panorama

UNIVERSITY OF MISSOURI-KANSAS CITY SCHOOL OF MEDICINE » SPRING 2013

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PURSUING MILITARY MEDICINE

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CONTENTS

Features

Departments

6

14

20

ON THE COVER: Maj. Gen. Mark Ediger, M.D., '78, Deputy Surgeon General for the U.S. Air Force and recipient of the 2013 UMKC Alumnus of the Year Award, stands near a C-17 medical evacuation aircraft on the tarmac at Andrews Air Force Base. © Dupont Photographers

panorama

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DEAN AND PROFESSOR OF MEDICINE
BETTY M. DREES, M.D., F.A.C.P.
EXECUTIVE EDITORS
ANNE HARTUNG SPENNER
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GRAPHIC DESIGNER
JOE MORAN

FROM THE DEAN

AS WE CELEBRATE the Class of 2013 joining the ranks of our alumni, we are reminded of the excellence of our unique B.A./M.D. program and the quality of the physicians it has produced.

With escalating costs of medical education that translate into growing levels of educational debt for graduating medical students and a predicted worsening of the physician workforce shortage, particularly with the implementation of the Affordable Care Act, accelerated medical education programs such as ours will continue to play a vital role in meeting the health care needs of the communities we serve and the world at large.

This has been the focus at the School of Medicine since it opened its doors in 1971 with the vision of educating altruistic physicians trained to practice at the highest levels as products of a distinctive six-year combined degree program that emphasizes early and continuous clinical experiences conducted in small group learning communities. Forty years later, an article in American Medicine co-authored by former School of Medicine Associate Dean for Medical Education and Research Louise Arnold, Ph.D., noted that 57 medical schools in the United States offered baccalaureate-M.D. programs. Few, however, match the UMKC School of Medicine in the goal of offering early clinical experiences.

The UMKC School of Medicine provides more than 40 years of substantial experience to the national understanding of accelerated medical education programs in general and baccalaureate-M.D. programs in

particular. Our approach is an applied education theory of relevance, repetition, responsibility and role models. This approach has proven to be efficient in time, while rich in content and experience and with good educational outcomes.

More than 3,000 graduates are shining examples that our plan works. Inside this edition of Panorama, you will find an article on alumni such as Maj. Gen. Mark Ediger, M.D., '78, the 2013 UMKC Alumnus of the Year, who have nobly dedicated their careers to serving in the military. We also focus our attention on those graduates such as Stan and Kathy Shaffer, M.D., '79, who are using their medical training around the world to provide care in underserved areas. Whether it's through medical mission trips or long-term volunteering relationships, our alumni are improving health outcomes across the globe.

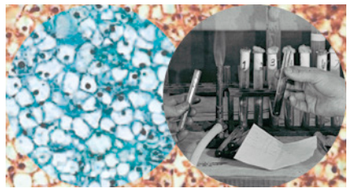
We also look at how collaborations with other schools within the University allow us to enrich the educational process while providing additional and enhanced opportunities in the areas of research and increased enrollment. For example, we have made a joint appointment with the School of Computing and Engineering to an endowed professorship to conduct collaborative research on the biomechanics of the elbow and upper arm. UMKC is one of only five universities in the nation to receive a special National Institutes of Health grant designed to address urban health disparities. The grant was jointly awarded to the schools of Dentistry, Medicine, Nursing and Pharmacy. The new clinical research interdisciplinary Ph.D. (I-Ph.D.), in collaboration with the School of Graduate Studies, starts in August and will prepare individuals to participate in translational clinical research. The much-anticipated Physician Assistant Program looks forward to matriculating its first class in January 2014, pending provisional accreditation in September 2013.

These new programs supplement the offerings of the School's accelerated medical education and combined degree program. Pages 20-23 include an article published in the fall issue of Missouri Medicine, which provide background and ancillary information about combined baccalaureate-M.D. programs and accelerated medical education in the United States.

For more than four decades, the School has prepared the highest quality physicians to carry on the tradition of service. We look forward to sharing more of our success stories in the future.

Betty M. Drees, M.D., F.A.C.P.
Dean and Professor of Medicine

Off the Chart



New I-Ph.D. program provides clinical research component to doctoral students

UMKC will be taking a step forward in training clinical researchers. In collaboration with the UMKC School of Graduate Studies, the School of Medicine will offer an interdisciplinary Ph.D. (I-Ph.D.) co-discipline in Biomedical and Health Informatics this fall. The new I-Ph.D. collaborative discipline prepares individuals to participate in translational clinical research, or research that bridges the gap from "bench" to bedside application, said Karen Williams, Ph.D., professor and chair of the Department of Biomedical and Health Informatics (DBHI).

"Translational research has been identified as one of the up-and-coming professions in health care," Williams said. "Educating doctoral-level students with interdisciplinary skills is critical in contemporary education."

The program offers students an I-Ph.D. in one of eight primary disciplines, such as cell biology and biophysics or molecular biology and biochemistry. It also provides an option to integrate clinical research competencies into students' doctoral program of study.

Students will tailor the clinical research component of the I-Ph.D. to meet their needs by selecting a minimum of 12 credit hours from a cluster of courses in the clinical research emphasis of the DBHI's program. To complete the program, the student's final dissertation must incorporate aspects of their co- and primary disciplines.

School moves forward with Physician Assistants Program

The UMKC School of Medicine soon will become one of only three physician assistants (PA) programs in Missouri. The Master of Medical Science Physician Assistants program is designed to address significant local and national shortages of physicians and other health care providers.

The School has applied for provisional accreditation from the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). Provisional accreditation is an accreditation status for a new PA program that has not yet enrolled students but at the time of its comprehensive accreditation review, has demonstrated its preparedness to initiate a program in accordance with the accreditation standards.

Kathy Ervie, M.P.A.S., P.A.-C., will serve as program director, and Beverly Graves, M.D., '83, will serve as medical director of the PA program. Ervie completed her PA training at Butler University and received her master's in PA studies from the University of Nebraska. She has practiced in the areas of orthopaedic and cardiothoracic surgery with staff appointments at Saint Luke's Hospital, North Kansas City Hospital, Research Hospital and Kansas City Orthopaedic Institute. In addition to serving as mentor and preceptor to PA students, she has also served as past president of the Missouri Academy of Physician Assistants.

Graves completed her residency in pediatrics at Children's Mercy Hospitals and Clinics. She joined the School of Medicine in 1986, previously working as a pediatrician and clinical assistant professor of community and family medicine. She also served as an affiliate staff pediatrician at Children's Mercy and is a neonatal resuscitation program regional trainer.

For more information and to apply, visit www.med.umkc.edu/mmspa.

Carol Stanford, M.D., '79, associate professor of medicine, Gold 5 docent, and faculty sponsor for the UMKC chapter of the Gold Humanism Honor Society, delivers roses and cards to patients and hospital staff at Truman Medical Center with SOM GHHS members during their rounds on Valentine's Day.

Trendlines

Alumna takes reign of national group on BA/MD programs

Brenda Rogers, M.D., '90, associate dean for student affairs, is the new chairperson for the Association of American Medical Colleges Group on Combined Baccalaureate-MD Programs. Rogers accepted the role as part of the group's four-year leadership cycle during its annual meeting this past fall.

More and more medical schools throughout the United States are incorporating accelerated medical education into their programs. As they do, questions are bound to arise. That's where the Association of American Medical Colleges Group on Combined Baccalaureate-MD Programs steps in.

The UMKC School of Medicine has been at the forefront of the group's leadership from the beginning, starting with Louise Arnold, Ph.D., the School's former associate dean for medical education, who, in 2002, was founding chair.

"Dr. Arnold has set this wonderful national reputation for us as a resource," Rogers said. "We get questions at that meeting frequently of, 'How should we do this,' and someone will say, 'well, UMKC has been doing this for 40 years. How do you guys do that?' We have that reputation."

Robot goes to medical school to assist physicians

People in the medical field tend to agree on one thing: medicine is constantly changing. Technical innovations cause a lot of that change. Watson, IBM's supercomputer robot, is one such advancement. It has been a mainstay in the news since beating its human competitors in the game of Jeopardy in 2011.

In fall 2012, Watson went to medical school. At the Cleveland Clinic Lerner College of Medicine at Case Western Reserve University, Watson worked to learn medical concepts and reasoning in a problem-based learning environment. According to a New York Time's blog post in October, once Watson is trained, he should be able to help physicians cope with the rapid pace of new research. Researchers hope Watson will be able to collect and assess patient data, name possible diagnoses — helping a human doctor digest information — and provide a prioritized list of possible causes of a patient's clinical problem.

Watson has worked at the Memorial Sloan-Kettering Cancer Center in New York to analyze patient records and search medical literature to find ways to treat cancer patients, and has crunched data from electronic health records, test results, clinical protocols and studies for cancer treatment at Insurer WellPoint and Cedars-Sinai Medical Center in Los Angeles.

The goal is not to have Watson replace human doctors, but like other new tools, to help efficiency, accuracy and overall human health.

PHOTO COURTESY IBM

Research News

Joint research appointment investigates biomechanics of elbow

The UMKC schools of Medicine and Computing and Engineering have made joint appointments to an endowed professorship that will conduct collaborative research on the biomechanics of the elbow and upper arm.

Akin Cil, M.D., associate professor of orthopaedic surgery, and Trent M. Guess, Ph.D., an associate professor of mechanical engineering, have been selected for the Franklin D. Dickson/Missouri Professorship in Orthopaedic Research. James Hamilton, M.D., former chair and professor emeritus of orthopaedic surgery at the School of Medicine, established the endowment for the positions.

This professorship combines the medical school's clinical expertise in elbow orthopaedics with the engineering school's computational biomechanical expertise to study the biomechanical relationships of the upper-extremity musculoskeletal system.

Specific aims of the program include the development of computational models of the human elbow to replicate the joint's mechanical behavior and to develop treatment strategies to manage trauma to the joint and surrounding ligament reconstruction.

Cil joined the Department of Orthopaedic Surgery in 2008. He previously served as a clinical fellow at the Boston Children's Hospital-Harvard Medical School, at the Mayo Clinic in Rochester, Minn., and at the Baylor College of Medicine in Houston. Guess came to the School of Computing and Engineering in 2003 as an assistant professor of mechanical engineering.

The professorship is named in honor of Franklin D. Dickson, M.D., who was one of the founders of the School of Medicine's orthopaedic surgery department and the Dickson-Diveley Orthopaedic Surgery Clinic.

Researchers receive $1.3 million NIH grant to explore drug therapies for eye disease

The School's Vision Research Center (VRC) is participating in a five-year, $1.3 million research effort to support the development of new drug therapies to protect nerve cells from degeneration caused by chronic diseases.

The project, funded by the National Institutes on Aging at the National Institutes of Health, is a collaboration of researchers at the University of North Texas Health Science Center, UMKC, and West Virginia University, using interdisciplinary and interprofessional research strategies developed by the NIH. UMKC researchers are subcontracting with lead researchers at UNT.

Peter Koulen, Ph.D., professor and Felix and Carmen Sabates/Missouri Endowed Chair in Vision Research and director of basic research at the VRC, is the principal investigator of the UMKC portion of the project. UMKC was awarded just more than $267,000 this year.

The ultimate goal will be to develop novel therapies to specifically target the prevention and treatment of disorders affecting nerve cells. Koulen said that an essential element of developing these urgently needed new therapies is to understand how nerve cells respond to environmental and physiological stimuli and subsequently interact with other cells.

Health professions schools receive NIH grant to address urban health disparities

UMKC is one of only five universities in the nation to receive a special federal grant designed to improve health care for groups of people stricken with illnesses at a higher rate than the general population.

The National Institutes of Health grant will fund UMKC's participation in the Urban Universities for HEALTH Learning Collaborative, an effort to address health disparities in urban neighborhoods. At UMKC, the grant will fund an interdisciplinary effort to study ways to effectively build a health care work force able to provide culturally sensitive care to a diverse urban population. The grant was jointly awarded to the four health professions schools on the Hospital Hill Campus: the schools of Dentistry, Medicine, Nursing & Health Studies and Pharmacy.

William Lafferty, M.D., professor and Merl and Muriel Hicklin/Missouri Endowed Chair of Internal Medicine, is the principal investigator. According to Lafferty, while the process for the UMKC study will involve increasing diversity in the health care workforce, the goal is to affect health care outcomes for people suffering from disparities.

The NIH grant for the project, worth $427,856 over four years, is administered through a joint effort between the Urban Serving Universities Coalition and the Association of American Medical Colleges.

Capsule

Docent unit transformation: This year marked new developments in the School of Medicine, including a new third-floor docent unit for the Red 5, Red 7 and Red 8 docent teams. This is the first overhaul of the docent units since the School's founding in 1971. Learn more about this and more renovations on Page 32.

