

UMKC **Medicine**

Fall/Winter 2017

UNIVERSITY OF MISSOURI-KANSAS CITY SCHOOL OF MEDICINE



Teaching lasting lessons

Outstanding faculty members bring learning
alive, help students find depth and meaning

Features

- 6 Coping with crisis**
The opioid crisis is daunting, but alumni are working to improve prescribing and tracking of the drugs, and to develop alternative treatments for long-term pain.
- 10 Teaching lasting lessons**
Outstanding faculty members help students find meaning in what they learn.
- 16 Fit for leadership**
Hospital administrators tell how they have extended what they learned at the School of Medicine to their jobs as hospital leaders.
- 25 2017 Annual Report**
Our annual look at giving and how it helps the School of Medicine maintain excellence and grow into the future.



Departments

- 2 The Pulse**
- 19 On the Hill**
- 22 Alumni**
- 32 Capsule**

Cover photo by Brandon Parigo

UMKC Medicine

UMKC Medicine is published twice each year for alumni and friends of the University of Missouri-Kansas City School of Medicine. 816-235-1706.

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Class Updates publishes information submitted by alumni, news released by employers of alumni and selected news stories that mention alumni and their affiliation with UMKC. Please send updates to medmagazine@umkc.edu or complete an online form at med.umkc.edu/magazine/submit. Items may be edited for style, length and clarity.



JUST LIKE MEDICINE, teaching is both an art and a science. At UMKC School of Medicine, we are most fortunate to have outstanding teachers who blend the art and science of teaching in a way that makes content come alive, helps students construct meaning around that content, and inspires students to want to learn even more.

Our medical school faculty members are dedicated to the growth and development of our students. And this is vital to our success.

This edition of *UMKC Medicine* celebrates some of the finest teachers at our school. One common trait among them? Adaptability.

These teachers continue to refine and update their approaches to teaching, incorporate new ideas, and use new technology. And while they do this, they remain steadfast in their dedication to student success. Their stories are testimony to teaching excellence.

We also feature alumni who adapted their knowledge of patient care in clinical settings to hospital leadership in Kansas City's leading health care institutions. Through their skills and administrative abilities, they make a real difference right here in the community in which they learned how to be a physician. And, of course, they credit the exceptional teachers who supported them along the way.

In addition, this issue includes news and events from around the school, and our annual report highlighting donors and their generous support.

As you read this issue and begin to think about School of Medicine teachers who influenced you, please share your recollections with us at medmagazine@umkc.edu. We look forward to hearing from you!

A handwritten signature in black ink that reads "Steven L. Kanter". The signature is written in a cursive, flowing style.

Steven L. Kanter, M.D.
Dean, UMKC School of Medicine

School of Medicine takes lead role in new health district

THE UMKC SCHOOL OF MEDICINE is playing a lead role in forming the UMKC Health Sciences District, a collaboration unlike any other in the nation. The new district combines the unique expertise and services of 12 partners to spur health-related research and community outreach in the Kansas City region and beyond.

The partners are the University of Missouri-Kansas City and its schools of Medicine, Dentistry, Nursing and Health Studies, and Pharmacy; Truman Medical Centers; Children's Mercy; Kansas City, Missouri, Health Department; Missouri Department of Mental Health Center for Behavioral Medicine; Jackson County Medical Examiner; Diastole Scholars' Center; and the Ronald McDonald House.

While there are other health districts in the United States, the UMKC Health Sciences District is unique. It is one of 18 areas in the country that have public schools of medicine, pharmacy, dentistry and nursing in one location along with a children's hospital and an adult, acute-care hospital. But by including a health department, the medical examiner and a mental health center that brings together agencies of the city, county and state, the district is one of a kind. It is about two miles in circumference, bound on the north by 20th Street; south by 25th Street; west by Oak Street; and east by U.S. 71 Highway.

According to UMKC School of Medicine Dean Steven L. Kanter, the UMKC Health Sciences District is the perfect



Jackson County Executive Frank White and Dean Steven L. Kanter were among those signing the district's agreement.

environment for students, scientists and health-care professionals to work and learn together as they deliver top-quality, personalized health care.

"Better functioning health-care teams provide better patient care, he said. "Interprofessional education means educating future physicians, nurses, pharmacists, dentists and other health-care professionals to work effectively as members of those teams so that patients get the best and safest care possible."

To learn more about the district and its partners, visit www.umkchealthsciencesdistrict.org.

Neurology residency, endocrinology fellowship add to school's offerings

THE SCHOOL OF MEDICINE'S graduate programs have expanded with a residency in neurology and a fellowship in endocrinology, diabetes and metabolism.

The neurology residency started July 1 with two residents, Ellen Troutd, M.D., currently at Truman Medical Center, and Nikita Maniar, at Saint Luke's Hospital. They will work for a year in internal medicine and then three years in neurology. Research Medical Center, Children's Mercy Hospital and the Center for Behavioral Medicine also are affiliates for the residency.

Charles Donohoe, M.D., the Neurology Department chairman and associate professor of neurology, said adding the residency was integral to sustaining the TMC-UMKC neurology program. The program aims to add three physicians a year, eventually having a dozen residents.

"Five years ago we had no full-time neurology faculty," said Donohoe. "Now we have five faculty members in the Neurology Department, and to add a residency in such a short time is quite an achievement. We also think it's important to have a solid neurology presence at a safety net hospital such as Truman."

Troutd is from New York and earned her medical degree at

the Ross University School in the Caribbean island nation of Dominica. Donohoe said she had recently worked in cutting-edge stroke treatment as part of an ambulance team that had the rare advantage of having a CT scanner in the ambulance.

Maniar is from Florida and also earned her medical degree in the Caribbean, at the St. George's University School of Medicine in Grenada. She then earned an MBA there and recently was a research fellow at the Brooklyn Hospital Center in New York.

The new endocrinology position is a two-year fellowship held by Maha Abu Kishk, M.D., an internist who earned her medical degree in 2003 and has been a hospitalist with Truman Medical Centers. This fellowship is affiliated with Hellman & Rosen Endocrine Associates, which will be a primary training site along with Truman Medical Center.

"We're excited to add this fellowship, which helps address the shortage of endocrinologists," said Betty Drees, M.D., professor of medicine and program director for the fellowship. "As diabetes continues to increase in prevalence, so does the need for endocrinologists."

Biomedical research now a primary discipline of UMKC's I-Ph.D. program



Ph.D. student Jeremy Provance is conducting cardiovascular outcomes research with a primary emphasis on bioinformatics.

FOUR GRADUATE STUDENTS in UMKC's Interdisciplinary Ph.D. program have begun working toward their doctorate degrees with a primary emphasis on bioinformatics through the School of Medicine's Department of Biomedical and Health Informatics. The four started their coursework this semester, becoming the first students to pursue Ph.D.s through the School of Medicine.

The I-Ph.D. program lets students work across disciplines to develop individual academic plans requiring a primary discipline and at least one co-discipline. In collaboration with the university's School of Graduate Studies, the medical school has offered bioinformatics as a co-discipline since the fall semester of 2014. Bioinformatics has two co-discipline students who are on track to complete their degrees next May; one with a primary discipline in molecular biology and biochemistry, and the other with a primary discipline in engineering.

The School of Medicine also offers a master's degree in bioinformatics and a graduate certificate in clinical research through the Department of Biomedical and Health Informatics.

UMKC researchers chosen to present late-breaking studies at cardiovascular symposium

RESEARCH STUDIES BY UMKC School of Medicine faculty researchers at the Saint Luke's Mid America Heart Institute have been selected for presentation at the world's largest educational meeting for interventional cardiovascular medicine.

The researchers are the first or senior authors of 10 original studies and contributing authors of nine other studies selected for presentation at the 2017 Transcatheter Cardiovascular Therapeutics symposium in Denver, which ran Oct. 29 through Nov. 2.

The presentation includes two major studies selected as Late-Breaking Clinical Trials. Only 12 research breakthroughs highlighting the most innovative treatments for heart disease are selected for the presentations.

"It is rare for any institution to have even one late-breaking trial presentation at a major cardiology meeting," said David Cohen, M.D., professor of medicine and MAHI director of cardiovascular research. "Having two of the 12 come from the Mid America Heart Institute is an incredible honor and a testimony to both the Mid America Heart Institute Clinical Scholars program and the international reputation that our research program has come to enjoy."

Suzanne Baron, M.D., assistant professor of medicine, is the lead author of a study that describes the long-term quality of life outcomes of nearly 2,000 patients enrolled in a landmark



Suzanne Baron, M.D.



David Cohen, M.D.

multi-center trial. The research compared everolimus-eluting stents and bypass surgery for the treatment of left main coronary artery disease. Cohen is the lead author of the second study that evaluates the cost effectiveness of transcatheter aortic valve replacement compared with surgical aortic valve replacement in intermediate risk patients.

Four of the MAHI studies to be presented at this year's meeting are the direct result of a groundbreaking OPEN-Chronic Total Occlusions (CTO) registry. The registry is led by Aaron Grantham, M.D., associate professor of medicine, with assistance from Adam Salisbury, M.D., assistant professor of medicine, and the support of the MAHI Outcomes Research group. The studies define the success, safety, health benefits and cost effectiveness of novel techniques to open blocked coronary arteries that are considered untreatable through minimally invasive techniques.

Hospital Hill's dynamic research duo

WHAT COULD BE better for research at the School of Medicine and Hospital Hill than to hire a powerhouse researcher with extensive international experience and success in securing research funding?

How about hiring two?

That's what occurred in the summer of 2016. Paula Monaghan-Nichols, Ph.D., was announced as the School of Medicine's new associate dean of research. Her husband, Mark Nichols, Ph.D., was hired for the same post at the School of Nursing and Health Studies.

