BREAST IMAGING DIVISION GUIDES CONVERSATION ON MAMMOGRAPHY LAW

The division of breast imaging is a busy, vibrant and productive component of the University of Michigan Department of Radiology and Breast Care Center. Breast imaging became an independent sub-specialty in the late 1980s when it ceded from chest radiology and became an area of expertise with board certification testing and dedicated fellowships. Today at the University of Michigan, we have 11 board certified radiologists interpreting screening and diagnostic mammograms, breast ultrasound and MRI studies. We also perform ultrasound, stereotactic and MRI-guided core biopsies, fine needle aspirations, and wire localizations. We are vital participants in the multidisciplinary Breast Care Center. It is hard these days to speak about breast imaging without touching on major advances or areas of controversy.

Our division now offers 100% digital mammography, and we have recently added two new tomosynthesis units. Both of these technologies offer increased cancer detection when compared to film screen mammography. Tomosynthesis has been shown to decrease recall rates in the screening setting, which is an asset for all involved. The mammography screening controversy always stirs debate. At U-M, with the expertise of Division Director Dr. Mark Helvie, we are on the cutting edge of the science supporting screening mammography to improve survival and decrease the morbidity of breast cancer. Most recently, in June 2015, the Michigan Breast Density Notification Law went into effect. This law requires radiologists to notify patients of their breast density when they are given their mammography results and to include verbiage which informs patients of the effect breast density has on breast cancer risk and the sensitivity of mammography with the recommendation to discuss risk factors and supplemental screening tests with their provider. We have incorporated this into our workflow and have patient information available if questions arise.

Dr. Renee Pinsky has co-created a state of Michigan funded CME lecture series and web site (MIdensebreasts.org) dedicated to educating clinicians and patients about the new law and providing management recommendations for women with dense breasts and screening in general. She was interviewed by the Detroit Free Press and WUOM/NPR’s “Stateside” to explain the new law and its implications. At U-M, we have state-of-the-art MRI 3T scanning and ultrasound available for supplementary screening in higher risk women.

As a division, The Breast Imaging division has published 26 articles in peer-reviewed journals, written three book chapters, presented at national and international meetings and contributed to numerous national committees including the ABR, RSNA, ACR and SBI in just this past academic year alone.
LETTER FROM THE CHAIR

Dear Michigan Radiology Alumni, Friends, and Family:

The healthcare environment continues to evolve, with consolidation of providers, the formation of alliances and expansion of existing systems. The University of Michigan Health System is no exception. In addition to our existing alliances with MidMichigan, Munson and St. Joseph’s hospitals, more discussions are underway. We are also expanding our own footprint. The outpatient center at Northville is just one year old, and it is already exceeding our volume projections for many of the modalities. We look forward to a new outpatient facility in west Ann Arbor with an opening sometime in late 2017.

In addition to planning for a new facility, our physician and administrative leadership have begun working on the implementation of Epic’s Radiant module to replace our current RIS. This will be a major, but necessary, project which is expected to go live in October 2016.

Our new executive vice president for medical affairs, Marschall Runge, MD, PhD, arrived from the University of North Carolina on March 1 and has been busy talking with everyone and learning about our academic medical center. I am already seeing signs of better integration between the facility and professional sides of the medical center.

Clinical growth, attrition, reduction in percentage effort, and the retirement of long-time faculty members Kyung Cho and Barry Gross have created the need to hire new faculty. Nine joined us this summer, with another one or two expected later this year. Thirty fellows started in July, with at least one in every division and six each in neuroradiology and interventional radiology. Our residency program remains at 44 residents, but we are assigning three each year to the new primary residency in Interventional Radiology. Those IR residents will have a full diagnostic curriculum and take the same board examinations for a certificate in diagnostic radiology, but will have their fourth year of residency in IR. The fifth year of residency, which is also IR, will replace the old fellowship.

As the department grows, we are having more social functions to keep everyone connected with the other members of the department. The radiology tailgate parties have been very successful. We enjoyed seeing everyone at the tailgate in September, and we look forward to having you join us next fall.

If you are in Chicago for the RSNA on Monday evening, I hope to see you at our Hodges Society reception, 6:30 to 9:00 pm in the Westin Hotel on North Michigan Avenue.

GO BLUE!!!

Regards,

[Signature]

2016 CME CONFERENCES

Radiology at the Seashore
Captiva Island, FL
February 29 - March 4

Radiology in the Desert
Scottsdale, AZ
March 7 - March 11

Musculoskeletal Ultrasound
San Diego, CA
April 24 - April 28

2016 GRAND ROUNDS

January 13, Resident Vignettes
Michael Carter, MD; Kushal Parikh, MD, MBA; Kimberly Shampain, MD

January 27, MLK Symposium
MCHC Auditorium, Room F2305

February 3, Breast Imaging
Mark Helvie, MD

February 10, Resident Vignettes
Nishant Patel, MD, MBA; Nathaniel Meyer, MD

March 2, Beierwaltes Lecture
Sandy McEwan, MBBS
University of Alberta

April 6, Resident Vignettes
Sarah Hicks Allgeier, MD, PhD; Jason Bailey, MD; Michael Cline, MD

May 11, Berg Lecture
William W. Mayo-Smith, MD
Brigham and Women’s Hospital
DEPARTMENT OF RADIOLOGY
PROFESSOR LEADS NATIONAL
ADVOCACY AND QUALITY EFFORTS
FOR LUNG CANCER CT SCREENING

Translating science into practice is a fundamental component of academic radiology, and lung cancer screening with CT is an exemplar of these efforts. It’s been a 20-year journey to bring lung cancer CT screening to patients at high risk for lung cancer in the United States, and I’ve been fortunate to play a role in the science, the advocacy and, most recently, in establishing a quality and safety framework to move from the efficacy of research studies to effectiveness in clinical practice.

