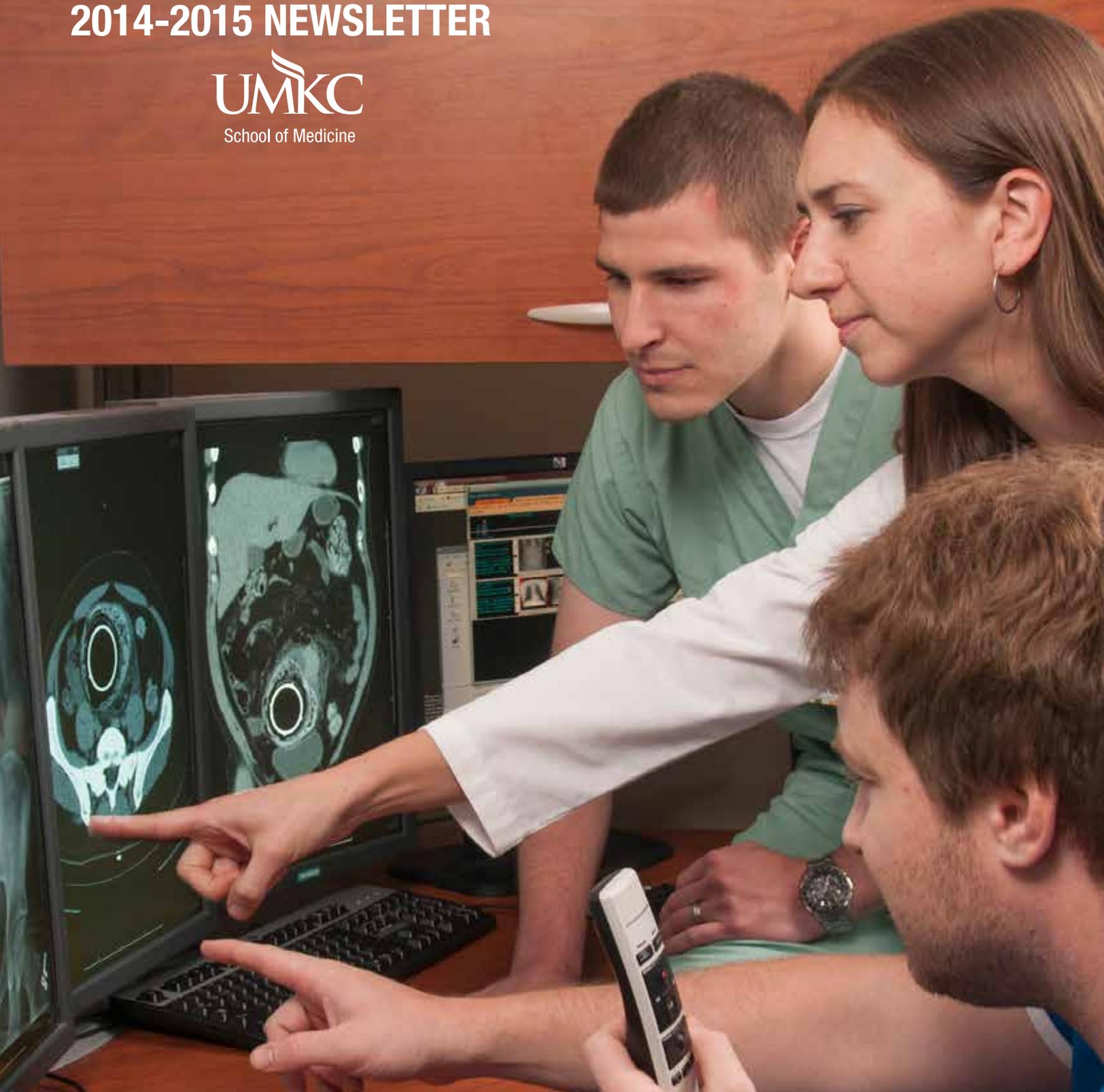


2014-2015 NEWSLETTER



R A D I O L O G Y

ALUMNI ASSOCIATION MESSAGE



CONTENTS

- 3 Radiology presentations receive RNSA awards
- 4 History of radiology runs through KC, SLH
- 6 Service, teaching a lifelong passion
- 6 Medicine in outer space
- 8 Radiology briefs
- 10 Research Recognition

Dear Esteemed Colleagues, Staff, Fellows and Residents,

As I look back on the accomplishments of the Radiology Residency at the University of Missouri-Kansas City, I could not be more excited for the continued growth and achievement of not only our radiology residency program, but also of our chosen specialty of radiology. This progress is possible due to dedicated academic efforts and collegial interaction between residents, attendings and alumni.

At our annual graduation celebration last June, I was astounded to read the list of all of the research and presentations over the past year alone. I subsequently learned these academic pillars produced by our program have increased 500 percent since the inception of our residency at UMKC! Our residents and fellows continue to demonstrate their diligence and studious endeavors, with their high-achieving scores and academic pursuits. The residents at UMKC continue to garner highly honored fellowship programs, including Harvard and Mallinckrodt Institute of Radiology, just to name a few.

During our annual Residency Welcome and Alumni Reunion Reception Sept. 20, 2014, I had the pleasure of meeting our new residents, and catching up with our senior residents. It was riveting to discuss their accomplishments and future aspirations. I enjoyed engaging conversations with masters in our field who graduated before me, and reminisced with former fellow residents.

