'" Jessica said.

As it turned out, Pancoast was right. A fungal infection had led to hemophagocytic lymphohistiocytosis (HLH), a rare, life-threatening disease of the immune system that damaged Memphis' spleen, liver, kidneys and bone marrow and required five blood transfusions.

After diagnosis, Memphis responded to treatment and was all smiles at the Legacy Teachers banquet five months later.

"I learned that just as important as treating a patient's disease and being able to talk to them about medicine is listening to them and providing them with compassion," Pancoast said.



SCHOLARSHIP HELPS STUDENT TACKLE ANOTHER CHALLENGE



▲ Busha Hika grew up in an Ethiopian village without access to electricity or clean water. He is pursuing his dream of becoming a doctor with the help of MU's Medical Minority Scholarship.

Busha Hika jokes that he decided to become a doctor as a small boy after he accompanied his mother on a long walk to a missionary clinic in another Ethiopian village. Entering the clinic, he was greeted with the antiseptic scents of iodine tincture and isopropyl alcohol.

"I thought, 'Oh, this smells good. I want to work in this environment,'" he said with a laugh.

The actual source of his medical motivation was no joke.

"When I was an undergrad, there was a time when I worked two jobs because I was supporting my family. Medical school is expensive, so it would have been very challenging for me. This scholarship will help me to achieve my childhood dream."

— Busha Hika, medical student

"I was born in a rural area, a remote village, so there was no access to electricity, no road, no clean water," he said. "You see people dying from preventable diseases. You see mothers dying delivering babies. Becoming a doctor and helping them was my childhood dream."

Hika, who recently completed his first year at the MU School of Medicine, has gone to extraordinary lengths to try to fulfill that dream, and he got some last-minute help when he was awarded MU's Medical Minority Scholarship.

Hika grew up in a mud house where he read by the light of a kerosene lamp. The middle school he attended was a 90-minute walk from his village. After high school, he received nursing training from the Ethiopian government. Because physicians are scarce in the country — particularly the rural areas — nurses do the work of doctors. While he was still a teenager, Hika began helping women deliver babies by himself.

"I delivered 100 babies at least," he said.

By his early 20s, Hika was promoted to manager of health services for a district that served a population of 60,000 citizens. But he still dreamed of attending medical school in the United States and becoming a doctor. He submitted his name to the U.S. Diversity Immigrant Visa program. In 2012, he was selected via lottery.

Hika landed in Minnesota in November without a coat, and that was just the first of the shocks to his system. The language, food and technology were new. He had a plan to address that. He joined the Army National Guard, which gave his days structure and paid his college tuition at South Dakota State University.

"When you see me, I am not very muscular, but what I learned is being a soldier is not just physical strength, it's mental strength," Hika said. "The drill sergeant is yelling at you. It's not like they want you to do 80 percent or 90 percent. It's 110 percent on everything, even the way you fold your socks. It was challenging, but I liked it."

After graduating with a degree in human biology, he was accepted into the MU School of Medicine. But there was the matter of paying for medical school. A huge burden was lifted when he received MU's Medical Minority Scholarship.

"When I was a child, my family didn't have enough money to put food on the table for us," Hika said. "When I was an undergrad, there was a time when I worked two jobs because I was supporting my family. Medical school is expensive, so it would have been very challenging for me. This scholarship will help me to achieve my childhood dream."

If you would like to help students like Busha Hika, visit medicine.missouri.edu/giving.



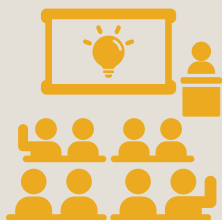
MATCH DAY

On March 15, 2019, University of Missouri fourth-year medical students joined with their peers across the nation and opened the envelopes that revealed where they will begin their careers as resident physicians. More than 43,000 medical school graduates compete for approximately 31,000 residency positions each year. MU's class of 2019 had a 98 percent match rate.



Mumeenat Winjobi celebrates after learning she will serve her residency in family medicine at Memorial Hermann Hospital in Sugar Land, Texas.