The NIH-funded National Lung Screening Trial (NLST) – a nearly $250 million, eight-year randomized trial of low-dose chest CT versus chest X-ray in over 53,000 subjects – began in 2002. Subjects enrolled were 55-74 year old patients with a 30 pack-a-year or more smoking history who were either current or former smokers who had quit within the last 15 years. U-M served as a site for NLST, enrolling more subjects than any trial in the history of our department. Ultimately, NLST demonstrated a 20% reduction in lung cancer mortality using CT, and a few years later demonstrated its cost effectiveness. Many people would think this is the end of an academic’s journey … but in reality, it was the beginning of a critical next phase … advocacy!

In an era of healthcare reform and demonstrating value, a new test like lung cancer CT screening had many hurdles to overcome to bring it to practice. As a public health tool, an estimated 7-10 million people in the U.S. might benefit from this test. The first major turn of events was in December 2013 when the U.S. Preventative Services Task Force (USPSTF) gave CT screening a grade B recommendation, which triggers required third party payer coverage for this lifesaving test without a co-pay beginning in 2015 due to concerns about inappropriate use, over testing of patients with positive screens, unnecessary biopsies, and risks of surgery and radiation exposure. Rather than going away with our heads hung low, we reorganized and over the next six months, we systematically gathered the information to mitigate the concerns raised. We developed LungRADS and the validated it against the NLST data, the BIRADS for lung cancer CT screening; we released the ACRs lung cancer screening designation under the CT accreditation program; we grew our advocacy network to over 120 organizations that signed on our stakeholder letters presenting the evidence; worked with members of the Congress; and prepared for what would become the ACR Lung Cancer Screening Registry (LCSR), a fundamental requirement of Medicare’s favorable final coverage decision this past February.

Now, efforts turn to navigating coverage and CPT codes for CT screening; to getting the ACR LCSR off the ground; enrolling practices; developing benchmarking reports; and proving that the radiology community can bring lung cancer CT screening to patients safely and effectively. I’m hopeful that when my career in medicine is over, lung cancer will look like a very different disease than what we see today.

For more information about the ACR Lung Cancer Screening Registry (LCSR), visit www.acr.org/Quality-Safety/National-Radiology-Data-Registry/Lung-Cancer-Screening-Registry.
Most people, including many radiologists, sit most of their day. Recent epidemiologic studies have associated prolonged sitting with significantly increased risks of morbidity and mortality. Exercise physiology studies have shown that prolonged sitting may have negative effects on fat and cholesterol metabolism, decrease the body insulin’s sensitivity to changes in glucose, and may promote inflammation. These insights have led to increasing awareness of the occupational health dangers of prolonged sitting and the need for interventions is being recognized. Recent research efforts have touted the benefits of standing instead of sitting during working hours. Performing your everyday working routines standing instead of seated may be a simple yet effective approach to increase physical activity and counteract the negative effects of prolonged sitting. The Department of Radiology at the University of Michigan has recognized the potential health benefits of the non-exercise physical activity of standing by providing height-adjustable reading stations to its faculty.

Unfortunately, despite the popular media’s attention given to this non-exercise physical activity, studies have shown that long-term utilization rates of height-adjustable workstations or treadmill desks are disappointingly low. Commitment to standing regimens may be limited due to symptoms of musculoskeletal discomfort that will readily develop during prolonged standing. Longer duration of prolonged standing in the absence of facilitated weight shifting movements (“static standing”), especially longer than 30 minutes, may prove to be too taxing and musculoskeletal strain may develop. Ultimately, this may result in limited use of sit-stand desks in the long-term.

To promote long-term use of standing desks, investigators at the Department of Radiology Functional Imaging and Mobility Laboratory have developed a tabletop system that encourages weight shifting movements during standing (“dynamic standing”). They are examining whether use of this table will prevent and/or attenuate musculoskeletal discomfort symptoms during standing. They are also using imaging tools to better understand the effects of static vs. dynamic standing on the body and the brain. One such approach is by using diffusion tensor MR imaging which can measure the strength of connectivity between different brain regions. “We hope to show that dynamic standing may have a neuroplastic effect on the brain by strengthening neural networks with prolonged upright activity,” said Dr. Nicolaas Bohnen, professor of radiology and neurology and lab director. “In addition, we are also looking at the effects of dynamic standing on the body,” said the lab’s co-director Dr. Martijn Müller, assistant professor of radiology. “We have a DEXA scanner to examine effects of prolonged dynamic standing on whole body fat composition, lean muscular mass and bone mineral density. We are now also in the process to explore muscular glucose metabolic activity during standing by using $^{18}$F-FDG PET-CT”.

“We hope that we can prove that dynamic standing not only increases tolerance and long-term utilization of standing desks, but also result in better brain functions and improved energy expenditure in the body,” says Bohnen. “If successful, ‘Stand Up, Sit Less, Move More’ intervention strategies to promote healthy living in the work space will no longer be limited to short bouts of intermittent limited activity but could make a much bigger and longer lasting impact,” says Müller.
AAPM ANNUAL LECTURE HONORS DR. CARSON

The inaugural Carson/Zagzebski Distinguished Lectureship presentation was held at the July 2015 Annual Meeting and Exhibition of the American Association of Physicists in Medicine (AAPM) in Anaheim, CA. The lectureship on medical ultrasound is named in honor of Dr. Paul Carson, U-M professor of radiology, and Dr. James Zagzebski, University of Wisconsin professor emeritus and former chair of medical physics. The AAPM is the leading medical physics organization in the world, with over 8,000 members.

The inaugural lecture on “Ultrahigh Speed Imaging” was given by Dr. Michael Tanter of the Laboratoire Ondes et Acoustique, ESPCI, Paris, France and a co-founder of SuperSonic Imagine SA. He highlighted the unexpectedly rapid progress being made in ultrasound capabilities. While the high-speed shear wave elastography is becoming well-known, ultrafast Doppler’s high-precision characterization of complex vascular flows and detection of very subtle blood flow in very small vessels is not.