When I asked Dr. Lisa Lowe about the greatest accomplishment of the residency this year, she replied, "There are so many combined together . . . including developing scholars who can give back to the field of radiology, becoming well-trained general radiologists with advanced skills in their chosen subspecialties, knowing the importance of quality improvement, commitment to patient care, finely-tuned reporting skills, and mastering the meaning of professionalism. They have developed leadership skills that make them highly sought after fellowship candidates and partners. This is evidenced by the fact they are having no difficulty finding a job. They have an understanding of the importance of lifelong learning and going the extra mile for the patient. This all comes from the culture of collegiality, excellent patient care, understanding the importance of team work and self sacrifice developed in our department."

Our attendings and alumni create an environment allowing fledgling radiology residents to prosper through continued academic and financial support of the program. It is clear that our program continues to benefit from interaction and cooperation between our diligent residents and contributions of supportive attendings and alumni.

Residents gain valuable professional advice and encouragement through daily interaction with academic radiologists in addition to lectures and case conferences given by not only attending, but private practice radiologists and visiting professors as well. These interactions cultivate and encourage residents through imparting knowledge and support. Financial donations also play a key role in academic development. This all contributes to excellent patient care as well as to further advance the legacy of UMKC radiology.

I hope to reconnect with many of you throughout the upcoming academic year, whether in the workplace or at one of the academic ceremonies hosted by the UMKC Radiology Residency Program. To quote Isaac Newton, "If I have seen further it is by standing on the shoulders of giants."

Sincerely,

Melissa Leimkuehler, M.D.
Vice President
UMKC Radiology Alumni Association





The Department of Radiology brought home a number of awards from the 2013 Radiological Society of North America meetings in Chicago for its poster presentations. Top, faculty member Brandt Wible, M.D., medical student Malay Bhatt and resident Kalie Adler, D.O., received a Certificate of Merit for their poster. A poster at right by resident Joe Loeb, D.O., and faculty members Lisa Lowe, M.D., Christopher Keup, M.D., and Joshua Knowlton, M.D., received a Certificate of Merit and was selected for publication in *Current Problems in Diagnostic Radiology*.



UMKC faculty, students, residents receive RSNA awards for seventh straight year

For the seventh year in a row, members of the radiology department at UMKC receive awards for presentations made at the 2013 Radiological Society of North America meeting in Chicago. More than 53,000 people attended the RSNA meeting, with over 13,000 abstracts submitted. 936 posters were accepted for presentation with eight honors going to UMKC.

Awards ranged from Magna Cum Laude, which is highly selective (given to about 30 posters), to four Certificates of Merit and requests to publish in *RadioGraphics*, as well as *Current Problems in Diagnostic Radiology*. Posters were co-authored by various UMKC faculty, residents and *medical students as follows.

- Magna Cum Laude, Radiol Soc Amer (RSNA) meeting. Chicago, IL. Hemorrhagic and Vascular Complications in Lung Infections: High-Resolution CT and Pathological Findings. Franquet TC, Rosado De Christenson ML, Kanne JP, Marchiori E, Martinez-Jimenez S, Gimenez A.
- Certificate of Merit & Selected for *RadioGraphics*, Radiol Soc N Amer

(RSNA) meeting. Chicago, IL. Bronchial Arteries: Anatomy, Function, Hypertrophy and Interventions. Rosado De Christenson ML, Martinez-Jimenez S, Walker CM, Kunin JR, Wible BC.

- Certificate of Merit & Selected for *RadioGraphics*, Radiol Soc N Amer (RSNA) meeting. Chicago, IL. Thoracic Metastases from Gynecological Neoplasms: How They Differ from Other Metastases, Specific Patterns of Spread, and Pitfalls in Imaging Interpretation. Martinez-Jimenez S, Rosado De Christenson ML, Walker CM, Kunin JR, Betancourt Cuellar SL, Pettavel PP.
- Certificate of Merit, Radiol Soc N Amer (RSNA). Chicago, IL. Sacroplasty: "A Remedy for Pains in the Butt?" *Bhatt M, Adler K, Strand LA, Wible BC.
- Certificate of Merit & Selected for *Current Problems in Radiology*, Radiol Soc N Amer (RSNA). Chicago, IL. MRI of pediatric liver masses. *Loeb JV, *Collard MD, Keup C, Lowe LH, Knowlton JQ.

History of radiology runs through Kansas City, Saint Luke's Hospital

This year marks the 100th anniversary of radiology at Saint Luke's Hospital of Kansas City. An innovator in radiology and radiology education, Saint Luke's Hospital partners with other University of Missouri-Kansas City School of Medicine affiliate hospitals to train top-notch radiology residents.

The hospital's radiologists in Kansas City have been blazing the trail that future generations would follow since it first offered X-ray facilities in 1914. This new and innovative profession was pioneered by physicians in the first part of the 20th century.

Edward H. Skinner, M.D., appointed as "the official x-ray doctor" in 1919, helped found some of today's most influential organizations

such as the American Board of Radiology, American College of Radiology and the Roentgen Ray Society.

Louis A. Scarpellino, M.D., continued the dedication to radiology throughout his 25-year career at the hospital. A dedicated physician, Scarpellino didn't miss a day of work in more than 13 years and the number of x-rays performed increased almost 300 percent from 1944 to 1953. The Medicare Act of 1967 further spurred the demand for radiological procedures. The hospital performed 30,000 exams in 1966 compared to 90,000 in 1978 – that's triple the number of exams in just more than 10 years.