"Mark and I were impressed by the wealth of research opportunities at the school and the many research institutions throughout Kansas City and the region, and by the collaborative atmosphere," Monaghan-Nichols said.

After a year on the job, they can report progress toward their goals of increasing federal and foundation research funding for faculty; increasing peer-reviewed published manuscripts and conference presentations; and involving fellows, residents and students at all levels in research and scholarship activities.

In pursuing those goals, they help faculty members through all stages of launching a research project, from framing an idea and identifying possible collaborators to finding the best funding mechanisms and then writing the most competitive application possible.

As they support and encourage research, they draw on experience and perspectives gained across the United

States and overseas, both as researchers and as administrators helping others.

"I have met and worked with people from all over the world and with many personalities and talents," Nichols said. "I have also seen what works well at each of the institutes where I have worked, as well as what some of the limitations were. With this experience, I can observe and suggest process and content changes that should streamline and improve results."

International experience

Monaghan-Nichols brings cultural awareness and experience in building networks. One achievement she pointed to from her years at the University of Pittsburgh was helping to start the National Institute for Mentoring Early

and did post-doctoral work in Edinburgh and at the German Cancer Research Center in Heidelberg, Germany.

Nichols earned his bachelor's degree at the University of California-Berkeley and his Ph.D. at Yale. At Pittsburgh, he was on the pharmacology faculty and ran his own lab for 12 years, focusing on clinical and basic research mechanisms in breast and uterine cancer signaling pathways and therapeutics. He also took business courses, fostered research collaboration and helped develop grant proposals.

"After working on 73 funded grants totaling about \$116 million, I realized that I can help acquire funding for far more and broader research than I could ever perform in my own lab," Nichols said.



Mark Nichols (left), Ph.D., and Paula Monaghan-Nichols (right), Ph.D., give students a tour of the new research lab in the School of Medicine, which Monaghan-Nichols got up and running this fall.

Minority Faculty in Neuroscience, which has established a nationwide mentoring network for minority researchers.

The Nicholoses were recruited from Pittsburgh, where Monaghan-Nichols was on the neurobiology faculty, was the director of courses in human genetics and neurobiology, co-director of a postgraduate T32 training grant, and vice chair of the curriculum committee. She earned her bachelor's degree at Trinity College in Dublin, Ireland; her Ph.D. at the Medical Research Council in Edinburgh, Scotland;

Their post-doctoral resumes, and lives, first overlapped in a crowded lab in Heidelberg. Monaghan-Nichols was new and took the only vacant space, a desk in the corner. Nichols was home writing a paper for a couple of weeks, and when he returned "she was sitting at my desk."

Monaghan-Nichols said the lab's research crew was "from all over the world—the British Isles, France, Germany, Greece, Australia. Mark introduced me into the group, and we became an international family."

After their successes at Pittsburgh, the couple said, the dual opportunities at UMKC's medical and nursing schools seemed like a good challenge.

Monaghan-Nichols makes it clear that she knows the players across the region. In rapid fashion she lists contacts with many of those institutions — the Kansas City Area Life Sciences Institute, MRIGlobal, Children's Mercy Hospital and Truman Medical Center, the Center for Behavioral Medicine, UMKC's school-wide Research Advisory Council, and several affiliated with the KC Animal Health Corridor, whose research on drug pathways has implications for human drug research.

And for the School of Medicine and the rest of UMKC, she details five areas of unique strengths and future research interests, from the opioid crisis and smoking cessation work to bioengineering and a variety of infections and trauma research.

A wealth of possibilities

"There are great opportunities in every school, every department," she said. "We are identifying experts and available resources, and connecting people who are interested in collaborating."

One School of Medicine faculty researcher who has benefited from their help is Gary Sutkin, M.D., a gynecologist, surgeon and researcher who is associate dean of women's health and the Victor and Caroline Schutte Chair in Women's Health. He already has received one substantial grant with the Nicholoses' help.

"I had never applied for a major research grant before," said Sutkin, who relied on the Nicholoses' advice throughout the process. "Their help was invaluable."

Besides helping others get funding,

Monaghan-Nichols is excited about getting her own lab up and running at the School of Medicine. She hired a research assistant in September and started her first experiment in October under a National Institutes of Health grant to study the prenatal basis of neurological abnormalities that occur when steroids are administered to mothers at risk for pre-term birth, to promote fetal lung maturation.

Another result of the Nicholoses' efforts is the Health Sciences Deans' Seminar Series, an interdisciplinary series aimed at highlighting research from local and national leaders. Faculty from ophthalmology, pediatrics, nursing, bioinformatics, pharmacy, dentistry, Saint Luke's Hospital, Children's Mercy Hospital, KU Medical Center and the Stowers Institute have presented in the series' first 10 months. In a one-hour seminar, Nichols said, researchers across Hospital Hill can become aware of what others are working on and make vital connections.

The Nicholoses also are on the School of Medicine faculty, she as a professor in the Department of Biomedical Sciences, and he as an associate research professor in the Department of Biomedical & Health Informatics. Monaghan-Nichols also is the new chair of the Department of Biomedical Sciences, taking the reins from Chris Papasian, Ph.D., who is retiring after



Paula Monaghan-Nichols discussed research with Hunter Faris, a fifth-year medical student.

leading the department since 1998.

Besides fostering research collaborations and juggling two careers, the Nicholoses' have three important collaborations at home — their two high-school-age daughters and a son in middle school. Monaghan-Nichols made it clear that they were the couple's top priority.

"My first mission when I came here was personal, to get my family settled, integrated into the community," Monaghan-Nichols said.

After a year their children are doing well, she said, involved in their schools, keeping in touch with friends back in Pittsburgh and making new friends here.

"It helps that Kansas City has been so welcoming, and has so much to offer culturally and in the arts," she said.

Her husband agreed: "It's a great place for discovery."

DEAN'S POP QUIZ

Each year, School of Medicine graduates land some of the nation's most prestigious residencies. Which of the following alumni have completed residencies at the Mayo Clinic School of Medicine? Can you identify them? For the answers, see page 22.


- A) Hepatologist and liver transplant specialist at Duke Health in Durham, North Carolina, and professor at the Duke University School of Medicine.
- B) Head of Otorhinolaryngology-Head & Neck Surgery at Lurie Children's Hospital of Chicago and professor at Northwestern's Feinberg School of Medicine.
- C) Interventional radiologist with the Healiant Physician Group in Leawood, Kansas, performing minimally invasive peripheral muscular procedures.
- D) Professor and department chair for Otolaryngology-Head & Neck Surgery/Audiology at the Mayo Clinic of Phoenix/Flagstaff, Arizona.
- E) All of the above



Coping with Crisis

Alumni are fighting the opioid epidemic in many arenas,
from prescribing standards to public policy to pain relief

By Greg Hack



The medical community is battling the U.S. opioid crisis on several fronts, from tighter prescribing standards and better tracking of opioid use to expanded pain treatment options. Alumni of the School of Medicine have been part of those efforts, which appear to be paying off.

The overall statistics remain grim, and U.S. drug deaths had their largest increase ever last year. But amid the heartbreaking stories of ravaged small towns and urban morgues overflowing with bodies of overdose victims, two trends offer hope: Deaths from prescription opioids, as opposed to illegal ones, have slowly declined after peaking in 2011. Similarly, the number of prescriptions written for opioid painkillers topped out in 2012 and headed downward, the first decline in two decades in prescriptions for this class of painkillers.

“I’m sure we’re writing fewer opioid prescriptions, and covering shorter time periods, than we were a year ago or five years ago,” said Matt Gratton, M.D., chairman of the Department of Emergency Medicine for UMKC and Truman Medical Center-Hospital Hill, where he was a resident from 1981 to 1983.

“New York City hospitals adopted prescribing guidelines for their emergency rooms four years ago, and they’ve spread quickly since then. We adopted virtually the same guidelines two and a half years ago on Hospital Hill and a year ago at Lakewood.”

In family medicine, the American Academy of Family Physicians has kept its 129,000 members supplied with the latest research, advice and policies on opioid abuse, along with helping hundreds of its members get training in treating opioid addiction.

Mike Munger, M.D. ’83, president of the academy, said, “As family physicians, we’re on the front lines of patient care, and we’ve put together a multi-prong approach in partnership with other medical associations and government agencies.”

How did this happen?

Opioids have a long history, from heroin to long-time prescription medicines including codeine or morphine, and then hybrids or synthetics such as hydrocodone and oxycodone. But from 1999 to 2013, opioid prescriptions by one measure quadrupled, and opioid addiction and deaths soared, too.

Pain relievers suited to short-term use for acute pain, such as after surgery, were sometimes prescribed in month-long quantities, encouraging overuse or diversion to illegal sales. Their use for chronic pain also increased, though research indicates their long-term effectiveness often is outweighed by the risk of dependence.

Sam Page, M.D. ’92, said one seed of the increase was planted back in 1980, when a letter to the editor of the *New England Journal of Medicine* cited hospital research indicating little risk of addiction to opioid analgesics.

“The letter was frequently cited to advocate for the widespread use of opioids in outpatient settings, and was widely used to create momentum for the establishment of pain as the fifth vital sign,” said Page, a St. Louis area anesthesiologist who also has served in the Missouri General Assembly.

That “vital sign” designation led to other things, said Ryan Jacobsen, M.D., whose emergency medicine residency was at Truman from 2006 to 2009. Prescribing large amounts of opioids, often for chronic pain, became more common. That set up more patients for addiction, or allowed them to sell or give their extra drugs to others if they didn’t need or want them.

“We tended to focus on completely eliminating pain for all conditions,” said Jacobsen, a clinical assistant professor in the School of Medicine and the medical director for emergency services in Johnson County, Kansas. “That set up patients for failure as they began to expect zero pain regardless of the problem, and prescriptions for strong opiate medication were given frequently for things that probably didn’t warrant it.”

