

NEWS AND NOTES

ISSUE 5 FALL 2012

Mott Pediatric Radiology Combines Leading-Edge Medicine and Genuine Warmth

When the original C.S. Mott Children’s Hospital opened in 1969, the only imaging technology available to U-M diagnostic radiologists was radiography. As the Division of Pediatric Radiology acquired new modalities over the subsequent decades, its ability to expand ultimately reached its limit. “We were trying to do a tremendous amount of work on a single MRI scanner in the old hospital, and it just couldn’t handle it,” says Division Director Dr. Peter Strouse. “And,” he adds, “the old Mott had ceased to be as nice an environment for patients as a pediatric hospital should be.” The new Mott hospital, which opened in December 2011, enables the Pediatric Radiology Division to focus on providing an outstanding patient experience, using the

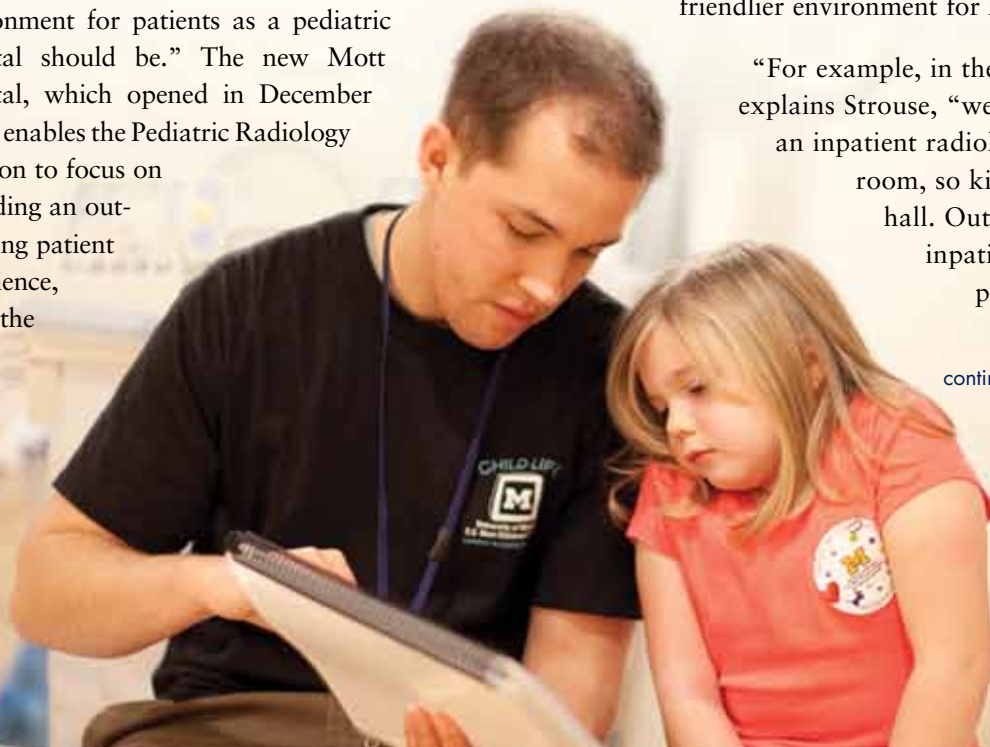
best equipment, while fully developing its faculty, staff, and students.

Patient-centric Planning

During the several years of planning for the new hospital, Dr. Strouse was involved in every aspect related to radiology. When it came to the patient environment, he says, “We actually asked if we do it this way, what will the patient see and experience?” Taking this perspective yielded such improvements as better patient flow and a friendlier environment for kids.

“For example, in the old Mott,” explains Strouse, “we didn’t have an inpatient radiology holding room, so kids sat in the hall. Outpatients and inpatients crossed paths, and an outpatient

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LETTER FROM THE CHAIR

Dear Michigan Radiology Alumni, Friends, and Family:



Cranes engaged in constructing new buildings have become a constant feature of the Ann Arbor landscape. Not long after the Brehm Center for Diabetes Research and the new C.S. Mott Children's Hospital opened, the regents approved re-purposing of the old Mott Hospital into a new neuroscience hospital. The North Campus Research Complex (NCRC), initially occupied by

dry lab investigators such as health sciences researchers, is now being developed for laboratory research. Our Center for Molecular Imaging (CMI), led by Brian Ross, PhD and Al Rehemtulla, PhD, was one of the first wet labs to occupy space in the NCRC. While the majority of the CMI research will remain in the Basic Science Research Building, the new laboratory at NCRC will focus on translational research and drug development.

To say that the new C.S. Mott Children's Hospital is state of the art is an understatement. It was truly created with patients and families in mind, with large waiting rooms and play areas for children. The imaging equipment in Radiology and the protocols used are designed to answer the clinical questions being asked with the minimum radiation doses necessary. Three new magnetic resonance scanners have been installed, including a 3.0T, a 1.5T, and a 1.0T true open magnet. Furthermore, an imaging suite is available for image guided interventional procedures, which precludes the need to transfer patients to the adult hospital for these examinations.