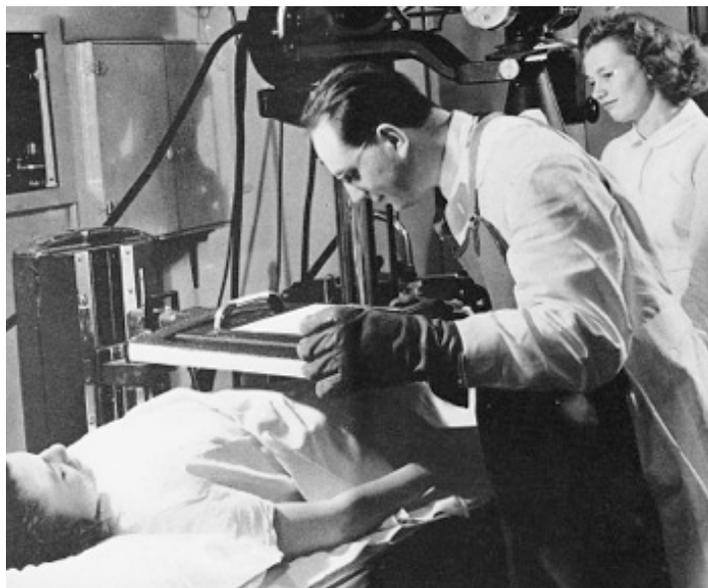
Over the years, noted radiologists played an important part in advancing the profession at Saint Luke's Hospital and the other affiliate hospitals.

In 1994, the residency programs at Truman Medical Center and Saint Luke's Hospital joined together under the administration of the UMKC School of Medicine. At that time, Truman Medical Center had appointed Fong Tsai, M.D., as chair of radiology, and Ken Alfieri, M.D., residency director for program. James Fisher, M.D., was the program director for Saint Luke's Hospital. Children's Mercy Hospital has had

an affiliation with both residencies since their inception.

With the recent addition of the Kansas City Veterans Administration Medical Center, UMKC has formed a highly diverse faculty composed of more than 50 radiologists. The UMKC School of Medicine academic chair position was created in 2004 and first held by David Dixon, M.D., who was succeeded in 2006 by Lisa Lowe, M.D., F.A.A.P.

Over the years, the radiology residency has grown from 12 to 30 residents in a novel, five-year program that includes an integrated clinical year. Additionally, the faculty, residents, fellows and medical students at UMKC have moved firmly in an academic direction. As a result, the department has seen an increase in the number of awards, publications and presentations of more than 500 percent in the



Dr. Louis A. Scarpellino, with lead gloves and apron, examines a patient in the old radiology department in the Saint Luke's Hospital basement.

past nine years.

From humble beginnings, early leaders at Saint Luke's Hospital have been important figures in the profession of radiology. On their solid shoulders we have built a program with UMKC and our affiliated hospitals to create a culture of scholarship, education and professionalism that is leading radiology residencies in the Midwest.



Dr. Edward H. Skinner



Saint Luke's Hospital had 50 beds when X-ray facilities were first added in 1914.

South African radiologist Savvas Andronikou welcomed as first international visiting professor

The University of Missouri-Kansas City School of Medicine Department of Radiology had the honor of playing host to its first international visiting professor, Dr. Savvas Andronikou, on Dec 4 and 5, 2013.

Andronikou, the only pediatric radiologist in South Africa, spent two days teaching and learning radiology at Children's Mercy Hospital and Saint Luke's Hospital. His teaching focused on international radiology outreach opportunities and imaging of Tuberculosis in children in South Africa.

Andronikou was trained at Witwatersrand Medical School in Johannesburg. He did his radiology training at Whittington and Great Ormond Street Hospitals in London and received his Ph.D. from the University of Cape Town. He is full professor and is currently president of the College of Radiologists of South Africa and chairman of the South African Society of Pediatric Imaging.

Andronikou has published more than 200 papers, books and book chapters, delivered more than 165 visiting talks all over the world, is on the editorial board of the Pediatric Radiology journal, was Chief Editor of the South African Journal of Radiology for three years, and has organized several radiology courses and meetings in South Africa. He has been a recipient of the Derek Harwood-Nash Scholarship ('01), the Maurice Weibren Award from the College of Radiology ('02), was the Derek Harwood Nash fellow ('07), and received awards for his research from

"Savvas Andronikou inspires learners . . . and has a knack for using his experience to make complex subjects seem simple."



the University of Stellenbosch ('07) and the University of Witwatersrand ('12). Most recently, the Society for Pediatric Radiology selected Andronikou to receive the prestigious distinction of 2013 Honorary Member.

Andronikou is currently chairman of Outreach for the World Federation of Pediatric Imaging (WFPI). In this role he has relentlessly worked to arrange training in pediatric radiology in Africa and has helped establish service opportunities in Africa through teleradiology connections between various institutions throughout the world. Several Children's Mercy radiologists volunteer their time for these outreach efforts, including assistance with purchase, installation and training on a portable ultrasound unit in Malawi.

Perhaps one of his greatest accomplishments is the time he gives to

numerous types and levels of mentees at multiple South African universities, helping them perform research with very limited support in the face of extensive public health challenges. He inspires learners near and far with a dynamic lecture style that is engaging, energetic and humorous all at the same time and has a knack for using his experience to make complex subjects seem simple.

Faculty members win 'Best Paper' award

Radiology faculty members Doug Rivard, D.O., Brenton Reading, M.D., and Brent Cully, M.D., won the "Best Paper" award for their study presented in August at the combined British Association of Pediatric Surgeons and International Pediatric Endosurgery Group meeting in Edinburgh, Scotland.



Rivard

The paper entitled "Saline versus tissue plasminogen activator irrigations after drain placement for appendicitis-associated abscess: A prospective randomized trial" was the idea of Rivard.