In the neonatal human and small rodent brain, such ultrasensitive Doppler paves the way for fUtrasound (functional ultrasound imaging) of brain activity with unprecedented spatial and temporal resolution compared to fMRI. Combined with contrast agents, Dr. Tanter has shown that Ultrafast Ultrasound Localization could provide a first in vivo and non-invasive imaging modality at microscopic scales deep into organs. The full lecture will be posted at www.aapm.org/education/VL.

Dr. Thomas L. Chenevert was installed as the Basic Radiological Sciences Collegiate Professor of Radiology in a ceremony held in June at the U-M Medical School. The professorship was established in 2001 to support innovative research in the basic radiological sciences, a relatively new research focus within the field of radiology, and provides interim funding for established investigators.

Dr. Chenevert is a medical physicist focusing on magnetic resonance imaging and is internationally recognized as a leader in the field. After receiving his PhD in physics from the University of Colorado, he joined U-M as an instructor in 1984 and became professor in 1999.

Dr. Chenevert has published almost 200 journal articles and has been continuously funded by the NIH and the Department of Defense. He holds five patents and received the 2014 Distinguished Investigators Award from the Academy of Radiology Research. He also is known as an outstanding educator and received the 2011 Outstanding Teacher Award from the International Society of Magnetic Resonance in Medicine.

Dr. Chenevert and his wife, Deborah, live in Ann Arbor and have three children: Kaitlyn, Adam and Hailey.
Dr. Robert A. Koeppe, U-M professor of radiology and director of the PET Physics Section, gave the Hal Anger Lecture at the June annual meeting of the Society of Nuclear Medicine and Molecular Imaging (SNMMI). The award and lecture are named for Hal O. Anger, who invented the gamma camera that set the foundation for today’s sophisticated imaging systems, and are given in recognition of a senior scientist’s significant contributions to the field of nuclear medicine and molecular imaging.

Dr. Koeppe said, “It was not only an honor to receive the award, particularly one named for one of the great pioneers of our field, but also to have the opportunity to present some of my own contributions at the one of the meeting’s two plenary sessions.”

In his presentation on “Standardization of PET Imaging Biomarkers: From Distribution Volumes to the Alzheimer’s Disease Neuroimaging Initiative,” Dr. Koeppe reviewed the progression of PET imaging quantification from complex pharmacokinetic modeling to streamlined procedures suitable for clinical studies. He talked specifically about his work as the principle investigator of the PET Image Analysis Core for the Alzheimer’s Disease Neuroimaging Initiative (ADNI).

Dr. Koeppe, who joined the U-M faculty in 1985, was one of the pioneers in the use of PET cerebral blood flow activation studies to examine various cognitive and neurological functions of the brain. His research focuses on the development and implementation of tracer kinetic models for new and existing positron labeled radiotracers; the development of optimal techniques for estimation of physiological quantities; and development and implementation of automated image analysis routines for use with PET. More recently, he has become involved in many large multi-center trials that use PET as a biomarker to assess the effects of experimental treatments for Alzheimer’s disease.

Judith Sebolt-Leopold, PhD, research associate professor in the Departments of Radiology and Pharmacology, received the University of Michigan Research Faculty Achievement Award at the Faculty Awards Ceremony and Dinner hosted by U-M President Mark S. Schlissel in October.

The award is given annually to a U-M faculty member in recognition of outstanding scholarly achievements, and Dr. Sebolt-Leopold’s work on therapeutic inhibition of protein kinases has significantly advanced the treatment of certain cancers. Her team was the first to take a small molecule MEK inhibitor, CI-1040, from initial concept to the clinic to treat patients with solid tumors. Her current research focuses on developing experimental systems in which biospecimens from patients with colorectal and pancreatic cancers are implanted within hours of surgery into mice to determine the most effective treatment for that individual patient. She is also working on a new class of kinase inhibitors designed to selectively impair dual key signaling pathways in cancer cells.

Dr. Sebolt-Leopold, who joined U-M’s Center for Molecular Imaging in 2009, co-directs U-M’s Comprehensive Cancer Center Experimental Therapeutics Program and is a member of the North Campus Research Center Translational Oncology Program. Previously, she worked at Parke-Davis Pharmaceutical Research/Warner-Lambert Co. and Pfizer Global Research & Development, where she was a member of the senior leadership team. At Pfizer, she led a department of more than 100 colleagues dedicated to early stage drug discovery programs across multiple therapeutic areas.

Dr. Sebolt-Leopold serves on the Cancer Research Editorial Board and the National Institutes of Health Developmental Therapeutics Study Section. She has published nine book chapters and 75 articles, including seminal papers in Nature, Nature Medicine, and Nature Cancer Reviews.
Welcome Class of 2019!

The Department of Radiology welcomed 11 new residents this year.

Amnah Aghan, MD  
Undergraduate  
Biomedical Engineering,  
Michigan Technological University  
Medical School  
Wayne State University

Eric Hu, MD, MPH  
Undergraduate  
Biology, University of Utah  
Graduate School  
MPH, University of Utah  
Medical School  
University of Utah

Tarun Jindal, MD  
Undergraduate  
Neuroscience and International Studies, University of Miami  
Medical School  
Indiana University

Alexandria Jo, MD  
Undergraduate  
Architecture,  
Georgia Institute of Technology  
Medical School  
Medical College of Georgia

Andrew Kaiser, MD  
Undergraduate  
Biology, Xavier University  
Medical School  
University of Cincinnati

James Mahn, MD  
Undergraduate  
Cell and Molecular Biology;  
Brain, Behavior, and Cognitive Science, University of Michigan  
Medical School  
Wayne State University

Gregory Morris, MD  
Undergraduate  
Biology, University of Arkansas-Fayetteville  
Medical School  
University of Arkansas

Yashesh Shah, MD  
Undergraduate  
Economics, University of Georgia  
Medical School  
Medical College of Georgia

Elias Taxakis, MD  
Undergraduate  
Mechanical Engineering, Wayne State University  
Medical School  
Wayne State University

Sean Woolen, MD  
Undergraduate  
Biology and Chemistry, Butler University  
Graduate School  
MS, Indiana University  
Medical School  
Indiana University

Andrew Zhang, MD  
Undergraduate  
Biology and Economics,  
Case Western Reserve  
Medical School  
Case Western Reserve
ON THE RISE: EARLY CAREER WORK AND MENTORSHIP IN RADIOLOGY

The U-M Department of Radiology is not only a place where residents learn to navigate the challenges of clinical work, but also fertile ground for developing one’s ideas and research into fully fledged academic works.