MATCH DAY BY THE NUMBERS:



94
STUDENTS



98%
MATCH RATE



38%
WILL REMAIN
IN MISSOURI



22%
WILL STAY AT MU



2019 COMMENCEMENT CEREMONY

The University of Missouri School of Medicine celebrated graduation on May 18 in Jesse Auditorium.



The Class of 2019 included 94 medical students. Of that group, 22% will remain on the MU campus for their residency training, 38% will remain in the state for their residency and 35% chose residency programs in internal medicine, family medicine or pediatrics.



Mary Beth Shenk kisses her son, Jack, after the commencement ceremony. She celebrated the event with her parents, Stephen and Shelley Reed. Shenk will serve a transitional residency at Central Iowa Health System in Des Moines and a dermatology residency at MU Health Care.



Amna Ali, left, and Danielle Severns pose for a photo in Jesse Hall. Ali will serve her general surgery residency at the University of California San Francisco-Fresno, and Severns will train in pediatrics at the University of Tennessee-Memphis.



MU GRADUATE SMITH MAKES A DIFFERENCE BY STARTING FREE ADDICTION TREATMENT CLINIC

The young man arrived, barely breathing, at SSM Health DePaul Hospital in St. Louis after he crashed his car into a parked dump truck. In the emergency room, Dustin Smith, MD '09, performed the usual trauma workup, but the man's scans looked normal.

The patient's father thought his son had suffered a brain injury. Smith knew an overdose when he saw one. He administered the lowest possible amount of Narcan — a medication that rapidly reverses opioid overdoses — but it was enough to send the patient into immediate withdrawal. He sweated profusely, sat up and vomited while his horrified family watched.

"The dad, who 30 seconds before was questioning my medical judgment and whether his son would have permanent brain damage, turned to me and sternly said, 'Did you intend for this to happen?'" Smith recalled. "It was the biggest gut punch I had ever received in medicine. I walked out of the room. I don't want to admit I'm hearing voices, but the first thought that came to my mind was, 'How many times do you have to see this before you do something about it?'"

Smith thought back to a building contractor named Mark Puckett he had befriended in St. Joseph, where he spent his first five years as an ER doctor at Mosaic Life Care Medical Center. Puckett lost a son to an overdose. At the funeral, Puckett told Smith he didn't want his son's death to be in vain.

Together, Smith and Puckett decided to open a free opioid addiction treatment clinic in St. Joseph. It's called the St. Kolbe-Puckett Center for Healing. Maximillian Kolbe was a Catholic friar who volunteered to die in place of a fellow prisoner at the Auschwitz concentration camp during World War II. He is the patron saint of addiction sufferers.

The St. Kolbe-Puckett Center for Healing opened in September 2018. It is staffed with a paid clinic manager, a nurse and a counselor along with two volunteer doctors — Smith and Robert Corder, MD, who is a retired OB/GYN in St. Joseph. Through April, more than 100 patients were receiving treatment. The clinic prescribes the anti-opiate medication Suboxone and provides long-term counseling.

"What we're doing that's different than other clinics out there is we aren't charging people any money to come through the door or any money ever to receive access to the care I'm providing," said Smith, who was honored by the MU School of Medicine with an Outstanding Young Physician Award at its Alumni Awards Ceremony on April 26. "We are allowing people who otherwise would be turned away to get restarted."

Smith said he decided to make the clinic free to all patients because while 90% of Americans have health insurance, 90% of those suffering with addiction do not.



▲ Dustin Smith, MD '09, sees the effects of the opioid epidemic as an emergency room physician. In September 2018, he launched a clinic in St. Joseph, Missouri, that provides free treatment to people with opioid addictions.

Smith devotes Wednesdays to seeing clinic patients. He makes the 4½-hour drive from St. Louis to St. Joseph about once a month and conducts telehealth sessions the other weeks. The time he spends seeing patients, providing oversight and fundraising for the clinic makes the St. Kolbe-Puckett Center for Healing an "additional full-time job" to the work he already does at DePaul Hospital.

That schedule might not be sustainable, particularly for a husband and father of three young sons. But Smith hopes that as he gets the word out about the clinic, he will enlist additional volunteer doctors and raise enough money to hire more staff so he can take a lesser role treating patients. For now, he is fueled by his passion to make a difference in the lives of people trapped by addictions.