The paper evaluated whether or not tPA (tissue plasminogen activator) was helpful in resolving abscesses which developed following perforated appendicitis. The study found that there was no advantage to the use of tPA over saline for irrigation of the abscess cavity and that there was an increased length of drainage as well as cost with use of the tPA.

Tun selected to attend Introduction to Academic Radiology program

Mo Tun, D.O., Ph.D., is the latest in a long line of UMKC radiology residents selected to attend the Introduction to Academic Radiology (IAR) program.

Each resident chosen to attend the seminar receives a grant to pay expenses to attend the RSNA or ARRS meeting. The IAR program gathers PGY3 radiology residents and academic radiologists who discuss an academic radiology career, its



Tun

value to the radiology community, mentoring and networking opportunities.

Tun was selected by the Education Committee and nominated by program director Lisa Lowe, M.D., to attend the program sponsored by the RSNA/AUR and ARRS. Each residency can nominate one resident for the program annually, and only 80 are selected. For the last seven consecutive years, UMKC radiology residents have been among the residents selected nationally for the program, with recent attendees including Drs. Neal Desai, Jared Halpin and Megan Saeetele.

SERVICE, TEACHING: A LIFELONG PASSION

Melissa Rosado de Christenson, M.D., F.A.C.R, professor of radiology and one of the country's preeminent thoracic radiologists, uses a bit of exponential math to explain the drive to share her vast knowledge with other radiologists young and old.

"If I can contribute to the education of people who will go on and practice good radiology, that's more patients that I can touch," said Rosado de Christenson. "I can have an impact on those patients."

During her career as a teacher in the former Armed Forces Institute of Pathology, at Ohio State University and now at the UMKC School of Medicine, Rosado de Christenson has had an impact on thousands of radiology residents. Today her reach is spreading even wider as president of the American Roentgen Ray Society (ARRS), the oldest radiology society in the United States. As such, much of her current time is spent planning the organization's annual meeting next April, which includes numerous educational courses for the more than 2,500 radiologists who will attend from around the world and the nearly 500 more who will have a virtual presence through online offerings.

Rosado de Christenson has worked with numerous radiology societies and organizations throughout the years in an effort to further the education of radiologists throughout the country and the world.

"I have always been interested in adult education in medicine and specifically in radiology," she said. "I volunteered in organizations and then as a volunteer, you begin serving on committees. Then you become a committee chair and you ascend to leadership in the organizations."

Rosado de Christenson has followed the path four times to a radiology organization presidency including the American Association of Women Radiologists, the Latin American Thoracic Radiology Society, the Society for Thoracic Radiology, and now with the ARRS.

Mauricio Castillo, M.D., F.A.C.R., chief of neuroradiology at the University of North Carolina, serves as vice president of the ARRS and has worked with her in numerous capacities since 1999. He was co-chair of the ARRS Instructional Course Committee during the time Rosado de Christenson served as the committee chair.



Melissa Rosado de Christenson, M.D., center with UMKC School of Medicine radiology residents, serves as president of the American Roentgen Ray Society, the oldest radiology society in the United States.

"During her time (as committee chair) the teaching offerings at the annual ARRS meeting exploded in numbers, with the most famous of them — the Case Review Course — and its syllabus being Melissa's brainchild," Castillo said.

Castillo said Rosado de Christenson was instrumental in creating the group's cardiac CTA course that has been used since 2010. The ARRS recognized Rosado de Christenson in 2010 for her leadership and outstanding teaching abilities with the organization's first ever recipient of the Best Educator award. She has also lectured at the organization's annual meetings since 2008 on how to build a successful mentoring relationship.

"It is easy to see why she is so admired," Castillo said. "As a person she is thoughtful, fair and fun. As a radiologist she is knowledgeable, concerned and caring. As a teacher she possesses the ability to communicate, distill what is important to our patients and make complex subjects easy. I am proud to know her and to work together with her."

The ARRS isn't alone in recognizing Rosado de Christenson's talents as a medical educator and leader. Throughout her career, Rosado de Christenson has received the American Association of Women Radiologists' President's Award, the Honored Educator Award from the Radiological Society of North America, and received Teacher of the Year four times — three since joining the UMKC School of Medicine faculty in 2007 and once at Ohio State University.

"We are very fortunate to have one of the world's best known educators teaching radiology to our residents, fellows and medical students on a daily basis," says Lisa Lowe, M.D., F.A.A.P, UMKC School of Medicine Radiology Department Professor, Academic Chair and radiology residency program director. "Her roles developing the recently revised American Board of Radiology (ABR) exams and experience as a board examiner, allow our residents real time experience for exam preparation. Even more importantly, her dedication leads to our residents graduating with an amazing fund of thoracic imaging knowledge, as well as an supreme understanding of excellent patient care and what it means to be a mentor."

Rosado de Christenson recognizes the help of those who took the time to mentor her along the way. Now, she's working to share her knowledge with as many as possible and continue that teaching process.

"I was mentored. I didn't get here by myself," Rosado de Christenson said. "There were many individuals who guided me on how to practice, how to write articles, how to present at a meeting, how to lead an organization. You realize you're here for a small time but the organizations and the specialty continue and someone will take on the leadership. I feel very fortunate that I have had great mentors along the way. Hopefully I can do the same thing for young people coming up."

Medicine in outer space

Radiology resident shows how interventional procedures can benefit space program

David Lerner, M.D., still dreams of being an astronaut. He's yet to actually don a space suit, but he has merged his day job as a radiology resident at the UMKC School of Medicine with his visions of space exploration to find a better way to treat surgical and medical emergencies that astronauts could face during missions to the moon, asteroids or even Mars.