Dr. Katherine Maturen, associate professor of radiology, and Dr. Kara Udager, clinical lecturer in radiology, worked together for three years on an appendix pathology project that is a “case study” of its own on career development.

It started as an assignment to present at a teaching conference when Dr. Udager was a U-M third-year resident. She decided to tackle treatment and diagnosis of diseases of the appendix because “we had seen cases of acute appendicitis in conference and in our day-to-day work, but we rarely discussed other appendiceal pathologies,” she said. Dr. Udager started working with Dr. Maturen, who helped her develop the presentation from a case review into an organized set of guidelines for distinguishing acute versus chronic processes and benign versus malignant lesions.

Dr. Maturen encouraged Dr. Udager that with some additional work, the finished presentation could be submitted to a conference or journal. “Trainees need guidance to take their raw ideas and transform them into something that warrants attention at a meeting or that a journal considers publishable,” Dr. Udager said. “Kate helped me to take my collection of cases and translate it into a more cohesive framework for evaluating the appendix.”

The presentation was accepted to the 2012 European Congress of Radiology meeting in Vienna and then was published as “Beyond Acute Appendicitis: Imaging and Pathologic Spectrum of Appendiceal Pathology” in Emergency Radiology in 2014.

Dr. Udager said her project showcases how residents can get involved in presenting and publishing. “For a lot of residents who aren’t comfortable getting involved with research, this is an easy way to do it. The cases you collect every day at the workstation can turn into something more, if you’re willing to put in the effort,” she said.

From the faculty perspective, Dr. Maturen credits the process as being just as much of a learning experience for her. “Mentorship is a two-way street. Kara and I worked on several different projects together during her residency. During her second year, Kara developed an educational intervention that we wanted to formally evaluate and publish. It was very well received locally, but the paper was frustrating — I think Kara submitted it to a half dozen journals before it was accepted. I was a willing faculty advisor for her project, but I had no idea how to guide her to make it more methodologically sound,” she said. “Realizing that I wanted to be a better and more worthwhile mentor was a major motivation for me to then pursue additional training and a master’s degree in research design and statistics. This has already made a big impact on my own career.”

After two years of fellowship in musculoskeletal and abdominal radiology, Dr. Udager joined the U-M radiology faculty this past summer. “I’ve been here since medical school, and I’ve always loved the environment at U of M. We are outstanding in clinical care, research, and teaching, and while there are a number of big institutions that can say the same, it’s the people here that make a difference. My colleagues are experts in their fields, but they’re also friendly, approachable, and excellent mentors. It’s hard to find that combination elsewhere.”

Dr. Maturen said to expect big things from her triathlete colleague. “It takes long-term thinking and stamina to develop and achieve the kinds of goals we have in academics. I think the old adage is true: your career is a marathon, not a sprint. If so, Kara will be on the medal stand.”

Katherine Maturen, MD and Kara Udager, MD
With ever-growing clinical and academic programs, we welcomed many new faculty across the Department of Radiology over the last year. Stay tuned for updates from this fantastic set of recruits in future editions of our newsletter!

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<th>Name</th>
<th>Specialty</th>
<th>Position</th>
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<tr>
<td>Anil Attili, MBBS</td>
<td>Cardiothoracic Radiology</td>
<td>Associate professor of radiology,</td>
<td>from Michigan State University</td>
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<td></td>
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<td>Jessica Leschied, MD</td>
<td>Pediatric Radiology</td>
<td>Clinical lecturer and</td>
<td>from U-M Hospitals and Health System</td>
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<td>musculoskeletal fellow, from U-M Hospitals</td>
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<td>Abdominal Radiology</td>
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<td>from Henry Ford Hospital</td>
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<td>from U-M Hospitals and Health System</td>
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<td>Mohamed Sayyouh, MBBS</td>
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<td>Rickin Shah, MD</td>
<td>Neuroradiology</td>
<td>Clinical lecturer,</td>
<td>from U-M Hospitals and Health System</td>
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<td>Ravi Srinivasa, MD</td>
<td>Vascular/Interventional Radiology</td>
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<td>from the University of Texas at Houston</td>
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<tr>
<td>Kara Udager, MD</td>
<td>Musculoskeletal Radiology</td>
<td>Clinical assistant professor,</td>
<td>from U-M Hospitals and Health System</td>
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<td>Ben Viglianti, MD, PhD</td>
<td>Nuclear Medicine</td>
<td>Clinical assistant professor,</td>
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CHECK OUT OUR NEW WEBSITE @ MEDICINE.UMICH.EDU/DEPT/RADIOLOGY  |  JOIN US ON FACEBOOK: MICHIGAN RADIOLOGY
Welcome NEW FELLOWS!

The Department of Radiology welcomed 29 fellows this year.