Peter Strouse, MD, the division director of Pediatric Radiology, was intimately involved in the planning of the entire Radiology department at Mott. He leads an impressive team of pediatric radiologists, which includes several new faculty recruitments who bring special skills to the department. After completing two different fellowships, Jonathan Dillman, MD, is leading several initiatives. He is developing MR enterography to improve the non-invasive

evaluation of patients suspected of Crohn's disease. He is also working with Ranjith Vellody, MD, to develop an image guided interventional service based in the new Mott Hospital. Deepa Pai, MD, completed a fellowship not only in pediatric radiology but also in musculoskeletal radiology to bring a special expertise to the new children's hospital. Maryam Mahani, MD, who completed fellowships in pediatric radiology and cardiothoracic radiology, is focusing her efforts on the MR evaluation of patients with congenital heart disease. We are also delighted to welcome Ethan Smith, MD, back from his fellowship at the Cincinnati Children's Hospital. He is focusing on oncologic imaging and works with the M-STOP Program.

We have also made real progress in our adult division. We have just completed the installation of a new MR-guided high-intensity focused ultrasound (HIFU) unit in our research 3T MR suite. This minimally invasive technique has already proven effective for treating uterine leiomyomas, but also has great potential for treating malignancies in other organs such as the prostate gland, liver, and kidney. Drs. Elaine Caoili, Tom Chenevert, Brian Fowlkes, and Jonathan Rubin are anxious to bring this new technique into the clinical arena.

We look forward to seeing you at our annual Hodges' Society Reception on Monday evening at the Radiological Society of North America (RSNA). The event will again be held at the Westin Hotel on North Michigan Avenue starting at 6:30 p.m. on November 26, 2012. We also hope you have marked your calendars for our 2013 Centennial Celebration, which will take place from October 3 to 5, 2013, and overlap with the Homecoming football game against Minnesota.

GO BLUE!!!

Regards,

N. Reed Dunnick, MD

Genuine Warmth

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The brightly colored walls, artwork, and toys in the waiting area create a warm and welcoming haven for children.

coming in for something like a cast change film would see some very sick inpatients.” To reduce the stress and anxiety this can cause, the new department minimizes the extent to which in- and outpatients mix. Outpatients, who often come for X-ray or ultrasound studies, enter through radiology’s main entrance and follow one route to these imaging rooms. Inpatients, who frequently require MRI or CT studies, enter via an elevator and go directly to these imaging rooms, and an X-ray room for inpatients is located near the elevator. An observation holding room, where prep work such as starting IVs is done, gives inpatients a comfortable waiting area. “This has worked out very well,” says Strouse. “It gets kids out of the hall into this really nice environment. Some parents donated a Wii, and the room is decorated really nicely.”

Attention to ambience does not end there. Dr. Strouse is quick to point out the kid art throughout the department. Although some exam room walls are

unadorned, he adds, “We are going to have a program involving artwork from a couple of elementary schools for the hallway art and are working with interior design staff to develop themes for individual imaging rooms. Our goal is to make this as happy a place as it possibly can be. Kids come to radiology for studies: It can be scary to get the study, and it’s scary that there’s a result afterward

that might not be good. We want to make their trip to radiology easier, more comfortable, even memorable: ‘Hey, I got to play with a Wii’ or ‘There’s this really cool stuff on the wall in X-ray.’ Things like that just make it a much better experience for patients and parents.”

Child Life

Consonant with the high value it places on patient experience, the Pediatric Radiology division welcomed its first full-time Child Life specialist this past July. “We are extremely happy to have her,” says Strouse. The concept of Child Life originated at U-M in 1922 and today is embraced worldwide. Specialists help patients cope with the challenges of illness and hospitalization and provide developmentally appropriate support and

education. “In the past,” he continues, “we’ve used these services on a selective basis, but our goal going forward is to make it much more comprehensive.”

Well-Equipped for Today and the Future

Having the best imaging equipment, and enough of it, is a top priority. The department supplemented some newer equipment from the previous facility with two additional MRI scanners, an additional fluoroscopy room, additional ultrasound scanners, and a second CT scanner. All equipment is now state of the art and has the capabilities needed for working with pediatric patients. Both

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Peter J. Strouse, MD, Director of the Division of Pediatric Radiology.

Genuine Warmth

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CT scanners use model-based, iterative reconstruction technology that allows effective diagnostic imaging with reduced radiation exposure.

The additional MRI scanners were essential for keeping pace with volume and for the division's emphasis on using MRI whenever practical to avoid radiation exposure. "We're doing a lot more MRI imaging than we did just five years ago," explains Strouse, adding that at the original hospital, some patients went elsewhere due to long waiting lists. Another opportunity for the pediatric radiology operations to expand was the inclusion of an ER in the pediatric hospital. Before the new facility, pediatric patients were imaged on the main hospital's ER and shared a CT scanner with adults. Now, radiology's additional CT scanner is in the Mott ER. This provides for greater assurance of proper pediatric techniques. "The CT space in the ER has worked incredibly

well," says Strouse. "We worked with the ER on the design so that the two trauma bays open directly into the CT bay. It's a really nice set-up and a bit of an innovation from what they have in the main hospital."