Jacobsen said that also was reinforced when the medical field began evaluating physicians and hospitals through patient satisfaction surveys and linking them to reimbursements.

Others have pointed to pharmaceutical company marketing as part

tightened up their emergency room guidelines before 2016.

“It’s a popular conception that anyone can walk into the ER and we’ll write a script for 100 Vicodin or oxycodone or whatever. Even in the bad old days that wasn’t true,” he said. “And

just one doctor, a family doctor, writing those prescriptions if anything is needed longer term.”

That’s music to Munger’s ears. The family physicians academy emphasizes its members’ role in managing overall patient care. Among the organization’s

“It’s a popular conception that anyone can walk into the ER and we’ll write a script for 100 Vicodin or oxycodone or whatever. Even in the bad old days that wasn’t true.”

— Matt Gratton

of the problem, underplaying the risks of addiction. Lawsuits have been filed against several of the companies, which say they complied with federal guidelines, and note that patients often did not use the drugs as prescribed.

And just as the trend toward fewer opioid prescriptions seems to be helping, a flood of more powerful, illegal opioids has washed in, mainly from China and Mexico. That has made relatively cheap but deadly alternatives available on the street as legal prescriptions have become harder to get. Chief among them is fentanyl, a synthetic opioid 100 times as potent as morphine.

Drug deaths involving fentanyl and its analogs more than doubled from 2015 to 2016. As a result, the 64,000 overdose deaths in 2016, the latest estimate from the National Center for Health Statistics, were up more than 22 percent from 2015.

Tightening up

As opioid overdose deaths increased, the Centers for Disease Control in 2016 and then the Centers for Medicare and Medicaid Services in 2017 revised their prescribing standards. As Gratton noted, many hospitals had already

even when I was a resident, in 1983, ER physicians worried about people abusing the ER to get a prescription.”

Still, Gratton said, the recent standardization of guidelines helps by encouraging emergency physicians to check with a patient’s primary physician whenever possible, and to check a prescription drug registry when one is available to make sure the patient isn’t trying to get multiple opioid prescriptions. The standards also can help reinforce physicians’ good instincts for balancing pain relief with not dispensing excess opioids.

“If you have someone come in with a broken wrist, you know what to do,” Gratton said. “And if you give him three or four days’ supply, he might have to come back if he can’t see his regular doctor that soon. It’s good to be aware of the trade-offs.”

Gratton said making ER patients connect with their primary care physician for follow-up might be one of the best things the guidelines encourage.

“We get to see patients only once,” he said. “We can’t build a therapeutic alliance in 10 minutes. And many specialists are not interested in prescribing narcotics. So it makes sense to have

efforts to help combat the opioid crisis:

- A chronic pain management toolkit, including help in interviewing and assessing patients with chronic pain and devising a balanced treatment plan with them.
- A position paper, “Chronic Pain Management and Opioid Misuse: A Public Health Concern,” that spells out steps to prevent abuse and addiction but also argues against over-regulation that could keep needed pain relief from patients.
- Access to training on how to properly treat patients with opioid dependence or addiction.

“In 2015, with the Department of Health and Human Services and the White House, the AAFP committed to a two-year increase in the education of our members,” Munger said. “Since then, hundreds of family physicians have completed training to better treat opioid addiction, training that’s especially valuable in rural and underserved areas.”

The crisis defies any simple solution, Munger said, “but I’m optimistic going forward, given the increased awareness of the challenges and our

efforts to educate and empower our physicians.”

Keeping better track

Another tool in the fight is a drug registry that tracks the prescriptions a person has. A physician can check it to make sure a prescription won't conflict with something a patient already is taking. Such a check also can flag a patient who already has an opioid prescription and is trying to get extra pills, whether because of addiction or to put on the black market.

Every state except Missouri has such a prescription drug monitoring program. However, about half the people in Missouri are covered by a tracking system started by Page, the anesthesiologist who served in the state legislature.

Page could not get a statewide monitoring program through the legislature when he served from 2003 to 2009. But in 2014, he was elected to the St. Louis County Commission and got a registry set up for the county. Several other counties eventually joined with the St. Louis system. In the Kansas City area, Independence, Kansas City and Jackson County have joined the St. Louis County registry to provide a local registry for their metropolitan area.

In addition, Gov. Eric Greitens in July issued an order to assemble a database to help identify suspicious patterns of controlled-substance prescriptions. Page said the governor went as far as he could with an executive order, but it still would not allow a physician in real time to check a patient's prescription history.

There is still debate on the merits of prescription drug management programs, at least in Missouri. Opponents say the registries raise privacy concerns, and they question their effectiveness, given the explosion of opioid

deaths despite every other state having such a system. But a recent summary of research by the Leonard Davis Institute of Health Economics at the University of Pennsylvania concluded that the programs can help reduce the amount or strength of opioids prescribed and dispensed. The research summary also said the 25 states that made physicians join their registry generally saw better results than states with looser requirements.

Page said governments also could help combat the crisis by making sure antidotes to opioid overdoses are available to all ambulance crews and other first responders. Providing legal immunity for reporting an overdose also would help, he said.

“I know first hand the complex decisions that are made surrounding pain management and opioid prescribing,” he said.

Fostering other approaches

Treatment standards for chronic pain often encourage use of alternative therapies such as acupuncture and cognitive behavioral therapy before prescribing opioids. One alumnus versed in such therapies is Arif Kamal, M.D. '05, MBA, MHS, director of quality and outcomes for the Duke Cancer Institute in Durham, North Carolina.

Kamal said the institute takes a “total pain approach” to treating its patients, developing and administering therapies for long-term relief that also can reduce opioid use and its risks and side effects.

“Anxiety and pain often go hand in hand,” said Kamal, who also is an associate professor of medicine at Duke. “Anxiety and depression affect how

pain is felt and processed. Treating a patient's underlying issues, with counseling or mind-body techniques or non-opioid medications, also can help manage pain.”

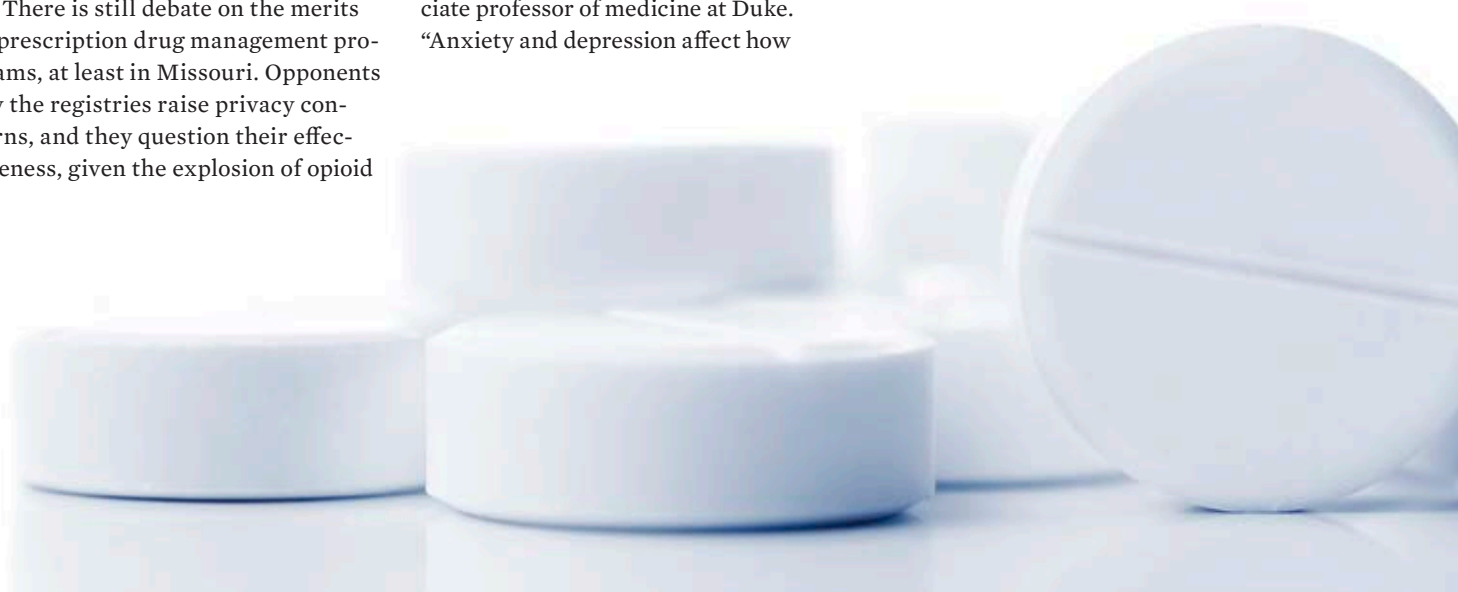
The approach “acknowledges the pain is real,” Kamal said, “but also makes use of the mind's ability to process that pain. We know emotions play a big part in how pain is experienced.” So the total pain approach often includes training in coping skills and resilience to help patients manage and minimize the effects of chronic pain.

“If someone has had a setback or is facing a stressful time,” Kamal said, “we might add an extra weekly counseling session, instead of increasing the opioid dosage.”

Kamal said his situation was favorable for developing and proving non-drug therapies, given Duke's commitment to research and the reimbursements often available for cancer care. He's hopeful his center's results will help persuade insurers to cover such treatments for non-cancer pain, too.

Kamal said some factors were beyond physicians' control, from the nature of the drugs — effective against acute pain but addictive — to the profits to be made from illegal sales. But he sees progress in the guidelines for more thoughtful prescribing of opioids, and in the prescription drug registries as a way to identify addicted patients.

“There's also the growing awareness that we need better treatment for addiction, and for chronic pain,” Kamal said. “There's no easy solution, and medicine has to be part of it.” ■



In her office at the School of Medicine, Darla McCarthy gestured toward a map of the human metabolism and said, “This is what I teach.”

