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The INSIDE VIEW

UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH • DEPARTMENT OF RADIOLOGY

DEPARTMENT ANNOUNCES PROMOTIONS



Dr. Weibo Cai was promoted to Professor on the Tenure Track. Dr.

Cai was recognized for his international reputation in molecular imaging, specifically focusing on nanotechnology applications for developing new molecular imaging agents.

Dr. Chris François was promoted to Professor (CHS). His promotion was based on his

innovative contributions to cardiovascular imaging, especially techniques using 4D flow methods in order to provide comprehensive information about hemodynamics and cardiovascular function in patients with cardiovascular disease.



Dr. Allison Gra-

yev was promoted to Associate Professor (CHS) in

recognition of her work with medical student and resident education. Dr. Grayev's promotion was based on her outstanding creativity and dedication to educate medical students. As co-director of the gross anatomy course, Allison

Continued on Page 2 Sidebar

FROM THE CHAIR

Another season comes to a close bringing with it more extreme weather. Unlike the late cold snap this spring, which only was frustratingly inconvenient at its worst, this time there has been a more dire

impact on some of our Radiology family. Recent recurrent flooding rendered several living spaces uninhabitable for a handful of faculty members, fellows and residents. To help them recover, we have established a donation listserv on which the rest of us can extend a helping hand by offering basic furniture and household items. If you have an item you can contribute, e-mail the listserv at radflood@uwhealth.org.

The weather notwithstanding, the theme in the Department of Radiology this summer and fall has been all about excellence. UW Radiology had another banner year at WCIO. Dr. Jason Stephenson received one of the Dean's esteemed teaching awards. Dr. Humberto Rosas and Dr. Elizabeth Sadowski were nominated for UW Physician Excellence Awards. Nine faculty members received promotions for their outstanding work and commitment to clinical, research and education excellence. Our Nuclear Medicine clinics won awards for providing an outstanding patient experience. Our own Peter Graffy led Madison's Ultimate Frisbee team, the Madison Radicals, to a national title.

The upcoming months show promise of continued excellence. We are delighted to move into our new offices in WIMR. Now, we prepare to make another big splash at the RSNA Conference later this month. Let's keep up the excellent WOR!

- Thomas M. Grist, MD, FACR Chair, UWSMPH Department of Radiology

FRED LEE, SR., MD INAUGURAL PROFESSORSHIP LAUNCHED WITH CELEBRATORY GALA

The Department of Radiology at the UW School of Medicine and Public Health announced the creation of a new professorship to honor Fred Lee, Sr., MD, a noted Michigan radiologist, who was a pioneer in the diagnosis, staging and treatment of prostate cancer, and the father of UW Radiology faculty member Fred Lee, Jr., MD.

Over 170 people attended the event to celebrate the newly established professorship on July 20, at the Pyle Conference Center, including friends and family members from around the country. To date, the professorship has raised over \$1.4 million, towards the \$2 million required to create an endowed Chair in Dr. Lee's name.

The evening began with a social hour and dinner, overlooking Lake Mendota in the Pyle Center Alumni Lounge. The program started after dinner, with Thomas Grist, MD, FACR, Department of



Radiology Chair, moderating and delivering a welcome address. Other speakers during the program included Sarah Mangelsdorf, PhD, Provost and Vice Chancellor for Academic Affairs at the UW; Robert Golden, MD, UWSMPH Dean; James Berbee, MD, MBA, MS, Chair of the Wisconsin Alumni Research Foundation (WARF); Daniel van der Weide, PhD, Professor in the Department of Electrical and Computer Engineering at the UW and collaborator with Dr. Lee, Jr. on a variety of scientific initiatives.

The keynote address was delivered by Erika Lee, PhD, the Rudolph J. Vecoli Chair in Immigration

STEPHENSON WINS TEACHING AWARD (p.3) ML4MI GRANT WINNERS ANNOUNCED (p.3) GRAFFY DELIGHTS IN AUDL TITLE WIN (p.4)

PET/CT TEAMS WIN BIG AWARD (pp.6-7)

DEPARTMENT PROMOTIONS (FROM P. 1)

has worked hard to improve the curricular format as well as the effectiveness of the material presented to the students.



Dr. Emily Lewis was promoted to Clinical Professor for her excellence in clinical prac-

tice and dedication to educating medical students. In addition to her specialized clinical practice realms, Dr. Lewis has promoted uniformity in reporting practices in thyroid imaging and is a leader in promoting evidence-based medicine.