Stats

UMKC SCHOOL OF MEDICINE RESIDENCY BY THE NUMBERS (2012)

408 RESIDENTS

98 FELLOWS

145 RESIDENTS GRADUATED FROM THE PROGRAM IN 2012

48% STAYED IN MISSOURI (20% OF THEM WERE IN PRIMARY CARE)

29% WENT ON TO A FELLOWSHIP

52% WENT INTO PRIVATE PRACTICE

13% WENT INTO ACADEMICS

SHORT TRIPS, LASTING COMMITMENT » Alumni foster relationships abroad to deliver sustainable health care » by Hannah Lemon »

A mother in rural Haiti (second from left) shares her concerns about her family's health with a community health nurse (seated, left) and Stan Shaffer, M.D., '79 (seated, right). The Maison de Naissance program Shaffer helped found, which would later become a well established birthing center, started with maternal-child health assessments at 2,500 rural homes in Haiti. PHOTO COURTESY STAN AND KATHY SHAFFER.

PHOTOS COURTESY STAN AND KATHY SHAFFER

ABOVE: A Haitian mother walks home with her one-day-old newborn after delivering at the Maison de Naissance birthing center, founded by Stan Shaffer, M.D., '79. TOP INSET: A student at St. Augustine, a school in rural Haiti that Kathy Shaffer, M.D., '79, helped open 25 years ago, enjoys the benefits of the nutrition program, which includes daily hot lunches and is part of the Early Childhood Education Program. BOTTOM INSET: Kathy teaches nurse midwives how to examine the hips of a newborn at Maison de Naissance in Haiti shortly after the clinic's opening in 2005. Today, the clinic's staff is made up of all local indigenous people.

"I was seeing one adult after another; almost every one of them had stomach pain," said Stan Shaffer, M.D., '79, about his first trip to Haiti in 1983, which sparked the passion that would lead to his opening a birthing clinic in rural Haiti in 2004. "They would come back time and time again. I was giving them antacids, antibiotics, and doing all these things trying to figure out the right diagnosis. Finally, one of the local physicians turned to me and said, 'Dr. Shaffer, he doesn't have this, he doesn't have that ... he is hungry.

"That really wakes you up and makes you look at medicine in the big picture. What good are my antacids going to do for this guy who's going home hungry?"

In search of this big picture of medicine, the number of university-based global health programs in North America has more than quadrupled in the past decade. While everyone may agree there's a need for health care assistance in Third World countries, the debate remains about the benefits and potential dangers of short-term medical missions. Many School of Medicine alumni, like Shaffer, have dedicated their time to serve the global community while balancing a career in the United States. Their stories provide insight into ways even short-term trips can have long-term, positive effects on communities.

Mounting evidence shows long-term commitment is vital to improving global health disparities in a way that's mutually beneficial for both the sending organization and the host country, while ensuring no damage is done to the local health system.

"One of the issues is, 'Who are your partners?'" Shaffer said. "Many of us started out thinking the partners, or the people you are working for, are the patients. But you suddenly see that your real audience isn't the patient, it's the health care system itself."

Stan, a neonatologist and associate professor of pediatrics, and his wife, Kathy Shaffer, M.D., '79, a pediatrician, have been working with the Ministry of Health in Haiti to address the need for sustainable improvements in the health of the community for 30 years, focusing on prevention, education, and maternal and infant health. The relationship began with Stan's initial short-term trip to Haiti, setting up mobile clinics in areas in need of health care.

"We learned that that was not a very effective way to give health care," he said. "There was no follow-up with these individuals, and there was little interaction with the other health systems and groups that would come down during other months. Everything was just kind of scattered."

Partnering with Elizabeth Wickstrom, M.D., associate professor of obstetrics and gynecology, Stan took the first steps to making a lasting effect on Haiti.

"We talked to the Ministry of Health and toured the country to see 'what's missing here that we may be able to supply,'" Stan said. "We wanted to focus on long-term, sustainable goals."

Infant mortality was sky-rocketing at the time, especially in the first two days of life. Babies were dying because of simple reasons: unsterile deliveries, lack of prenatal care, and inability to stimulate a baby not breathing when it's first born.

In 2004, Stan and a team of Kansas City maternal and infant health specialists established Maison de Naissance — a birthing home in rural southern Haiti providing Haitian women a clean place to give birth and receive proper care for mother and baby. Since then, it has welcomed more than 4,000 babies into the world.

The clinic started with a small staff of people untrained for the work they would need to do in the clinic. Today, there are 45 staff members, all of which are Haitian. "It's now a local institution that employs the local indigenous people, which was the goal," Stan said. "That's what I'm most proud of." Stan visits Haiti about four times a year.

Kathy has focused on the educational aspect for sustainable change. Around 2007, Kathy became even more involved with the school, St. Augustine, she helped open in Haiti 25 years ago. She helps raise funds and run the school for children ages four to 14.

"Education in hygiene, sanitation, clean water and clean toilets, and immunizations make the biggest difference in the longevity of life," Kathy said. "If you really want to change the health of a community, you need to provide an infrastructure of public health services with clean water, clean toilets

"Our goal is to discover ways to improve short-term volunteer outcomes."

— Henry Lin, M.D., '06

and education on how to clean waste."

Kathy met 40 local Haitian preschool teachers in 2011 to help start the first curriculum on early childhood education for preschool students in Haiti. The older children now have lessons on human sexuality, personal hygiene and food handling. Kathy visits the school at least once a year and checks in at least once a month.

Another husband and wife alumni team — Milton Grin, M.D., '84, and Trudi Grin, M.D., '81 — have long-standing relationships with clinics in Romania and the Philippines that they nurture while balancing their ophthalmology practices in Overland Park, Kan. Milton specializes in cataracts and Trudi in pediatric ophthalmology and adult strabismus. For 15 years, they have been working with the Medical Missions Foundation (MMF), a local nonprofit for which Trudi is past president and a current member of its board of trustees.

The impetus came in 2000 when the Grins went with an acquaintance to Romania for the first time. "We've established a relationship with a local clinic in Romania with the local government's support," Milton said. "There is a lot of teaching that goes on there, so it's a great learning experience for both sides."

In the summer of 2004, the U.S. State Department selected Trudi as the first Citizen Diplomat to Nigeria in a new Bureau of Educational and Cultural Affairs' International Visitor Program, in which American citizens travel around the world to build connections and share ideas with people in host countries. Her fist stop was Nigeria, where she met with the Ministry of Health to discuss making non-government organizations (NGOs) sustainable and accountable.

The Grins headed to the Philippines on Valentine's Day to do just that. "In the Philippines, we really work together with the local doctors," Milton said. "They are just overwhelmed, and don't have enough time to perform all the necessary surgeries. We bring equipment over and all individuals necessary for surgery and pre- and post-op care."

Trudi said organizations, like MMF, must make sure they know what they are sending people into to ensure the best care is delivered. She said organizations should evaluate their cases on short-term trips and make certain volunteers are neither performing procedures more complicated than what can be cared for in the host country nor operating on something beyond their surgical skills.

Milton said it all comes down to the fact that a person should be a world citizen and treat every human as they should be treated.

"It's really important for young physicians to participate in these missions," Trudi said. "It can form their future careers. They generally continue to give back throughout their lives."

This is especially true for Henry Lin, M.D., '06, a pediatrician currently doing a year at Northwestern focusing on liver transplants and nutrition. He said he was thankful he attended the School of Medicine when he did. In 2000, the School was in the process of establishing the international medicine program. Lin and another student were chosen to attend conferences around the world as apart of the American Medical Student Association (AMSA). The School supported his travel to places like Serbia, the former Yugoslav Republic of Macedonia, Venezuela and Turkey, where he worked with refugees on peace issues, health care and equality.

Lin has been going to the Dominican Republic every year since 2006, when he went for three weeks through UMKC, taking mobile medicine clinics to refugees.

He has formed an interdisciplinary team, which has morphed throughout the years, attracting members from around the United States and Canada to travel with him to the Dominican Republic. In the fall, Lin traveled with medical and premed students, residents, two public health professionals interested in community needs assessment, business professionals to look at the health care finances, and developmental biology students.

"We have a great team," Lin said. "We work with local groups and Dominican physicians and build on what we've done each year, making these short-term trips part of a long-term commitment."

Similar to other popular medical mission sites, Lin pointed out that the Dominican Republic has approximately 30 to 35 mission groups visiting each year. Lin's group focuses on promoting collaboration among the different teams that volunteer in the Dominican Republic. Lin said 15 to 20 of these groups have monthly conference calls, use standardized medicine labeling, collaborate donations and share teaching opportunities.

"Our goal is to discover ways to improve short-term volunteer outcomes," Lin said.

One way he does this is asking the students to consider some key questions before embarking on an overseas mission. These include topics such as understanding their motivation for service work, what kind of experience they are looking for and what impact they would like to have.

"Then, it's our job to design a project to foster their interests while helping the community in the destination country as well," Lin said. "We perform a needs assessment for that area then

Alumni provide checklists to prepare for international medicine missions

ROBERT C. SPURNY, M.D., '80, and Nick Comninellis, M.D., '82,* share their Top 10 tips of what to do and consider before embarking on medical missions overseas.

- Find a sponsoring institution in the United States and in the country of the mission.
- Visas are tricky; ask your hosts to help with their government.
- Try to have your host group meet you at the airport and arrange all in-country, transportation, meals and lodging,
- Bring American dollars to give to your hosts for costs.
- For customs, do not dress alike. Try to blend in with plain clothing. Do not go through as a group.
- Understand the health care priorities of the area you're going to serve. Look at the big picture: nutrition, prenatal care, safe drinking water and other basic needs.
- Learn what diseases you will most likely see in a low-income community.
- Develop cross-cultural skills. Ask yourself, for example, "How am I going to explain to someone that they have an infection when they think diseases are caused by spirits?"
- Prepare for disaster management. There are disasters going on all the time in these places. How do we help prevent and respond to these disasters? This includes lesser disasters, not just hurricanes, earthquakes, etc.
- Think about how you would take care of whole communities rather than one person at a time. If hundreds of people have malaria, how do you help rally community leaders and gather resources to manage a big health problem?

*Comninellis is the founder of the Institute for International Medicine (INMED), which offers CME accredited Global Health Online Courses designed to prepare people for international medical missions. For more information, visit www.inmed.us/self-paced_courses.asp.

PHOTOS BY DAN VIDETICH

Trudi Grin, M.D., '81, examines a young patient at a clinic in the Philippines in February 2013 during one of her frequent medical mission trips.

Milton Grin, M.D., '84, completes chart work before his next cataract surgery in February 2013 in an operating room in the Philippines, where he and his wife, Trudi, volunteer regularly.

During her first trip to Guatemala in 2011, Sarah Beck, M.D., '12, sits with her patient at a clinic in San Juan Alotenango after helping her with aches and pains and osteoarthritis.

SOM creates new structure, supporting International Medicine Program

AS A PART of the new Department of Medical Humanities and Social Sciences, alumni, faculty and representatives from UMKC's International Academic Programs (IAP) have formed the new UMKC School of Medicine International Medicine Committee. Under the leadership of Stuart Munro, M.D., chair of the new department, the committee is working to aid in making international medicine trips easier and more visible to students.

Each member brings a vast array of overseas experiences and expertise. During the initial meeting on Feb. 5, they brainstormed ways to help students become more involved and prepared for overseas trips: set expectations, make sure they know about the culture of a potential destination, refer them to the IAP and INMED preparation courses. The committee will also help with student exchanges and the necessary paperwork, in conjunction with the IAP.

"My goal is to move to a structured experience with advanced preparation and expectations for a service learning aspect involving reflections on how a student's overseas experience has influenced his or her medical practice," Munro said.

Committee members also discussed the need to connect people with organizations. The group is charged with the logistics of School of Medicine exchange programs and partnerships with Harbin, China, Graz, Austria, Monterrey, Mexico, and recently Cameroon, Africa.

Committee member Nick Comninellis, M.D., '82, said his biggest goal for the committee is letting students know these opportunities are available. "That's my big hope, that the awareness and the stature (of the International Medicine Program) will increase."

The School celebrated its second International Health Care Day on April 16. The event was open to students and faculty from all four health science schools interested in medical missions. Attendees listened to presentations from each other about their experiences overseas, and committee member Henry Lin, M.D., '06, was the keynote speaker. Lin was active in global health care as a student at UMKC and has continued a long-term relationship with a clinic in the Dominican Republic, where he returns every year.

"I received so much support to pursue my interests when I was a student," Lin said. "I am humbled to be a part of this group working to do the same for students now. This is an ideal way for me to give back to UMKC."

Lin said many of his fellow committee members helped him at some point during his training, and he is honored to work along side them.

COURTESY SARAH BECK

INSET PHOTO: COURTESY NICK COMNINELLIS, RIGHT: COURTESY HENRY LIN

ABOVE: Henry Lin, '06, counsels a patient on eye care in January 2013 in a mobile clinic in the bateyes surrounding La Romana, Dominican Republic. INSET: Nicholas Comninellis, M.D., '82, takes care of a patient at the clinic in Angola where he has worked every July for the past 10 years.

think about cost benefits. For example, if you spend x hours in the clinic, what's the value of care you provide? And, can you improve upon that?"

Sarah Beck, M.D., '12, participated in two UMKC-sponsored medial mission trips to Guatemala as a student and even took her spring 2012 semester off to live in Ecuador and learn about its local health system. She said she plans to use the lessons she learned abroad to help her become an even better doctor for her own community.

"When I was gone for four months, I realized what I was capable of and became more confident in myself as a doctor and as a human," she said. "It actually reminded me that there is so much suffering here in the U.S., and I can't turn my back on that. I'm interested in global health and education, but I want to use those skills to help those in my community."