Hundreds of chemical names fill the poster-size diagram, along with lines indicating their pathways for interaction.

But McCarthy, an associate teach-

approaches to teaching. Their techniques varied and, especially for long-time faculty members, had changed over the years. Yet, everyone’s approach, to some extent, reflects a trend toward “active learning” and away from straight lecture courses.

Dean Steven L. Kanter, M.D., sees other common traits:

“Outstanding teachers share a drive

discussion of nutrition. I have them do nutrition logs, track what they’ve been eating and how much they exercise. I have them ask, What am I putting in my body? And how am I using the energy?”

Only then does she bring the metabolic map into the discussion.

“I introduce different parts: This is the part you used right after you ate. This is the part you will use 17 hours

Teaching LASTING

Great professors help students become lifelong learners who find meaning in the deep knowledge they acquire

By Greg Hack

ing professor of biochemistry, quickly makes clear she isn’t teaching memorization.

“My goal is not for students to recall every detail, but to think about these processes and how they’re occurring inside themselves — to understand the concepts and then be able to apply them to a patient,” said McCarthy, winner of the UMKC School of Medicine’s 2017 Elmer F. Pierson Teaching Award.

In recent interviews, McCarthy and several other School of Medicine faculty members discussed their

to foster true learning — to help students construct meaning in their studies and eventually use their knowledge to provide excellent patient care and to advance medical research and education. And outstanding teachers tend not to see themselves as ‘producing doctors,’ but rather as cultivating the next generation of physicians.”

Making material vital

In teaching metabolism, McCarthy begins by helping students see the relevance to themselves. “I start with a

later when you’re starting to enter a fasting state. And if you were to not eat for three or four days, this is how things would change.”

McCarthy, who also is assistant dean for curriculum, believes that approach lets students see how everything fits together, learning which parts are particularly important clinically, and how to use the map to answer questions.

For example, she said, “If you have a patient with lactic acidosis, and you’ve learned the key things about metabolism that could cause that condition,



43



LESSONS

Darla McCarthy, Ph.D., and Mike Wacker (background), Ph.D., get students actively involved in their courses.

you can move on to treatment options.”

McCarthy says she loves biochemistry and teaching it, but is using less lecture time and more group and team projects with her students.

“I do a lot of dividing the class into teams and giving each a problem to solve,” she said. “They need to learn to work together, with other people, and they do. It’s good to see them become a cohesive team.”

McCarthy also helps move the teams along when necessary.

“Often we’ll stop in the middle and ask a question. Not a recall question, but one that requires students to think in the context of a patient’s illness, giving them chances to use the information with me there to see how they’re thinking.”

That’s the same teaching philosophy used by Mike Wacker, Ph.D., associate dean of academic affairs and physiology professor at the medical school.

“I really want students to think critically, to not memorize these physiological principles or physiological concepts,” he said. “I want students to think through them and understand them. That way, if a different situation or problem comes up, they can think through it and understand it.”

Wacker, the 2015 winner of the Pierson Teaching Award, finds giving students “relatable problems” sparks

their curiosity.

“And once they have that curiosity, it really helps to foster learning,” he said. “That’s the approach we all try to take. Once they’re asking the questions, they’re the ones doing the learning, and they’re self-motivated at that point.”

Besides emphasizing the meaning and relevance of what they are teaching, both McCarthy and Wacker say they try to reach every student in some way.

than biochemistry,” McCarthy said. “My goal is to help the students who really don’t like the type of thinking and process you have to do for biochemistry. I want to help them get comfortable with and appreciate biochemistry.”

Wacker said using a variety of activities helped him reach students who learn in different ways.

“There’s no one technique that works for every single student,” he said.

“Students’ questions can be surprising — what they’re inquisitive about, and the ways they think about the material.”

— Mike Wacker

For McCarthy, that means bringing in a weight lifter to discuss biochemistry in a way that interests students who exercise. Or giving extra attention to students who don’t take to her material naturally. She knows that while all students in medical school are bright and motivated, they have a wide range of strengths.

“I understand that some students are very good at, say, anatomy, which involves completely different strengths

“At UMKC, we take a diverse approach, with a lot of techniques and ways of learning. I lecture but introduce small problems during the lecture, to get them to think. We also give them small-group problems, clinical vignettes to work through, as well as team-based activities.”

Sometimes the technique is something light, even if the topic at hand is heavy. For instance during basketball season, Wacker might use a March Madness style “playoff” bracket to help students learn and remember which types of heart arrhythmia are more deadly than others.

In addition to shared teaching approaches, McCarthy and Wacker share work time, too. After 10 years at UMKC, Wacker has established his own research lab, and McCarthy is on his research team.

And in the classroom, they sometimes team up to teach Human Structure Function courses.

“We do a case study together on heart attacks that’s really good,” Wacker said. “It’s team-based and incorporates anatomy, physiology and histology. It brings concepts together and brings them to life in a real clinical situation.”



Both professors say they enjoy learning from their students, another benefit of getting everyone thinking and asking questions.

“Students’ questions can be surprising — what they’re inquisitive about, and the ways they think about the material,” Wacker said.

“And that’s the fun part of teaching. We all have a passion for our material, and it’s great interacting, taking their questions, and seeing what parts of each lesson they’re interested in.”

Changing with the times

Two of the School of Medicine’s more veteran teachers — Christopher Papasian, Ph.D., and Stuart Munro, M.D. — want their students to be able to adapt to new information and situations.

After all, that’s what they’ve done in recent years, with the shift toward active learning.

They both built reputations as engaging and challenging lecturers. Papasian won the Pierson Teaching Award in 2006, and Munro won the honor in 2012. Now, both incorporate substantial amounts of student-led activities in class, reducing their lecture time.

And neither seems to mind using new techniques to accomplish their longstanding goals for students.

“Work ethic is one of the most important things you have to learn, along with how to think about patients and their conditions,” said Papasian, who is retiring in December after nearly 20 years as head of the Department of Biomedical Sciences.

“I start my Medical Microbiology course now with a list of things we knew nothing about when I got my Ph.D. in 1982, starting with what caused AIDS,” Papasian said. “It’s not just memorization of facts, because the

facts will change, and students won’t remember them when they graduate four years later, much less 20 or 30 years down the road.”

Papasian relied on his own work ethic when he revamped his course, pushing students to read and learn factual material before they came to class, and then challenging them with case studies and other problems to solve.

“It’s about developing a process: How do you think about a patient coming in with an infectious disease, which is what I teach,” he said. “And we go through the whole process, again and again, but changing variables — age, sex, country of origin, how fast symptoms come on.”

In this learning process, students experience how the changes might result in a different diagnosis, or a different treatment for the same illness, given a patient’s other variables.

And they ask more questions: What tests do you order? What do you do while you’re waiting for test results? What would you do differently if the patient had a previous heart attack, or high blood pressure?

Papasian also tries to teach students that, although it’s important to consider all the variables, it takes work and practice to develop a “mental highlighter,” to be able to discern what factors are important in a particular

situation.

And as medical knowledge continues to expand, he said, “these things are going to become even more important — the work ethic, how to go about this, how to find things.”

The reality is that things change, Papasian said. “Fifteen years from now, the way you’ll treat a staph infection or strep infection will be different because the organism changes over time.”

Munro, who teaches the basic psychiatry course that all medical students take, also has seen change — and welcomes it.

“I like being an academic psychiatrist because the renewal process that it continually demands is rejuvenating and satisfying,” Munro once wrote in an article for the journal *Academic Psychiatry*. And that feeling hasn’t changed in his 32 years of teaching at UMKC.

Munro said shifting to team and group projects and shortening his lectures had led students to “play with ideas and information” that they previously might have just memorized.

“I’m actually teaching less, but student satisfaction and test scores have gone up,” he said. “We’re not here to get great scores; we’re here to learn. But it’s a measure, and one that has improved significantly.”

These results match research showing “that you get far more out of the

Left: Stuart Munro, M.D., has revamped his classes to reduce lecturing and foster student engagement. Right: Chris Papasian, Ph.D., known for his engaging lectures, relies now on more active learning and team exercises.





David Mundy, M.D., works in clinic with residents and medical students.

time spent if they are doing the work themselves,” Munro said. “And it forced me to think through what would be the most important concepts to take away, even if I had less time to teach it.”

Like his colleagues, Munro groups students and gives each group a clinical case to analyze. The resulting reports are assembled and shared throughout the class, so students learn from one another, and are motivated to produce good reports because all classmates will see them.

“Each month starts with me being the primary teacher,” Munro said. “By the end of the month, that’s flipped.”

Munro also requires each student to identify a patient in clinic and, with the consent of the patient and docent approval, add an expanded psychiatric assessment to the patient interview.

“The typical patient doesn’t need this, of course,” Munro said. “But if something seems amiss, every physician needs to be able to conduct such an assessment. And with this assignment, they’re actually performing the exam and not hearing about it second hand. Invariably, they find the patient appreciates that they took 10 to 15 minutes to just focus on them.”

Munro uses the humanities “as a

great teaching tool for finding meaning.” As an example, he assigns his favorite Hemingway short story, “Indian Camps,” to read and discuss in class. He then challenges each student to “find a piece from the humanities, that poem or piece of music that reaches you and won’t let go; that touches you in a way this short story obviously touched me.” He then encourages them to take it and mold their own presentation of it “into a clinical teaching moment for the many students that you will have the privilege of influencing.”

Munro said he wanted students to have a passion for learning, something that’s been his focus since his days as the first chair of the Department of Medical Humanities and Social Sciences, after being chairman of the Department of Psychiatry from 2002 through 2014. “That’s why I think the humanities are such a great tool. They cut past the rote memorization and open the emotional side in some way.”

Making the rounds

Many teachers don’t have to simulate clinical learning. Their teaching occurs in clinic and while making rounds.