Usman Anwer, MD
Musculoskeletal
Residency, The University of Texas Health Science Center at Houston Medical School

Casey Bohl, MD, PhD
Nuclear Medicine
Residency, Methodist/University of Tennessee, Memphis

Leah Carlson, MD
Breast Imaging
Residency, Emory University School of Medicine

Mickey Chabak, MD
Musculoskeletal
Residency, San Antonio – United Services Health Education Consortium

John Childress III, MD
Abdomen
Residency, University of Michigan

Jeremy Clark, DO
Neuroradiology
Residency, University of Louisville Hospital

Trevor Downing, MD
Vascular/Interventional Radiology
Residency, Wake Forest University Baptist Medical Center

Nathan Hill, MD
Neuroradiology
Residency, University of Kentucky

Elizabeth Lee, MD
Cardiothoracic
Residency, The University of Vermont College of Medicine

Eric Liao, MD
Neuroradiology
Residency, Providence Hospital

Victor Longo, DO
Musculoskeletal
Residency, Penn State Milton S. Hershey Medical Center and Penn State Hershey College of Medicine
Colin McKnight, MD
Neuroradiology
Residency, University of Michigan

Dennis Prohaska, DO
Vascular/Interventional Radiology
Residency, Presence St. Francis Hospital Radiology

Salman Mohiuddin, MD
Neuroradiology
Residency, Saint Francis Hospital

Gretchen Quinones Barbosa, MD
Neuroradiology
Residency, University of Puerto Rico

Huy Nguyen, MD
Vascular/Interventional Radiology
Residency, University of Pittsburgh Medical Center

Michael Ryan, MD
Abdomen
Residency, University of Michigan

Roshni Parikh, MD
Vascular/Interventional Radiology
Residency, University Hospitals Case Medical Center Radiology

Ravi Shastri, MD
Neuro Interventional
Residency, The University of Arizona

Sachin Patel, MD
Pediatrics
Residency, University of Michigan

Pierre Shepherd, MD
Abdomen
Residency, Oakwood Healthcare System

Baldassare Daniel Pipitone, DO
Neuroradiology
Residency, MetroHealth Medical Center

Daniel Sova, MD
Musculoskeletal
Residency, Indiana University School of Medicine
The Emergency Radiology Division was created in 2005 to provide in-house final interpretations of radiology studies performed in the Emergency Department between the “off-hours” of 6 p.m.-3 a.m. Caroline Blane, MD, then the Associate Chair of Clinical Affairs, was the division’s creator and first director. The division has evolved considerably over the years. Starting out with the expectation that faculty members were “radiology mercenaries” (translation: work fast and get the work done well), the division has expanded its scope to include administrative and teaching responsibilities. The division has four faculty members who work at arms-length from the 1700 and 1800 on-call residents and read radiographs, ultrasound, CT and MRI studies from head-to-toe, overlapping with the divisions of neuroradiology, abdomen, thoracic, musculoskeletal and pediatrics. Faculty members have produced award-winning educational exhibits, won grant funding and are actively involved in a number of research projects. Though much has changed for the division in the past 10 years, the dedication to provide the best possible patient care remains a constant.
DEPARTURES

In the life cycle of academic radiology, one of our goals is to create the leaders for our discipline and to spread the “Michigan” way of outstanding radiology practice and education to centers across the U.S. and abroad. While we will miss our colleagues day to day, we look forward to following their careers and developing new collaborations with them in their future practices. The institutions they are joining are truly fortunate to have them!

Jonathan Dillman, MD, pediatric radiology, is the new Director of Abdominal Imaging at the Cincinnati Children’s Hospital, Cincinnati, Ohio. Founded in 1883, Cincinnati Children’s is one of the oldest and most distinguished U.S. pediatric hospitals and has been ranked in the top three children’s hospitals in the U.S. for the last five years by U.S. News and World Report. It is the largest pediatric research institution in the U.S.

Luba Frank, MD, cardiothoracic radiology, is the new Director of Cardiothoracic Radiology at the University of Texas Medical Branch, Galveston, Texas. Founded in 1891, UTMB is the oldest medical school in Texas. Out of the devastation of hurricane Ike in 2008, the $1.5 billion invested to rebuild has created a state-of-the-art medical center.

Peter Liu, MD, abdominal radiology and Associate Residency Program Director, has joined the medical staff of the Cleveland Clinic in Cleveland, Ohio. Performing over 2.1 million examinations a year, the Cleveland Clinic Institute of Imaging is one of the busiest clinical departments in the country, with Cleveland Clinic ranked a top five hospital by U.S. News and World Report.

Ranjith Vellody, MD, interventional radiology, has joined the staff of the Children’s National Health System, Washington, D.C. Children’s National is one of the top 10 pediatric hospitals in the United States as ranked by the U.S. News and World Report rankings and is one of the nation’s top NIH-funded pediatric institutions.

Zishu Zhang, MD, interventional radiology, is the new Chair of Radiology at the 2nd Xiangya Hospital, Central South University, Changsha, Hunan, China. With a 3,500-bed hospital, it is one of only 10 medical colleges founded by the Ministry of Education and Ministry of Health in China. It is recognized as one of the top 100 tertiary care hospitals in China.

ALUMNUS HOSTS EDUCATIONAL PROGRAM ON PROSTATE CANCER DIAGNOSIS

This past summer, Dr. Charles Mueller (Resident Class of 1971) and his wife Susan hosted an educational event at their home in northern Michigan in which U-M faculty member Matt Davenport, MD gave a presentation on the diagnosis of prostate cancer with multiparametric 3T MRI. The event was attended by area and seasonal alumni and their spouses. The attendees were treated to a fine educational program and an excellent BBQ dinner.

Dr. Davenport discussed the new PI-RADS (Prostate Imaging-Reporting and Data System), which is used to standardize reporting of prostate cancer. At U-M, there has been a significant increase in the number of prostate MRI cases performed. One of the goals of the presentation was to provide up-to-date education about this new topic from a recognized expert in the field.

If you are interested in hosting an educational event like this, please contact Laura Boudette at lauraabo@med.umich.edu or 734.763.1404.
A BUSY RETIREMENT FOR AN IR LEADER

A symposium in New York, a hands-on training course in South Korea, teaching work in Spain, a conference in Japan, editing journals, writing a book, mentoring medical students and junior faculty members, and attending weekly lectures and conferences at U-M – this is what retirement looks like for Dr. Kyung J. Cho.