Dr. John Park was promoted to a Clinical Professor in the



Community Radiology Section. Dr. Park has worked hard as the Community Radiology scheduler, not only to ensure the Community Division is running efficiently, but also that decisions are made by taking in account opinions of all the employees. He has made many contributions that aim to improve patient care, as well as the protocol given to treat the patients.



Dr. Jason Pinchot was promoted to Associate Professor (CHS). He has made a significant clinical impact in the

development of the vascular anomalies service at the University of Wisconsin and at the American Family Children's Hospital. In partnership with Dr. Aagaard-Kienitz and others outside of the Department, Dr. Pinchot has developed a regionally recognized service for the treatment and diagnosis of vascular anomalies.

Dr. Conrad Pun was promoted to a Clinical Associate Professor. This promotion was based on his dedication to improving



Continued on Page 3 Sidebar

FRED LEE, SR., MD INAUGURAL PROFESSORSHIP (FROM P. 1)

History, Distinguished McKnight University Professor and the 2018 Andrew Carnegie Fellow Director of the Immigration History Research Center at the University of Minnesota, and also Dr. Lee, Sr.'s niece. Her address recounted the difficult history of growing up as a first-generation American of Chinese descent, and the perseverance Dr. Lee, Sr. showed to overcome these obstacles, establish a successful medical practice, and become a passionate and leading resource on prostate cancer diagnosis.

Dr. Lee, Sr. (1930-2016) was the son of Chinese immigrants who ran a laundry in inner-city Buffalo, New York. The family business and the family's incredible work ethic enabled Lee and his six siblings to attend college and obtain advanced degrees in medicine, dentistry and even rocket science. Dr. Lee, Sr. went on to train and work at numerous respected medical institutions, including the University of Buffalo, the University of Chicago, Harvard University, the University of Rochester as well as the US Army, before settling into private practice in Ann Arbor, Michigan.

Dr. Lee, Sr. became renowned through his research on imaging, staging and treating prostate cancer. His groundbreaking work set the stage for many modern treatments of the disease, and earned him numerous mentions in the press and on CNN, PBS and ABC's Nightline. In 1986, he was named "Man of the Year" in Michigan for his vast contributions to medical science. Above all, however, Dr. Lee, Sr.'s lasting legacy was his incredible care for his patients, the importance he placed on all patient relationships, and his practice of collegial collaborations with other practitioners and scientists to learn and discover more, even across other medical disciplines.

Dr. Lee, Jr., began to model the same brand of success in his medical career that his father demonstrated, which became the impetus for the creation of the professorship. A radiologist at the UWSMPH, Dr. Lee, Jr., carries on his father's interest in and expertise with cultivating patient relationships and providing excellent care. Dr. Lee, Jr. started to see potential improvements and advances with the very tools he used in Abdominal



and Interventional radiology, and had the vision to conceptualize them. However, his journey to bring these tools from concept to reality forever intertwined him with an unlikely source – a professor in the UW College of Engineering, Daniel van der Weide.

A chance meeting propelled them to begin a collaborative relation-

ship that would result in the co-founding of multiple new companies to manufacture the number of medical devices their technological innovation enabled.

The Fred Lee, Sr., MD Professorship was created with the mandate to "seek out and nurture collaborative research between physicians in Radiology and engineers in the COE to foster the accelerated discovery and translation of innovative technologies into clinical practice for the betterment of mankind." Recruiting for this professorship is now underway. "There are particular synergies that exist between radiologists and engineers," said Grist. "Radiologists see the human potential of how emerging medical imaging and engineering technologies can provide new solutions to age-old problems like cancer. In the case of Fred Lee, Jr., and Dan van der Weide, it was a marriage of expertise and experience made in heaven," Grist said. "Thanks to their vision, hard work and perseverance, people with certain tumors have whole new options for treatment, and better care can be delivered to cancer patients during their treatment," Grist continued. "Interventional radiology is a quickly emerging field that has potential to be a game-changer in many different ways. It is vital that we have the ability to recruit the best talent out there for this role."