That’s the case for Jill Moormeier,

M.D., professor and chair of the Department of Medicine, whose teaching excellence was recognized by the 2016 Pierson Award. She sees clinical experience as a way to challenge herself and her students to be fully prepared, observant and dedicated to providing excellent care.

“It’s important for students to have that background knowledge from the classroom, and for me to have in mind what are the critical pieces of information for the learner to understand and then retain.” With that in place, Moormeier said, “effective learning can occur as one is taking care of patients.”

She believes learning in clinic can both cement and expand students’ knowledge, as well as her own.

“What sticks is the connection of the materials to a specific patient they’re taking care of, and then being able to broaden that learning to understand how another patient with a similar condition is the same and at the same time different,” she said.

David Mundy, M.D., associate professor in the Department of Obstetrics and Gynecology, also lectures and oversees students in clinic. He is affiliated with Children’s Mercy Hospital and



Jill Moormeier, M.D., emphasizes patient care in her teaching in clinic.

Truman Medical Center-Hospital Hill, has extensive published research and helps oversee the school's fellows in maternal fetal medicine.

As a result, he often shares his specialized knowledge to residents in clinic or medical students taking an elective on high-risk pregnancies.

Whether he's addressing first-year students or working with fellows, he tries to convey that "for all the knowledge we have to retain, facts are less important than the process. Facts change, so you have to know how to question and evaluate, and to learn what's normal and what's rare."

In Moormeier's teaching, she stresses a mix of humility and inquisitiveness: "It's important for the learners

to recognize that the faculty doesn't know everything, and that's OK. As teachers, we model how you go back to the medical literature, and look up the answers and think about what you've read and analyze it and translate that into the clinical setting. Learners need to see that asking and answering questions is part of what they will do for the rest of their lives."

And although there is much to learn, Moormeier said there is always lesson number one: The patient comes first.

"We'll take care of the patient and then worry about studying for an exam or doing all that paperwork that's sitting on our desk."

Like his other medical school colleagues, Mundy sees changes in

teaching. "In some ways, lecturing is harder," he said, so he works to make his lectures engaging, sometimes presenting information in a game-show format, or with unusual and memorable examples.

"But being in a teaching environment has real benefits in practice. New students and new faculty can challenge how we think and how we do things."

Moormeier agrees. "Students think about things in ways you hadn't thought about them before. Their newness to the clinical setting brings a fresh vision to how we think about things and how we approach patients and their problems."

In many ways, she says, "Students challenge us every day." ■

Award-winning docent makes his mark

"TEACHING IS MY PASSION," said Amgad Masoud, M.D., Gold 3 docent. "My top priority and responsibility is to keep my learners focused, excited and engaged."

As students at the School of Medicine quickly find out, some of their most important lessons are learned in their docent unit, consisting of a diverse group of their peers led by an attending physician. Masoud, who has guided third-through sixth-year students since joining the faculty in 2008, relishes the role.

"The learning environment is an important key to success," said Masoud, who also serves as a docent for beginning students and received the Outstanding Year 1 and Year 2 Docent Teaching Award in 2013, 2015 and 2017. "I work on providing a quiet and friendly environment, with a focus on making them comfortable, motivated, and willing to cooperate and engage as a group with team spirit."

Many of his teaching techniques emphasize student involvement, as well. "One time I decided to simulate the patient myself, and had students ask me about my chest pain," he said. "We continued till they built the full description of the pain and recognized the cause. Then I switched to simulate another patient."

And rather than launch into a lecture when a subject is introduced, Masoud challenges students to "think and present what they know about this topic. Then I collect and summarize what they say and start my lecture from there."

Often at the end of a learning session, he asks students to mention one thing learned that day. "This way, they repeat 10 to 12 new learning points in front of each other."

Varying his techniques and getting students involved also help with another of his goals: Having students retain as much as possible.

"I repeat information in different ways, many times. When we discuss a disease in the morning, I make sure we see patients that afternoon who have the same disease. And I encourage them to take notes and review, because I often start a session by challenging them to recall what was learned in the

last lecture."

According to Masoud, there is no such thing as a topic that is hard to teach. "The challenge is to encourage learners to actively participate through different creative and new methods that are tested continually. The greatest satisfaction is when I feel confidently that my learners captured my teachings and are motivated to practice and to learn more."



Amgad Masoud, M.D., wants to make knowledge stick.

Fit *for* Leadership

School of Medicine alumni are making
a difference running area hospitals

By Kelly Edwards

In the back of her mind, Olevia Mitchem Pitts, M.D. '86, always figured hospital leadership would be her calling. She credits her father, who encouraged her growing up to become a physician, for her inspiration.

"My father was not college-educated, but he wanted his children to be successful," said Pitts, who last January was selected as chief medical officer at Kansas City's Research Medical Center.

The UMKC School of Medicine has a rich history of producing trailblazers in all levels of the health care arena. It's no surprise that many of the school's graduates move into hospital leadership.

That background has allowed Pitts and other alumni to affect the health and wellbeing of multitudes of people. And, in line with the School of Medicine's mission to attract, train and retain medical leaders in the region, Pitts and others have chosen to stay and serve Kansas City hospitals.

Pitts credits the School of Medicine and women such as Marjorie Sirridge, M.D., a founding docent and former dean, and Reaner Shannon, Ph.D., a longtime associate dean for minority affairs and champion of minority

health, for shaping her path.

"UMKC gave me a phenomenal foundation for leadership," Pitts said. "I think seeing women in roles of leadership, being exposed to strong women leaders, was important. I call that influence."

From doctor to administrator

One common characteristic among alumni in high-level hospital administration is a natural leadership quality that was nurtured throughout their medical training at the School of Medicine.

Across town at the Saint Luke's Health System headquarters, William Gilbirds, M.D. '83, is almost one year into a dual role as medical director of quality for the health system and chief medical officer of Saint Luke's Care, a physician-led organization focused on using evidence-based medicine to improve the quality of care.

For Gilbirds, it was a natural progression from clinician to administrator. The foundation for that transition was laid in medical school, where he was able to watch and work with faculty such as Harry Jonas, M.D., who

served as president of the American Medical Association, and James Youngblood, M.D., who had been president of the American College of Obstetrics and Gynecology.

"I was able to observe leadership," Gilbirds said. "Those were the kinds of folks that were at the School of Medicine. They were physician leaders."

A retired member of the U.S. Air Force Reserves, Gilbirds quickly found himself in a leadership role as well. After completing his residency, he advanced to chief of hospital services at Whiteman Air Force Base near Kansas City. After the military, he served as president of the medical staff and quality physician leader at Saint Luke's North Hospital and medical director of the Saint Luke's Medical Group.

Throughout his career, Gilbirds has been a full-time family physician, worked in obstetrics, taken care of patients in nursing home units and worked as an emergency room physician. He still spends about a day and a half a week seeing patients.

The different roles have given him a solid understanding of the many



Olevia Mitchem Pitts, M.D. '86, chief medical officer at Research Medical Center, works with hospital physicians to focus on patient care and safety. Here she talks with Kyle Coffman, M.D.

aspects of medicine.

But it's another skill, building relationships, that may have become the most beneficial as a hospital administrator. A cornerstone of the school's medical education program is its docent system, which relies heavily on building relationships and trust between the docent instructors and their students.



William Gilbirds, M.D. '83, says team-building skills are essential in his work.

“The thing I find interesting the further I get into administration is that the greatest asset you can have is the multiple relationships with people and the ability to get people moving in the direction of your vision,” Gilbirds said.

A knack for IT

Jeff Hackman, M.D. '01, uses those same skills in his dual role of chief medical information officer and corporate medical director for quality at Kansas City's Truman Medical Centers.

“As far as leadership, I think the docent system really instilled a lot of those values, and I was very fortunate to have had great docents and members on my docent team,” Hackman said.

With a knack for information technology, Hackman completed his emergency medicine residency at TMC and remained as associate chief medical information officer. Three years later he

was named chief medical information officer. As the functions of information technology became more intertwined with the regulatory issues of quality of care and patient safety, he took on the added corporate role of overseeing quality of care.

Now, Hackman says, the skills he learned in medical school are essential to serving as an effective full-time hospital administrator.

“I think you have to start with the foundation of having medical knowledge and compassion and a desire to do the right thing in medicine,” Hackman said. “Then you learn the stuff about how to write policies and things like that along the way. But without that foundation you learn in medical school, you're any other administrator instead of a medical leader.”

Hackman says he still finds rewards as a physician by making an impact on the lives of patients in other ways.

“I see changes in our health care system as a direct result of things my team is working on,” he said. “We're working to expand our connectivity with other safety net providers. If we pull that off, that's a game-changer in how we can take care of patients.”

Shifting to a global view

At Research Medical Center, Pitts is committed to using her 20-plus years of experience as a physician and a physician leader to make a positive impact on her hospital staff and their patients.

Before her current role, Pitts had served as senior vice president for the Kansas City and Wichita region for IPC-The Hospitalist Company.

She also served in the Kansas City area as medical director for Kindred Transitional Care Hospital, a long-term acute care facility, and at Encompass Hospice.

As her administrative duties matured, Pitts' time directly caring for patients dwindled until she stopped seeing patients clinically a couple of years ago.

“I know what I am doing is impacting the lives of my providers and impacting the lives of their patients,”

she said. “I am impacting the process, helping physicians do their jobs better. I am looking at things from a global view, not just me and my patients.”

Now, Pitts said, patient safety and quality of care are her primary focus, from not only a physician's perspective, but through the eyes of the entire hospital staff, including areas such as nursing



Jeff Hackman, M.D. '01, says his medical school foundation remains invaluable.

and dietary services.

“As CMO, my everyday agenda is quality and patient safety,” Pitts said. “We are all responsible for that patient.”