"It's easy to continue when you see people come in with five or six things in their drug screen and three months later, they're employed and taking care of their kids and thanking us for the opportunity after they've been turned away at other clinics," Smith said. "It keeps you going."



FOR MORE INFORMATION on how you can help Dustin Smith's clinic succeed, visit stkolbepuckett.org.

MU BESTOWS MEDICAL ALUMNI HONORS



▲ Joining MU School of Medicine interim dean Steven Zweig, MD, at the 2019 Medical Alumni Awards were, bottom row: John Alexander Smith, MD; and Mark Stacy, MD; top row: Dustin Smith, MD; Camila Manrique Acevedo, MD; Gema Simmons, MD; and Irl Hirsch, MD.

The University of Missouri School of Medicine and Medical Alumni Organization presented its most prestigious awards to graduates and supporters on April 26, 2019, in Columbia. The award recipients were honored during a reception and dinner at the Country Club of Missouri.

CITATION OF MERIT

Mark Stacy, MD '86, is the dean of the Brody School of Medicine and vice chancellor for health sciences at East Carolina University. With clinical and research interests in motor and non-motor symptoms in Parkinson's disease, he has published more than 250 manuscripts and one book, "The Handbook of Dystonia."

OUTSTANDING YOUNG PHYSICIANS

Camila Manrique Acevedo, MD, Res. '08, is an associate professor of medicine at the MU School of Medicine.

Gema Simmons, MD '98, is a physician with Associates in Women's Health in Omaha, Nebraska.

Dustin Smith, MD '09, is founder and medical director of the St. Kolbe-Puckett Center for Healing in St. Joseph and an emergency medicine physician with SSM Health in St. Louis.

DISTINGUISHED SERVICE AWARD

Rebecca Dillingham, MD '99, is the Harrison Distinguished Teaching Associate Professor of Medicine at the University of Virginia School of Medicine

Irl Hirsch, MD '84, is the Diabetes and Treatment Teaching Chair and Professor of Medicine at the University of Washington and the medical director of the Diabetes Care Center at the University of Washington Medical Center.

John Alexander Smith, MD '74, PhD, is a professor of pathology at the University of Alabama at Birmingham and the medical director of the Department of Pathology at UAB Highlands Hospital.

HONORARY ALUMNI AWARD

Robert Gaines Jr., MD, is a retired surgeon with Columbia Orthopedic Group and director of the spinal reconstruction fellowship at the University of Missouri.

LETTER TO THE EDITOR

Retired police officer thanks Sabapathy for saving life



RAJENDRAN SABAPATHY,
MD '96, RES '99

I'm a 1976 graduate of the University of Missouri College of Arts and Sciences. My story begins in the early morning hours of March 28, 2018. I had marked my 64th birthday hours before. I awoke to some nausea and pain across my shoulders around 1 a.m. Having been a career law enforcement officer in Overland Park, Kansas, for 34 years, retiring in 2011, I knew the symptoms of a heart attack.

Doing the wrong thing, I didn't call an ambulance. I threw on a jacket and a pair of MU sweats and drove to the hospital. I walked in, and they immediately did an electrocardiogram, which confirmed I was having a heart attack. I was then transferred to Overland Park Regional Medical Center after the doctor conferred by phone with Dr. Rajendran Sabapathy, the interventionalist on call at OP Regional. Upon arrival, I was whisked back to the catheterization lab where Dr. Sabapathy and his team placed stents in an artery that was 99 percent blocked. Subsequently, he performed another catheterization surgery in early April to repair another two blockages, one 95 percent and the other 50 percent.

After the first surgery March 28, I was awake in my room in the ICU the next morning. At some point I looked at Dr. Sabapathy's name on my wrist band and thought to myself, "Let me look this guy up on my phone and see his credentials." An immediate smile came to my face when I learned he was an honors graduate of the MU School of Medicine and completed his residency there. I began texting all my friends that I knew I was in good hands. Later that day Dr. Sabapathy came in for a visit.

I said, "Hey, Doc, I see you're a Mizzou alum. I am too." He replied, "Yes, I saw your Mizzou sweatpants when you came in, but I didn't think that was the appropriate time to have a conversation about the school with you."