Recruitment of the Fred Lee, Sr., Professorship candidate is expected to last many months. The fund is managed by the University of Wisconsin Foundation (Fund # 132580134). If you are interested in giving to this fund to enable the appointment of the new Fred Lee, Sr., MD Professor, a role anticipated to accelerate future innovation in imaging radiology science – and UW's role in it – please visit https://www.radiology. wisc.edu/giving-opportunities/ or contact the UW Foundation at (608) 263-4545 or (800) 443-6162.

DR. STEPHENSON RECEIVES 2018 DEAN'S TEACHING AWARD



Congratulations to Jason Stephenson, MD, Assistant Professor in the Department of Radiology and Director of Medical Student Education, who was awarded a 2018 Dean's Teaching Award!

Each year, four recipients are selected from across the entire faculty of the School of Medicine and Public Health, for their extraordinary dedication to student education, demonstrated high level of teaching effectiveness, and innovation in education. The award was established in 1992. Winners are chosen by a committee of faculty who have previously been honored for their excellence in teaching.

"I am extremely honored to be receiving this award," Dr. Stephenson said, "The efforts that led to this recognition would not have been possible without the support of my team members, clinical colleagues, department chair, SMPH leaders, and other educator colleagues who have, in various ways, helped make it possible for me to do the work that I do."

Dr. Stephenson joined the UW Radiology Musculoskeletal Imaging and Intervention Section in 2012 after completing a Residency

and Fellowship at the Mallinckrodt Institute of Radiology in St. Louis and a two-year faculty position at University of Pennsylvania in Philadelphia. Over the past six years at UW, he has transformed the Radiology curriculum for medical students. Besides his steadfast approach with individual learner interactions, he has leveraged his talents to impact larger groups. This includes overseeing the Radiology Clerkship for medical students since 2012, when he began to revise the radiology curriculum to introduce a more structured and objective-based approach. Dr. Stephenson used technology to engage learners from across the statewide campus, and employed a PACS based case simulator for student use. He has been tireless in his pursuit for effective education and has applied his passion for innovation in education to the redesign of the SMPH ForWard curriculum, and has taken a larger leadership role at the medical school as one of the Phase I block leaders. In this capacity, he led an interdisciplinary team of faculty to build and successfully launch the Mind and Motion course for pre-clinical medical students. The first iteration of the course was well received and is an excellent example of one of the many ways his leadership impacts how medical students learn in new and effective ways.

PILOT GRANT WINNERS ANNOUNCED FOR MEDICAL IMAGING INITIATIVE

The UW's Machine Learning for Medical Imaging Initiative (ML4MI) selection committee recently announced the winners of the ML4MI Pilot ResearchgGrants. These grants are expected to expand the scope of Machine Learning activity on campus and to encourage cross-disciplinary collaborations to advance the rapidly growing field of machine learning in medical imaging. A central goal of these grants is to spark enduring collaborations that will lead to external funding for further research.

The two winning proposals are "Patient Specific Hemodynamics Using Machine Learning Based Fusion of MRI Measurements and Computational Fluid Dynamics" from co-PIs Kevin Johnson, PhD, Alejandro Roldán-Alzate, PhD, and Shiva Rudraraju, PhD, and "DeepRad: An Accessible, Open-Source Tool for Deep Learning in Medical Imaging" with co-PIs Alan McMillan, PhD, and Varun Jog, PhD.

The Pilot Research Grants are specifically targeted for research collaborations between the School of Medicine and Public Health and the College of Engineering at the University of Wisconsin. At least one Primary Investigator or co-PI of the research proposals must come from the Departments of Radiology or Medical Physics and one from the College of Engineering.

The patient-specific hemodynamics proposal presented by Drs. Johnson, Roldán-Alzate and Rudraraju seeks to develop vastly superior estimates of in-vivo blood velocities using an artificial intelligence-based combination of computer simulations and measurements

DEPARTMENT PROMOTIONS (FROM P. 2)

patient care. Dr. Pun made multiple contributions that have improved patient outcomes, and has increased comfort and efficiency of the care given to patients in the UnityPoint-Meriter campus.

Dr. Elizabeth Sadowski

was promoted to Professor (CHS) due to her national reputation using



MRI to diagnose and treat diseases involving the female pelvis, specifically uterine and ovarian malignancies. Dr. Sadowski has made an important impact as a result of her contributions to national consensus guidelines for image acquisition and interpretation of MRIs.