“I actually do more now that I’m retired, everything except clinical work,” he said. “My wife has encouraged me to slow down.”

Dr. Cho, professor emeritus of radiology, first began working at U-M in 1974 as an angiography fellow recruited by Dr. Stewart Reuter. He became professor of radiology in 1982 and director of interventional radiology (IR) shortly afterward. “Then, we had one doctor and one room, one tech, and one nurse,” he said of IR’s beginnings. Over the rest of his career, Dr. Cho became world-renowned for developing carbon dioxide as a contrast medium for angiography and for his work in pulmonary angiography, selective embolization, vena cava filter, and adrenal venous sampling.

“In the 1970s, interventional radiology was primitive; since then, it has really advanced,” he said. “All doctors now want to learn our image-guided IR techniques, which are safer, faster, minimally invasive and typically more cost-effective than traditional surgery, and so they can help their patients.”

While Dr. Cho technically retired Jan. 1, 2015, his passion for IR means he won’t be hanging up his white coat any time soon. “I have over 40 years in this field. I want to pass on my knowledge to the next generation,” he said.

Sometimes that educational mission occurs in front of a computer screen. Dr. Cho is involved in developing virtual case work-ups to help medical students and physicians learn without seeing patients. He also gets a steady stream of emails from former students seeking advice. “I try to check my messages religiously and respond within several hours so if they have a patient there, I can help out,” he said.

Dr. Cho is also working to raise the public’s awareness of IR, beginning with community lectures in the Tampa, Florida, area. “After I spoke to them, they all want to come to U-M for treatment without surgery. I’m getting bombarded by letters,” he said. Another anecdote Dr. Cho shared is how he was making small talk about his job during a round of golf. The other players then started “taking their feet out and showing me their legs” and wanting impromptu consultations on the course.

When he’s in Ann Arbor, Dr. Cho still attends teaching conferences at U-M, rising before 6 a.m. to be one of the first people in the room. “I still have enough knowledge to make some comments,” he humbly said.

Despite some early mornings, retirement has allowed Dr. Cho to do something he’s missed for years: having dinner together with his wife, Young. He also is practicing the violin for two hours a day and sometimes finds himself alone at home while Young is busy with the U-M faculty book club, the faculty women’s club painting section, UMS Choral Union, and other activities.

Dr. Cho also has more time to video chat with his children and grandchildren. He proudly lists his children: Catherine Cho, a violinist and faculty member of the Juilliard School; James Cho, an assistant U.S. attorney, Eastern District of New York; and David Cho, director of engineering at Photronics of Boise, Idaho. He adds that his grandchildren, Chloe and Brandon, motivate him to catch up on important things, such as watching the Star Wars movies and reciting the names of U.S. presidents. “There’s pressure to keep up with what they know about,” he said with a laugh.

Between family, teaching, mentoring, and writing, Dr. Cho’s retirement will keep him busy, but he wouldn’t have it any other way. “I want to continue to be involved for as long as I can, as long as my health permits, in advancing interventional radiology,” he said.
‘MR. RADIOLOGY’ RETIRES

Ask around in the Radiology Department, and you’ll hear that one of the most memorable things about Dr. Barry Gross is his memory. During the residency interview process, he was known for being able to recite all candidates’ names and educational histories after meeting them only hours before. “Today, I couldn’t do it if I tried,” he said with a laugh.

Time catches up, and after more than 30 years at U-M, Dr. Gross decided it was time to retire this past summer. He first joined the U-M faculty in 1982 as an assistant professor, became an associate professor in 1985, and was promoted to professor of radiology in 1992. His most unique title is “Mr. Radiology” – bestowed on him via a signed jersey from “Mr. Hockey” himself, Gordie Howe (father of colleague and U-M alum Dr. Murray Howe).

Talk to Dr. Gross about when he started with the department, and you’ll quickly learn that it was a different world for radiologists. “They were doing a lot of plain film and barium studies, no clinical MRIs, and fewer CTs and ultrasounds.” And the most overarching difference: “Diagnoses were the domain of internal medicine, not radiology,” he said.

Dr. Gross was one of the radiologists who helped to change that thinking over time. Dr. Murray Howe, division director of musculoskeletal radiology and sports medicine imaging with Toledo Radiological Associates, recalled being mesmerized as a medical student when Dr. Gross gave a lecture using abdominal CT images. “I was so inspired that I rushed up to him after the lecture and barraged him with questions about diagnostic radiology as a specialty, since I had never even heard of a radiologist before that day,” he said.

The changing mentality was illustrated when the U-M Medical School Dean’s Office called in 2006 to say that Dr. Gross had won the outstanding clinical award. “I never thought a radiologist would be thought of that way, as a clinician who could qualify,” he said. “That was a real highlight for me.”

In addition to his clinical and teaching work, Dr. Gross’s career included research in lung cancer and interstitial lung diseases. He laughed when recalling an interdisciplinary misunderstanding that led to an additional line of research. “Gary Glazer, Isaac Francis and I published a paper on CT scanning of the thymus gland. Isaac was the first author, Gary was second, and I was the last author. About 10 years later, I got a call from an infectious disease specialist at the University of California San Francisco,” he said. “In internal medicine, the last author listed is the most important, so he wanted my help for CT scans of the thymus in HIV patients.” After Dr. Gross explained the radiological author conventions, he and Dr. Francis worked with the specialist for several years on the thymus studies.

Research is one of the things Dr. Gross plans to continue in his retirement, as well as teaching and giving board reviews for senior residents. He also plans to head back to the classroom as a student, auditing U-M classes and learning to play the piano (“One of my biggest childhood regrets is that I never learned to play an instrument,” he said). But the biggest priority – and his reason for retiring – is traveling with his wife to visit his children and grandchildren in Chicago, New York City, and Atlanta. “I was originally planning to retire in 2016, but I thought, ‘Why wait?’” he said.