He and his team saved my life that night. I donated to Mizzou's Dalton Cardiovascular Research Center in honor of the doctor and his team for their efforts that night and afterward. I guess the point is, after the love, loyalty and allegiance to the school I gained over the years, MU continues to give back to me.

Larry Cohen
Leawood, Kansas



Class Notes

'60s

CLASS OF 1963 ENDOWS SCHOLARSHIP – To celebrate its 55th reunion last fall, class agent Ray Wilbers, MD, of Mexico, Missouri, set a goal to endow the Class of 1963 Scholarship. With about \$7,200 in the fund before Physicians Alumni Weekend, the class needed to raise nearly \$18,000 to reach endowment level. Wilbers reached out to his classmates with a personal request for their contributions and was overwhelmed by the generous response. The Class of 1963 Scholarship Fund reached endowment in January 2019. On behalf of the future students who will benefit from the scholarship, congratulations to the Class of 1963 and special thanks to Wilbers for his efforts.

BILL KENNAN, MD '63, resides on a mile-high Sierra ridgeline, 1,200 feet above Reno, Nevada, with Mary, his wife of 57 years. They have eight adult children and 15 grandchildren. A retired pathologist, Kennan was an advocate for the development of mandatory statewide infant screening in California in the 1970s. He was managing partner of one of eight field labs selected in the initial proposal. Over his career, he served in numerous hospital and faculty appointments and was director of the California Genetic Disease Laboratory from 2008-15.

JEROME BELINSON, MD '68, is the CEO of MEDWORKS Inc., a nonprofit organization based in Cleveland that provides free medical, dental and vision care to medically underserved adults and children in Northeast Ohio and assists them in finding a health care home. Belinson founded Preventive Oncology International Inc. (POI), a research organization that blends humanitarian work with investigative science. He has a long academic career in obstetrics and gynecology and continues to serve as professor of surgery with the Cleveland Clinic Lerner College of Medicine. Belinson has dedicated his career to advancing the screening and treatment of gynecologic cancers and has received numerous awards, including the 2010 Chinese Friendship Award, the highest award China gives to a foreigner for contributions to economic and social progress of China. He currently serves on the board of directors for The Global Initiative Against HPV and Cervical Cancer (GIAHC) and the Global Coalition against Cervical Cancer.

ROYAL GARNER, MD '68, served as chief of medical staff of the 49 Medical Group at Holloman Air Force Base in New Mexico from 2000-05 and retired from the Air Force in 2005. He resides in St. Petersburg, Florida, and continues to work at the Bay Pines VA hospital three days a week.

RONALD KEENEY, MD '68, is enjoying retirement in Raleigh, North Carolina, and pursuing his skeet-shooting hobby.

'70s

DONNA KRUTKA, MD '73, recently moved to Oro Valley, Arizona, and welcomes classmates to visit the community that offers golf, bicycling, swimming and hiking. Krutka has been an active member of the USA Triathlon organization for 25 years and has competed in the Ironman World Championship in Hawaii.



WAYS TO GIVE

There are many opportunities to show your support for the MU School of Medicine by making a donation. Here are some programs either working toward an endowment goal or directly benefiting our new students. All gifts, regardless of size, are appreciated.

WHITE COAT/STETHOSCOPE PROGRAMS: Start the career of future physicians by contributing to the program to provide a white coat and/or stethoscope for each student. These tools of the trade are presented to incoming medical students during orientation week. The gift level is \$100-200.

PBL-25 SCHOLARSHIP: Celebrate the 25th anniversary of Patient-Based Learning with a contribution of any size to the scholarship fund. A gift of \$10,000 will give you the opportunity to name a PBL classroom in the Patient-Centered Care Learning Center.

LEGACY BRICK COURTYARD: Honor a classmate, professor, legacy teacher or new grad by purchasing a personalized brick in the School of Medicine courtyard, which joins University Hospital and the medical school. Gifts made by Aug. 1 will be in place by Physicians Alumni Weekend in October. The gift level is \$375.

TED GROSHONG, MD, ALUMNI LECTURESHIP: We are more than halfway to the \$100,000 goal to endow the lecture and would love for it to be fully funded by Physicians Alumni Weekend 2019. Make your gift to honor Dr. Groshong and his dedicated service to generations of physician alumni and Missouri families.