Though her administrative duties have overtaken the time she once spent with patients, Pitts still goes on rounds each day. As she visits patients at Research Medical Center, Pitts routinely asks questions such as, “Are you getting what you need?” and “Has your doctor explained everything to you?”

“I'm responsible for the safety of our patients and for the overall quality and overall hospital experience,” she said.

It is that competent, compassionate physician at heart — the foundation of health care learned at the UMKC School of Medicine — that makes Pitts, Gilbirds and Hackman, like so many graduates of the school, stand out as leading hospital administrators. ■

Stanford explores physicians' role in countering intimate partner violence

DOMESTIC VIOLENCE deeply touched the life of Carol Stanford, M.D. '79, when one of her colleagues was murdered. In a lecture at the UMKC School of Medicine in September, Stanford told about that crime while exploring what physicians can do about the problem of intimate partner violence

Stanford, delivering the 2017 Marjorie S. Sirridge Outstanding Women in Medicine Lecture, said such violence causes "tremendous emotional, social and economic dislocations" and crosses all demographic lines.

To illustrate that, Stanford told about reading a newspaper report of a "Johnson County soccer mom" who had been killed, and her businessman husband arrested. She found out a few hours later that the victim was her nurse practitioner.

"This is real and touches each of us," said Stanford, associate professor at the School of Medicine. Most victims are women in heterosexual relationships, she noted, but men also can be victimized, and abuse also occurs in same-sex relationships and ones involving bisexual or transgender partners.

In the United States annually, 2 million women suffer intimate partner violence, more than 300,000 of them pregnant women. One-third of homicides stem from intimate partner violence, said Stanford, and its physical, psychological and financial effects can be devastating.

One in four women and one in seven men will experience severe intimate partner violence in their lifetimes, she said. By one estimate, the costs of care and economic loss from this violence are more than \$8 billion a year. And a victim's health care needs can be increased for 15 years after such abuse.

Most victims interact with the health care system, so



Carol Stanford, M.D. '79, delivered the annual Marjorie S. Sirridge lecture.

physician awareness is crucial, Stanford said. Doctors need to look for a wide range of physical symptoms that can indicate abuse, along with psychological problems including depression, low self esteem, anxiety and substance abuse, she said.

"I've started asking routinely, 'Have you ever been abused?' or 'Do you feel safe in your relationship?'"

In educating future physicians, it's important to include clinical experience with victims, and Stanford suggested integrating more education about intimate partner violence into the curriculum. She also noted that students on their own were becoming more aware through their community involvement, such as volunteering at such places as the Rose Brooks Center for domestic violence victims.

As violent as the world is, Stanford remains optimistic. "I think the key to solving this, ultimately, is gender equity. We need a multi-disciplinary educational approach."

Stanford is a longtime faculty member and docent, known for her dedication to students and involvement with their activities. She has served as faculty adviser or sponsor for many students groups and programs, including the Gold Humanism Honor Society, the UMKC chapter of the American Medical Women's Association and Camp Cardiac.

Two School of Medicine students win Missouri research awards

TWO OF THE TOP STUDENT research awards from the Missouri chapter of the American College of Physicians recently went to fifth-year student Hunter Faris and sixth-year student Ravali Gummi. The UMKC students earned the honors during the association's 2017 meetings in Osage Beach, Missouri.

Faris received the second-place award for his poster on "Muscarinic Acetylcholine Receptors Inhibit Src Family Tyrosine Kinase Phosphorylation in the Rat Striatum."

Gummi placed third in the competition with her poster on "Intracellular Calcium Channel Expression in Autoimmune Encephalomyelitis."

Faris and Gummi were among five students and 15 residents who made presentations at the annual meeting.

The Missouri ACP competition drew 20 student posters and 80 posters from residents and fellows of medical schools throughout the state.

Brain tumor research follows an unusual path

A PROMISING THERAPY to combat brain tumors in children has emerged from a confluence of bold research, scientific insight and luck, a Children's Mercy research director said in the August installment in the UMKC Health Sciences Deans' Seminar Series. The research aims to block a pathway that mutant cells often take when forming tumors near the brain stem. The work's progress and hurdles were detailed by Tom Curran, Ph.D., who is the executive director and chief scientific officer of the Children's Research Institute and a professor of pediatrics at the UMKC School of Medicine.

His presentation was titled "How mice, sheep, corn lilies and a beer helped children with brain tumors: Targeting the hedgehog pathway in medulloblastoma."

When he started the hedgehog inhibitor work, Curran already had contributed extensively to the understanding of tumor formation — and knew plenty about mice. He discovered the Fos-Jun tumor-generating complex, and had identified reelin, the gene responsible for reeler, the mutation that makes mice lose muscle control.

Curran wanted to extend his mutation research to the tumors that form during brain development, "so we made the decision that we would take a precision medicine approach to medulloblastoma, even though we knew nothing about it."

He said his team came up with "a very naive concept" for proceeding that nonetheless generated significant research success. "You have to develop a simple model. The other factor



Tom Curran, Ph.D., is executive director of Children's Research Institute.

that is really important to this kind of science is luck."

Curran also credited good fortune for putting his team in touch with another doing similar work but running out of money for testing. Curran was able to do the testing, which produced good results.

The project also has had its share of challenges to overcome, including recurrence of tumors after initial success in a human trial. That often happens in cancer treatment, Curran said, as drug resistance develops. But a biopsy from that case has provided further information, and trials continue.



Kyle McLafferty studied legislation affecting PAs.

Physician assistant student makes most of health policy fellowship

KYLE MCLAFFERTY, A SECOND-YEAR physician assistant student, met in September with congressional leaders during a three-day workshop in Washington, D.C., as part of his Physician Assistant Education Association Student Health Policy Fellowship. He was one of 15 members of the association selected from programs across the country.

The three-day workshop and visit to the nation's capital kicked off the fellowship. Fellows then spent a month developing projects to promote the role of physician assistants in their own communities.

McLafferty was interested in politics and health care policy as an undergraduate at the University of Missouri and this year followed issues in the Missouri General Assembly.

"I really got interested in physician assistant legislation," McLafferty said. "It was interesting watching the legislative process and how it relates to my future career."

Three alumni return, bring different experiences to docent work

IT HAD BEEN FOUR YEARS since Monica Lau Katamura, M.D. '13, last stepped inside the UMKC School of Medicine. So when the school's newest docent returned in August, she wasted little time in heading to the fourth-floor Gold 1 docent unit.

"One of the first things I did was go back to my old office and take a walk down memory lane," Katamura said. "It was surreal coming back to the place that had trained me."

Katamura completed her residency in medicine pediatrics at Tulane University in New Orleans last spring. Now, as the School of Medicine's Blue 8 docent, she has a new office located on the fifth floor.

As a docent, Katamura said she feels a responsibility to take what she learned as a resident, combined with her time as a student at UMKC, to help the next generation of physicians.

"I want to come back and apply some of what I learned to assess the needs among my individual group of students and make a framework of how to best mentor them, guide them and nurture them through their years three through six," she said.

Katamura served as chief resident during her final year at Tulane, where she gained administrative experience that she hopes to incorporate into her new role as a docent. She was active in several volunteer activities throughout her residency, serving both locally and abroad. She collaborated with pediatrics residency staff and co-residents on the clinical learning environment committee to improve clinical and academic learning environments and provided resident leadership as chair of the medicine-pediatrics ambulatory committee.

Ultimately, Katamura said, she returned to the School of Medicine largely because of the docent program and to be a part of the mentorship that docents provide students.

"Somebody told me that alumni are the most enthusiastic docents," Katamura said. "I am very enthusiastic about coming back."

She isn't alone. Two more recent additions to the School of Medicine's docent teams are alumni.

Richard Harlow, M.D. '82, began his role as Green 1 docent this past November.

He was a founder and one of the original owners of HIMS, one of the first and largest hospitalist groups in the Kansas City metro area. After 20 years as a hospitalist, he was ready to return to his roots.

"I have always had medical students with me during my entire time in private practice and have always loved to teach," Harlow said. "I really feel that the UMKC School of Medicine does a

singularly excellent job of preparing students to be doctors on day one, and I had always wanted to return one day to give back to what I so enjoyed. I really love working with the students and residents."

After completing an internal medicine residency at the UMKC School of Medicine and Truman Medical Centers, Harlow entered private practice in Belton, Missouri. He also served as president of the medical staff at Research Belton Hospital and as chairman of the Department of Medicine at St. Joseph Hospital.

David John, M.D. '77, returned to Kansas City last spring and joined the School of Medicine faculty as docent for Katamura's old student unit, Gold 1. A board-certified rheumatologist for more than 30 years, John previously practiced at Queen's Medical Center and at Spark Matsunaga VA Medical Center in Honolulu.

He said when the growing demands of electronic medical records began encroaching on his teaching time, he decided to step down from his hospital work and eventually decided to leave his private practice.

"Leaving was the hardest decision I believe I've ever made," John said.

In January, he stepped down as chair of Pu'ulu Lapa'au, the Hawaii Program for Healthcare Professionals, to return to UMKC.

"It's been a very good decision," he said.

While in Hawaii, John served as chair of the Life Foundation, an organization that continues the fight against HIV/AIDS, and participated as a board member of Friends of Youth Outreach, attacking the problem of child homelessness.

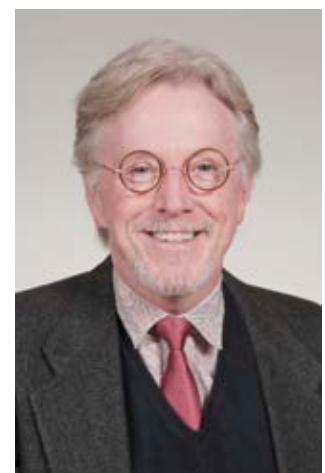
He completed his internal medicine residency at the University of Hawaii School of Medicine and his rheumatology fellowship at the University of Michigan. He joined the faculty at the University of Hawaii in 1984, served on many committees and received the school's Excellence in Teaching Award.