Planning for the department projected 40 years out and anticipated increasing imaging demands. Survival rates for pediatric patients with serious illness or trauma continue to rise, and imaging is an important part of their long-term health care. Thus, the department includes space to accommodate expanding equipment needs over time.

Dedication to Developing Talent

Along with equipment, Dr. Strouse credits the people in the division for their ability to deliver cutting-edge services: "We have top academic radiologists, top machines, and we see an amazing spectrum of pathology—if there's a new technique, we want to be among the

first doing it and doing it well. And that's happening here."

This spectrum of pathology not only necessitates the best in diagnostic services, it also provides a wealth of material for research and education, and the makeup of the division puts it in a favorable position for bringing these opportunities to fruition.

"We have excellent young people with very bright futures and enough experienced people to give them time to develop," says Strouse, adding "we're presenting regularly [at meetings] and have been among the leaders in new MRI techniques." Environment is also important. The department's main reading room, for example, includes a conference area and a teaching area for working on conferences and research. "It's a beautiful space," remarks Strouse. "We made sure it was a very nice environment that trainees would like working in."

The new technologists in pediatric radiology were brought in before the new hospital opened. "We were a bit overstaffed at the old Mott," explains Strouse, "but it was necessary so they could get the training and experience." The techs must be adept not only at optimizing images for the range of patients seen (e.g., from a two-pound newborn to a large teenage bariatric patient) but also must be skilled at interacting with patients and parents.



Dr. Jeffrey Wesolowski reading a patient scan in one of the new Mott reading rooms.





Patient undergoing a CT study in one of the two CT scanners at Mott.

Because much of the pediatric-specific aspects of imaging depend more on the skill and knowledge of the user than on features of the machine, the division's X-ray, CT, and MRI technologists work only in Mott Hospital.

While the changes from the old to the new hospital are many, the overarching goal of the division, and Mott, remains the same: "We want to be one of the best in the country for clinical work, research, and education, and be recognized for it," says Strouse. "I think we're regarded very well now, but there are larger pediatric hospitals, such as Cincinnati and Children's Hospital of Philadelphia, that are better known nationally. The new hospital definitely gives us the opportunity to further develop these areas."



Child Life Specialist Salika Bosler Joins the Division of Pediatric Radiology

Sal Bosler became Pediatric Radiology's first full-time, dedicated Child Life specialist this past July. After earning a BS in human environmental sciences from the University of Alabama in 2004, Sal did an internship at Shriners Hospital for Children in Tampa, Florida. She then joined the staff at Detroit's Children's Hospital of Michigan, where she assisted patients in infectious disease, surgery, emergency room, and the MRI suite. While at Detroit's Children's Hospital, she earned a master of science in administration from Central Michigan University in 2008.

Sal, who grew up in Honduras and is fluent in English and Spanish, was initially pursuing nursing, but after doing a practicum in Child Life, she knew this was the career for her—it ideally combines her interest in medicine with her enjoyment of playing and interacting with kids. About her new position, Sal says, "Developing a program for Radiology is an amazing opportunity, and I feel honored that the staff have trusted me with this responsibility. Patients are already getting the best medical care in the state. I want to make sure that their psychosocial needs are also being met—that they and their families are comfortable, feel their questions have been answered, and that any fears have been minimized." Sal's experience, energy, and generosity are welcome additions to the division.

RESEARCH SPOTLIGHT

The Center for Molecular Imaging: Lighting Up the “Dark Alleys” of Cancer-Cell Signaling

In any conflict, monitoring the enemy’s lines of communication is vital. The war on cancer is no exception. That is why Gary Luker, MD, associate professor of radiology and microbiology & immunology, and his team from the Center for Molecular Imaging are finding ways to literally light up the dark alleys in which cancer cells give their signals—to grow, move, and invade new territory.

To do this, they’ve recruited a special agent—a small bioluminescent crustacean called *Gaussia* (left), known for ejecting puffs of light to evade its enemies.

It is *Gaussia*’s light-producing Luciferase enzyme that is allowing Luker and his colleagues to “trick” cancer cells into lighting up when specific cell-signaling pathways implicated in cancer growth and metastasis are activated. This same system can also show whether drugs are effective in blocking these signals.

It works like this. Luker took a breast-cancer cell line that is known to send harmful intercellular signals by way of specific chemokine-receptor pairs. There’s a ligand—CXCL12—that can attach to one of two receptors, CXCR4 or CXCR7. To illuminate this signaling, Luker’s group attached a portion of *Gaussia*’s Luciferase enzyme to the ligand and the remaining part to one of the receptors. That way, when a cell initiated signaling by secreting CXCL12 and another cell received the signal by having the ligand bind to a CXCR7 receptor, the enzyme fragments would reconnect and light up. The light is too dim to see by the naked eye, but light from the reconnected enzyme is easily detectable using specialized optical imaging equipment in the imaging center.