Beck said she thinks it's important for students to have these experiences, get out of their comfort zone and learn to work with limited resources.

Nick Comninellis, M.D., '82, an instructor in the Department of Community and Family Medicine, has played a big role in improving short-term medical missions by preparing students and residents. Comninellis is the founder of the Institute for International Medicine (INMED), open to medical students in any North American Association of American Medical Colleges (AAMC)-recognized medical school as well as residents from Accreditation and Approval Review Committee (AARC)-approved programs. INMED's mission is to equip health care professionals to "serve the forgotten."

UMKC students have the opportunity to do INMED electives in International Public Health and International Medicine. Before they depart on their elective, INMED offers an online course that covers global health topics and issues facing the destination country. These electives are offered in 40 different places in 25 countries; INMED has local, national faculty members at each location.

Comninellis said he has two levels of expectations for his students. The first is that they learn something about another culture and diseases of poverty and empathize with people who live in these settings.

"For example, when they see an Afghan or Somali patient at a clinic here, they can remember what it's like to do medicine in those patients' home countries," he said.

The second level is to create a vision for their lives. Comninellis said that could mean working at the free health clinic in Kansas City or at the refugee center in Afghanistan.

"Medical mission trips are like an intensive course in the needs of people suffering from health disparities," he said.

Comninellis has seen these disparities around the world, time and time again.

His long-term volunteer service to Angola — three years in the 1990s — and China — one year immediately after his residency — have turned into lifetime commitments. Fluent in Portuguese and Mandarin, Comninellis holds a permanent position in each country. For the past 10 years, he has spent every July at the same hospital in Angola where he worked in the 1990s and even does vacation coverage for its staff.

"It's a lot fun because I know the people, I know the staff. I can just step right in," Comninellis said. "You'll be more efficient and make a bigger impact over time if you keep going back to the same place." Lin said it can take five to six years of returning to a country to build trust.

Comninellis spends every November in China working in a residency program for Chinese doctors whose base is a safety net clinic, a setting for which he said UMKC prepared him and continues to prepare future physicians. As he continues to serve the global community, Comninellis said it is the motivation of providing quality care that he carries with him at home and on the other side of the world.

"UMKC fosters the importance of serving the underserved," he said. "I don't draw a line between people in need, whether they're in Jackson County or in an exotic place, like Jakarta, Indonesia." P

HE WHO WOULD BECOME A SURGEON SHOULD JOIN THE ARMY AND FOLLOW IT.

—HIPPOCRATES

«««« BY KELLY EDWARDS »»»»

DUPONT PHOTOGRAPHERS

Maj. Gen. Mark Ediger, M.D., '78, began his military career 27 years ago. Today, standing aboard a C-17 medical evacuation aircraft at Andrews Air Force Base, he is the Deputy Surgeon General for the U.S. Air Force.

BOB STECKMEST

School of Medicine students Stephanie Degen, MS 6, (Air Force) Jacob Arnold, MS 3, (Army) and Janessa Pennington, MS 3, (Army) pictured in front of a 1918 Ford Model T ambulance at the World War I museum in Kansas City, enlisted in the military through the Health Professions Scholarship Program.

This is what happens when two noble endeavors — doctoring and military service — unite. Military physicians have an opportunity to travel, see the world, work with some of the country's most highly trained and skilled physicians, and experience a life that most will only read stories about. David Schall, M.D., '77, embraced the opportunity and retired with the rank of colonel from the United States Air Force after 37 years of active service, National Guard and reserve duty. An interest in aviation medicine prompted Maj. Gen. Mark Ediger, M.D., '78, to leave a small-town Missouri family medicine practice after five years to join the military as a flight surgeon at Langley Air Force Base in Virginia. Today, after 27 years in the service, he works out of the Pentagon in Washington, D.C., as Deputy Surgeon General for the U.S. Air Force.

Neither had aspirations of making a career out of military service. But as Schall, now a regional flight surgeon for the Federal Aviation Administration (FAA), says, "the military has an interesting way of influencing you.

"I realized that I was having so much fun and the jobs and opportunities to do so many different things were there, so I just made it a career," Schall said.

With all the opportunities the military opens up, there's also an almost overwhelming sense of pride and joy in taking care of the men and women who give their lives and limbs for their country. "The patient population we have in the military is a special population," Ediger said.

Cmdr. Michael Robinson, M.D., '99, is an orthopaedic surgeon who went straight from the UMKC School of Medicine as a Navy reservist into a surgical internship at Tripler Army Medical Center in Honolulu, followed by flight surgery training at the Naval Aviation Medical Institute, Pensacola, Fla. Since 2010, he has been stationed at the U.S. Naval Hospital in Jacksonville, Fla., as head of the department of orthopaedics. Much of his time is spent in an operating room replacing injured knee and hip joints.

Now Robinson is part of a trauma team deployed to Kandahar, Afghanistan, working out of the largest NATO trauma center in the country.

This isn't the first overseas action during Robinson's nearly 14 years with the Navy. Eleven years ago, he was deployed to the Persian Gulf as a flight surgeon aboard the aircraft carrier USS John F. Kennedy in support of Operation Enduring Freedom. He spent two years at a naval hospital in Okinawa, Japan, in addition to multiple stops in the United States. However, it is his first ground duty in a war zone and just before he shipped out, Robinson said he had a good idea of what he and the team would face.

"Back home, I'm a hip and knee replacement surgeon," Robinson said. "In Afghanistan, I will be an orthopaedist, but I'll be taking care of wounded coalition soldiers. Afghan soldiers, American soldiers, we take care of all those guys. We'll be taking care of casualties, gunshot wounds and IED (improvised explosive device) wounds. You don't see all of that back in the states."

The pride exhibited by those in the military came at a young age to Stephanie Degen, MS 6, whose parents are both retired from the Air Force. Degen spent her youth travelling from one military base to another and said she knew she wanted to go into the military before she realized she wanted to be a doctor. She will graduate in May from the School of Medicine as a captain in the Air Force after spending the past four years as a reservist in the military's Health Professions Scholarship Program (HPSP).

"When I decided to become a doctor, I decided to do it through the Air Force," Degen said. "It's a way to serve and give back to our country. Being used to the military lifestyle and seeing places, I knew I'd be able to move around and that was something that I wanted to do."

And there is a world of different opportunities the military opens up to people that draws them and keeps them in.

Schall is a former deputy commander for the Air Force's largest hospital, Wilford Hall Medical Center at Lackland Air Force Base in San Antonio. Like Robinson and Degen, he was commissioned through the HPSP while he was still at the UMKC School of Medicine. "My mother had died of cancer and I was the oldest (child) in our family," he said. "I knew if my dad funded my schooling there wouldn't be anything left for anyone else." After his surgical internship, Schall embarked on a career that took him around the world. His tours sent him on deployment to a U.S. military hospital in Oman as a head and neck surgeon during the first Gulf War, placed him in Europe as the Combatant Command Surgeon for the Supreme Allied Command of Europe, coordinating medical support for President Bush's five-country African tour in 2010, in the sky for more than 1,600 hours of flight time in more than 42 different military aircraft, and even allowed him to serve as a human test subject on the research centrifuge at the U.S. Air Force School of Aerospace Medicine in Ohio.

"I've worked in the Surgeon General's office, visited over 50 countries and have done lots of foreign training and humanitarian efforts," Schall said. "Those are things you wouldn't get to do in your ordinary private practice. For me, it wasn't about making money but about doing something you couldn't do anywhere else and making a difference."

In Washington, Ediger also talked about how he has changed jobs on average about every two or three years. Since entering the Air Force in 1985, he has commanded two medical groups, served as command surgeon for three major commands, been deployed in support of operations Iraqi Freedom, Enduring Freedom and Southern Watch, and spent more than 800 hours, including 90 combat support hours and 38 combat hours, in the air aboard military aircraft.

"The fact that you take a new job with new responsibilities every two or three years has been something I grew to enjoy," he said. "For a lot of us, that's true, not just for the physicians, but for nurses, dentists, pharmacists. Those who stay in say that's the aspect they found so rewarding."

Today, as Deputy Surgeon General

Armed Services Health Professions Scholarship program helps students earn medical education

WITH THE COST of a medical education continuing to rise, a growing number of young medical students are turning to the Armed Services Health Professions Scholarship Program (HPSP) for assistance. Emily Gray, MS 2, applied this past fall for an HPSP scholarship through the Army. She learned in December that her application had been accepted and in January, her Army recruiter traveled to her hometown of Poplar Bluff, Mo., where she was sworn into the Army Reserve as a second lieutenant during a ceremony at her church.

"What first attracted me to the program is the fact that they pay for school, tuition, books, and any fees or tools you need. Plus they give you a monthly stipend to live on, which helps, too," Gray said.

The signing bonus will go toward paying off her first two years of student loans. When she graduates in four years with her medical degree, Gray will receive an automatic promotion to the rank of captain and the accompanying pay grade as she beings her residency.

Her first official military activity will be a 45-day stint in officer training. After that comes 45 days of paid active duty training doing clinical rotations, possibly at a military hospital, each year until she finishes her medical degree.

"I would like to go back home after the military, do rural medicine and open my own practice," Gray said. "But there are so many options through the military; I don't know for sure what I'll wind up doing."

Each branch of the military offers the HPSP program with scholarships to fill their individual medical needs. Students may receive up to four years of scholarship assistance through the HPSP. In return, after they complete their medical training, the student is required to serve one year of active duty for each year he or she received the HPSP scholarship. At the UMKC School of Medicine, about a dozen students are currently participating in the HPSP program and will enter either the Army, Air Force or Navy when they graduate.

Stephanie Degen, MS 6, comes from a military family. Both of her parents are retired from the Air Force. She joined the HPSP program after her first three years of medical school.

"I didn't know (the HPSP) existed," she said. "I don't think a lot of people know."

Degen participated in the military match program in December. Though students in the HPSP program are required to apply for a residency through the military graduate medical education program, not everyone who applies will receive a military match. Degen did, and after she graduates in May, she will head to Biloxi, Miss., with a rank of captain for a three-year internal medicine residency at Keeler Air Force Base. After that, she will begin paying back her scholarship through active duty service wherever she's assigned her first duty station — one year of active service for every year of her military scholarship.

"My family was all for me joining the military," Degen said. "They don't have to worry about me financially anymore."

PHOTOS COURTESY DAVID SCHALL

David Schall, M.D., '77, in the cockpit of a C-130 military cargo plane, retired after 37 years in the Air Force and joined the Federal Aviation Administration as the only aerospace neurotologist in the country.

COURTESY MICHAEL ROBINSON

Cmdr. Michael Robinson, M.D., '99, an orthopaedic surgeon, joined the Navy as a reservist while attending the School of Medicine. He deployed earlier this year with a unit to serve at the NATO trauma center in Kandahar, Afghanistan.

for the Air Force, Ediger has gone from doing clinical medicine to manning an administrative position, helping manage a $7.1 billion budget, working with other branches of the military on policy, and determining hospital and clinical staffing needs, how to distribute resources and exploring deployment capabilities. It's a big climb for someone who says he had little interest in being an administrator when he began his military career.

"When I started, all I wanted to do was be a family physician and a flight surgeon," Ediger said. "After serving with people who became my mentors, I found I was interested in taking on leadership roles. Over time, the degree of responsibility grew. This was not something that I ever thought I'd aspire to do."

Despite the current accolades, the military hasn't always been held in particularly high esteem as a place for doctors to train and practice. In fact, as recently as 40 years ago, about the time of the Vietnam War, the military was struggling to get doctors to enlist. Military service was often looked upon as a waste of time or a dead end for a budding doctor who showed promise.

Ediger said he was aware of the disparaging views of military doctors when he enlisted, though early on in his career he found them to be inaccurate.

"When I started going to the family clinic at Whiteman Air Force Base, I was working with family physicians that were very well trained," Ediger said. "This was a time in the mid-80s when military medicine had not rebounded from the doldrums of Vietnam and the reputation that military physicians were not very good. I found that reputation was outdated."

The perception of military medicine began to change in part after the Armed Forces Health Professions Scholarship Program was created in the early 1970s to be a primary source of training for health care professionals entering military service. There were new requirements such as U.S. citizenship and physical qualifications, in addition to the academic credentials necessary to be eligible for a commission. And with a wave of medical advances being made by health care professionals serving in the military, military medicine has been growing in stature ever since.

Military doctors today are considered some of the best in their fields. They are finding ways to improve patient care through new protocols in trauma resuscitation that are being replicated in civilian hospitals, and finding ways to implement new technology into their work in medical centers, deployment settings on the ground, or in confined spaces such as an aircraft or a ship.

"It was exciting to be part of something like that and see the military advance and develop things to benefit our civilian colleagues," said Schall, who now works for the FAA as the only aerospace neurotologist in the United States, ensuring that no health problems of airline pilots and air traffic controllers compromise the safety of U.S. airspace.

Today, the civilian health care world would agree that a military medical education provides some of the best training in the field. Board certification rates for military-trained physicians are above the 90th percentile, well above the national average. And while opportunities abound for military doctors to go into specialized training in just about any medical field one desires, the competition to get into those fellowship programs is extremely competitive.