Monica Katamura, M.D. '13



Richard Harlow, M.D. '82



David John, M.D. '77



New alumni president ready to serve

THE UMKC SCHOOL OF MEDICINE is a vital part of my life experience, past and present, and I'm excited to serve as president of the National

Board of Alumni & Partners for the next two years.

Besides being a proud member of the Class of 1990, I served my residency at the UMKC School of Medicine and am proud to be a professor of medicine there. After my residency, I completed a fellowship in cardiology at the Mayo Graduate School of Medicine and now practice with the Saint Luke's Cardiovascular Consultants in Kansas City.

I fell in love with cardiology as a physical therapist in Kansas City, working with cardiac rehabilitation patients. I saw so many people who could have done more to prevent their heart problems, and this motivated me to study medicine and become a cardiologist.

Besides preventive cardiology, my passions include heart transplantation and women's heart health. I have enjoyed involvement with the American Heart Association, the NHLBI Heart Truth Campaign, the Missouri Chapter of the American College of Cardiology and WomenHeart in Washington, D.C. I look forward to adding alumni service to my contributions.

Your new board members got busy with a teleconference meeting Oct. 20. We will be letting you know our plans for events and initiatives to give you more opportunities to connect with other alumni and to support the school.

One such initiative is our alumni directory. Be sure to visit it at med.umkc.edu/alumnidirectory and register if you haven't already.

It's also never too early to save the date for the Alumni Reunion, April 20-21, 2018.

I appreciate this opportunity to help make your alumni experience as fulfilling as possible.

Tracy L. Stevens, M.D. '90
President, National Board of Alumni & Partners

DEAN'S POP QUIZ ANSWER

E) All of the above



A) Manal Abdelmalek, M.D. '92



B) Dana Thompson, M.D. '91



C) David Burkart, M.D. '91



D) Michael Hinni, M.D. '88

For the question, see page 5.

Alumni faculty recognized at awards ceremony

BRENDA ROGERS, M.D. '90, associate dean for student affairs, received the Excellence in Mentoring Award given to an associate or assistant professor.

It was one of five special awards presented at the 2017 annual faculty awards and promotions event.

These alumni also were among the 59 faculty members promoted to professor or associate professor: James W. Bogener, M.D. '05; Christine Boutwell, M.D. '93; Ashley L. Daly, M.D. '02; Jennifer A. Elliott, M.D. '96; Amy S. Lay, M.D. '01; Lina M. Patel, M.D. '02; Mamta Reddy, M.D. '98; and Christine Sullivan, M.D. '85.



Dean Steven L. Kanter, M.D.; Brenda Rogers, M.D. '90; Betty Drees, M.D.; and Rebecca Pauly, M.D., associate dean of faculty development, were on hand when Rogers received an Excellence in Mentoring Award.

Class Notes

JAMES BOGENER, M.D. '05, was an author of "New Paradigms in Post-Graduate Surgical Education," an article in the July-August issue of *Missouri Medicine*, the Missouri State Medical Association journal. Bogener completed his residency in orthopaedic surgery at UMKC and was the first director of the orthopaedic surgical skills laboratory at UMKC.

NICOLE HARTUNG, M.D. '96, serves on the board of the Susan G. Komen Race for the Cure and has joined the oncology staff at Glencoe Regional Health Services in Glencoe, Minnesota. Hartung is board certified in internal medicine and medical oncology, and many of her patients have breast, colon or lung cancer.

JEAN RENEE HAUSHEER, M.D. '81, shared the story of her near-death experience, in the edited collection "The Science of Near-Death Experiences" (University of Missouri Press, 2017). She said the experience, which occurred in 1977 while she was a student at the School of Medicine, changed her "understanding of the meaning and purpose of life, forever

extinguished my fear of death, and conferred the ineffable wonder and joy of an afterlife."

ABHISHEK KANTAMNENI, M.D. '17, was an author of "The Economic Impact of Orthopaedics in Missouri," an article in the July-August issue of *Missouri Medicine*, the Missouri State Medical Association journal. Kantamneni is doing his residency in preliminary surgery at Vanderbilt University Medical Center in Nashville, Tennessee.

SAJID KHAN, M.D. '05, has published his second book, "How to Not Kill Your Patients: An ER Doctor's Guide to Life After Residency." Khan, who completed his residency in emergency medicine at UMKC, previously published "Khan's Cases: Medical Ethics," a review book for the Step 1 examination.

MIKE MUNGER, M.D. '83, a family physician in Overland Park, Kansas, became president of the American Academy of Family Physicians at its annual convention in September. The academy represents 129,000 physicians and medical students nationwide. As president, Munger advocates on behalf of family physicians and

patients across the country. The organization fosters education and training, provides other extensive resources for its members, and encourages research and best practices in family medicine to promote health and reduce overall health care costs.

MARK T. STEELE, M.D. '80, contributed to research recently published in the *Journal of the American Medical Association*. The study found that the addition of a second antibiotic to treat cellulitis skin infections did not result in significantly better cure rates. Steele is associate dean for Truman Medical Center Programs at the School of Medicine and chief medical officer and chief operating officer for TMC.

In Memoriam

EUGENE FIBUCH, M.D., longtime UMKC School of Medicine faculty member and chair of the Department of Anesthesiology, died Aug. 20 at the Hospice House of Kansas City. Fibuch was the second chair in the history of the department and provided leadership in that role from 1997 until 2014.

Waldman's wealth of textbooks fills needs in practice, education

"HE WROTE THE BOOK ON THAT"

usually is a figure of speech. But when it comes to diagnosing, treating and managing pain, Steve Waldman, M.D. '77, did write the book — dozens, in fact.

His "Interventional Pain Management," published in 1996, was the first textbook on the new subspecialty of interventional pain management, said Waldman, the School of Medicine's associate dean of international programs and chair of the Department of Medical Humanities & Bioethics. Other groundbreaking works followed.

Waldman coined the term interventional pain management, for treating pain as the primary focus instead of as a symptom, like fever.

"That was a big shift in pain management," said Waldman, a clinical professor of anesthesiology at the School of Medicine since 1992. "There were great advances in medical knowledge in the field but the literature really lagged. There was a need and I wrote the book."

For more than 20 years, Waldman has kept seeing such needs and writing books to meet them, on pain management and on his other area of expertise, diagnostic ultrasound. His published writings have grown to 29 leading medical textbooks, chapters in dozens of others, and more than 240 articles, reviews and other contributions to peer-reviewed journals.

Several of his books have gone into multiple editions, a sign that they are filling vital medical needs and that Waldman is committed to keeping them up to date. Besides topping medical-text sales charts, the books have won awards such as the 2016 British Medical Association Book Award for the third edition of "Physical Diagnosis of Pain: An Atlas of Signs and Symptoms."

How does an author become so prolific, while also teaching and fulfilling two key administrative posts at the School of Medicine? His longtime editor at W.B. Saunders Co., Michael Houston, said



Steven Waldman, M.D. '77, has published 29 medical textbooks, in addition to hundreds of peer-reviewed articles and book chapters.

Waldman combined practical knowledge with a keen focus on thoroughness and maximum efficiency.

"Dr. Waldman is one of our most productive and dependable authors," Houston said. "He is very much aware of what the practicing pain management physician needs to know day to day."

One physician who values Waldman's deep knowledge and ability to explain and display medical concepts is Commander Ian M. Fowler, M.D., the head of pain medicine and anesthesiology for the U.S. Navy.

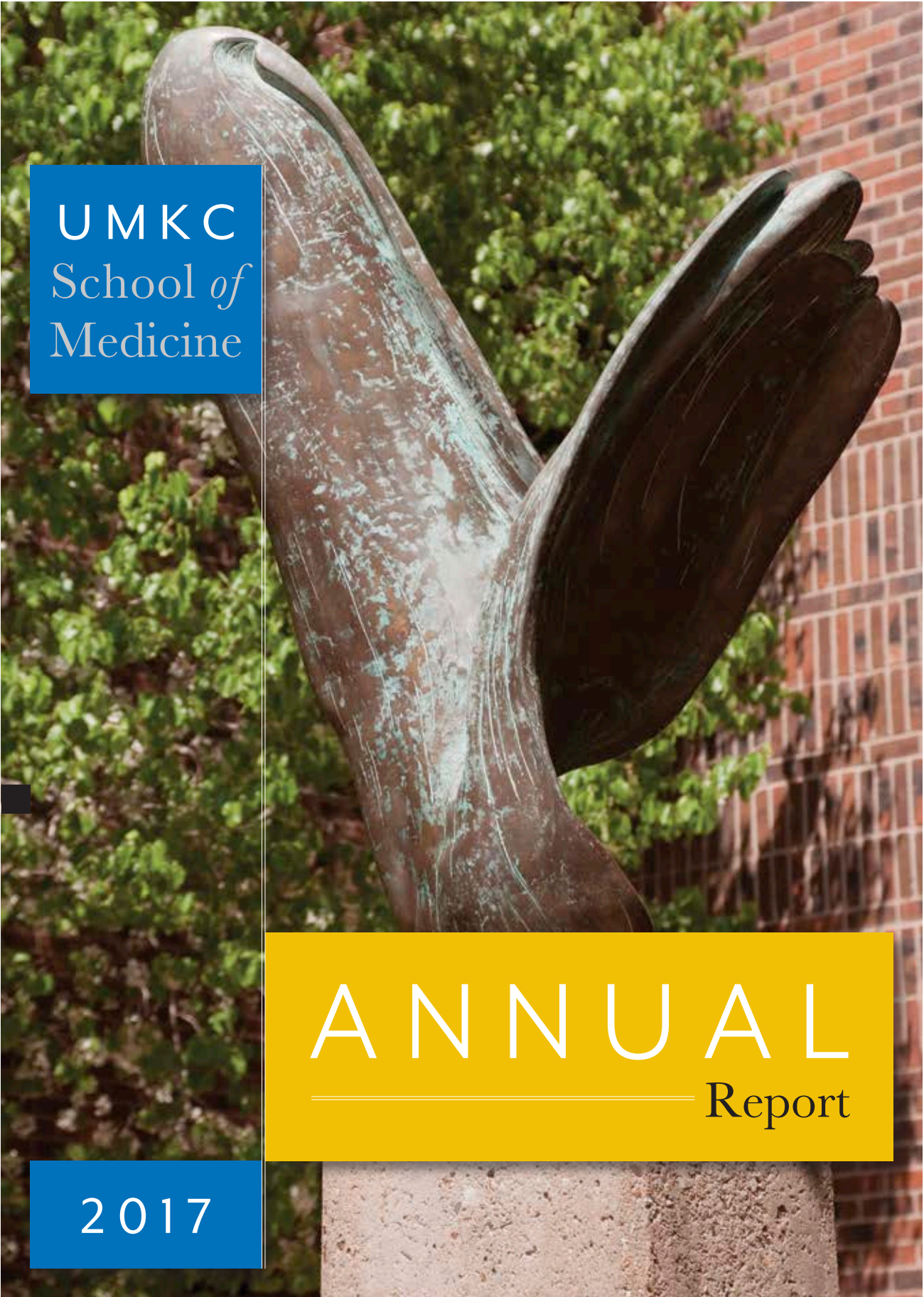
"The anatomic illustrations, radiographic and ultrasound images and detailed explanations in Dr. Waldman's procedural and comprehensive pain management textbooks have improved my care of patients and improved the learning of my trainees," Fowler said. "He has kept these informative textbooks up to date with frequent new editions and text on emerging technologies such as ultrasound guided procedures."