Using this technique in both cell culture studies and live mice, the team was able to show that the light could not only indicate whether one of the pathways (CXCL12-CXCR4 vs. CXCL12-CXCR7) was being activated, it could also quantify this activation and reveal whether a particular drug could inhibit signaling.

“I think the technique can really benefit patient care,” says Luker. “We’ve developed an imaging tool that can make a big difference in how pharmaceutical companies screen for drugs

that hit a particular target and assess those drugs in preclinical models.”

Collaborating for Further Insights

While this breakthrough is the fruit of many years’ hard work, the team is hoping to press even further through collaborations with U-M and international colleagues.

Working with a group from Russia, Luker’s team has developed a new fluorescent protein that emits light at the far red end of the spectrum. Since longer-wavelength light transmits best through tissue, this protein shows promise in illuminating the location and movement of cancer cells deeper inside live animals.

Closer to home, Luker is collaborating with biomedical engineering and macromolecular science and engineering professor Shuichi Takayama, PhD, using his microfluidic devices to study cancer cell signaling. These devices, with their tiny cell-lined chambers and tunnels through which fluids flow, are allowing the team to track how cancer cells behave under near-physiologic conditions.

“Shu’s lab designed a microfluidic model of a blood vessel lined with endothelial cells,” says Luker. “Then we introduced fluorescent cancer cells and watched them circulate and attach to the lining in real time.” The team wants to expand this vessel-lining model with a third component, such as bone marrow, which will serve as a potential metastatic site. This will allow them to study the cells as they not only attach to the endothelium but move beyond it and grow in the marrow.

“We’ve developed what we think is the only device in which cells generate their own signaling gradients,” says Luker. “These molecular gradients are what signal cells to move from one place to another. So we can see as those signaling pathways get activated in a cancer cell and how they affect where cells move. We could also use this model to image how drugs are working.”

To understand what is happening “behind the scenes,” Luker has turned to Professor of Chemical Engineering and Biomedical Engineering Jennifer Linderman, PhD, and her multiscale computational models.

“Our collaboration with Jennifer is a tremendous opportunity to understand not only biology but our own imaging data,” says Luker. The models help make sense of a mountain of data—signals that change over time and space, and result in a number of complicated effects from the subcellular level all the way up to the level of an entire organism.

“Imaging is just a snapshot; there’s a whole lot of important biology that occurs when we’re not watching,” says Luker. “Jennifer’s team has helped us predict what’s going on during those timeframes; then we can go back and validate it experimentally.”

Using these techniques, the team is learning why CXCL12 binds preferentially to a specific set of receptors (either CXCR4 or CXCR7) and what happens as a result.

When asked what has enabled him to press the boundaries of molecular imaging, Luker is quick to share the credit. “It starts with our department chair, Reed Dunnick, who is very supportive of the research environment, and includes people like Brian Ross and Al Rehemtulla, who are co-directors of the imaging center and provide a great environment to work in. There’s also a tremendous group of people I get to work with in the lab, starting with my wife, Kathryn, and including students and post-doctoral fellows who work so persistently on these problems. Finally, there are collaborators like Shu, Jennifer, and Dr. Dan Hayes, who is head of the breast oncology program and has given us primary patient samples and insights into the pressing questions in breast cancer biology. All of these factors make this one of the top molecular imaging centers around.”



Gary Luker, MD

PEDIATRICS SPOTLIGHT

PEDIATRIC INTERVENTIONAL RADIOLOGY AT MOTT: DESIGNED WITH KIDS AND COLLABORATION IN MIND

Mott Children's Hospital has a history of excellence, and with the new facility, its future looks even brighter. One important factor is the pediatric interventional radiology (IR) room staffed by a dedicated pediatric IR team. Set in an operating room environment, the IR room easily accommodates radiology, surgery, and anesthesiology personnel, enabling combined IR and open surgical procedures. State-of-the-art equipment is suited to younger, smaller patients, providing increased safety and comfort.

"From an IR standpoint," explains Dr. Jonathan Dillman, "we are now a true service, covering the entire spectrum of pediatric IR procedures. In the past, procedures were performed by multiple groups" throughout University Hospital. "Patients no longer have to endure the complexity of being transported to different locations," remarks Jason Grove, Pediatric IR's dedicated PA. "We have the space and tools we need to deliver our services and to offer options that might not be available at other institutions."

Opportunities for options also arise from the division's focus on multispecialty collaboration and the team's remarkable diversity. Dr. Dillman specializes in pediatric diagnostic radiology; Dr. Joseph Gemmete in neurologic and vascular IR; Dr. Marcus Jarboe in pediatric surgery and IR; and Dr. Ranjith Vellody in adult and pediatric IR. This diversity and breadth of expertise facilitates novel approaches to difficult challenges.