Make a contribution to any of these programs — and more — by contacting the School of Medicine Advancement Office at 573-882-6100 or schoolofmedicinedev@missouri.edu. Gifts to these and other School of Medicine programs can also be made online at mizzougivedirect.missouri.edu.

'80s

ALLAN ZACHER, MD '83, is the founding physician and medical director of Mountain Radiance Medical Spa, a nonsurgical cosmetic medical practice in Asheville, North Carolina. He previously worked in operating room anesthesiology for 20 years and 10 years in interventional pain management.

DAVID A. MILLER, MD '89, is continuing his career with a move to urgent care medicine, retiring after 20 years as a primary care physician in Crestwood and Kirkwood, Missouri. He is an assistant medical director of Affinia Healthcare and clinical director of Affinia's Urgent Care. He recently completed a masters of health administration at Webster University. Miller continues to serve his community as a volunteer physician with Volunteers in Medicine-West County in Manchester, Missouri; as a scout leader with a Boy Scouts troop in Wildwood, Missouri, where his two sons both recently received their Eagle rank; and as a lieutenant colonel with the U.S. Air Force Auxiliary as the Missouri Wing's medical officer and public affairs officer. He and his wife, Nikki, live in Wildwood, Missouri, and are enjoying a sudden empty nest syndrome with two boys off to college.



Class Notes, continued

'90s

REBECCA YALE, MD '93, is a board-certified obesity medicine specialist and an active member of the Obesity Medicine Association. In 2016, she opened Texas Weight and Wellness in Plano to help people lose weight and regain their health.

'00s

CURTIS HARTMAN, MD '03, was named a fellow of the American Orthopaedic Association in 2018. He is an associate professor at the University of Nebraska School of Medicine. Hartman resides in Omaha with his wife, Mizzou alum Stephanie Hartman, MD, and children Emmett (9) and Augustus (5).

KATHY WEISS, MD '06, is a neonatologist at Rady Children's Hospital-San Diego and an assistant professor of neonatology at UC San Diego.

KERRY REYNOLDS, MD '08, and husband Brian welcomed Sophia Grace Reynolds on Jan. 25, 2019. Sophia joins older brother Oliver, age 3. The family resides in Chestnut Hill, Massachusetts. Reynolds is an oncologist at the Massachusetts General Hospital Cancer Center, where she serves as the clinical director for inpatient service and the director of the Severe Immunotherapy Complications Service.

'10s

DANIEL LUEDERS, MD '11, was selected to the Little League International Board of Directors. Lueders is a sports medicine physician and assistant professor of physical medicine and rehabilitation at the University of Pittsburgh Medical Center in Pittsburgh.

DOUG CRASE, MD '15, graduated from the University of Kansas School of Medicine-Wichita Family Medicine Residency Program at Wesley Medical Center in June 2018. He is a family medicine physician at Texas County Memorial Hospital Family Clinic in Licking, Missouri.



CALLING ALL ALUMNI

SEND IN YOUR NEWS. MU School of Medicine grads are amazing, and we love hearing from our alumni. Send in your professional and personal news for Class Notes in the next MU Medicine magazine. Whether it's a new job or promotion, publication or award, a wedding or a baby, we want to hear from you.

Email mumedalumni@health.missouri.edu with your Class Notes or fill out the online form at www.medicine.missouri.edu/alumni/share-your-alumni-news.

In Memoriam

JAMES LESLIE JR., MD BS MED '45, of Jefferson City, Missouri, died on Dec. 19, 2018, at the age of 96. Leslie served in the Air Force in the Korean War, retiring as a lieutenant colonel. He was an orthopaedic surgeon and developed the shoulder repair technique known as the anterior axillary incision. He co-founded the Bone and Joint Clinic in Jefferson City and was a volunteer team doctor for the Jays football team for more than 50 years.

FRANKLIN LOCKWOOD, MD BS MED '45, of Fort Smith, Arkansas, died on March 1, 2019, at the age of 95. Lockwood served in the Navy, Army and Air Force over eight years, spending time in military hospitals in Korea and Japan. He was a general surgeon with Holt-Krock Clinic and served terms as chief of surgery at Sparks Memorial Hospital and St. Edward Mercy Medical Center.