Dr. Frank Thornton was promoted to Professor (CHS) in recognition of his clinical excellence

and the development of a national program for community-based radiology groups within academic radiology programs. Dr. Thornton has been highly instrumental in developing an approach to leverage the unique contributions of the Community and Academic divisions within the UW Department of Radiology.

Congratulations to these faculty members and best wishes in their new ranks!

DR. OTTO WINS ASHNR RESEARCH SEED GRANT

Brad Otto, MD, second year resident in the Department of Radiology, was recently named the recipient of the Amer-



ican Society of Head and Neck Radiology 2018 Core Curriculum Research Seed Grant. Dr. Otto will be working with Drs. Tabby Kennedy, Jason Stephenson, John-Paul Yu, Greg Avey, and education coordinator Katie Yang to create and test new online learning modules to impact student engagement in the reading room. Congratulations Brad and team!

DR. ROBBINS NAMED VICE CHAIR/FACULTY DEVELOPMENT



Jessica Robbins, MD, Associate Professor (CHS), has accepted a new role as Vice Chair for Faculty Devel-

opment and Enrichment effective July 1, 2018. Dr. Robbins brings an outstanding track record of leadership on behalf of the Radiology Residency Program, especially in the area of recruiting excellent residents to the Department, many of whom have gone on to fellowships in our Department and assuming faculty roles.

In her new role, Dr. Robbins will be creating a rich environment for developing the career path for junior faculty, starting at the time of recruitment through mentoring for promotions. She will oversee faculty development programming to span early, mid and late career faculty in their interests in education, research and leadership development through Grand Rounds and seminars in these key areas.

Under Dr. Robbins' leadership, we will create an Awards Program to provide resources for faculty who wish to pursue specific areas of professional development, including leadership conferences. Finally, she will create a Wellness, Engagement, and Inclusion program to identify and prioritize appropriate initiatives that will enrich the working environment of our Department.

As part of the Awards and Wellness, Engagement and Inclusion program, a fund has been created at the UW Foundation to support this important initiative.

Congratulations to Dr. Robbins for her willingness to serve in this important role!

RESEARCHER PETER GRAFFY LEADS THE WAY TO WIN NATIONAL ULTIMATE DISC TITLE – AT LAST!

The Madison

Radicals, one of 23 franchises in the American Ultimate Disc League (AUDL) won their first national title, played on August 22 at Breese-Stevens Field in Madison. After making it to the final four series every year since 2013, the Radicals showed great determination to make this year different by winning it all.



Department of Radiology researcher Peter Graffy, left, and teammate Pat Shriwise, right, celebrate after winning the National American Ultimate Disc Championship in Madison.

and should be very proud of the team's first title win," he said.

Graffy has a long list of professional accomplishments within the Department of Radiology, including the presentation of complex scientific work at national meetings, being a co-author in five articles published this year, on topics such as CT-based

AI methods, hepatic fibrosis, and colorectal neoplasia. "Peter has demonstrated a remarkable capabil-

Star defenseman Peter Graffy, #26 of the Radicals, rated fourth best player in

the AUDL championship for total points scored, is also a Research Intern with the UW Department of Radiology. The Radicals decided to change their game strategy upon learning the results of the game that brought the Dallas Roughnecks, their championship opponent, to the final four competition. The offensive line has been a recent concern of the Radicals, and as a leader in point scoring Graffy was moved to offense. This new strategy paid off, as Graffy executed an incredible six goals, one assist, and one block against Dallas.

Graffy has had many supporters throughout his journey, both with ultimate disc playing and in the Department of Radiology. Perry Pickhardt, MD, is Graffy's primary investigator at work, and Professor in the Department, has been one of his biggest fans. "Dr. Pickhardt has been hugely supportive of me as a player as well as in a research capacity," Graffy said. "He has come to games and follows our season closely while I am in it, and he has served a huge role model to me personally over the years." Graffy also had praise for the Radicals organization, many of whom get little recognition for their work. "The team, coaches, and trainers are constantly hard at work striving for success, ity for rapidly adapting to new roles and responsibilities, especially for someone who has yet to enter medical school," Pickhardt said. "He has many more accomplishments yet to come."

Deep down, Graffy knew this would be the year the Radicals took home the trophy. About a month before the championship game, he emailed Evan Lepler, a broadcaster for the AUDL channel, in which Graffy proclaimed the Radicals would win this year. When Lepler countered why, Graffy responded, "It's that belief that's been building throughout the year and, honestly, I woke up this morning and I was just giddy, like I knew that we were going to win."