His idea and ensuing study of treating emergencies with interventional radiology techniques using ultrasound guidance and portable x-ray imaging has grabbed the attention of the medical community at the National Aeronautics and Space Administration (NASA). More than that, it landed Lerner an invitation to the Johnson Space Center in Houston earlier this year to present his work — which he said is all done during his spare time — to NASA officials at a Space Medicine Grand Rounds session.

"We were very proud of David when his presentation on why interventional radiology is the best way to treat medical and surgical emergencies on Explorer Class Missions subsequently led to him being invited to present at an Aerospace Medical Association National Conference in San Diego this past May. His creativity and persistence at pursuing and joining his interests in space and radiology is impressive," said Lisa Lowe, M.D., program director and academic chair of UMKC radiology.

Lerner, now a fifth-year resident, first presented his work in 2013 at a similar conference in Chicago where he was a finalist for the Young Scholar Award for first presenters and has been published in the medical journal of Aviation, Space, and Environmental Medicine.

"I've always been interested in NASA. I was always fascinated and loved the idea of exploration and going beyond the bounds, being a pioneer," Lerner said.

Space exploration presents a unique set of challenges when it comes to emergency



David Lerner, M.D., a radiology resident, went under water to simulate how the tools and practice of interventional radiology might be used in outer space.

"I think interventional radiology is the future of surgery in space."

DAVID LERNER, M.D.
RADIOLOGY RESIDENT

medical care, Lerner said. One is simply the limited room available aboard a space ship for extra medical supplies such as x-ray equipment and a large array of surgical supplies — even one the size of the International Space Station, which is just more than a football field long and wide. There is the additional weight of carrying those supplies into space. And then there are the complications that go with performing surgery in a microgravity atmosphere.

Even today, in a severe medical emergency on the International Space Station, the process is to stabilize the patient aboard while sending up a space shuttle or using an emergency pod to bring the patient back to Earth and get them to a hospital within 24 hours.

"The problem is, what if you're eight months out orbiting Mars," Lerner said. "You can't say, well let's go to the local hospital because that's eight months away."

So how does one reduce all the surgical

equipment and supplies to treat a major medical emergency to a size that would fit within a small bookcase?

Lerner theorized that the interventional radiology tools and techniques, usually percutaneous, that have proven successful on Earth could easily be carried aboard and used in the weightlessness of space. To prove his point, he borrowed a sonogram machine, connected it to his cell phone to receive the image, waterproofed the equipment — "It's amazing what you can do with zip-lock bags," he jokes — then went under water in a swimming pool to simulate a zero gravity atmosphere where he filmed himself doing a simulated procedure.

He showed the video as part of his presentation at the national aerospace conference in San Diego last May and at his NASA Grand Rounds presentation as proof that his concept is a viable teaching mechanism for the Astronaut program.

"There are two facets of radiology," Lerner said. "One is imaging, the other world is where you do a lot of interventional, also known as minimally invasive surgical procedures. I think interventional radiology is the future of surgery in space. It's super cool, and it's lots of fun."

RESIDENTS RECEIVE AWARDS FOR EXCELLENCE



Rentas



Saettele



Gutschow



Heller



Sessions



Rassman



Tun

Seven residents were recognized for their accomplishments with awards during the 2014 graduation dinner. Two new awards established by the Neurosciences Institute at the Neuroradiology Department at Saint Luke's Hospital were given for the first time to the Outstanding Neuroradiology Graduate and for Excellence in Neuroimaging.

Kenny Rentas, M.D., Class of 2014, received the "Schottman Germann Outstanding Graduating Resident Award." Rentas is now completing a fellowship in neuroradiology at the University of North Carolina. The award was established in 1992 in honor of Gerhard W. Schottman, M.D., and Donald R. Germann M.D. Rentas, voted most outstanding resident by fellow residents and faculty, received a \$1,000 award.

Megan Saettele, D.O., Class of 2014, received

the "UMKC Resident Research Award." This award recognizes a resident, at any level, who has demonstrated outstanding scholarly work. In the past three years, Saettele has published a number of articles and posters, several of which received awards.

Susan Gutschow, M.D., Class of 2015, received the "Excellence in Chest Imaging Award." This award, established in 2012, honors the resident with the most outstanding overall chest radiology performance and includes a \$750 award.

Randy Heller, M.D., Class of 2015, received the "Truman Medical Center/Medical Imaging Gerald Finke Spirit of Excellence Award." Heller received the award, which includes \$1,000, by demonstrating the qualities one would most want to have in a radiology partner in practice, such as professionalism, affability, strong work

ethic, and being a team player.

Jordan Sessions, D.O., Class of 2014, received the "Outstanding Neuroradiology Graduate Award." Sessions is completing a fellowship in neuroradiology at the Neurosciences Institute at Saint Luke's Hospital. The award was established in 2014. It includes \$1,000 and is voted on by fellow residents and faculty.

Shane Rassman, D.O., Class of 2016, received the "Excellence in Neuroimaging Award" award. The award includes \$1,000 and was established in 2014 to honor the resident with the most outstanding overall neuroradiology performance.

Moe Tun, D.O., received the "Truman Medical Center Consultant of the Year Award." The Emergency Department gives this award annually to the most outstanding radiology resident on-call consultant.



Chris Walker, M.D.

Radiology residents honor professors

Congratulations to Stephanie Reid, M.D., and Chris Walker, M.D., who were recognized by the residents during the annual radiology graduation dinner.

Reid, assistant professor of radiology, was selected for this year's Advocate of the Year Award. This award recognizes a faculty member for overall support of the residents' interests. Reid is a UMKC SOM graduate and completed her residency at UMKC as well.