Obtaining a military residency position is not even a sure thing for college medical students who participate in the military's HPSP. Degen does have an internal medicine residency position awaiting her in Biloxi, Miss., at Keeler Air Force Base when she graduates. She took the Air Force up on its scholarship offer during her third year at the School of Medicine and as part of her reserve training, has done some clinical rotations in military settings. But Degen said that she would have done more had she known before how spirited the process would be.

"I didn't realize the competitiveness and difficulty of getting into the program," Degen said. "If I had, I would have pushed harder to rotate to other (military) hospitals."

Finances are often a major reason young doctors enlist, many while still in medical school. Many who accept the Health Professions Scholarship Program join to receive the financial advantages, serve their country and then move on to private practice. While many follow that route, a growing number of doctors are deciding that being a military physician isn't a good long-term career choice.

"The economy may be a part of it, and the uncertainty of the U.S. health care system in general," Ediger says. "I think there are a number of factors in play. But I think a significant part of it is that they find being part of the military to be a rewarding experience as well. There are some rewarding aspects to being a physician in the military."

One is the extensive medical training that is available. The option to take part in additional fellowship or residency programs without the worry of having to give up a private practice and income is an added bonus for military physicians. Ediger, for example, was a family physician for nine years before he began a second residency in aerospace medicine. "I don't see any way I could have done that without being in the Air Force," he said.

The result is that today's military doctors are viewed as some of the best-trained, highly qualified physicians in the world.

"I would tease my civilian colleagues that 'you would want our castoffs,'" Schall said. "When I was a residency program director, I'd put my residents up against any civilian-trained program."

Yet, for all the medical skills and innovations that come from serving in uniform, those skills that physicians and other health care professional acquire in today's military go beyond doctoring.

"The thing about being in the military is you don't just do medicine," said Robinson, the Navy surgeon now in Afghanistan. "You also develop a lot of leadership skills. You learn to take care of personnel, but you're also a leader in regards to how the team works. The doctors who come out of the military know how to be part of a team and how to lead that team."

Schall says he saw first-hand how a military background instills a unique level of skill and confidence within a person when he was a medical student at the School of Medicine working in the emergency room at Truman Medical Center, a Level I trauma center that operates one of the busiest trauma centers in Kansas City. Schall doesn't remember the doctor's name, but he can't forget how he handled himself in the emergency room.

"There was an ER doctor on staff who was a former trauma surgeon in Vietnam. He was totally cool and unflappable in the utter terror and chaos, sometimes gruesome chaos, that we had coming in," Schall said. "I remember how much I admired his steely calm and coolness."

In the end, even with all the added incentives the military provides, taking care of patients, said Ediger, is still the number one objective for doctors in the military. And that's true regardless of the number of stripes on one's sleeve or the number of bars on their collar.

"I'm always happy to be referred to as 'doctor,'" said Ediger, one of only five two-star generals on active duty in the Air Force Medical Service. "In military settings, we typically use our rank (when referring to one another). Back when I was working with the squadron at Whiteman Air Force Base, I was always called 'Doc,' and I was always happy to be addressed by that label." P

Class brings roles of wartime physicians to life

IMAGES OF INJURED U.S. soldiers and the devastation of war flash across a media screen, hammering home for a group of fifth- and sixth-year medical students the role of physicians and medicine throughout our military history. The class, Medicine, War and the Arts, is offered each February through the School of Medicine Department of Medical Humanities and Social Sciences.

Faculty and guest lecturers, all with military backgrounds and front-line experience in providing medical care during wartime, share their life experiences and explore the extraordinary and difficult medical and ethical decisions physicians have faced from the mass casualties of the American Civil War to today's military actions in the Middle East.

The month-long course puts into historical context the contemporary role of combat physicians as well as its effect on the psyches of medical personnel who treat veterans.

"Throughout most of our students' lives, the U.S. has been involved in serious conflicts," said Lynda Payne, R.N., Ph.D., Sirridge/Missouri Endowed Professor in Medical Humanities and Bioethics. "Thanks to improved medical care, 90 percent of military personnel injured in Iraq or Afghanistan are surviving, but at considerable cost in terms of long-lasting physical and emotional problems. Our students will inevitably be involved in the care of these patients and their families."

Groundbreaking ceremony for the UMKC School of Medicine, 1972.

ACCELERATED MEDICAL EDUCATION: PAST, PRESENT AND FUTURE

by Betty M. Drees, M.D., &
Kenan Omurtag, M.D., '06

CHANGES IN MEDICAL education should include the study of the programs currently in existence, as well as prospective research and study of the outcomes in terms of quality, cost, and student perspective.

Medical education has gone through a number of reforms and innovations over the past century. Included in that history are the multiple efforts to "accelerate" medical education. The reasons behind these acceleration efforts are generally, but not always, aimed at producing physicians faster, more economically, or both.

The national discussion on the acceleration of medical education is re-emerging now due to the escalating costs of medical education, the level of educational debt of graduating medical students, and the predicted worsening of the physician workforce shortage, especially in light of the recent passage of the Affordable Care Act (ACA).[1,2] The Association of American Medical Colleges (AAMC) Center for Workforce Studies estimates the current national shortage of physicians at 60,000 and projects that number to increase to 90,000 by 2020.[3] Medical school tuition and fees average $30,000-$50,000 — depending on public or private medical school status — with 86 percent of students graduating with median debt that averages $162,000. Cost of attendance (including living expenses) in medical school continues to rise with average annual costs of $56,000-$75,000, again depending on public or private status of the medical school (AAMC data available online at AAMC.org).

The realities of the shortages of physicians and the cost of education, largely born by the medical students, but also subsidized by clinical revenues, is leading to a call to re-examine the length of education and training of physicians.[1,2] The prevailing model of medical education in the United States leading to the MD degree is eight years: four years toward a baccalaureate degree, followed by four years of medical school. This model is based on the reformations in medical education from a century ago and articulated in the Flexner Report[4] commissioned by the Carnegie Foundation and published in 1910.

To address the lack of standards of medical education and poor quality of medical training in existence in the late 1800s, Flexner called for admissions requirements, university-based medical schools, and a four-year medical school curriculum with two years of basic sciences followed by two years of clinical instruction in a teaching hospital. Even before the Flexner Report, the AAMC, the American Medical Association (AMA) and state licensing boards were recommending and setting standards that included pre-matriculation college education and a four-year medical school curricula with two years each of basic and clinical sciences.[5,6] These reformations resulted in the closing of approximately half of the existing medical schools and standardization of the four-year medical school curriculum across the remaining schools.

In an effort to continue innovation in medical education, as early as 1926,[7] the AAMC noted that medical schools should be "encouraged" to undertake "educational experiments" with the goal of improving medical education. They also made provisions for US medical schools to follow the six-year model of Canadian schools of "combined collegiate and medical curriculum," provided that the curriculum includes the same content.

"Accelerated" programs were initiated during World War II in order to produce physicians quicker for the war effort.[8] All but six of the medical schools at that time adopted accelerated programs, which were approved by the AAMC and the Federation of State Medical Boards (FSMB). These programs were shortened from four years to three by eliminating summer breaks, but were forbidden from "lowering standards" and could not "condense, curtail or abbreviate any course of instruction."[8] After the war, the medical schools all returned to the pre-war formats. Interestingly, one of the perceived drawbacks of the accelerated programs was the financial burden on the medical students who routinely worked during summer breaks in order to afford to attend medical school. Another drawback was the financial stress on the resources of the medical schools due to faculty being taken away from the research and clinical missions to teach on a more intensive schedule.

The modern era of "accelerated" medical education programs began in the 1960s and 1970s[9] and took two forms: combined baccalaureate-MD programs and three-year medical school programs. The first four accelerated, baccalaureate-MD programs opened in the early 1960s as tracks within established medical schools (Northwestern University, Boston University, Jefferson Medical College-Penn State University, and Albany Medical College).

THE THREE-YEAR MEDICAL SCHOOL

The initial accelerated, combined degree programs of the early 1960s were not primarily driven by the mission to address physician workforce shortages. Rather, they were intended to offer an accelerated track to bright high school students, reduce educational expense to the students, and enhance the humanities and/or technical education. By the late 1960s and early 1970s, though, national concern over projected physician shortages, especially in primary care, was beginning to grow. The influential "Bane Report" predicted a national shortage of 40,000 physicians by 1975.[10] The Carnegie Commission published a report in 1970[11] that recommended the acceleration of medical education to reduce costs and produce physicians quicker by reducing medical school from four years to three. They noted one central weakness of the Flexner model: duplication of the expense of scientific efforts between the parent university and the medical school and praised the "integrated science models" of the combined degree programs.

Although not the initial mission, the combined degree programs in the late 1960s and early 1970s adopted the goal of producing physicians faster for the perceived needs of the communities they served. The predicted physician shortage led to federal policy to fund the opening of new medical schools, both traditional and combined degree programs. By 1971, capitated federal funding was appropriated for existing schools to receive $2,000 per student graduating from a three-year accelerated program. This funding drove the development of the three-year medical school programs in the early 1970s,[12] such that by 1973, over a quarter of the existing medical schools had three-year medical education programs.

While student performance and "physician readiness" have been cited as a criticism for accelerated programs,[1,13] student performance in these three-year programs remained good. Rather, it was the programs' poor acceptance by faculty that largely shuttered them by the late 1970s. The subsequent publication of the Graduate Medical Education National Advisory Committee (GMENAC) report in 1981,[14] predicting an oversupply of physicians, ended the push for accelerated programs for the purpose of producing physicians faster. Between 1960 and 1982, 37 new medical schools opened (list available through the Liaison Committee on Medical Education at lcme.org) but after the GMENAC report, it would be 20 years before a new medical school would open.

THE COMBINED BACCALAUREATE-MD MODEL

Because the initial mission of the combined, baccalaureate-MD programs was not primarily targeted toward physician shortages, these programs persisted after the GMENAC report and continue to grow in number and variety. By 1992, there were 28 medical schools (of 125 total MD-granting medical schools) with 30 combined degree programs.[9]

Currently, there are 57 medical schools (of 138 MD-granting medical schools) offering 81 baccalaureate-MD programs.[15] Most of these programs are small tracks within the larger programs. Only three programs admit the majority of their student body into the baccalaureate-MD program: University of Missouri-Kansas City (UMKC), Northeastern Ohio Medical University College, and the Sophie Davis School of Biomedical Education of the City University of New York.

Although many of the programs started or adopted accelerated schedules during the perceived physician shortage of the 1960s and 1970s, the trend has been for most programs to lengthen over time and the majority of programs are currently eight years. Only nine programs are now seven years in length and five programs are six years in length[15]. All of the combined degree programs that are less than eight years include four years of medical school instruction. The shortening of the programs are through shortening the baccalaureate time or through dual credit toward both degrees, but not through shortening the medical curriculum.

The baccalaureate-MD programs across the United States serve a number of missions, both historic and new:

recruitment of bright high school students to retain them in medicine, integration of liberal arts and medical school curriculum, focus on special tracks (rural health, primary care, underserved populations, biotechnology, humanities, etc.), recruitment and mentoring of diverse students, reduction of competition and stress of applying for medical school, reduction in cost of medical education,[9,15] and increased involvement of faculty. Many schools have published their results regarding effectiveness of meeting their missions,[16,17] as well as student outcomes.

The academic performance of students in baccalaureate-MD programs are comparable, and in some cases better than students in traditional curricula.[9,13,17-20] There is some evidence that students recruited into these programs from high school experience less stress, perceive a less competitive environment, and have higher concordance between expectations and experiences.[18,21-24] Furthermore, the graduates of baccalaureate-MD programs perform well in residency programs compared to peers from traditional undergraduate medical schools.[17,18,24] The perception of the students themselves is positive.[18,22] The attrition in baccalaureate-MD programs is higher than traditional programs and occurs primarily in the first two years, after which it approximates traditional medical schools.[24] However, the attrition in baccalaureate-MD programs is less than half of the attrition of traditional premedical programs, and thus may be a means to keep students in medicine who otherwise might choose other careers while in college.

Our experience at UMKC concurs with the literature, in terms of high performance of graduates clinically and favorable student perceptions.[13,17,24] In Missouri, Washington University and Saint Louis University, in addition to the University of Missouri-Kansas City, have baccalaureate-MD programs. The program at UMKC admits the majority of students into the baccalaureate-MD program and is six years in length. The other two programs are tracks within the larger programs and are eight years in length. The University of Missouri-Kansas City program shortens the length to six years through integration of the liberal arts and medical school courses to avoid duplication and through elimination of summer breaks. Students attend school 11 months per year, with one month of vacation annually.