For example, to address the challenges of operating on patients with a cloaca, Drs. Dillman and Jarboe conceived of the cloacagram with combined fluoroscopy and MRI. Drawing on Jarboe's knowledge of rotational fluoroscopy with contrast material injected into the cloaca and Dillman's expertise in MR imaging, they used both modalities to obtain unprecedented information for preoperative planning in cloacal repair. Their write-up will appear in an upcoming issue of *Pediatric Surgery International*.

The pediatric interventional radiology team: Jason Grove, PA; Jonathan Dillman, MD; Ranjith Vellody, MD; Joseph J. Gemmete, MD; Marcus D. Jarboe, MD.



Dr. Gemmete's rare combination of dual training in neurointervention and vascular/body IR led to the successful treatment of a patient who had been unsuccessfully treated at two other hospitals. The patient presented with bleeding gums due to an extensive arteriovenous malformation of the mandible, and was treated with alcohol along with the liquid embolic agent Onyx.

Dr. Gemmete is among a small group of dual trained interventionalists in the United States. Thanks to his neurointerventional training, he gained a thorough knowledge of Onyx and n-BCA. He also is part of the multidisciplinary vascular malformations program, and has extensive experience treating vascular lesions with alcohol, bleomycin, doxycycline, and sodium tetradecyl.

In another case, Dr. Vellody's expertise in adult IR led to the novel treatment of a pediatric patient whose long-term liver function was threatened by a fistula from the portal vein to the inferior vena cava. Adapting an approach that is used with adults and has not been described in the pediatric literature, the IR team put a vascular occlusion device in the fistula and portal vein, resulting in the vein growing to normal size and obviating the need for transplantation or other major surgery.

"It all comes down to people sharing ideas and knowledge," says Dr. Jarboe, who, along with Dr. Vellody, is quick to point out that the very design of the pediatric IR space removes common barriers to hands-on collaboration and exploration of options. Because each team member interacts with colleagues in his respective specialty, awareness of what Pediatric IR can do is growing. This likely has contributed to the nearly 150% increase in service volume compared with the previous year. "As we continue to grow," says PA Jason Grove, "I look forward to the new directions we can take in pediatric IR in the new Mott."



(l-r) Norman Komar, MD; Paul Berger, MD; N. Reed Dunnick, MD; Charles Mueller, MD; Michael Sandler, MD; and Terry Silver, MD.

PLEASE JOIN US!

University of Michigan
Department of Radiology

HODGES SOCIETY HOMECOMING TAILGATE

Saturday, October 13, 2012

North End Zone

(yellow house near corner of Pauline and Main)

1011 S. Main Street

Ann Arbor, MI 48104

Game Time: 3:30 PM

Tailgate: 12:30 PM

Please RSVP to Carol Kruse at 734.232.6402
or at ckruse@umich.edu by October 1st

Limited tickets available at:
www.giving.umich.edu/radiology-homecoming

PEDIATRICS SPOTLIGHT

PEDIATRIC RADIOLOGY ACQUIRES CUTTING-EDGE MRI TECHNOLOGY

The move to the new Mott has greatly enhanced the already excellent MRI services the Division of Pediatric Radiology provides at U-M. Cutting-edge MRI technology has improved the department's ability to provide high-quality care to patients as well as enhanced patients' experience. It also has a dedicated pediatric radiology staff with particular expertise in different radiological procedures for children.

"At the old Mott, we only had one MRI unit, whereas we now have three," says Ann Cormack, MRI manager, "and we didn't have a dedicated pediatric technologist staff. With the move, our staff has increased in size by two-thirds. As a result of these changes, access to services has vastly improved." According to Cormack, demand for these services is greater than ever, given the movement away from using ionizing radiation in pediatric populations and toward alternative modalities such as ultrasound and MRI.

Two of the new MRI units have bores that are larger than most standard MRIs, which can help children feel more comfortable during an examination. The third is an open MRI, which has no tunnel but is open on the sides—a design that also helps ease kids' anxiety. "Both the wide bore and open MRI units have really helped children feel more at ease," says Cormack. "And with the open MRI, technicians can more easily move the part of the body that is the focus of the scan." Adds Division Director Peter Strouse, MD, "All three MRI units are also being fitted with MRI compatible video goggles, which are a great distraction for children undergoing MRI, and in

some cases help to avoid the need for sedation."

In addition, one of the new units has a higher magnetic field strength (3 Tesla as opposed to 1.5 Tesla) than the MRI unit used at the old Mott. "With these high field strength magnets," says Cormack, "we can administer any type of MRI scan that can be performed in a clinical setting. As a result, we've become a leader in developing MRI protocols and often share them with other hospitals."

This December, a new neurosurgery operative suite will open at Mott that features an intraoperative MRI. The IMRIS system will enable doctors to scan a child's brain while they are operating to remove a tumor, thereby helping them identify which tissue to remove. Without this technology, the surgery would have to be completed and the patient moved

to an MRI suite before a scan could be performed.