On many of his books, Waldman's productivity has been enhanced with the help of his three sons and daughter. They've done everything from acting as a sounding board for ideas and models for photo illustrations to co-writing, editing and proofreading.

Waldman's efforts are far from finished. His latest project is a textbook on the use of technology in medical education, which he is writing with a professor at Trakya University in Turkey. Several faculty at UMKC also are contributing.

How much Waldman's texts have helped medical education and practice is impossible to measure. But his books have been translated into a dozen languages, so their reach is global.

"When I was in China last year representing UMKC at the Edgar Snow Symposium, we toured the hospital at Peking University," Waldman said. "It was gratifying to see a copy of one of my books, in Chinese, being used in a procedure there."



UMKC
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ANNUAL
Report

2017





Generous donations help the School of Medicine add 100-plus physicians to the medical workforce each year.

LOOKING *to the* FUTURE

GREETINGS TO ALL of the alumni, family, friends and supporters of the UMKC School of Medicine. I would like to take this opportunity to thank each and every one of you for supporting the School of Medicine this past year. We had a solid year and are excited for the opportunities that our future holds.

As all of you know, the UMKC School of Medicine offers an outstanding medical education experience for its students. We at the UMKC Foundation are committed to supporting our faculty and staff as they continue the tradition of educational excellence. Over the past year, this included focusing on our facilities, where improvements were made to enhance the physical amenities here at our medical school. These included adding two new classrooms and one clinical classroom on the third floor; remodeling and expanding the Department of Biomedical & Health Informatics, with a focus on technology and collaborative spaces; renovating our purple docent unit based at Saint Luke's Hospital; and reconfiguring the health sciences library, which increased casual study space from 42 to 115 seats, quiet study space from 28 to 56 seats, and group study rooms from eight to 16.

Of course, as Dean Kanter has noted previously in this magazine, the docent system is at the core of our school's medical

education program. It's ingrained in our history and strategic to our mission, and it sets us apart from other medical schools. Most importantly, graduates tell us that it was key to their success in medical school. Over the next several months, we will be focusing on modernizing more docent units and updating technologies.

How can you help? We will be reaching out over the course of the next 18 months to speak with you individually about this program and how you can support it. We have naming opportunities that allow alumni to name an office (and, in some cases, alums already have named their old offices), as well as more significant sponsorships for naming larger spaces, such as conference rooms and even entire docent units.

I look forward to connecting with you and working together.

Respectfully,

Jay Wilson
Assistant Vice President – Health Science
UMKC Foundation



Michael VanDillen, a fourth-year student, makes rounds with his docent, Fariha Shafi, M.D.

ROOM *to* BREATHE — *and* SUCCEED

FOURTH-YEAR STUDENT Michael VanDillen loves to work hard, a must for students in the UMKC School of Medicine. But early on, his hard work went beyond the hours and efforts typically required of other med students. He also held down outside jobs to earn money to help pay his medical school bills.

While VanDillen was fortunate that his parents helped finance undergraduate school for him and his two brothers, he was on his own to finance the higher tuition and extra years required for medical school.

So he found a job refereeing intramural sports, as in plural. As in football and soccer and volleyball and basketball. It was almost too much.

“I was refereeing anywhere from 8 to 12 hours a week,”

he said. “It doesn’t sound like much, but trust me, when you have the class workload that this school demands of you, it was a lot. When I was working those hours, I felt pressured, almost in over my head. Sometimes all my efforts to get everything scheduled and accomplished just didn’t work out.”

Fortunately, scholarship money came to the rescue. VanDillen received the Friends of the UMKC School of Medicine Scholarship and the Razzaque Family Scholarship in his first two years and School of Medicine scholarships for years three and four.

“The scholarships helped reduce my outside workload

immensely,” said VanDillen, who is from Weldon Springs in the St. Louis area. “I was able to dedicate more time to studying. I was able to wrap my head around some of the harder concepts because I had more time. I was relieved.”

Since he now worries less about a paycheck, VanDillen has time to get involved in outside medical programs. He has taken part in faculty research and has served as vice president of the UMKC

chapter of Walk With a Doc, a national organization that encourages physicians to get out and be active with patients. And he is looking into student interest groups to join as he explores specialties.

“This has been possible only because of my decreased financial burden,” he said.

VanDillen is also thankful for people such as Alice

Arredondo, Ed.D., assistant dean for admissions and recruitment, and Robin Patterson, financial literacy counselor. He considers them important resources in his scholarship application process.

Now, with the help afforded by UMKC scholarships, that overwhelmed and anxious first-year student is more than halfway to graduating from medical school, feeling confident and excited.

“I’m at a place where I am able to focus on my studies, look at career options and make a good call on what type of medicine to practice,” he said. “It’s a great feeling.”

“I’m so grateful for the kindness and generosity of the people who have given guidance and financed my scholarships.”

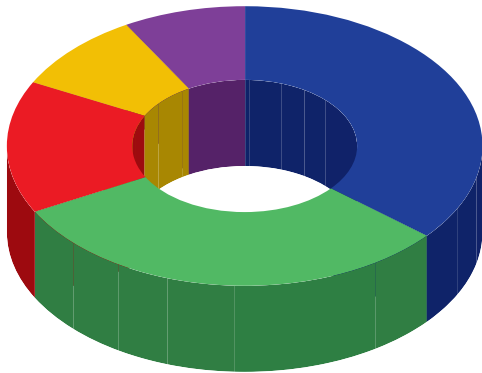
— *Michael VanDillen*



CONTRIBUTIONS, COMING *and* GOING

The UMKC School of Medicine recognizes its Honor Roll of Donors, acknowledging gifts received between July 1, 2016, and June 30, 2017. These gifts are essential in advancing the quality of medical education and research conducted at the school. These charts show where the year's contributions came from and what categories they will help finance.

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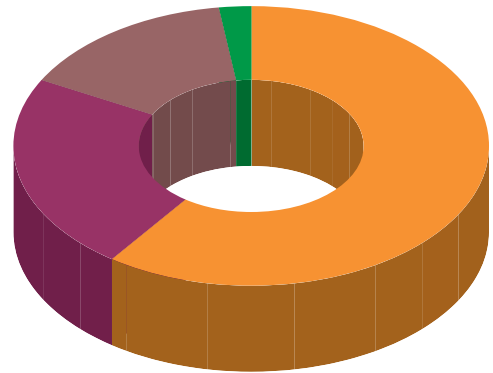
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10

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Fall traditions live on

THE WHITE COAT CEREMONY has changed since 1998, when these photos were taken, but it remains a fall tradition. Back then, the ceremony welcomed first-year students. Now, they are celebrated with the InDOctrination Ceremony, which this year welcomed 106 new students. The White Coat Ceremony now honors third-year students and marks the shift in their education to their more intensive clinical phase with their docent units at the School of Medicine and Saint Luke's Hospital.



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Adventure and memories await as you explore destinations around the world.

UMKC alumni and friends receive exclusive discounts on trips through Go Next, one of the best tour companies in the United States. A portion of each booking supports UMKC student scholarships and programs. Find details for these and other trips at

umkcalumni.com/travel

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French Polynesia
Feb. 25-March 7, 2018

European Serenade

Rome to Venice
May 16-May 25, 2018

Ancient Vignettes

Barcelona to Athens
Oct. 3-Oct. 14, 2018

Majestic Frontiers of Alaska

Alaska and Canada
Aug. 16-Aug. 27, 2018

Isle of Enchantment

London to Dublin
June 7-June 18, 2018



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Hospital Hill Run 5K a winner for the School of Medicine

The 2017 Hospital Hill Run UMKC School of Medicine 5K took place June 2, the Friday evening before the race's 10K and Half Marathon, drawing participants from across the country. School of Medicine faculty, staff and students had something extra to cheer this year, too. Fourth-year student Jordann Dhuse won the Women's Division, placing first among 930 entrants. Dhuse, from the Chicago area, was attracted to UMKC "by the program's whole approach, especially the docent system. I love being on a team."