THE FUTURE OF MEDICAL EDUCATION

There are now 50 years of national experience with baccalaureate-MD programs, as well as 70 years of experience with a variety of accelerated programs, including some of the baccalaureate-MD programs. The 40-year experience at UMKC provides substantially to the literature in this regard. Our approach is "an applied education theory of relevance, repetition, responsibility, and role models."[13] This approach is efficient in time, while rich in content and experience and with good educational outcomes.[17]

The themes of physician shortages, cost of medical education to students, expense of medical education to institutions, redundancies in the curriculum between premedical college and medical school, and the need to innovate in medical education are recurring over time and have recently amplified[1,2] with the passage of the Affordable Care Act (ACA). While we are constantly reminded of the medical education debt burden, multiple analyses on the cost of medical education repeatedly conclude that shortening the length of medical education is the most effective means to reduce cost to both students and institutions.[2,25] A recent analysis indicates that reducing medical school by one year provides the greatest financial benefit for graduating physicians, between $160,000 and $230,000.[25]

As we move beyond 100+ years of medical education post-Flexner, it is perhaps time to revisit how we train physicians over the next 100 years as medicine and technology rapidly evolve. In any event, changes in medical education must 1) maintain the learning environment and educational quality for students, 2) fit within the faculty and institutional resources of the academic medical centers and universities, and 3) provide high quality physicians of the numbers and types needed by the public.

A recent JAMA commentary[1] set a goal of reducing the entire continuum of formal medical education by 30 percent. While there are many ways to achieve this, many lessons can be learned from studying the innovations in undergraduate medical education among the accelerated programs and the current baccalaureate-MD programs. These programs have a rich collection of data on the quality of their programs, as well as experience in shortening the medical education program while preserving quality and reducing cost. Changes in medical education should include the study of the programs currently in existence, as well as prospective research and study of the outcomes in terms of quality, cost, and student perspective.

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KENAN OMURTAG, M.D., '06, has been involved in medical education since graduating from Rolla (Mo.) High School in 2000 and becoming a student at the School of Medicine. As a student at UMKC, Omurtag received the James J. Mongan Fellowship in Health Policy, during which he worked on health policy issues in Boston with former School of Medicine Dean and then CEO of Partners Health Care Systems, Inc., James Mongan, M.D., once named the most influential physician executive in the country. After receiving his M.D., Omurtag went to the Emory University School of Medicine for his residency in obstetrics and gynecology and served as administrative chief resident. He then went to St. Louis as a fellow in the Division of Reproductive Endocrinology and Infertility at Washington University-St. Louis School of Medicine and in July will join the Washington University faculty as an assistant professor.

Munro selected to chair new humanities department

The School of Medicine has created the Department of Medical Humanities and Social Sciences that will be chaired by Stuart Munro, M.D., clinical professor in psychiatry. The new department centralizes a variety of courses and programs into one cohesive unit.

It made the most sense at this time for the School to combine the various courses that deal with the social aspects of medicine and share a common theme into one academic department, according to Paul Cuddy, Pharm.D., professor and senior associate dean of academic affairs. The department will also house the International Medicine Program and the Sirridge Office of Medical Humanities and Bioethics.

"I am excited to be part of this new department. It is another way the School continues to emphasize the importance of the social aspects of medicine," Munro said. "It is on the cutting edge for a medical school to create a humanities and social sciences department."

Munro has served in a variety of roles at the School since 1986, including psychiatry chair, behavioral sciences course director, advisory board member for the Sirridge Office, assistant dean for Years 1 & 2, International Medicine Program director, and interim dean.

Students honored at mid-year commencement

Three students completed degrees or certificates in time for the University's mid-year commencement ceremonies on Dec. 14 at the Swinney Recreation Center.

Gitti Janwatanagool graduated with his M.D. degree; while Suman Chaudhary graduated with a Master of Science from the School of Medicine's Department of Biomedical and Health Informatics. Brandan Kovacs completed a graduate certificate in clinical research.

Rutherford honored for interventional cardiovascular medicine work

Barry D. Rutherford, M.D., professor of internal medicine and interventional cardiologist at Saint Luke's Hospital of Kansas City, received the Transcatheter Cardiovascular Therapeutics 2012 Geoffrey O. Hartzler Master Clinical Operator Award, presented annually to a physician who has advanced the field of interventional cardiovascular medicine through technical excellence and innovation.

Rutherford has risen to prominence for his expertise in developing techniques for direct balloon angioplasty in acute myocardial infarction and multivessel angioplasty and is currently working on new procedures for treating chronic total occlusions in coronary arteries and managing acute myocardial infarction.

David Testrake, MS 5, (right) works with a young patient as he provides free physicals with fellow SOM students, residents and faculty on March 30 at the J & D Wagner Unit of the Boys and Girls Clubs of Greater Kansas City.

Free sports physicals a hit with local school children

Nearly 400 local school children will get a chance to play in organized sports leagues this summer, thanks to free physicals provided by School of Medicine students, residents and faculty on March 30 at the J & D Wagner Unit of the Boys and Girls Clubs of Greater Kansas City.

Physicals are required in the Reviving Baseball in the Inner Cities (RBI) program at the Boys & Girls Clubs, which provides boys and girls, ages five to 18, with the opportunity to play baseball and softball, and free physicals are crucial for the success of the program, said Ronald Stevenson, director of RBI in Kansas City.

Panel focuses on training health professionals to work together

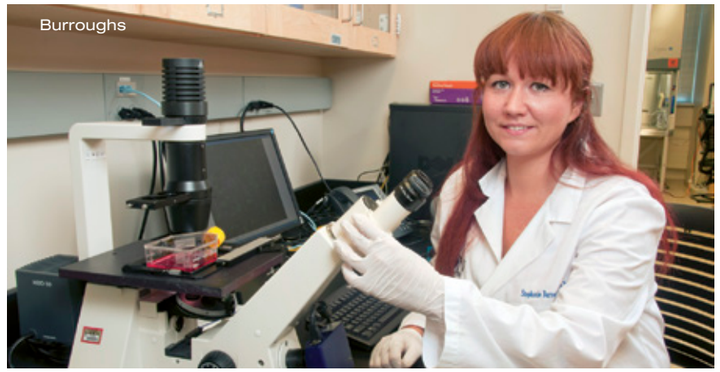
Doctors, nurses, pharmacists and dentists collaborate to treat a patient. Doesn't it make sense for collaboration to be part of their education as well?

That was the idea behind a meeting of national leaders in health professional education to discuss interprofessional education (IPE), an emerging priority in the education of health care professionals. "In the workplace, the students we train become part of a medical care team. It makes sense that for the best patient-centered care, health professional students need to begin that training while in school," said School of Medicine Dean Betty Drees, M.D. "This workshop brings together national experts and internal collaborators, helping the schools move forward with more IPE collaboration."

At the November meeting, panelists discussed progress, challenges and advances in the process of weaving IPE into the fabric of educating future doctors, nurses, dentists and pharmacists. With four health professional schools on the Hospital Hill Campus, the schools are exploring how to use IPE in their curricula. Melissa J. Robinson, M.B.A., a patient advocate and president of the Black Health Care Coalition, said that interprofessional education "puts the patient at the center. It helps the medical team listen to patients, and keeps the patient first."

Emergency medicine celebrates 40th anniversary

The emergency medicine department celebrated its 40th anniversary with the annual McNabney Lectureship and a reception on May 3, followed by a special dinner and resident reunion on May 4 at the Kemper Museum of Contemporary Art. Nearly 350 emergency medicine physicians have graduated from the program since its inception in 1973.



UMKC Vision Research Center scientist receives Fight for Sight Award

The Vision Research Center (VRC) received a post-doctoral award by the nonprofit organization Fight for Sight for its research of causes and treatments for glaucoma. Stephanie Burroughs, Ph.D., a research scientist at the VRC, is exploring the pathophysiological mechanism that leads to glaucoma and novel therapies.

Peter Koulen, Ph.D., Felix and Carmen Sabates/Missouri Endowed Chair in Vision Research, a professor of ophthalmology, and director of basic research at the VRC, is supporting the effort as mentor and supervisor.

Glaucoma is the second-leading cause of visual loss and affects more than 4 million Americans and more than 60 million people worldwide.

Paul Larsen, M.D., head of pediatric neurology and professor of pediatrics and neurological sciences at the University of Nebraska Medical Center, delivers the 2013 William T. Sirridge, M.D., Medical Humanities Lecture on March 7 to a packed house at the School of Medicine.

Radiology faculty, residents, students receive national awards

Faculty and residents from the School of Medicine's Department of Radiology captured national awards with their poster presentations and abstracts at the 2012 Radiological Society of North America meetings in Chicago on Nov. 25-30.

Melissa Rosado de Christenson, M.D., professor of radiology, and Santiago Martinez-Jimenez, M.D., associate professor of radiology, received the top, Magna Cum Laude Award for their poster on Bronchiolocentric Lung Diseases: High-Resolution CT and Pathological Findings.

Four School of Medicine presentations received Certificates of Merit. An exhibit by Jessica Sanchez, M.D., assistant professor of radiology, Marge Stull, M.D., clinical associate professor of radiology, and radiology resident Matt Towsley, M.D., on Spectrum of Stress Injuries of the Foot and Ankle in the Maturing Population was chosen as an RSNA exclusive presentation for CME credit.

More than 4,200 abstracts were accepted for oral or poster presentation at the RSNA and more than 50,000 radiology professionals and exhibitors attended the week-long meetings. Only a small percentage of the presentations receive awards, said Lisa Lowe, M.D., chair of radiology and director of the radiology residency program.

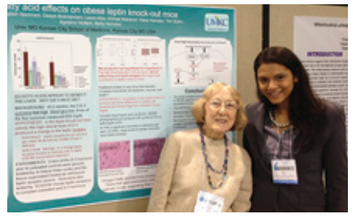
Students present research at world scientific conference

Three medical students were invited to present at Experimental Biology 2013 on April 20-24 in Boston. The annual conference is one of the largest scientific gatherings of researchers and scientists from the fields of pathology, pharmacology, anatomy, physiology, biochemistry and nutrition.

Each of the students, Fizza Abbas, MS 5, Arfaa Ali, MS 5, and Asha Nookala, MS 4, were recipients of the School's Sarah Morrison Student Research Award and presented their completed findings at the annual Student Research Summit. All three worked under the direction of Betty Herndon, Ph.D., research associate professor, and Tim Quinn, senior technologist.

"Every year we have two or three students whose work is presented at Experimental Biology," said Agostino Molteni, M.D., Ph.D., director of student research. "But this year is different because all three were winners of the Sarah Morrison Award and each one will be giving the presentations as the first author. That is unusual for a small institution like ours."

Abbas conducted her work on angiotensin II and its role in fat embolism-induced lung disease. Ali explored the effects of omega-3 fatty acids on fatty liver disease and obesity. Nookala's work focused on the use of curcumin, a popular spice, as a potential dietary supplement to battle fatty liver disease and general obesity.



Arfaa Ali, MS 5, (right) presents her research at Experimental Biology 2013 on April 22 in Boston with her mentor, Betty Herndon, Ph.D.

A fourth research project from the School's Department of Pathology, in which three students participated, was also selected for presentation at the conference. Elizabeth Black, MS 4, Jessie Friedrich, MS 4, and J. Chris Tanner, MS 4, were part of a project on fat embolism syndrome following bone fracture for which Molteni was the lead author and the presenter.

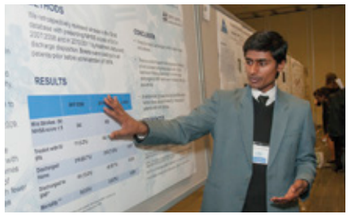
"By being a part of these research projects and presentations, these students will have a better understanding of the explosion of information that is available and how to share information and interact with faculty members from other institutions," Molteni said.

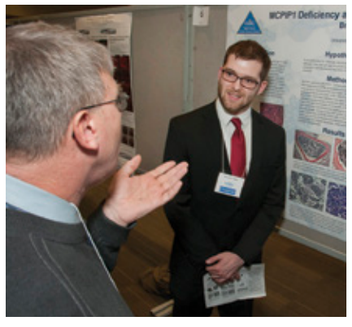
Students and residents win awards for presentations from Missouri ACP

Ashley DeBoeuf, MS 4, and Shariq Shamim, M.D., an internal medicine resident at the UMKC School of Medicine, each brought home first-place awards for their presentations at the Missouri Chapter of the American College of Physicians (ACP) annual scientific meeting Sept. 13 through 16 at Osage Beach, Mo. Both won their awards in the clinical vignette competition.

In addition to their first prize awards from the Missouri ACP, DeBoeuf and Shamim received a stipend and were entered in the ACP national poster competition at the ACP Internal Medicine 2013 Week in San Francisco in May.

Eleven students and residents from the School of Medicine presented 14 posters in the competition that included nearly 120 entries by students and residents from Missouri's four medical schools. Three students and residents won second or third prizes at the meetings.





Agostino Molteni, M.D., Ph.D., director of student research at the SOM, (center) stands with award winners from the 2013 Health Sciences Student Research Summit that took place on April 4 at the UMKC Student Union. From left: Hirak Shah, MS 5, Joshua Williams, MS 3, Caitlin Nichols, MS 4, Asha Nookala, MS 4, and Fizza Abbas, MS 5.

Students take part in expanded Student Research Summit

Asha Nookala, MS 4, spent nearly two years conducting research on nonalcoholic fatty liver disease at the School of Medicine and preparing her results. Her work went on display and won first place among medical student presentations on April 4 at the 2013 Health Sciences Student Research Summit.

"This has helped me develop a deeper understanding of medical research and given me some hands-on experience," said Nookala, who presented her poster again at the end of April at the 2013 Experimental Biology Conference, an international scientific conference in Boston.