And it’s good to retire at the top of your game. “In my eyes, he is the Gordie Howe of radiologists,” said Dr. Howe. “Barry is humble beyond repair, yet he has set the bar, which we all aspire to clear. However, we will all fall a bit short, because there will only be one Barry Gross, and I am forever thankful for the privilege of knowing him.”

Murray Howe, MD and Barry Gross, MD
FACULTY AWARDS + RECOGNITION

Richard Brown, MD, Mike DiPietro, MD, Doug Quint, MD, and Dave Williams, MD were inducted into the University Of Michigan League of Clinical Excellence.

Neeraj Chaudhary, MD became a member of the scientific advisory board of the European Radiology journal’s section on Neurodiagnostic and Neurointerventional Radiology.

Matt Davenport, MD received an RSNA Research Seed Grant.

N. Reed Dunnick, MD was made an honorary member of the European Society of Radiology at the March 2015 meeting in Vienna, Austria.

El-Sayed Ibrahim, PhD received a U-M Frankel Cardiovascular Center Micro Grant Award entitled, “Characterization of Regional Right Ventricular Function in Patients with Tetralogy of Fallot Using Magnetic Resonance Strain-Encoding Imaging”. In addition, he received the U-M Department of Radiology BRS Innovative Research Award for, “MRI for Early Diagnosis of Cardiotoxicity in Breast Cancer Patients Treated with Chemotherapy”.

2015 Graduating Radiology Residents awarded “Teacher of the Year” honors to Peter Liu, MD and “Fellow of the Year” honors to Kara Udager, MD.

Gary Luker, MD received a NIH RO1 grant for “Systems Bioengineering of Cancer Cell Migration”.

Katherine Maturen, MD was awarded a MICHR Pilot Grant as well as a Cancer Center Research Grant for “Sexual and pelvic floor function in gynecologic cancer survivors: Imaging and Patient Self-Assessment”.

Colin McKnight, MD received an RSNA Fellow Grant for “MR Imaging of Oxidative Stress in Amyotrophic Lateral Sclerosis”.

Perry Pernicano, MD became Treasurer of the Michigan Radiological Society.

Morand Piert, MD received a NIH grant for “Carbon-11 Labeled Sarcosine: Mechanism of Action and Initial Performance in Prostate Cancer”.

Marilyn Roubidoux, MD and Gaurang Shah, MD were awarded fellowship in the American College of Radiology.

Jonathan Rubin, MD, PhD received a grant from Philips Ultrasounds Inc. for his project entitled, “3D Ultrasound Measurement of Portal Venous and Hepatic Arterial Flow Pre- and Post-Liver Transplantation”.

Peter Scott, PhD was awarded a grant sponsored by Merck, Inc. for his study entitled, “Collaborative Research in New Methods for 18F Incorporation for PET Tracer Synthesis”. In addition, Peter received a grant from Bristol-Myers Squibb Company for “Development of a BTK C-11 Ligand” and a Bradley-Alavi Student Fellowship Award.

Gaurang Shah, MD became President of the Michigan Radiological Society. He also received the Distinguished Reviewer Award from the American Journal of Neuroradiology. In addition, Dr. Shah was awarded a Quintiles, Inc. Grant for his Quintiles-Guerbet REMIND Study.

Ethan Smith, MD received a grant from The Children’s Hospital of Philadelphia for his study, “Diagnostic Imaging Review: NIH National Clinical Trials Network”.

Ashish Wasnik, MD was awarded the Best Genitourinary Educational Poster Award at the Society of Abdominal Radiology (SAR) Annual Assembly.
RESIDENT RESEARCH PROJECTS

All of our residents are required to participate in at least one research project over the course of their residency and many residents are involved in more than one project. Faculty members mentor residents on their projects which are presented at local, national, and international meetings. Many of the residents’ projects result in published manuscripts. Listed below are a few recent examples.

John Millet, MD
Class of 2018


Andreea Moore, MD
Class of 2016


Kushal Parikh, MD, MBA
Class of 2017

Kushal Parikh, MD, MBA, et al. Mentored by Jonathan Dillman, MD and Ethan Smith, MD. “Pediatric ureteropelvic junction obstruction: can magnetic resonance urography identify crossing vessels?” Pediatr Radiol; Epub ahead of print.


Nishant Patel, MD, MBA
Class of 2017


“After getting married to Vaishali, I joined the faculty of Thomas Jefferson University in Philadelphia as the director of cardiothoracic radiology. We live in a nice small apartment in the center city and enjoy many activities that this vibrant city offers. I miss my Ann Arbor family and enjoy talking to two faculty members here who are also strongly associated with Michigan and also frequently staying in touch with his Michigan family in Ann Arbor.”

Baskaran Sundaram, MD (Fellow 2003-2004 and Faculty 2005-2014)

“Kirk Frey and I are serving on the nuclear medicine residency review committee of the ACGME.”

Barry Shulkin, MD (Fellow 1985-1986 and Faculty 1986-2004)

“I started my new job here in Central South University (China) in June. Everything is fine. I am currently vice chairman of radiology in 2nd Xiangya Hospital of CSU. I was also promoted in September as the chairman of radiology.”

Zishu Zhang, MD (Faculty 2012-2015)

“I moved to Penn after Michigan, and I am still at Penn as associate professor of radiology and medicine. Our CVI section is very busy clinically, with up to 60 CVI MR/CTs per day. I am still doing research in cardiac electrophysiology, but I have also expanded to several other areas. I have taken a few more leadership roles locally and am still involved in national radiology and cardiology societies. Our twins started college this fall and our younger daughter started middle school. I am still pursuing my string of ‘achieving excellence outside radiology’. After making Black Belt at Tae Kwon Do, I have achieved Wood Badge as Boy Scout leader. I’m currently trying to reach Master level as competitive marksman and learning to become a pilot.”