EDWARD ELDER, MD BS MED '47, of Bloomfield Hills, Michigan, died on Aug. 14, 2018, at the age of 93. Elder was a family medicine physician.

ANDREW MARKOVITS, MD BS MED '51, of Pensacola, Florida, died on Oct. 30, 2018, at the age of 89. Markovits was an ophthalmologist and general practice physician. He retired from the Navy with the rank of captain, serving first as a flight surgeon in Japan, chief of ophthalmology at the Naval Aerospace and Regional Medical Center and clinic director at the Naval Aerospace Medical Institute in Florida.

KENNETH CLAY, MD BS MED '52, of Santa Maria, California, died on Aug. 27, 2018, at the age of 90. Clay specialized in internal medicine.

ROY WALTRIP, MD BS MED '55, of Hutto, Texas, died on Aug. 21, 2018, at the age of 88. Waltrip was a family practice physician in Sikeston, Missouri, for 52 years. He also did psychiatric counseling at Bootheel Counseling Services.

STAFFORD PILE, MD '58, of Indianapolis, died on Nov. 6, 2018, at the age of 85. Pile was a flight surgeon in the Air Force and practiced urology in Indianapolis for more than 35 years. Pile and his wife were co-founders of the Tamarindo Foundation, focusing on spiritual, community, education, employment and health care needs in El Salvador, where they made numerous mission trips.

DON PRUETT, MD '60, of St. Louis, died on Sept. 15, 2018, at the age of 83. Pruett was a general surgeon.

WINFREY THOMAS MORGAN, MD '61, of Columbia, Missouri, died on Nov. 29, 2018, at the age of 83. Morgan was a captain in the Army and managed the outpatient clinics at Fort Leonard Wood. He was in family practice in West Plains, Missouri, for 20 years before returning to Columbia to open Mediquick, the first convenience clinic in the area, where he worked until retiring in 2005.

STEVEN PLAX, MD '61, of St. Louis, died on Sept. 4, 2018, at the age of 83. Plax was a pediatrician in the St. Louis area for 40 years. He established a playground for children of all abilities at Tilles Park, which was the first of its kind in the area.

ROBERT WHEELER, MD '61, of Overland Park, Kansas, died on Jan. 20, 2019, at the age of 89. Wheeler was a Korean War veteran, serving as a Navy corpsman on the USS Consolation. He worked in family practice at the Harrisonville Medical Clinic for 51 years before retiring and was on staff at the Cass Regional Medical Center.

HARRY DIERKER, MD '62, of Columbia, Missouri, died on Sept. 19, 2018, at the age of 81. Dierker was a captain in the Army, serving in Korea and at Madigan Army Medical Center in Tacoma, Washington. He worked in a family practice clinic in Farmington, Missouri, for 20 years before returning to Columbia and joining University Physicians.

KEVIN CURRAN, MD '65, of Overland Park, Kansas, died on Mar. 11, 2019, at the age of 79. Curran was a lieutenant commander in the Navy, practicing in Guantanamo Bay, Cuba, from 1969-72. He practiced ophthalmology for 33 years.

ELIZABETH JAMES, MD '65, of Columbia, Missouri, died on Jan. 2, 2019, at the age of 79. A pioneering neonatologist and faculty member at MU, James directed the Department of Child Health's education program, founded the neonatal-perinatal medicine program and served as medical director of the neonatal intensive care unit for 36 years until retiring as professor emerita. She served as vice president and president of A Call To Serve International, working to improve the health of children from the country of Georgia.

LOREN GOLITZ, MD '66, of Denver, died on Mar. 8, 2019, at the age of 77. Golitz was a professor emeritus of dermatology and pathology at the University of Colorado School of Medicine and chief of dermatology at Denver Health Medical Center. He served in many leadership roles in national dermatology and dermatopathology organizations and was recognized by the American Society of Dermatopathology with a Founders Award.

PAUL BALLARD, MD '68, of Shoreline, Washington, died on Oct. 6, 2018, at the age of 83. Ballard worked as a family physician in the Seattle area for more than 40 years.