Nookala was one of 23 SOM students who gave poster presentations at the annual research summit that took place at the UMKC Student Union for the first time. This year's expanded event included student research projects from each of the health science schools, as well as the School of Computing and Engineering and the College of Arts and Sciences. Students presented 125 posters at this year's event.

Hirak Shah, MS 5, received the second-place award from the School of Medicine, Fizza Abbas, MS 5, third place, Joshua Williams, MS 3, fourth place, and Caitlin Nichols, MS 4, the fifth place award.

"The research summit was a success for the number and quality of posters presented," said Agostino Molteni, M.D., Ph.D., director of student research at the School of Medicine. "It represents the wide variety of research from basic research to translational research in the different branches of health care."

Many of the students, he said, will join Nookala in presenting their posters again at national and international meetings.

Molteni said the effort to bring together students from many different schools throughout the University provided them the opportunity to interact and communicate to generate better ideas and learn the art of collaboration.

Wayne Carter, president and CEO of the Kansas City Area Life Sciences Institute, gave a keynote address prior to the poster session.


Class of 2013

Monica Lau, M.D., '13, celebrates with her mom during Match Day 2013.

Trevor Beckam, M.D., '13, John Graham, M.D., '13, Amrita Nanda, M.D., '13, Victoria Rizk, M.D., '13, and Shaham Mumtaz, M.D., '13, point to the places on the map where they will be going for their residencies.

Salik Choudhary, M.D., '13, takes a moment to relish in his match announcement.

Chandra Weaver, MS 4, congratulates Rosemarie Serrone, M.D., '13, on her match.

Match Day 2013

Nearly 90 students who have spent the past six years together will spread across the country this summer as they embark on their residencies. The Class of 2013 celebrated Match Day on March 15 at the School of Medicine. Almost 43 percent of those who matched did so in one of the primary care specialties. Internal medicine was the most popular match with 26 students, and medicine-pediatrics and pediatrics was next with 12 matches.

Well more than half of the class matched to residency programs in the Midwest. Eighteen will be staying in the Kansas City area to continue their post-graduate training and 14 of those matched to one of the UMKC School of Medicine residency programs.

The following is a list of the School's 2013 Match group:

Noor Abu Alnadi
University of Michigan Hospitals - Ann Arbor, MI — Obstetrics-Gynecology
Maxwell Almenoff
Orlando Health - Orlando, FL — Surgery-Preliminary
Sameer Alvi
University of Kansas School of Medicine - Kansas City, KS — Otolaryngology
Chetna Arora
Mayo School of Graduate Medical Education - Rochester, MN — Obstetrics-Gynecology
Simmi Arora
University of Missouri-Kansas City — Medicine-Pediatrics
Himanshu Banda
Emory University - Atlanta, GA — Transitional Year; Ophthalmology
Khannah Baxter
University of Texas Medical Branch - Galveston, TX — Internal Medicine
Sarah Beck
Louisiana State University SOM - New Orleans, LA — Medicine-Pediatrics
Trevor Beckham
University of Missouri-Kansas City — General Surgery
Gina Brown
Loma Linda University - Loma Linda, CA — Anesthesiology
David Camejo
University of Missouri-Kansas City — Medicine-Preliminary; Temple University - Philadelpia, PA — Ophthalmology
Melony Chakrabarty
Banner Good Samaritan Medical Center - Phoenix, AZ — Medicine-Pediatrics
Nikoo Cheraghi
University of Massachusetts Medical School - Worcester, MA — Medicine-Preliminary
Ming Chi
University of Missouri-Kansas City — Psychiatry
Sapna Chilakamarri
St. Louis University School of Medicine - St. Louis, MO — Anesthesiology
Meera Chinnaswamy
Children's Mercy Hospital-Kansas City, MO — Pediatrics
Moo Cho
University of Missouri-Kansas City — Surgery-Preliminary
Salik Choudhary
St. Louis University School of Medicine - St. Louis, MO — Internal Medicine
Asm Iftiar Chowdhury
Indiana University School of Medicine - Indianapolis, IN — Internal Medicine
Stephanie Degen
Kessler Air Force Base - Biloxi, MS — Internal Medicine
Nida Faheem
University of Kansas School of Medicine - Kansas City, KS — Neurology
Adam Flack
University of Missouri-Kansas City — Oral Surgery
Adam Fleddermann
Washington University, Barnes-Jewish Hospital - St. Louis, MO — Internal Medicine
Sapna George
Northeast Ohio Medical University - Akron General Medical Center-Akron, OH — Emergency Medicine
Matthew Goers
University of Minnesota Medical School - Minneapolis, MN — Internal Medicine
John Graham
Children's Mercy Hospital-Kansas City, MO — Pediatrics
Christopher Griffith
University of Colorado School of Medicine - Denver, CO — Internal Medicine
Priya Gujarati
University of Louisville School of Medicine - Louisville, KY — Emergency Medicine
James Gutierrez
St. Joseph's Hospital - Phoenix, AZ — Neurology
Mehreen Iqbal
Geisinger Health System - PA — Anesthesiology
Aditi Jani
West Suburban Medical Center - Oak Park, IL — Medicine-Preliminary; Albany Medical College - Albany, NY — Ophthalmology
Alexander Kassar
University of California - San Diego Medical Center, CA — Internal Medicine
Mena Kerolus
Rush University Medical Center - Chicago, IL — Neurological Surgery
Sanjeev Keshary
University of Kansas School of Medicine - Kansas City, KS — Neurology
Yevgeniy Khariton
Washington University, Barnes-Jewish Hospital - St. Louis, MO — Internal Medicine
Ramya Kollipara
University of Colorado School of Medicine - Denver, CO — Medicine-Preliminary
Niraj Kothari
St. Louis University School of Medicine - St. Louis, MO — Internal Medicine
Monica Lau
Tulane University School of Medicine - New Orleans, LA — Medicine-Pediatrics
Kavi Madhani
Children's Hospital of Michigan - Detroit, MI — Pediatrics
Asad Malik
St. Louis University School of Medicine - St. Louis, MO — Anesthesiology
Muhammad Mirza
Pennsylvania State University, Hershey Medical Center - Hershey, PA — Orthopaedic Surgery
Syed Azhar Mohiuddin
Loyola University Medical Center - Chicago/Maywood, IL — Medicine-Preliminary; Diagnostic Radiology
Shaham Mumtaz
Loyola University Medical Center-Chicago/Maywood, IL — Internal Medicine
Trenton Myers
University of Missouri-Kansas City — Psychiatry
Amrita Nanda
Texas A&M University-Scott & White Hospital - Temple, TX — Emergency Medicine
Sarah Nazeer
University of Missouri-Kansas City — Obstetrics-Gynecology

Samantha Nohava
University of Missouri-Kansas City — Emergency Medicine
Christine Nwoha
University of Texas Medical School - Houston, TX — Internal Medicine
Ashika Odhav
Children's Mercy Hospital - Kansas City, MO — Pediatrics-Preliminary
Tosan Oyowe
Creighton University Affiliated Hospitals - Omaha, NE — Internal Medicine
Chirag Patel
University of Missouri-Kansas City — Pathology
Krushangi Patel
Banner Good Samaritan Medical Center - Phoenix, AZ — Internal Medicine
Vikas Patel
University of Illinois College of Medicine – Urbana, IL — Medicine-Preliminary; University of Kansas School of Medicine-Kansas City, KS — Dermatology
Yash Patel
University of North Dakota School of Medicine - Grand Forks, ND — Internal Medicine
Sruthi Patibandla
University of Missouri-Kansas City — Internal Medicine
An Duc Pham
Loma Linda University - Loma Linda, CA — Obstetrics-Gynecology
Jacob Podleski
Case Western Reserve University School of Medicine - Cleveland, OH — Anesthesiology
Ashwini Poola
Tufts University School of Medicine, Baystate Medical Center - Springfield, MA — General Surgery
Nabeel Porbandarwala
University of Missouri-Kansas City — Medicine-Preliminary; University of Cincinnati-University Hospital - Cincinnati, OH — Radiology-Diagnostic
Syed Rahman
University of Massachusetts Medical School - Worcester, MA — Medicine-Preliminary; Baylor College of Medicine - Houston, TX — Radiology-Diagnostic
Hassan Rao
University of Colorado School of Medicine - Denver, CO — Internal Medicine
Chris Ray
Mayo School of Graduate Medical Education - Jacksonville, FL — Internal Medicine
Chris Reams
University of Missouri-Columbia — Orthopaedic Surgery
Chanakya Ram (Sean) Reddy
Washington University, Barnes-Jewish Hospital - St. Louis, MO — Internal Medicine
Victoria Rizk
University of South Florida College of Medicine - Tampa, FL — Internal Medicine
Meghana Roy
Advocate Illinois Masonic Medical Center - Chicago, IL — Anesthesiology
Pratik Sandesara
Emory University School of Medicine - Atlanta, GA — Internal Medicine
Neeraj Sathnur
University of Minnesota Medical School - Minneapolis, MN — Internal Medicine
Laura Ann Schoeneberg
University of Florida College of Medicine - Shands Hospital-Gainesville, FL — Pediatrics
Rosemarie Serrone
St. Joseph's Hospital - Phoenix, AZ — General Surgery
Abigail Shniter
University of Missouri-Kansas City — Emergency Medicine
Mazen Shobassy
University of Missouri-Kansas City — Internal Medicine
Jordan Siscel
University of Kansas School of Medicine - Kansas City, KS — Anesthesiology
Kristin Burns Smith
Harvard Medical School, Beth Israel Deaconess Med Center -Boston, MA — Pathology
Andrew Spencer
University of South Florida College of Medicine - Tampa, FL — Emergency Medicine
Shubra Srinivas
University of Missouri-Kansas City — Medicine-Pediatrics
Tatyana Taranukha
Medical College of Wisconsin Affiliated Hospitals - Milwaukee, WI — Internal Medicine
Amanda Thomas
University of Missouri-Columbia — Psychiatry
Kush Tripathi
St. Mary Mercy Hospital-Livonia, MI — Transitional Year; Rush University Medical Center-Chicago, IL — Anesthesiology
Adam Van Mason
Children's Mercy Hospital-Kansas City, MO - Pediatrics
Sheela Vivekanandan
Einstein/Montefiore Medical Center - The Bronx, NY — Surgery-Preliminary
Yosafe Wakwaya
Washington University, Barnes-Jewish Hospital - St. Louis, MO — Internal Medicine
Grace Winningham
Children's Mercy Hospital-Kansas City, MO — Pediatrics
Peter Winningham
University of Missouri-Kansas City — Radiology-Diagnostic
Alexander Zabaneh
St. Francis Hospital-Evanston, IL — Transitional Year; University of Chicago-Chicago, IL — Ophthalmology
Ayesha Zuberi
University of Kansas School of Medicine - Wichita, KS — Internal Medicine

PARTNERS

Information for this section was provided by our affiliate hospitals.

CHILDREN'S MERCY RECEIVES $1 MILLION GIFT TO FUND GENOMIC CENTER

Children's Mercy Hospital has received a $1 million gift from the William T. Kemper Foundation to diagnose and treat rare, genetic diseases in children. The grant will fund the Center for Pediatric Genomic Medicine at Children's Mercy, the first genome center in the world located in a children's hospital, focused on the diagnosis of inherited pediatric diseases and improving health care for children. The grant will give critically ill patients in the hospital's Neonatal Intensive Care Unit (NICU) access to the latest in rapid genome sequencing, called STAT-Seq, which was developed at the Center. STAT-Seq allows for whole genome sequencing, from blood draw to analysis to diagnosis/results to the physician, in as little as two days. Children's Mercy is the only pediatric hospital in the world with access to this new approach.

Children's Mercy Hospitals and Clinics, located in Kansas City, Mo., is one of the nation's top pediatric medical centers. The 354-bed hospital provides care for children from birth through the age of 21, and has been ranked by U.S. News & World Report as one of "America's Best Children's Hospitals." For the third time in a row, Children's Mercy has achieved Magnet nursing designation, awarded to fewer than seven percent of all hospitals nationally, for excellence in quality care. Its faculty of 600 pediatricians and researchers across more than 40 subspecialties are actively involved in clinical care, pediatric research, and educating the next generation of pediatric subspecialists. For more information about Children's Mercy and its research, visit childrensmercy.org or download our mobile phone app CMH4YOU for all phone types.

Center for Behavioral Medicine

Center for Behavioral Medicine (CBM), formerly Western Missouri Mental Health Center, is an agency for the Missouri Department of Mental Health. Located on Hospital Hill, CBM serves as the UMKC Department of Psychiatry; students, residents, and post-doctoral fellows are trained to deliver integrated physical and behavioral health care.

The Center offers intensive, specialized behavioral health treatments and services for individuals who require extended treatment after a short-term hospital stay at another inpatient setting.

Kansas City VA Medical Center

A new outpatient annex, approximately five miles from the main facility, will open in the fall of 2013 with a focus on Women's Health and on the treatment of Post Traumatic Stress Disorder. The KCVAMC, one of eight medical centers in the VA Heartland Network, is a growing health care system with focused outreach to rural Veterans. With six community-based clinics, a Mobile Medical Unit traveling to three rural communities, and a Veterans Transportation System, the success of the focus is being realized.