The win left Graffy and his teammates in a state of disbelief and joy as they hugged each other, laughed, and cried. Afterwards the team spent the remainder of the day celebrating, carrying their trophy all around the city to share their excitement with their many fans.

The UW Department of Radiology congratulates Peter Graffy and the Madison Radicals on their amazing accomplishment!

CONGRESSIONAL STAFF TOURS WIMR FACILITIES

The largest congressional staff group to ever visit UW-Madison gathered at WIMR in August to learn more about the importance of federal funding and other resources necessary for continued support and expansion of research and patient care within the SMPH and UW Health. Eleven members from the offices of Wisconsin Senators Tammy Baldwin and Ron Johnson and Representatives Sean Duffy, Mike Gallagher, Glenn Grothman, Ron Kind, Gwen Moore, and Mark Pocan visited with faculty and staff of the Departments of Medical Physics and Radiology for presentations and a tour.

The morning began with a tour of UW Med Flight, led by Ryan Wubben, MD, Professor of Emergency Medicine. Jacques Galipeau, MD, the Don and Marilyn Anderson Professor of Oncology within the Department of Medicine and UW Carbone Comprehensive Cancer Center, and Amy Kind, MD, PhD, an Associate Professor in the Department of Medicine, founder of the Health Services and Care Research Program, and Director of the Madison VA Dementia and Cognitive Care Clinic also made presentations.

Afterwards, Edward Jackson, PhD, Professor and Chair of the Department of Medical Physics, presented examples of the Wisconsin Idea, highlighting the collaborative efforts between the Departments of Medical Physics, Radiology, and Human Oncology. Dr. Jackson discussed how these efforts, centered on recent basic research and development, were translated into clinical trial applications and improved patient care. Professors Charles Mistretta and T. Rockwell Mackie discussed the importance of industry engagement, citing examples of the successful work between vascular imaging and TomoTherapy, noting that the many new patents and technology transfer that were created and resulted in a significant return on the investment.

Bradley Christian, PhD, Professor of Medical Physics and Psychiatry, and John Engle, PhD, Assistant Professor in the Department of Medical Physics and Radiology, presented an overview of the Department's recent major accomplishments. This included selected areas of research, such as the cyclotron production and radiopharmaceutical re-



search specifically related to Alzheimer's and Parkinson's Disease, and other current public health issues such as prostate and breast cancers. Drs. Christian and Engle also discussed current grants, highlighted major accomplishments, and referenced the recent collaborations with the Department of Radiology, Waisman Center, and other UW-Madison entities.

Following the presentations, smaller groups, facilitated by Professors Timothy Hall, Oliver Wieben, and Guang-Hong Chen, toured WIMR1 US, MR, and X-ray/CT facilities. Graduate students were present at each tour station to give the staffers the opportunity to meet some of the students who contribute to research associated with these modalities.

Dr. Thomas Grist, Professor and Chair of the Department of Radiology, participated in the tour component of the visit and had the opportunity to highlight certain research initiatives. "Collectively, the Departments of Medical Physics and Radiology have a remarkable message to share with our congressional representatives." Dr. Grist said. "The federal funding that has supported our research has not only contributed to improvements in human health but also has had a significant impact on economic development in Wisconsin. That is truly the Wisconsin Idea in action, and it is an important message to convey to our political leaders. Many thanks to everyone at UW who contributes to this great success."

The information the congressional staff members take back to the Capitol will be important with regard to the allocation of funding statewide that will enable UW researchers and physicians to continue to develop novel, more effective techniques and provide the ability to translate such to improved patient care, increasing the quality of life throughout Wisconsin and beyond.

DR. KIM BECOMES VICE CHAIR/COMMUNITY RADIOLOGY

Newrhee Kim, MD, Clinical Associate Professor, was appointed Vice Chair for Community Ra-



diology effective July 1, 2018. Dr. Kim has been a leading voice on behalf of the Community Radiology program, Unity Point-Meriter Hospital, and the Wisconsin Idea. Dr. Kim currently serves as Vice President of the Medical Staff at Unity Point-Meriter Hospital and serves as Vice President of the Wisconsin Radiological Society. Dr. Kim is uniquely qualified to lead the Community Section's 25 board-certified, subspecialty trained radiologists into the future, and will continue to build upon Dr. Frank Thornton's outstanding contributions over the past four years. Under Dr. Thornton's leadership, the Community Radiology Section flourished to become more integrated with the Academic Sections, leveraging the power of this unique partnership.