Walker, assistant professor of radiology, was honored with the Educator of the Year Award for his consistent excellence in teaching. In particular, Dr. Walker revamped the Cardiac imaging curriculum to meet the needs of residents preparing for the new American Board of Radiology exam. He received his medical degree from the University of Minnesota and completed his residency at the University of Washington.



Stephanie Reid, M.D.

WHERE HAVE THEY GONE?

Since 2009, all graduates of the UMKC School of Medicine Radiology Residency have gone on to train as a fellow. Here is a list of the 2013 and 2014 graduates and the subspecialties they have entered.

| | FELLOWSHIP TYPE | INSTITUTION | RESIDENT |
|------|--------------------------|--|-------------|
| 2015 | Musculoskeletal | Mayo Clinic, FL | M. Kater |
| | Interventional Radiology | Johns Hopkins SOM | M. Towsley |
| | Body Imaging | Mallinckrodt Institute / Washington U | D. Lerner |
| | Neuroradiology | UMKC/Saint Luke's Neuroscience Institute | J. Halpin |
| | Interventional Radiology | University of North Carolina | C. Steeds |
| | Thoracic Imaging | UMKC / Saint Luke's Hospital | S. Gutschow |
| | Interventional Radiology | University of South Florida | J. Tellier |
| 2014 | Interventional Radiology | Mallinckrodt Institute / Washington U | S. Patel |
| | Interventional Radiology | Univ of Maryland | F. Iloreta |
| | Neuroradiology | Univ of North Carolina | K. Rentas |
| | Breast Imaging | Univ of Utah | M. Saettele |
| | Neuroradiology | UMKC/Saint Luke's Neuroscience Institute | J. Session |

Radiology welcomes six new residents to the Class of 2019

Nabil Al-Khalisi

MS — Univ Georgia & MD-Bagdad

Rob Downing

MS and DO — University of Des Moines

Joseph Loeb

Kansas City University of Medicine and Bioscience

Anatoly Loskutov

Veronez University

Gina Nichols

University of South Florida

Joshua Wermers

Rocky Vista University



Kater

Halpin



Heller

Chief resident passes the torch

The radiology department wishes to thank outgoing chief resident **Marcus Kater, M.D.**, for his service during the past year. He has been a great role model and will be missed. **Jared Halpin, M.D.**, served as a junior chief resident last year and has taken on the role as senior chief. The residency department is also pleased to welcome **Randy Heller, M.D.**, as a new junior chief resident for 2014-15.

Annual Core Physics Review Course: a sold-out success

For the third consecutive year, radiology residents from around the country attended the University of Missouri-Kansas City's (UMKC) annual Core Physics Review Course. The sold-out, five-day course provides a comprehensive review of the medical physics needed to practice diagnostic radiology and successfully pass core and certifying examinations.

This was the first year Children Mercy Hospital's (CMH) in-house medical physicist taught the course, offering an affordable option for those in Kansas City and the surrounding region. Nima Kasraie, Ph.D., clinical imaging medical physicist at CMH, joined the UMKC faculty in 2012 as an assistant professor of medical physics with the department of radiology.

Kasraie earned his Master of Science in Nuclear and Radiological Engineering at the University of Tennessee. He earned his doctorate in medical physics with a focus on diagnostic imaging from the University of Texas Health Science Center at San Antonio. He then completed his post-doctoral training at California State University, Fresno, in biomedical physics within the department of physics.

Kasraie presents interactive lectures one to two times a month for the regular physics class, which follows the American Association of Physicists in Medicine (AAPM) and Radiological Society of North America (RSNA) physics modules. The review course



Nima Kasraie, Ph.D., clinical imaging medical physicist, teaches the physics review course.

serves as a summary and refresher of this material.

"For the 2014 review course, we tried to emphasize clinical relevance and what is going on in practice through equipment demonstrations and different concepts," Kasraie said. "At the completion, we gave them test questions to help summarize key concepts and conducted a confidential evaluation so we can plan for next year's course and improve each year."

The radiology department also enlisted the help of PGY 4 residents to provide input on ways to make the review course, which is offered twice during their training, even more effective. Thus, as ABR exam concepts evolve, so does the review course.

"The hope is the course provides appropriate preparation for boards and the ABR exam with scores that exceed the average," Kasraie said.

RESEARCH RECOGNITION

During the 2014 academic year, radiology department **faculty, fellows, residents** and medical *students were recognized for their research, publications and presentations nationally and internationally. This section lists a few scholarly activities. For a list of resesarch from 2013 and before, see the UMKC radiology website at <http://med.umkc.edu/radiology/activity>.

2014 Peer Reviewed Publications

Dahl A, et al. AIUM practice guideline for the performance of ultrasound of the female pelvis. **J Ultrasound Med** 2014;33(6):1122-30

Sharp NE, Raghavan MU, Svetanoff WJ, Thomas PT, Sharp SW, **Brown JC, Rivard DC**, St Peter SD, Holcomb GW 3rd. Radiation exposure – how do CT scans for appendicitis compare between a free standing children’s hospital and non-dedicated pediatric facilities? **J Pediatr Surg** 2014;49(6):1016-9

Dunoski B, Slovis TL. Update in pediatric imaging. **Adv Pediatr** 2014;61(1):75-125

Zaidat OO, Castonguay AC, Gupta R, Sun CH, **Martin C, Holloway WE**, et al. North American Solitaire Stent Retriever Acute Stroke registry: post-marketing revascularization and clinical outcome results. **J Neurointerv Surg** 2014;6(8):584-8