Benoit Desjardins, MD, PhD (Faculty 2002-2008)

“It has been nearly 10 years since I graduated from the University of Michigan. Since then, I left private practice and returned to my hometown of Pittsburgh. My training at U of M prepared me well for my role as Director of Head and Neck Imaging and Assistant Professor of Neuroradiology at the University of Pittsburgh Medical Center. We live on the university campus within walking distance of the medical center. Our four children [Alex (8), Meera (5), Salena (2.5) and Tara (2.5)] keep Aaron and I very busy outside of work. We miss all of our friends and mentors in Ann Arbor and would love to hear from you.”

Tanya Jaitley Rath, MD (Resident, Class of 2006)  tjrathrad@gmail.com

“Since my wife was finishing her PhD the same year that I was finishing my residency, I did not look for a fellowship until the last couple of months into residency. It was only after she started interviewing that I could look for fellowships. She interviewed for faculty positions at four engineering schools around the country. Dr. Dunnick suggested I send my CV to four radiology department chairs and to let them know that he had asked me to contact them. I should not have been surprised when all of them responded to me within a couple of hours of my email — that too on a Friday evening. That is truly the esteem the Michigan training and stamp bestows on us.

Residency training at Michigan clearly showed me that sleep was optional. Since leaving Michigan, I have managed to complete two fellowships, two degree programs, and contributed to the birth of our second boy (the latter being the most important of these achievements, of course!). I was fortunate in receiving an ARRS scholarship, and KL2 and K23 grants which have supported my research for the last few years. Currently, I am chasing the almighty NIH R01 and also working on commercializing my ‘photo’ technology.”

Srini Tridandapani, MD (Resident, Class of 2006 and Faculty 2006)
“Having retired to the shores of the Chesapeake Bay and when not sailing, biking, or kayaking, I have kept busy with local community and charity work. My wife and I spend winters in Florida and are enjoying traveling frequently to many places around the world, which we never had time for before retirement.”

Lloyd Redlin, MD, 1969 (Resident, Class of 1973)

“I was recently at the Society of Abdominal Radiology (SAR) meeting in San Diego where I faced my worst nightmare: I was on the Unknown Film Panel in front of a large audience. It turned out to be fun (sort of) because some familiar faces from Michigan were on the panel with me including Carolyn Wang and Jim Ellis. The meeting was extra special because I got to reconnect with many other University of Michigan people. U-M Radiology is an amazing department, and it’s a true honor to have been part of the Michigan tradition. I miss you all! Go Blue!”

Aya Kamaya, MD (Resident, Class of 2014)

“Since finishing fellowship in 2006, I have been a cardiothoracic radiologist at Henry Ford Hospital in Detroit, Mich. Most of my practice revolves around chest radiographs and CTs along with cardiac CT/MRI. Structural heart CTs are becoming a large part of our cardiac days. By choice, I do get to dabble in body imaging, particularly general ultrasound. No interventional procedures for me. One thing I enjoy is working with fellow U of M cardiothoracic alums such as David Spizarny and Jeff Nadig, and Chad Poopat before his departure.

Julie and I live in Novi, MI, with two great kids: Aiden, 10 years old, who excels in competitive chess and is on a travel soccer team, and Emma, 5.5 years old, who is on a gymnastics team and is a sweetheart! You can usually find us in the Big House on football Saturdays! Go Blue!”

Tom Song, MD (Fellow 2005-2006)

“I am a professor of radiology at NYU Langone Medical Center and a member of the MSK section. My current research interests include application of Shear Wave elastography to the MSK system and fusion of MR/US for musculoskeletal interventional procedures.”


“I am still practicing in Newark, DE, at Christiana Care Health System. I’m currently the vice chairman and residency program director. There are 45 radiologists in our group presently, 25 residents and one VIR fellow.

My oldest daughter, Izzi, is starting her senior year of high school, and we’ve been going on a bunch of college tours as of late (yes, even to U of M). My younger two, Jake and Maddie, start their freshman year of high school this year. All three kids play in rock bands (Maddie plays drums and both Izzi and Jake play guitar and bass). I’ve also taken up the drums and my band, Bad With Names, rehearses frequently (ok, maybe not that frequently) though eventually we plan on making it to some local bars. My wife, Beth, is busy in her role as super-mom at which she excels.”

Michael Sneider, MD (Fellow 1999-2000 and Faculty 2000-2005)

ALUMNI INFORMATION UPDATE

Please go to medicine.umich.edu/dept/radiology/about-us/alumni/update-your-information to update your contact information (mailing address, e-mail, etc.). You can also send your updates directly to Carly Brandreth at cbrandre@med.umich.edu or by calling 734.936.4346.
The Department of Radiology at the University of Michigan has been built upon a century’s worth of excellence in discovery, research and education. Our faculty, fellows and residents across all of our divisions are innovating in their specialties, despite the challenges of working in an evolving healthcare ecosystem.

The landscape before us is increasingly complex, and costs continue to rise to unpredictable levels. At the same time, clinical reimbursements are in decline. We have been very fortunate to have a dedicated family of alumni and friends who have supported our programs. This support and commitment have made a transformational impact on our educational and research missions, but most importantly, the lives of the patients we serve.

The professorships we’ve created provide our faculty recipients the highest academic honor awarded by the University of Michigan. This credential is significant because it recognizes the recipient as a leader in their specialty and personally distinguishes them in the increasingly competitive NIH funding process.

Our mission is to provide our faculty, fellows, residents and students a world-class education. Access to the latest technology and the most advanced training environments is critical to the success of those we train.

The University of Michigan Hospital and Health Systems is currently in the midst of the “Medicine Needs Victors” campaign, with a goal of raising $1 billion. The focus of the campaign is educational support. The challenges facing our department trainees are greater than those faced by previous generations. Our goal is to create professorships to support faculty and establish an endowment of at least $1 million to support resident education.

Despite the challenges, we look optimistically toward the future. We hope that you will consider participating in these efforts as we continue the tradition of excellence for future generations.

If you have questions about any of these funds, or you are considering a gift through estate, please contact Laura Boudette at lauraabo@med.umich.edu or 734.272.8753.