Dr. Kim is excited to continue the Community Radiology's commitment to clinical excellence, taking best practices from the academic sections and applying them to the clinical needs outside University Hospital.

Dr. Kim's specific interests include the big-picture issues that face clinical leadership. He is particularly excited to continue the Community Division's clinical follow-up initiative, initiated two years ago by Robert Bour, MD, CT Modality Chief of the Community Section. This initiative has resulted in radiologists finding cancers in at least 14 patients to date. Dr. Kim is also enthusiastic about applying ACR Imaging 3.0 initiative throughout the department.

Thanks to Dr. Thornton for his service, and congratulations to Dr. Kim on his new role!

DRS. SADOWSKI AND ROSAS NAMED EXCELLENCE AWARD HONOREES

Dr. Elizabeth Sadowski, Professor in the Department of Radiology, and Dr. Humberto Rosas, Associate Professor (CHS) in the Department of Radiology, were recognized last month as UW Health Physician Excellence Award Honorees. The Physician Excellence Awards recognize "individuals who demonstrate exceptional skills in clinical practice and education, and a commitment to the mission, vision, and values of UW Health." In total, ten physicians from UW Health were awardees this year and twelve were honorees.



Dr. Sadowski, appointed to the American College of Radiology Women's Imaging Panel this year,

was nominated for the Leadership Excellence Award. Dr. Mark Kliewer, Professor in the Departments of Radiology and Medical Physics, nominated Sadowski and noted three specific and important leadership initiatives. The first is Sadowski's commitment to imaging expertise in gynecologic oncology and the increasing collaboration with the Division of Gynecologic Oncology and Radiation Oncology. Sadowski acts as a radiology consultant with these divisions, leads a group of physicians in a weekly discussion of important cases in gynecologic oncology, and founded and chairs the Uterine and Ovarian Cancer panel in the Society of Abdominal Radiology. Sadowski has also taken a leadership role in career development and mentorship through multiple initiatives. In the Department, she has created a professional development and career planning curriculum for the resident and fellow education program, and is the Director of a

WIMR PET AND TAC/UH NUCLEAR MEDICINE

UW Health recently named UW Department of Radiology WIMR PET and The American Center (TAC) and University Hospital's (UH) Nuclear Medicine clinics as the winner

of the esteemed Patient Experience award. The teams recognized were PET/CT at WIMR, led by Christine Jaskowiak, BS, CNMT; TAC Nuclear Medicine led by Kandace Nowakowski, MSM, RT(R); and UH Nuclear

Medicine led by Derek Fuerbringer, CNMT. This award recognizes these individuals and their teams on their commitment to providing excellent patient care.

The patient feedback indicated that each of the clinics scored in the top 10% of the surveyed imaging departments in providing care for patients. The surveys are sent to patients approximately 24 hours after their visit, in which they provide their personal feedback based on their experience.

Members of Christine Jaskowiak's imag-



ing team are: Mark McNall, Brooke Peters, Sarah Buslaff, Katelin Beaman, William Natividad, Brandon Juno, and Erika Quesada. "My staff makes our patients their number one priority," Jaskowiak said, "we

provide great patient care through patience, understanding, compassion, and sympathy. We treat patients with respect and interact with them on a personal level."

Kandace Nowakowski and her imaging team at TAC, a subset of Universi-



ML4MI PILOT GRANT WINNERS (FROM P. 3)

from an MRI scanner. Clinicians often use measures of blood velocities in the heart and arteries to plan surgical procedures and diagnose disease. MRI provides methods to directly measure 3D velocity fields but produces images that are corrupted by noise and have limited resolution. The interdisciplinary team aims to develop a technique which harnesses modeling, specifically computational fluid dynamics (CFD), to produce images with higher resolution and less noise.

With the DeepRad proposal, Drs. McMillan and Jog want to address the limitations on the accessibility of deep learning techniques for physicians and researchers who do not have expertise or experience in computer programming, machine learning or data science. "While progress has been made in making deep learning tools easier to use, applications still currently require significant software development skills; and although collaborations between medical imaging and computer science researchers are ideal, the rapid maturation of high-performing deep learning tools provided freely by third parties suggests that many applications no longer require significant technical innovation in order to be applied," said co-PI Dr. Jog.