Research shows that having an IMRIS system reduces the need to perform another surgical intervention and the risk of infection. "With this system, we can look at the location and appearance of the brain tissue to figure out what is normal versus cancerous, information that helps the surgeon determine what to remove," says Cormack. U-M's pediatric neuroradiologists will work closely with U-M's neurosurgeons to use the IMRIS system to improve patient outcomes.

"The new MRI units provide increased capacity, flexibility in scheduling, and state-of-the-art imaging in a more patient friendly environment than previously available. We now are better suited to meet the ever increasing demands of pediatric MRI," says Strouse.



Patient having study in first open MRI at UMHS.

Michael DiPietro: Advancing Educational Excellence

During his career at U-M, Michael DiPietro, MD, has played a leadership role in graduate, resident, and medical student education. “Education is extremely important to me,” he explains, “though I also enjoy the clinical service and research aspects of my career.”

In discussing his teaching philosophy, Dr. DiPietro explains that his primary goal as a teacher is to develop intellectual curiosity among his students. “I try to convince them that they can learn something interesting from every single case. I also encourage them to get in the habit of asking: Is this the best test for the question being asked?”

By all accounts, Dr. DiPietro has succeeded at awakening students’ curiosity. Countless fellows and colleagues have described him as an inspiring and inspired educator, who always takes time out of his busy schedule to answer questions. Says one former trainee, Jonathan Dillman, MD, “There is no such thing as ‘just another case.’ Instead, every case, whether it is as ‘simple’ as a portable chest radiograph for line placement or as complex as a CT examination, becomes a teaching opportunity.”

For his exceptional teaching skills, Dr. DiPietro became only the fifth radiologist to receive the Society for Pediatric Radiology’s annual Jack O. Haller Award for Excellence in Teaching.

Supporting the Department of Radiology

A native of Albany, New York, Dr. DiPietro earned his bachelor’s degree from Union College in Schenectady, NY,



and his medical degree from the State University of New York in Syracuse. He then completed a residency in pediatrics at Children’s Hospital of Pittsburgh, University of Pittsburgh School of Medicine; a residency in diagnostic radiology at Yale University; and a two-year fellowship in pediatric radiology at Harvard Medical School’s Children’s Hospital in Boston. In 1982, he joined the radiology faculty at U-M, becoming a full professor in 1996. Nine years later he was named the first John F. Holt Collegiate Professor of Radiology.

During his time at U-M, DiPietro has assumed several prominent roles within the department, including acting and associate director of the Division of Pediatric Radiology, and member of the medical school’s Promotions and Tenure Committee. Currently, he is serving on the University Senate Assembly and the medical school’s Curriculum Policy Committee, and he is the director of Medical Student Education in Radiology. He also holds the distinction of being

an American Academy of Pediatrics fellow and former chair of its Radiology Executive Committee.

In addition, Dr. DiPietro has helped organize, run, and teach international courses for the Musculoskeletal Ultrasound Society for the past 22 years and he has been very active in the following areas of research: pediatric neurosonography, especially of the spinal canal and more recently of the brachial plexus, and pediatric musculoskeletal sonography.

A radiologist by day, Dr. DiPietro devotes his nights and weekends to sharing his love of music with the university community. For more than 20 years, he served as the principal bassoonist for the U-M Campus Symphony. For the past 12 years, he has been co-principal bassoonist of U-M’s Life Sciences Orchestra, which he helped to launch. He has played in more than 60 concerts at U-M’s famous Hill Auditorium, an experience he describes as both a thrill and a privilege.

STAFF PROFILE

Pediatric Radiology Supervisor Donna Anderson Keeps on Top of It All



According to her colleagues, Donna Anderson is the linchpin of Pediatric Radiology. “Donna is our MVP,” says Peter Strouse, MD, director of the Division of Pediatric Radiology. “She knows everything—every process, everyone. If something is not working correctly, be it large or small, Donna gets it fixed.” Adds Michael DiPietro, MD, professor of radiology, “Donna runs a tight ship and isn’t afraid to get her hands dirty.”

Anderson entered the field of radiology because she had developed a passion for physics in high school and was attracted to a field involving the application of physics to medicine. She began working as a radiographer in 1969, and eventually moved into a supervisory role in pediatric radiology at the University of Wisconsin-Madison. Following work in radiology at the Mayo Clinic in Rochester, Minnesota, and in Kansas, she earned a bachelor’s

degree in radiology from the University of Wisconsin.

In 1990, Anderson joined the staff in Pediatric Radiology at U-M, where she has enjoyed a fulfilling career ever since. As the manager of the division, Anderson wears many hats. Her duties range from overseeing a staff of 54 employees and filling in during employee absences to dealing with emotionally distressed parents and ensuring that examinations are fun, instead of traumatizing, for children.

Talking at length about her role as supervisor, Donna says: “Ninety percent of my time is spent in my office figuring out staffing needs, keeping abreast of the latest technology, etc. But ten percent of the time I’m filling in for other staff members. You might find me at the front desk, performing an examination, or interacting with our patients and their families. I really enjoy playing with the kids, as well as keeping my fingers in the field.”