Arany ZP, **Walker CM**, Wang L. Case 22-2014: A 40-year-old woman with postpartum dyspnea and hypoxemia. **NEJM England J Med** 2014;371(3):261-9

Hart D, Gooden C, Cummings LS, **Wible BC, Borsa J**, Randall H. Modification of the HeRO graft allowing earlier cannulation and reduction in catheter dependent days in patients with end stage renal disease: a single center retrospective review. **Scientific World J** 2014 Jan 6

Canty KM, *Ahmad H, Horii KA, **Lowe LH**, Nopper AJ. Infantile Hemangiomas: A retrospective review of hepatic hemangiomas in infants with multiple cutaneous hemangiomas. **So Med J** 2014; 107(3):159-64

Arany ZP, **Walker CM**, Wang L. Case 22-2014: A 40-year-old woman with postpartum dyspnea and hypoxemia. **NEJM** 2014; 371(3):261-9 Hart D, Gooden C, Cummings LS, **Wible BC, Borsa J**, Randall H. Modification of the HeRO graft allowing earlier cannulation and reduction in catheter dependent days in patients with end stage renal disease: a single center retrospective review. **Scientific World J** 2014 Jan 6

Mohammed TL, **Saettele M**, Saettele T, Patel V, Kanne JP. Eponyms in cardiothoracic radiology: Part 1: Neoplasms. **Curr Probl Diagn Radiol** 2014;43(2):91-8

Abou-Chebl A, Zaidat OO, Castonguay AC, Gupta R, Sun CH, **Martin CO, Holloway WE**, et al. North American SOLITAIRE stent-retriever acute stroke



Resident David Lerner, M.D., presented his poster at the Aerospace Medical Association National meeting in San Diego, Calif.

registry: Choice of Anesthesia and Outcomes. **Stroke** 2014;45(5):1396-401

Sharp NE, Knott EM, Thomas P, **Rivard DC**, St Peter SD. Burden of complications from needle penetrations of plastic ports in children. **J Pediatr Surg** 2014;49(5):763-5

Patil HR, **Bateman TM, McGhie AI**, Burgett EV, Courter SA, et al. Diagnostic accuracy of high-resolution attenuation-corrected Anger-camera SPECT in the detection of coronary artery disease. **J Nucl Cardiol** 2014;21(1):127-34

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*Collard MD, **Tellier J**, *Chowdhury I, **Lowe LH**. Improvement in Reporting Skills of Radiology Residents with a Structured Reporting Curriculum. **Acad Radiol** 2014; 21(1):126-133

Poster Presentations

Ratino J, Knowlton JQ, Gellat M, *Shah S, Carlson K. Multimodality imaging findings of arterial tortuosity syndrome: A case series. **SPR**. Washington, DC

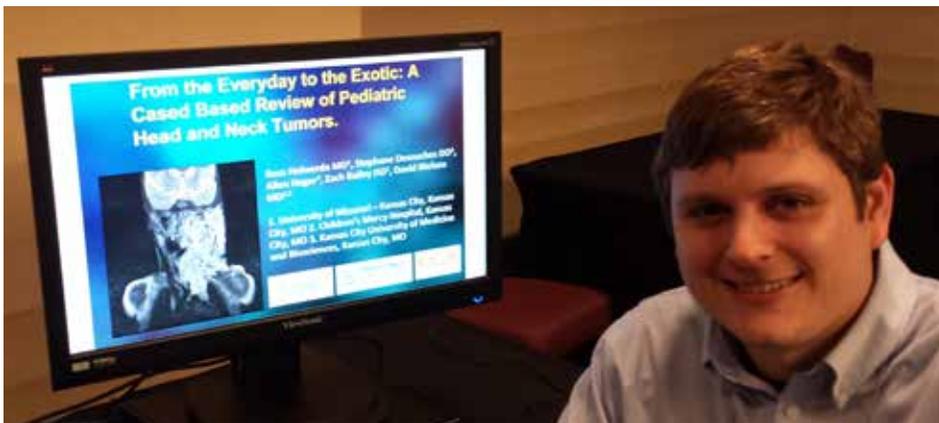
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Rentas K, Bailey Z, *Reghunathan A, **Lowe LH**. Uncommon Pediatric Pontine Disorders: Case Based Review of the “Unusual suspects”. **ASNR**. Montreal, CA

Davignon D, *Alemayeh A, Shah S, **Dahl A**. Multimodality imaging findings of arterial tortuosity syndrome: A case series. **SPR**. Washington, DC

Natera A, Reading B. Duodenal-pancreatic-duodenal intussusception in the setting of malrotation with a duodenal duplication cyst. **SPR**. Washington, DC

Heller R, Lowe LH, Halpin J. Bridging the PACS-induced radiology-clinician



Ross Holwerda, M.D., presented his poster at the Society for Pediatric Radiology.

interaction gap by incorporating a PGY-4 radiology resident into the general pediatrics team: Is there support and what is the value? **AUR**. Baltimore MD.