STEVE BROOKS, MD '68, of Columbia, Missouri, died on Dec. 15, 2018, at the age of 76. Brooks served as a flight surgeon in the Navy. He served the MU School of Medicine in many capacities over a 17-year tenure, including two stints as program director for the Department of Internal Medicine. He also was chief of nephrology, assistant chief of medicine and acting chief of medicine at the Harry S. Truman Memorial Veterans' Hospital.

PATRICIA BLAIR, MD '75, of Columbia, Missouri, died on Nov. 18, 2018, at the age of 73. Blair was an emergency medicine physician, faculty member at Stanford University and chair of the Emergency Medicine Department at Santa Teresa Kaiser Hospital in San Jose, California, and a physician partner of the Permanente Medical Group, where she developed the trauma management program. Blair was the founding president of A Call To Serve, an organization benefitting families and children in the country of Georgia, and established a sister city relationship between Columbia and Kutaisi, Georgia.

CAROLYN HOPKINS, MD '75, of Gainesville, Florida, died on Nov. 11, 2018, at the age of 69. Hopkins was a lieutenant commander in the Navy. She was a pathologist at Alachua General Hospital in Gainesville and was an associate medical examiner for Alachua, Baker, Bradford, Gilchrist and Union counties in Florida.

THOMAS DLABAL, MD '78, of Shalimar, Florida, died on Dec. 19, 2018, at the age of 66. Dlabal was an orthopaedic surgeon and opened the first free medical clinic in Okaloosa County in Florida.



ACUFF WAS KEY FIGURE IN MEDICAL SCHOOL HISTORY

R. Phillip Acuff, MD '57, of St. Joseph, Missouri, died on April 22, 2019, at the age of 87. Acuff was the first graduate of MU's four-year medical program. Since then, he was a consistently strong leader and advocate for the MU School of Medicine, including terms as president of both the Medical School Foundation Board and the Medical School Alumni Board of Governors.

He and his wife, Diane, were generous supporters of the medical school. The couple endowed a chair in medical research and made an estate gift that will provide full-tuition scholarships for four medical students each year. In 1992, they dedicated Acuff Auditorium in honor of his parents, Ida and Robert Acuff.

In addition to many grandchildren and great-grandchildren, Dr. Acuff is survived by his son, Michael, who served the medical school as a faculty member in the Department of Physical Medicine and Rehabilitation.

He was a board member and past chief of staff at Fort Walton Beach Medical Center and was the team physician for Fort Walton Beach High School.

GERALD WEIR, MD '78, of Paducah, Kentucky, died on Feb. 10, 2019, at the age of 69. Weir served in the Army Medical Corps for more than 13 years, retiring with the rank of major. He was a pathologist and worked in hospitals in Buffalo, New York; Springfield, Illinois; and Paducah, Kentucky.

MARK STUPPY, MD '79, of Brookline, Missouri, died on Oct. 2, 2018, at the age of 65. Stuppy was an obstetrician and gynecologist with Cox Medical Center in Springfield, Missouri, delivering more than 4,000 babies during his career. A lifelong conservationist, Stuppy was known for planting trees all around the Ozarks.

MELVIN BURTON, MD '80, of Florissant, Missouri, died on Jan. 25, 2019, at the age of 68. Burton was the first African-American class president at the MU School of Medicine. He was an internal medicine physician and retired from the Southern Illinois Foundation.

SARAH "SALLY" STEPHENSON, wife of the late Hugh E. Stephenson Jr., MD, died on Jan. 1, 2019, at the age of 86. Stephenson was an engaged supporter of the MU School of Medicine, the Ellis Fischel Advisory Board and the Medical School Foundation. She served in many volunteer roles across the university, including honorary co-chair of the medical school's steering committee. The Hugh E. and Sarah D. Stephenson Deanship was established in 2004 with a \$2 million gift from the Stephensons.



SAVE THE DATE

62ND ANNUAL

PHYSICIANS
ALUMNI WEEKEND

OCTOBER 11-12, 2019

Alumni from all classes are invited to reconnect with classmates and the School of Medicine. PAW activities will include:

- Alumni reunion banquet
- Scientific program for CME credit
- Medical school tours
- Homecoming football game vs. Mississippi