Research Medical Center

Founded more than 125 years ago, Research Medical Center has become one of the crown jewels in the HCA Midwest Health System. Research Medical Center has completed more than $120 million in capital improvements, including new lobby and admitting areas, renovated and expanded Cancer Center and Women's Care Unit, construction of all private patient rooms and doubling the Emergency Department.

Saint Luke's Health System

The Saint Luke's Neuroscience Institute (SLNI), formally known as Saint Luke's Brain and Stroke Institute, was unveiled on Jan. 9. The design and formulation of the new facility was based upon the concept of integrated care delivery and allows the neuroscience program to consolidate its diagnostic, surgical, interventional, intensive care and other services into one 88,000 square foot tower. The new facility will not only offer state-of-the-art equipment and expanded facilities but the streamlined design will also provide direct benefit to Saint Luke's neurological patients.

SLNI continues to advance treatment of neurological and spinal disease.

Truman Medical Center-Hospital Hill

Gary Salzman, M.D., director of the UMKC Lung Research Center, leads the Mary Katherine Gelmacher Pulmonary Fibrosis Research Program. Approximately 200,000 Americans have pulmonary fibrosis, which is responsible for more than 40,000 deaths a year. Research has been ongoing at the Center for the past decade, and great strides have been made in investigating potential therapies to prevent scarring after an injury to the lung. The program is accepting patients into a pulmonary fibrosis research study.

Truman Medical Center-Lakewood

Akin Cil, M.D., was named the Franklin D. Dickson/Missouri Endowed Associate Professor of Orthopaedic Research in 2012. His work includes collaborating with the UMKC Department of Civil and Mechanical Engineering in research aimed at finding better solutions to elbow problems through the use of computer modeling of the elbow.

In 2010, he came to the TMC Lakewood Surgery Center where he is one of the few area surgeons offering extensive shoulder reconstruction surgery.

New docent unit, testing center open

Students from the School of Medicine's Red Docent Unit moved into a new home last fall.

The updated facilities were part of a nearly $3-million project to accommodate increases in student enrollment and to provide an enhanced learning atmosphere that supports student retention and success. The facilities include a new third-floor docent unit for the Red 5, Red 7 and Red 8 docent teams and a new testing and training center on the first floor of the medical school.

"One of the things we've been trying to do over the last few years is continually update areas of our building, particularly for the students," Dean Betty M. Drees, M.D. said. "The learning environment is incredibly important for students. It's also important for those of us who work here. So we're really excited about this."

The third-floor student unit provides new student offices, a new study area complete with white boards and smart boards. On the first floor, the new 37-seat computer testing and training center offers students a facility that provides an experience comparable to taking the national certification examinations.

The new layout will serve as a prototype for future remodeling of the remainder of the docent units once the School begins work to renovate and move the basic science laboratories from the third to the fifth floor.

Funding for the completed renovation came from the Caring for Missourians initiative.


Red 3


Testing Center

SCHOLAR SPOTLIGHT: Alumnus's generosity eases financial burden on today's students

Bill Rosenthal, M.D., '82, sat in the audience last spring during the 2012 UMKC School of Medicine Scholarship Reception and listened to students tell their stories of how they were affected by the scholarships they received. They were touching, Rosenthal said, and reinforced that he and his wife made the right decision by establishing the Rosenthal Family Scholarship.


Gray

"I don't think people understand how appreciative the students are," said Rosenthal, a Kansas City ophthalmologist.

"I always dreamed of being a physician, and getting this scholarship has helped me to make my dream become a reality," Emily Gray, MS 2, recipient of the Rosenthal scholarship said. "An education in any professional school comes with a high price. The scholarship helps take the financial worry off my parents and myself. Without it, I don't know how I would have paid for the first two years."

Rosenthal had the opportunity to meet Gray and her parents during the scholarship reception that brought together and recognized scholarship recipients and their donors, and says he came away with a good experience.

"She was so grateful," he said.

Rosenthal explained that he was privileged to earn his medical degree without the burden of taking on a large student loan debt. Most medical students, he said, aren't so fortunate, and medical school itself is tough enough without the added worry of finances.

"I'm not in a position to build buildings, but this was a way to help and make an impact," he said. "Scholarships are a good way to help immediately."

In Gray's case, it's done just that.

"Coming from a rural area to a big city, I was nervous about how I was going to pay for school," Gray said. "During my interview, I was thinking about how much it was going to cost and it was overwhelming. When I got the letter in my acceptance package saying that I'd received a scholarship, that was a large burden off my back."

Rosenthal said that setting up a scholarship for future medical students was the best way for him to repay the School of Medicine for putting him on a path that is now 25 years of a successful private practice as a vitreoretinal surgeon in Kansas City.

"I feel a real debt of gratitude to the medical school," he said. "I am where I am and my life is what it is today because of the UMKC School of Medicine."

Fundraising focuses on clinical training, facility improvements

From the time the UMKC School of Medicine first opened its doors, it has earned a national reputation for its pioneering educational program. To continue living out that mission requires that the School maintain and enhance facilities and programs to train the next generation of physicians.

The School is working to meet each of these needs with the help of friends and partners through a capital campaign.


COURTESY HNTB ARCHITECTS

A plan is currently under way to transform an empty 6,000-square-foot space across the street from the School into a new Clinical Training Facility. The structure would house the current Youngblood Medical Skills Lab and accommodate multiple users simultaneously with classrooms and additional skills and simulation trainers that include virtual training modalities.

An initiative has also begun to enhance the School's graduate medical education program with new curricula that meet the needs of today's medical environment. Similar plans are in place to expand the Office of International Medicine into a multidisciplinary program that understands and works toward solving global health issues. And the School is working to raise the national and international profile of the Sirridge Office of Medical Humanities and Bioethics, which offers one of the largest medical humanities curricula in North America.

Major gift establishes pulmonary fibrosis research program

Gary Salzman, M.D., discusses pulmonary fibrosis research with his student research assistants, James Tanner, MS 4, and Fizza Abbas, MS 5.

A lung transplant is the only known cure for pulmonary fibrosis. A $400,000 gift to the Lung Research Center established the Mary Katherine Geldmacher Pulmonary Fibrosis Research Program to build on the pulmonary fibrosis research conducted by Gary Salzman, M.D., director of the Lung Research Center.

"We have been doing research on pulmonary fibrosis at the Center for the last decade and have made great strides in investigating potential therapies to prevent scarring after an injury to the lung," Salzman said. "This generous gift will help us take our research to the next level, eventually to clinical trials."

Salzman's research has found a commonly used class of blood pressure medications effective at preventing scarring in lung tissues, airways and blood vessels. The Geldmacher Pulmonary Fibrosis Research Program will provide funding to develop a pilot study that would set the stage for eventual clinical trials. The program will also include the development of the Geldmacher Pulmonary Fibrosis Registry for Missouri, in which biological samples and physiologic measures from patients with pulmonary fibrosis could be collected and evaluated.

School of Medicine alumni receive UMKC top honors

The University continues to honor School of Medicine alumni for their success and impact in their communities. Three alumni were recognized at the annual UMKC Alumni Association Awards Luncheon on April 18.

Alumnus of the Year

For the second consecutive year, a School of Medicine graduate, **MAJ. GEN. MARK EDIGER, M.D., M.P.H., '78,** received the UMKC Alumnus of the Year award, the university's top alumni honor. Last year's UMKC Alumna of the Year was Catherine Spong, M.D. '91.

Ediger is Deputy Surgeon General of the U.S. Air Force at the Pentagon. Ediger has made a career of serving his local and worldwide community. After four years as a rural family physician, he realized he wanted to broaden his experience. In 1985, he went on to active duty in the U.S. Air Force, where he continued to practice family medicine and move up in the ranks.

In 2012, he was confirmed by the U.S. Senate to the rank of Major General, making him one of only five active-duty two-star generals serving in the Air Force Medical Service. In July 2012, he assumed his current position of Deputy Surgeon General for the U.S. Air Force. He supports the Surgeon General in overseeing the operations of the $7.1 billion, 43,000-person integrated health care delivery system that includes the Air Force's deployable medical capability.

Spotlight Award

NELSON SABATES, M.D., '86, received the UMKC Spotlight Award, recognizing a graduate whose accomplishments, leadership and public service have caused regional and national attention to be focused on the University and the metropolitan area. Through his research and clinical practice, he has attracted world-class scholars and researchers to Kansas City and UMKC, pioneering new treatments and advancing basic and clinical studies to improve patient care. Sabates, who has taught residents and medical students for more than 20 years, is professor and chairman of the Department of Ophthalmology at UMKC, founder and director of the Vision Research Center at UMKC, president and CEO of Sabates Eye Centers and president of the Vision Research Foundation of Kansas City.

His work through the Vision Research Foundation and the UMKC Department of Ophthalmology recently elicited a significant grant from Research to Prevent Blindness, a prestigious voluntary health organization that supports eye research. Sabates has an international, national, regional and local presence as a leader, board member, speaker and author.

School of Medicine Alumni Achievement Award

BRIG. GEN. JOHN OWEN, M.D., '81, received the Alumni Achievement Award from the School of Medicine during the Alumni Awards Luncheon. Owen is a practicing physician at the Liberty Clinic in Liberty, Mo. He recently retired from his post as the Air National Guard Assistant to the Command Surgeon, Air Mobility Command. Owen received the Surgeon General's Air National Guard State Air Surgeon of the Year award in 2007, and in 2012, he accepted the Harry Truman Public Service Award on behalf of the members of the Armed Forces during the Iraq and Afghanistan wars. Owen served the State of Missouri as director of the Joint Staff, Missouri Joint Force Headquarters, where he oversaw domestic operation, joint staff, special staff and the state partnership program to the nation of Panama. He has received many honors for his service, including the Legion of Merit, the Global War on Terrorism Service Medal, the Air Force Commendation Medal and the Armed Forces Expeditionary Medal.

Alumna founds wellness clinic in Boonville, Mo.

PHOTOS COURTESY SALLY ELLEBRACHT-GERKE

Sally Ellebracht-Gerke, M.D., '00, a family medicine physician, opened her own clinic in Boonville, Mo., in October 2012. Ellebracht-Gerke is the sole physician at BTC Healthcare, a destination for quality and affordable care.

"Be the change you wish you to see in the world" is the premise and namesake for BTC Healthcare, the wellness clinic created by **SALLY ELLEBRACHT-GERKE, M.D., '00,** a family medicine physician in Boonville, Mo.

"I look at it as, 'I'm a patient at times, and I want to be treated as a patient, not just as a pile of paperwork,'" she said. "I decided to open up my own clinic to not only help rejuvenate my happiness as a doctor but also to offer patients a positive alternative to the modern health care system."

Ellebracht-Gerke opened her clinic in October 2012 after nearly four years of entertaining the thought.

After graduating from the School of Medicine, she completed the UMKC Family Medicine Residency Program. From there, she practiced family medicine at Saint Luke's Medical satellite clinic in Clinton, Mo., for six years.

Originally from Pilot Grove, Mo., Ellebracht-Gerke and her husband, who is also the office manager at BTC Healthcare, decided to move their family closer to home in 2009; they landed in Boonville. She began practicing at Cooper County Memorial Hospital, where she remained until this past October when her dream of opening BTC Healthcare came to fruition.

In order to provide efficient and thorough care, the clinic, for which Ellebracht-Gerke is the sole physician, does not directly bill insurance. Ellebracht-Gerke acknowledges that this may turn people off, but said her patients see the value in the quality and affordability of care they receive at BTC Healthcare.

"Our practice is unique in that way," she said. "I employ a front desk receptionist who knows a lot about insurance. We have special pricing on labs and a small dispensary at our office. We have minimal overhead because we all work toward the patient, and we can pass these savings along to our patients."

In addition to her duties at the clinic, Ellebracht-Gerke continues to serve as a preceptor for the School of Medicine, being the kind of example to students that she had during her training at the School. As she exposes the students to rural medicine, she said she also tries to impart the importance of patient relationships and building trust.

"At UMKC, we were taught that the patient-physician relationship was the most valuable part of our job," she said. "We provide the best care based on patients as individuals, not just the science behind their problem."

This inspired her recent research interests, which include wellness through a holistic approach with an emphasis on women's health. "You're looking at the body system as a whole," she said. "It really fascinates me and renews my interest in medicine."

Ellebracht-Gerke said her main goal is to study different views on medicine, including food sensitivity and allergies.

"I want to continue to grow, learn and be excited," she said. "I want to help my patients gain control over their lives and offer quality concepts to feel good and be healthy."

For more information on BTC Healthcare, visit the website at http://btchealthcare.com.

A Q&A with John Owen, M.D., '81

How did your training at the School of Medicine prepare you for military service? The rigors of training and long hours were very helpful in the preparation for my military service. The expectation of excellence in the care of our patients and constantly expanding our knowledge as students stayed with me. This has helped me persevere in times of difficulty and to maintain focus.

How has the exposure to serving the underserved population you received at the School affected your career? It helped me to learn that some of the less glamorous aspects of medicine can be the most rewarding.

Why do you think it's important to serve around the world? It's important to help our military men and women serving around the world in austere environments and to bring, when possible, our level of care to local citizens.