Lerner DJ, Cho K, Parmet A, Wible B, Borsa J. Portable Digital Radiography: A Reality and Necessity for ISS and Future Explorer Class Missions. **Aerospace Med Assoc Nat.** San Diego, CA

*Collard M, **Rentas K, Lowe LH.** Vascular Anomalies of the Pediatric Brain and Spinal Cord: Same Lesions, New Names. **ASNR.** Montreal, CA

Saettele MR, Adler KE, Tun M, Lewis T, Meierotto R, Riaz Azfal. BI-RADS: An Interactive Magnetic Resonance Imaging (MRI) Case Based Tutorial. **ARRS.** San Diego, CA

Bailey Z, *Reghunathan A, Rentas K, Lowe LH. Pediatric Pontine Lesions: An Image Rich Case Based Approach. **ARRS.** San Diego, CA

Saettele MR, *Cyriac G, *Loskutov A, Sigley MJ, Lowe LH, Nielsen DB. Childhood Primary Angiitis of the Central Nervous System presenting with bilateral panuveitis and anisocoria. **SPR.** Washington, DC

Dr. Holwerda makes an electronic presentation at the **Soc for Pediatr Radiol (SPR)** Washington, DC

Holwerda R, Desouches S, Nielsen DB, *Heeger A. From the Everyday to the Exotic: A Cased Based Review of Pediatric Head and Neck Tumors. **SPR.** Washington, DC

Rentas K, Bailey Z, *Reghunathan A, Lowe LH. A case based approach to pediatric pontine lesions. **SPR.** Washington, DC

Oral presentations

Martin C. Neurointerventional care of acute stroke patients. Neuroscience symposium SLH. Kansas City, MO

Holloway W. Trauma with arterial dissection and stroke. Neuroscience symposium SLH. Kansas City, MO

Martin C. Venous sinus thrombosis case study. Neuroscience symposium SLH. Kansas City, MO

Akhtar N. Inflammatory conditions following immunization. Neuroscience symposium SLH. Kansas City, MO

Lerner D, *Parmet AJ. Interventional

Radiology: The Future of Surgery in Microgravity, Applications and Proof of Concept for Training at NASA Astronaut Program. **Aerospace Med Assoc.** San Diego, CA

Walker CM. Pulmonary nodules. **Emergency Radiology Course** faculty. Seattle, WA

Walker CM. Pleura and diaphragm: Case based review course. **ARRS.** San Diego, CA

Heller R, *Patel M, Lowe LH. Incorporating a radiology resident consultant into daily pediatric rounds: What is the value? **SPR.** Washington, DC

Lowe LH. The Radiology Report: Art or Science? Implementing a Reporting and Communication Curriculum. **AUR.** Baltimore, MD

Tun M, *Thakur N, Kilbride H, *Babu R, Lowe LH. Cerebral ultrasound findings in neonates undergoing whole body hypothermia for hypoxic ischemic encephalopathy. **SPR.** Washington, DC

Lowe LH. Communication and reporting skills: What Clinicians Want **SPR.** Washington, DC

Martinez-Jimenez S. Hypersensitivity pneumonitis. **Soc Thoracic Radiol (STR)** symposium. San Antonio, TX

Lowe LH, DiPietro M, McCarville B. Pediatric Spinal Ultrasound. **Am Institute US Med (AIUM).** LV, NV

Books & Book Chapters

Reddy GP, Steiner R, **Walker CM.** Cardiac

Imaging. **Case Review Series**, 2nd ed. Elsevier. Philadelphia, PA

Mardis N. VATER syndrome. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

North KL, Dean J, Lowe LH. Vein of Galen Malformations. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

Moore A. Duodenal obstruction. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

Bailey Z, Lowe LH, Phelan J. Otic capsule dysplasia. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

Mardis N. Jeune syndrome. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

Daub C, Bailey Z, Lowe LH. Dermoids and Epidermoids. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

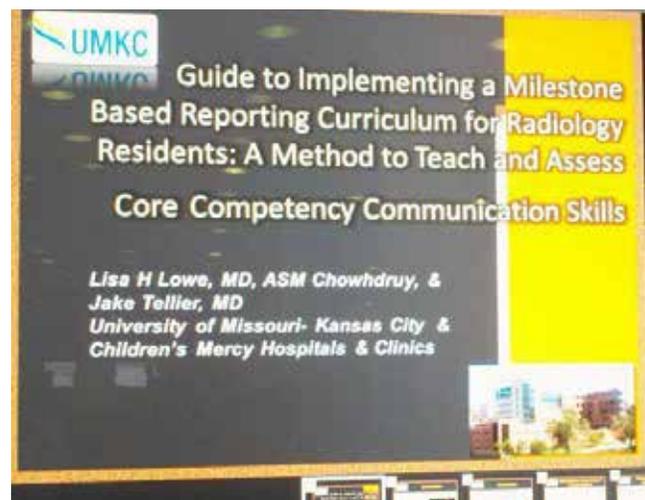
Dahl A, Fickenscher KA. Esophageal atresia and Tracheoesophageal fistula. In: **Pediatric Radiology (Rotations in Radiology).** J Reid ed. Oxford Univ Press. New York, NY

Grants & Trials

Knowlton JQ. Co-Investigator. Topic: *Non-invasive evaluation of cardiac function in pediatric cancer survivors*, IRB # 12020130. Performing functional cardiac MRI up to 50 children and young adult pediatric cancer survivors. Comparing cardiac function evaluation using MRI vs. echocardiogram. **2014-present**

Behbod F, **Meierotto R.** Co-PI. Sponsor: NIH (R21 CA185460). Topic: Essential Role of BCL9 in Promotion of Human DCIS to Invasive Ductal Carcinoma. To identify and validate a biomarker, BCL9, that alone or in combination with other existing biomarkers can predict a future risk of IDC in DCIS patients and by doing so help guide decisions regarding treatment and follow-up. **2014-2016**

Behbod F, **Meierotto R.** Co-PI. Sponsor: AACR. Topic: Essential Role of BCL9 in Promotion of Human DCIS to Invasive Ductal Carcinoma. **2014-2016**



A presentation by resident Jake Tellier, M.D., and Lisa Lowe, M.D., F.A.A.P, chair of radiology and radiology residency program director, received a Certificate of Merit at a meeting of the Radiological Society of North America.



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