They will leverage deep learning techniques that have been successfully implemented in non-medical data and apply them to medical image data. This includes changes such as extending deep learning frameworks that have been built to use two-dimensional images, in order to apply them to the 3D and 3D + time datasets that are common in medical imaging. By creating an opensource, fully graphical and user-friendly tool, McMillan and Jog expect to increase the accessibility of deep learning methods that are proving increasingly important in the detection, classification, and diagnosis of disease.

The University of Wisconsin is one of the institutions leading the charge to explore this exciting technology and the impact it promises to have on science and medicine. Team efforts in this area leverage multiple areas of expertise, including clinical imaging, imaging physics, computer science electrical and computer engineering, bioengineering and biostatistics. The UW has outstanding strengths in all these areas, as well as a long and successful history of collegial collaborations between departments.

Continued on Page 7 Sidebar

WIN PATIENT EXPERIENCE AWARDS

ty Hospital, includes Chris Goetsch, Kristine Pettis, Kelley Kopacz and Doug Fiers. "We review our comments monthly and continue to take time with each patient, while explaining each part of the exam for the patient to understand. We strive to provide the best care each and every day at TAC," Nowakowski said.

Derek Fuerbringer and his imaging team at the University Hospitals includes Elizabeth

Secrist, Rosalie Hovey-Andersen, Emily Worden, Laura Peterson, Kristine Pettis, Kerry Grow, Doug Fiers, Bryan Kitt, Chris Goetsch, Heather Jansma, Megan Donar, Rhonda Denu, Dani Brunk, and Kelley Kopacz.

"We are constantly working to improve the patient experience," Fuerbringer said "each quarter or so we review all the patient comments and use them to make our service better. One thing we have learned from this process is to find better ways to communicate with patients about what happens during the imaging process," he said.

Nuclear Medicine is a subspecialty of radiology that examines various procedures which include general nuclear medicine, PET imaging and nuclear cardiology. These procedures are crucial to accurately diag-

> nose the patient, and ensure the appropriate treatment is administered.

UW Health is pleased to have such role models representing the imaging centers at

UW Health. This award is proof that goes to show the outstanding patient care consistently encouraged at UW-Madison.

UW RADIOLOGY DAZZLES WCIO CONFERENCE

Faculty, staff, and trainees from UW Radiology and partner institutions turned in a top-notch performance at the World Conference of Interventional Oncology (WCIO) located in Boston, MA this past June. The team served as an excellent example of the exciting work coming from UW–Madison, gaining recognition and winning multiple awards.

UW Abdominal Imaging and Intervention teams presented five of the 100 posters at the conference. The winner was Emily Knott, an engineering student working with the Department of Radiology. Her poster was titled "Robotically Assisted Sonic Therapy (RAST) for Renal Ablation in a Porcine Model: Initial Preclinical Results," in which she and her colleagues studied female swine to evaluate short and long term effects of renal RAST with CT and histopathological correlation.



The best image guidance poster went to Jon Macoskey, a collaborator of Fred Lee, Jr., MD, who is a PhD candidate at the University of Michigan. Macoskey, who is studying Biomedical Engineering and Scientific Computing, won for his poster on "Histological Validation of Histotripsy-Induced Tissue Destruction Monitoring with Ultrasound Feedback."

In addition to Dr. Lee, several other faculty members participated in the conference. Shane Wells, MD, an Assistant Professor in the Abdominal Imaging



and Intervention Section and Marci Alexander, RN, BSN, an Ablation Nurse Clinician, led a WCIO Fellow education program for their fellow attendees. Dr. Lee presented two lectures: "The Innovation in Interventional Oncology" as well as moderating the Ablation Workshop. Another presenter, Timothy Ziemlewicz, MD, an Associate Professor of

Radiology also in the section of Abdominal Imaging and Intervention, gave a lecture on the removal of the kidney containing renal cancer.



ROSAS AND SADOWSKI HONORED (FROM P. 6 SIDEBAR)

biannual Career Paths Seminar. This is in addition to her personal mentoring of over 20 individuals in the department in her time here. The third area of leadership that Kliewer noted is her advocacy for women in academia. Sadowski formed the Women's Physician in Radiology group in 2009 and created a curriculum that addressed obstacles women physicians faced both in and outside of work.