Throughout your remarkable military career, what has been the most rewarding aspect/experience? Any opportunity to help others achieve their goals.

Out of all the medals/awards you have received (the Legion of Merit, the Global War on Terrorism Service Medal, the Air Force Commendation Medal and the Armed Forces Expeditionary Medal) which one meant the most to you? The Distinguished Service Medal at the end of my career stands out to me. Rarely awarded, it recognizes the service of my entire military career and the contributions that I was fortunate to be able to make. The opportunity to make a difference is the greatest gift a person can have.

What does it mean to you to receive the School of Medicine Alumni Achievement Award? This award is a tremendous honor that I will always treasure.

What was your favorite aspect of the training you received during your time at the School of Medicine? The constant exposure to new and amazing learning opportunities will always be a part of me.

2013 Take Wing Award winner reflects on his career

While studying in the School of Medicine library as Year 2 student, **THOMAS TOTH, M.D., '86,** picked up the November 1982 issue of Life Magazine, which featured the world's "first test-tube baby" and the work of Howard W. Jones, Jr., M.D., and his late wife, Georgeanna Seegar Jones.

This article ignited the fire in Toth to help people achieve their dreams of starting a family. The 2013 winner of the School of Medicine's E. Grey Dimond, M.D., Take Wing Award has since joined the ranks of the pioneers in the infertility field.

"I vividly remember reading that article; that moment gave me the inspiration to pursue a new field of medicine," Toth said. "It captured my imagination: helping people in a way that's never been possible. I decided to follow my heart."

Toth completed his residency at Massachusetts General Hospital (MGH) and the Brigham and Women's Hospital. During his fellowship at the Jones Institute for Reproductive Medicine, he trained under Howard and Georgeanna Jones.

Immediately after completing his fellowship, he joined the faculty of Mass General and Harvard Medical School in 1992. Toth is the director and founder of the MGH In Vitro Fertilization Unit and the Reproductive Endocrinology/Infertility Fellowship Training Program at MGH, and an associate professor of obstetrics, gynecology, and reproductive biology at Harvard Medical School.

"Having the opportunity to start the Unit from scratch, building over 20 years and seeing the results were the most rewarding aspects," he said. "Seeing the families we've helped build and seeing our fellows learn and grow has been absolutely amazing."

As a researcher, Toth has added crucial findings to the field of assisted reproduction, with many of his research projects being funded by the National Institutes of Health and philanthropy.


Toth

COURTESY THOMAS TOTH

As a clinician, Toth said he believes connecting with his patients as people first allows him to more effectively deal with their complex medical issues. He listens to and learns from his patients, he said. As a teacher, Toth said he realized how important it is to give back and train not only the next generation of doctors but also future leaders, a priority instilled in him during his training at the School of Medicine.

"I've had the privilege to train and work with people with incredible passion," Toth said. "I want to give back that passion and show others how to pursue it."

To this end, he developed the fellowship training program in reproductive endocrinology and infertility at MGH in 2002.

Toth has been part of the mentoring process since he was a student at UMKC. He credits his mentors, former deans Harry Jonas, M.D., and James Mongan, M.D., for not only encouraging him but also supporting him to chase his dream. As he reflects on his career, he said he makes new correlations about what has made it so satisfying.

"Looking back, I believe it all started with our docent system of education," Toth said. "It's a big part of who I am now. We never had to 'learn' to be mentors; it was built into our program from the very beginning. Maybe that's why our grads take on leadership and mentoring roles with greater ease, skill and joy."

Toth has not lost the joy and wonderment that started with that day in the library. Even as he changes lives and makes an enduring impact on his profession, the 2002 UMKC Alumni Achievement Award winner stays as modest as ever. In considering possible reasons he was chosen to receive the 2013 Take Wing Award, he turns it around as a reflection on the accomplishments of the School.

"It's very humbling," he said. "There have been many before me and will be many after me; we are a product of what the School instilled. The award means a lot for what the School has achieved, and that the fundamentals we were provided remain as successful tools as ever. As we celebrate the Take Wing Award each year, it is an annual renewal and affirmation of our uniquely successful medical education."

President's Message

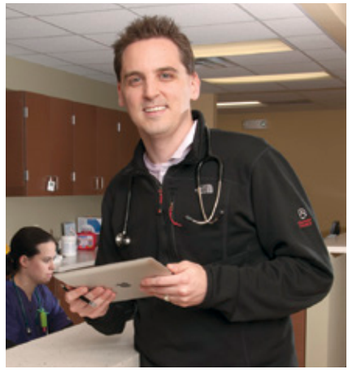
From the President of the Alumni Association

As alumni, we have a special thing in common: we carry out the School of Medicine's mission of "Advancing the Health of the Community" all over the country and around the world.

In addition to the fundamentals of medicine and how to treat the whole patient, the School of Medicine impressed upon us the importance of serving those who need it most. Serving the underserved continues to be a mainstay of the School's core values. The stories of the alumni, students and faculty in this issue of Panorama are prime examples of this in action.

As the 2012-2013 school year comes to an end, we welcome the next class of alumni. I cannot wait to see what wonderful contributions they will make during their careers. I'm also excited for the new opportunities to connect with each other as we continue to increase and improve alumni communication. I hope all of you have enjoyed the alumni e-newsletter, which began in September. Please keep us updated on your current emails so we can make sure everyone is included.

It was great to see fellow alumni at the reunion in April and get a chance to reconnect, celebrate milestone anniversaries and honor our award winners.



RAYMOND A. CATTANEO M.D., M.P.H., F.A.A.P., '03

Alumni Checkup

MICHAEL WEAVER, M.D., '77, accepted a position on the Missouri Health Literacy Board and on the U.S. Peace Corps Advisory Board, which was established by the Kate Puezy Peace Corps Volunteer Protection Act of 2011 to develop sexual assault risk reduction and response training for Peace Corps Volunteers. Weaver has extensive experience in medical missions around the world, including a November 2011 trip to India and Nepal.

MICHAEL JENSEN, M.D., '79, and his wife **TERESA JENSEN, M.D., '80,** visited the School of Medicine in December for Michael to present the 2012 Dr. Mark Dodge Lectureship. Michael and Teresa, family practitioners in Rochester, Minn., were married in 1978 while they were finishing school. They have two grown children; their son will receive a BSN in May from the University of Minnesota School of Nursing, and their daughter is a 2012 graduate of the veterinary college in Edinburgh, Scotland, and is doing an internship in emergency veterinary medicine.

THOMAS HASTINGS, M.D., '86, was one of four Rockhurst University alumni to receive an achievement award during its 2012 Family and Alumni Weekend celebration. Hastings received the St. Ignatius Award, which is given to alumni who have shown exceptional achievement in their fields of endeavor. He completed his residency and fellowship in general internal medicine at the University of Kansas. Hastings spent two years practicing medicine in Mexico, Mo., before heading to St. Louis where he has practiced for more than 20 years. He is currently an internist with Esse Health in the St. Louis area. Prior to joining Esse Health, he completed a fellowship in ambulatory care at the University of Kansas Medical Center.

After presenting at a conference in New Orleans in September 2012, **DARRYL NELSON, M.D., '86,** chose to stay behind and help with the aftermath of Hurricane Isaac. Nelson, chief medical officer for HCA's MidAmerica Division, and his wife were planning on sightseeing after the conference but instead, he braved the storm and put his experience in disaster relief to good use. This involvement gave him first-hand experience in HCA's command post at Tulane Medical Center where administrators were making decisions for seven New Orleans area hospitals dealing with the storm. HCA is a multi-market healthcare network that spans Kansas, Louisiana, Mississippi and Missouri. The network includes 18 hospitals, outpatient centers, physician clinics and seven ambulatory surgery centers.

R. AUGUST RITTER III, M.D., '86, has been added to the board of directors of Missouri Professionals Mutual. Ritter is an orthopaedic surgeon who serves as chief of orthopaedic surgery at Southeast Hospital in Cape Girardeau, Mo., and also practices at Advanced Orthopedic Specialists. He was instrumental in bringing minimally invasive total hip and total knee procedures to Cape Girardeau.

JONATHAN METZL, M.D., PH.D., '90, was highlighted in a fall issue of The Chronicle of Higher Education as the director of Vanderbilt University's Center for Medicine, Health, and Society, which focuses on teaching undergraduate students in medicine or public health about the intersection of medical health, policy and practice with cultural, social, economic and political forces. Metzl earned bachelor's degrees in biology and English literature. During his residency at Stanford University, he earned a master's degree in literature and went on to earn a doctorate in cultural studies from the University of Michigan at Ann Arbor while establishing a practice in psychiatry. The author of multiple books, his interdisciplinary career has been a blend of medicine and the humanities.

Sports medicine physician **FRANK MOUSSA, M.D., '93,** opened a new orthopaedic surgery clinic in Phoenix, Ariz. Moussa specializes in knee and shoulder surgical procedures and joint replacement. He has had a long career in sports medicine. Before relocating to Arizona in 2000, Moussa was a sports medicine fellow with the Kansas City Chiefs and a clinical instructor of orthopaedic surgery at the SOM. He was an assistant team physician for the NFL's Arizona Cardinals from 2000 to 2006.

RODGER CAMPBELL, M.D., '94, is the new medical director of Bothwell Regional Health Center's Emergency Department in Sedalia, Mo. Campbell has been practicing at Bothwell since 2006. He completed his residency in family medicine at Truman Medical Center-Lakewood and is board certified by the American Board of Family Medicine.

CHAD LAGRANGE, M.D., '01, has been appointed chief of the Division of Urology in the University of Nebraska Medical Center Department of Surgery. LaGrange joined the UNMC faculty in 2008 as assistant professor, surgery-urology, and director of minimally invasive urology. He is the only fellowship-trained laparoscopic urologist on the UNMC faculty and one of only three in the state of Nebraska. Prior to joining UNMC, LaGrange was a faculty member at the University of Kentucky from 2006 to 2008. After graduating from the SOM, LaGrange completed a one-year general surgery internship, a four-year urology residency, and a two-year endourology fellowship at the University of Kentucky.

KRISTIN WEIDLE, M.D., '02, and **GINA MOHART, M.D., '99,** have joined Mercy Clinic in Washington, Mo., as primary care physicians. Weidle practices at Mercy Clinic Family Medicine in Hermann, Mo. She is board certified in family medicine and completed her residency at Cox Family Medicine. Mohart completed her residency in family and community medicine at the University of Missouri Hospitals and Clinics. She's board certified in family medicine and practices at Mercy Clinic Family Medicine Owensville.

SARA BAIG, M.D., '03, a cardiologist, joined the SSM Heart Institute of St. Louis. She is on the medical staffs of SSM St. Joseph Health Center in St. Charles and SSM St. Joseph Hospital West in Lake Saint Louis. Baig completed her residency at Tufts University School of Medicine – New England Medical Center in Boston, then completed a cardiology fellowship at the University of Missouri-Columbia, followed by an echocardiography fellowship at the University of California, San Francisco.

In Memoriam

MICHAEL J. FEDER, M.D., '87, died Nov. 24, 2012, at the University of Kansas Hospital. Feder had a successful career in emergency medicine and was chief medical officer of Carondelet Health from 2006 to 2008. He and his family founded Gotta Have HOPE, Inc., a nonprofit corporation formed to create opportunities for impoverished communities now serving the poor in remote areas of Uganda. Feder completed the emergency medicine residency at Thomas Jefferson University Hospital in Philadelphia, Penn. He was an emergency physician at St. Joseph Medical Center, chairman of the Department of Emergency Medicine from 1997-2002, President-elect of the Medical Staff 2003-2004, President of the Medical Staff 2005-2006, and Chief Medical Officer of Carondelet Health 2006-2008.

80 years of UMKC

UMKC alumni association

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Email: alumni@umkc.edu
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Carlin Ridpath, M.D., '93


Nelson Sabates, M.D., '86, and wife Rachel


Debbie Owen and John Owen, M.D., '81


Martin Craven, M.D., '73, Gerald Early, M.D., '73, and William Prather, M.D., '73


Cindy Lau, M.D., '03, Jamie Honeycutt, M.D., '03 and Shalini Paruthi, M.D., '03


Beverly Graves, M.D., '83, Andy Killebrew, Elizabeth Killebrew, M.D., '83, Leland Graves, III, M.D., '83


Randy Brown, M.D., '88, and Daryl Thompson, M.D., '88

2013 Alumni Reunion Weekend

Nearly 100 alumni and their families returned to UMKC for the 2013 Alumni Reunion weekend activities from April 18-20. The event kicked off with the Alumni Awards Luncheon on Thursday at Swinney Recreation Center. Alumni had the opportunity to tour the Hospital Hill and Volker campuses on Friday and reconvened Saturday evening for a dinner reception at Grand Street Café.

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University of Missouri-Kansas City
2411 Holmes Street
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New murals grace histology labs

The School of Medicine histology labs now feature not only new microscopes and microscope tables but also colorful wall murals depicting special stains used in histology. At the request of Willard Morrow, V.M.D., Ph.D., adjunct associate professor of basic medical science, UMKC painter, Kris Collins, recreated the images, including the one below, which depicts a special stain through the photoreceptor layer of the retina. "The lab went from being an outmoded, sterile place to a vibrant, modern space you want to spend time in," Morrow said.