Anderson also stresses that she finds the experience of working with children highly satisfying. “No matter how sick they are, children manage to say ‘thank you,’ which makes you feel like you’ve done something good.”

If the U-M biannual patient satisfaction survey is any indicator, the quality of care provided by the staff in Pediatric Radiology is outstanding. The results show that 98.8 percent of survey respondents were highly satisfied with the care they or a family member received. According to Anderson, this number has

increased from 95.1 percent since the division moved into the new Mott.

“We were providing outstanding service in the old Mott, but now our quality of care is even better,” she says. “The division has undergone many improvements with the move to the new Mott. We’ve increased our staff by two-thirds, purchased new cutting-edge equipment, and now have separate areas for patient and outpatient services. These changes have made for a better patient experience.”

According to Dr. Strouse, Anderson played a critical role in making sure the design, organization, and the operations of the Pediatric Radiology division in the new Mott was successful. “Donna’s input were invaluable in achieving a department optimized for the efficient and compassionate care of our patients,” he says.

In reflecting on her goals for the department’s future, Anderson remarked that she wants to move even further in the direction of patient- and family-centered care, and education is essential to achieving that goal. With that in mind, Anderson is working with staff member Rebecca Priest to develop a virtual tour for patients that will explain radiologic procedures and introduce them to the new Mott.

“I’m extremely proud of the service we provide and our emphasis on making sure patients come first. My goal for the future is to maintain the highest levels of patient safety and satisfaction,” says Anderson.

FACULTY AWARDS + RECOGNITION

Prachi Agarwal, MD, received the *Journal of Thoracic Imaging* Editors' Recognition Award for Distinction in Reviewing in 2011 and the Cum Laude Award for her exhibit: Agarwal PP, Quint LE. "Errors as Opportunities: Spectrum of Cognitive Errors in Cardiothoracic Radiology," Society of Thoracic Radiology

Ruth Carlos, MD, became president of the Association of University Radiologists.



Kyung Cho, MD, received the Gold Medal Award from the Society of Interventional Radiology and the Gold Medal Award from the Korean Society of Interventional Radiology.

Matthew Davenport, MD, received the Third Place Scientific Paper Award at the 2012 Society of Uroradiology annual meeting

Michael DiPietro, MD, received the University of Michigan Medical School's 2012 Lifetime Achievement Award in Clinical Care.

N. Reed Dunnick, MD, received the Gold Medal Award from the Association of University Radiologists.

Isaac Francis, MD, was appointed as chair of the RSNA Educational Exhibits Committee.

Kirk Frey, MD, PhD, became chair of the board of directors of the American Board of Nuclear Medicine.

Jon Jacobson, MD, was awarded the Early Distinguished Career Achievement Award by the University of Michigan Medical Center Alumni Association.

Suresh Mukherji, MD, received a Presidential Citation from the American Head and Neck Society and was appointed editor-in-chief of the *Neuroimaging Clinics of North America*.

Gaurang Shah, MD, was appointed Secretary of the Michigan State Radiology Society.

Ashok Srinivasan, MD, received the Editor's Recognition Award from the journal *Radiology* for reviewing with special distinction.

Peter Strouse, MD, was elected president of the Society of Chairs of Radiology in Children's Hospitals.

The Academy of Radiology Research conferred a Distinguished Investigator Award for significant contributions to the field upon the following University of Michigan faculty:

Nicolaas Bohnen, MD, PhD

Ruth Carlos, MD

Paul Carson, PhD, MS

Heang-Ping Chan, PhD

Neal Clinthorne, MS

Yuni Dewaraja, PhD, MS

Brian Fowlkes, PhD

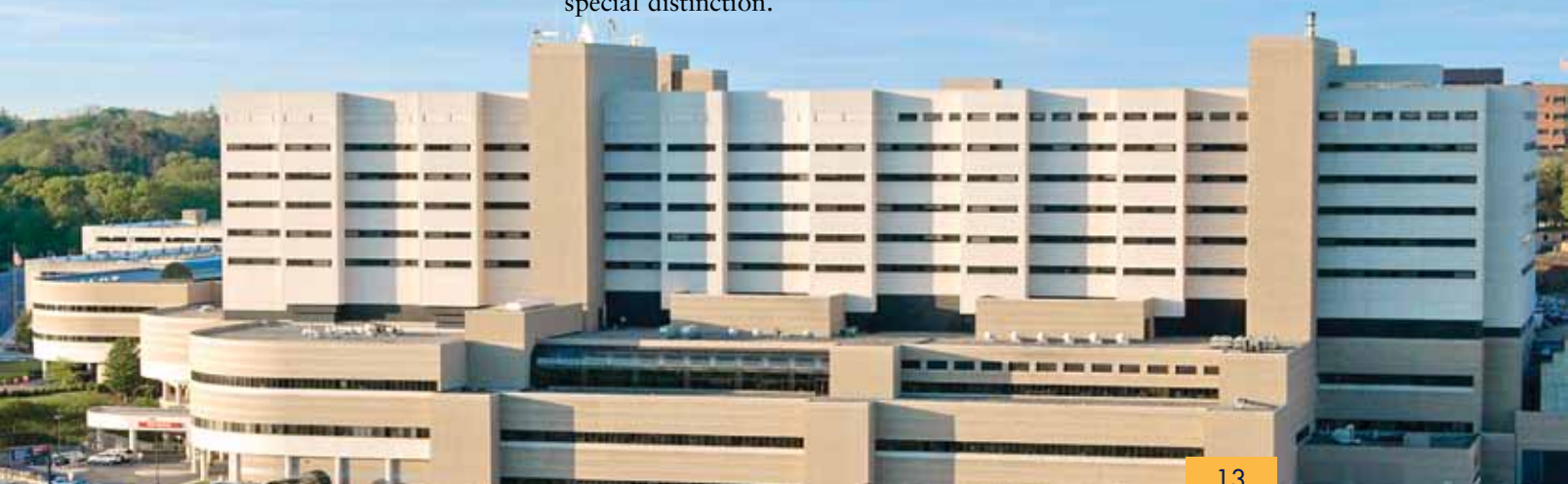
Kirk Frey, MD, PhD

Michael Kilbourn, PhD

Gary Luker, MD

Douglas Miller, MD

Jonathan Rubin, MD, PhD



HONORING THE CONTRIBUTIONS OF DR. MELVYN T. KOROBKIN

Dr. Melvyn T. Korobkin began his career at the forefront of computed tomography 40 years ago and is renowned today for his invaluable impact on CT's use in diagnosing abdominal disease. In his early work, he helped develop many of the first protocols for clinical imaging and cultivated robust collaborations to promote CT research and education. More recently, he and colleagues at U-M developed a quantitative technique for distinguishing benign from malignant adrenal masses. The technique spares patients with benign lesions the risks associated with invasive needle biopsy and radiation from follow-up CT scans and is now the standard of care for evaluating adrenal lesions.

Dr. Korobkin is equally respected for his enduring dedication to scholarship through collaboration with colleagues, education of students, and his thoughtful mentoring of young faculty, so eloquently described by his U-M colleague Dr. Hero Hussain: "Mel undoubtedly is a great radiologist and investigator, but mostly I see him as a great human being. He sincerely helped younger radiologists develop and improve their clinical and academic skills, always providing honest and constructive criticism with respect and kindness."

Although recently retired after 23 years in the Department of Radiology, Dr. Korobkin continues to contribute. He and Mrs. Linda Korobkin have made a generous leadership gift to help endow a professorship in Dr. Korobkin's name, and we are pleased to announce our fundraising efforts to fully endow and establish the

Melvyn T. Korobkin Collegiate Professorship in Radiology.

Your contribution will help ensure the excellence exemplified by Dr. Korobkin continues to distinguish the department and the university. Please contact Alisha Faciane, Director of Development, at affenty@med.umich.edu or at 734.232.6402.

Dr. Melvyn T. Korobkin with his son Daniel and wife Linda.



MOTT RADIOLOGY PHOTO TOUR



Pediatric Radiology Nurse Susan Quinn helps a young patient feel more comfortable.



Pediatric Radiology Technologist Amy Peters prepares a young child and his mother for an exam.



A happy patient undergoing an X-ray examination.



Carol King welcoming a patient and family members at the Pediatric Radiology reception desk.



Pediatric Radiologist Michael DiPietro, MD, and Lead Pediatric Ultrasound Technologist Helen Martin performing an ultrasound.



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The Department of Radiology “Adopt-a-Resident” Program Celebrating our distinguished past ... helping to foster our promising future.

On the eve of its 100th anniversary, U-M’s Department of Radiology is a world leader in radiological education, research, and patient care, as well as in the development of new technologies. **As a former U-M Radiology resident or fellow, you are an essential part of this distinguished legacy.** You can also become a part of Radiology’s promising future by helping new generations of residents through our “Adopt-a-Resident” program.

By “adopting” a resident, you provide crucial support that can help defray the costs of: AIRP (travel, room, board, etc.); “global health” international radiology service experience (travel, room, board, etc.); fees associated with medical training; hardware currently ineligible for purchase with book funds; outside

review courses (physics courses, board review courses, etc.); books, e-books, and software in excess of the available book fund; professional meeting expenses; internship expenses (fellowship interview and job interview travel expenses).

There are several ways to become a partner in our **Adopt-a-Resident program**:

- A \$100,000 gift (payable over five years) can create a named endowed fund providing approximately \$4,500 in annual resident support, in perpetuity.
- A \$15,000 gift (payable over three years) can establish a named resident fund providing a Radiology resident with vital support to help offset program costs.

- Gifts of any amount support our General Education Fund, enabling the Department to help students fill unexpected funding gaps, and provide support for emergency needs.

There are many other ways to help the Department of Radiology, including gifts to support endowed professorships, along with much-needed research funding.

To learn more, or to find out how to make a gift to support the Department of Radiology, please contact:

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