Dr. Rosas, the Director of Musculoskeletal Intervention at University Hospital, was nominated for

the Clinical Practice Excellence Award, an award which "honors outstanding clinicians who demonstrate an extraordinary commitment to safety and quality patient-and-family centered care." Krystina Johnson and Constance Besaw, ultrasonographers with the Department of Radiology, as well as Debra Trieloff, a physician assistant in the department, wrote letters of recommendation for Dr. Rosas. All three praised Rosas for his dedication to patients, education, and the core ideals of the department, noting his generosity in both time and effort to helping patients and colleagues. "Working beside him as a Sonographer has taught me many skills that cannot be learned in a classroom setting. Dr. Rosas is incredibly compassionate when it comes to patient bedside manner. I personally have had patients request Dr. Rosas by name and remember him from years prior," Johnson wrote. "Dr. Rosas is an admirable Radiologist who is an outstanding representation of the UW Health System values, humbly teaching colleagues and associates and caring for his patients as if they were his own family members."





E3/366 Clinical Science Center 600 Highland Avenue Madison, WI 53792-3252

MEMORABLE IMAGES



The Department of Radiology, with a masterful comefrom-behind surprise, takes home the coveted Zach Clark Cup by defeating Emergency Medicine 10-6!

COMINGS & GOINGS

Welcome

Tim Allen, Research Assistant Kristin Anderson, Student Hourly Jacob Andreae, Student Hourly Tom Batan, Student Hourly Erik Bjorklund, Student Hourly Collin Buelo, Research Assistant Weijie Chen, Research Assistant Donna Christen, Financial Specialist Senior TJ Colgan, Assistant Scientist Keith Dodd, Research Intern Alexa Dorman, MS, Student Services Coord. Aaron Eifler, MD, Assistant Professor Kenny Chen, Student Hourly Sevde Etoz Niemeier, Research Assistant Christian Farris, Student Hourly John Garrett, PhD, Assistant Professor (CHS) Ruigi Geng, Research Assistant Madison Golden, Student Hourly David Harris, PhD, Research Program Manager Zach Harrison, Student Hourly Michael Hartung, MD, Assistant Professor (CHS) Grace Herbeck, Student Hourly Louis Hinshaw, Student Hourly Sam Hurley, Assistant Scientist Emily Knott, Student Hourly Joanna Kusmirek, MD, Assistant Professor (CHS)

Matthias Muehler, MD, Visiting Assistant Professor Jill Mullen, Medical Program Assistant Senior, Neuroradiology Yavuz Muslu, Research Assistant Sarvesh Periysamy, Research Assistant Jeanette Pollnow, Medical Program Assistant Associate, MSK Amber Possell, Instrumentation Technologist Katie Randall, Medical Program Assistant Associate, Abdominal Kristen Rider, PA-C, Physician's Assistant, Meriter Haley Massa, Student Hourly Melody Schmitt, Administrative Assistant, Meriter Megan Schroeder, Student Hourly Mengzhen Sun, Student Hourly Joseph Tang, MD, Clinical Associate Professor Brooke Temme, Student Hourly David Troyer, Programmer Analyst Arno van Schuijlenborgh, Administrative Program Specialist Avi Silverman, Student Hourly Helena Van Hemmen, Student Hourly Peng Sue Vang, Associate Info. Proc. Consultant Leroy Wiliams, Research Assistant

Ciara Michel, Student Hourly

Karissa Wisniewski, Associate Administrative Program Specialist Ellie Yang, Research Assistant Katie Yang, Associate Student Services Coordinator

Goodbye

Angela Ciano, Student Hourly Kelsey Doyle, Instrumentation Technologist Kayo Kern, Administrative Program Specialist Sarah Kohn, Instrumentation Technologist Molly Naef, RN Supervisor Mary Beth Sperl, Senior Information Processing Consultant Keven Stonewall, Associate Research Specialist Averie Theiste, Student Hourly Kelly Vogen, Medical Program Assistant Associate, Neuroradiology Sam Zander, Student Hourly WIMR

Department Moves

Kate Bednarke, Student Hourly to Associate Research Specialist Kim Gudex, MSN, RN, FNP-BC, Nurse Practitioner at Meriter to Nurse Practitioner with Interventional Radiology

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