

FOCAL SPOT

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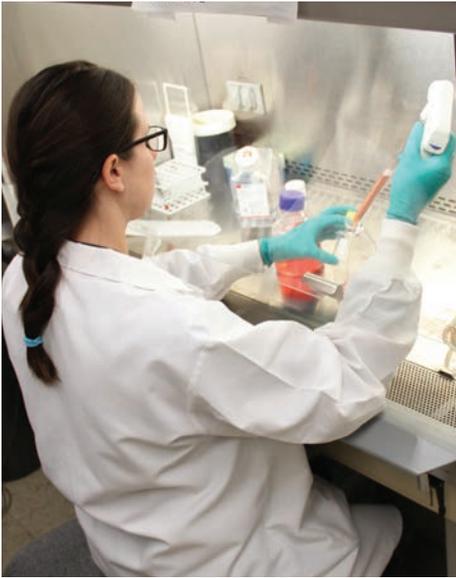


SUMMER 2019 30 Years Later, Amanda Smith Thanks MIR for Never Giving Up
MALLINCKRODT INSTITUTE OF RADIOLOGY // WASHINGTON UNIVERSITY // ST. LOUIS

14 HONORED PROFESSORS



For MIR faculty, earning a named professorship is one of the highest distinctions.



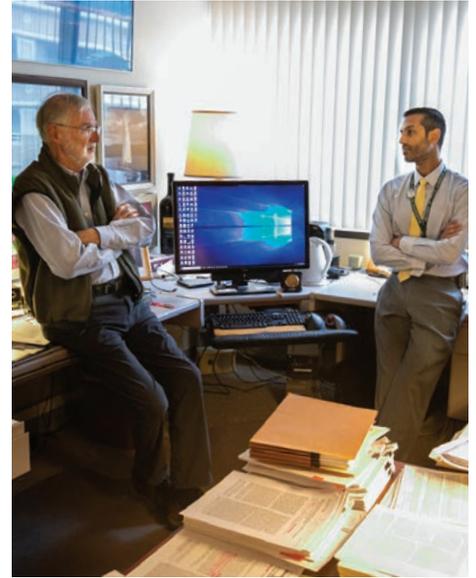
5 // // // // // MIR AWARDED \$5M NIH GRANT

Funding supports research that identifies vulnerable plaque, the silent cause of heart attacks and strokes.



6 // // // // // MANDY REVISITED

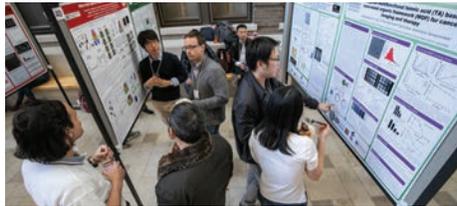
More than 30 years later, a former pediatric patient is thriving thanks to groundbreaking treatment.



12 // // // // // BATTLE OF THE SEXES

A new study from MIR suggests women's brains are younger than men's, metabolically speaking.

Cover Photo: A 1988 issue of Focal Spot with her picture on the cover is just one of Amanda Smith's mementos from her time at MIR.



2 SPOT NEWS



18 THE EVENS SOCIETY

FOCAL SPOT MAGAZINE SUMMER 2019

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20 FYI



24 A LOOK BACK

2019 MIR Research Symposium

The MIR Research Symposium, held in the Farrell Learning and Teaching Center on March 25, featured more than 70 posters showcasing an array of ongoing basic and

clinical research conducted by MIR investigators. Close to 250 faculty, staff and postdoctoral research associates turned out for the annual event.



a.



b.



c.



d.

a. The poster session covered a wide range of imaging research topics, including Alzheimer’s disease, informatics and PET radiotracers.
b. Dmitriy A. Yablonskiy, PhD (left), professor of radiology, and Marcus E. Raichle, MD, the Alan A. and Edith L. Wolff Distinguished Professor of Medicine.
c. The symposium included four supporting lectures.

d. Daniel R. Ludwig, MD, a fellow in body MRI, talks about the Training Opportunities in Translational Imaging Education and Research (TOP-TIER) program.
e. Keynote speaker Janet F. Eary, MD, associate director of the NIH Cancer Imaging Program, presented “Data Science in Imaging.”



e.

MIR Rolls Into Rolla with Phelps Health

After exploratory meetings, an extensive proposal and vetting process, and an in-person presentation, Mallinckrodt Institute of Radiology (MIR) signed on to provide radiology services for Phelps Health beginning December 24, 2018.

“It was a wonderful opportunity to showcase some of the real strengths of MIR, such as our focus on quality and safety and the subspecialty nature of the interpretations we provide for the patients referred to us,” says Joy A. Haven, PhD, executive director of business affairs.

The expansion to Rolla required an ambitious vision and intense collaboration. Led by MIR Director Richard L. Wahl, MD, the administrative team and faculty members sprinted to get radiology services up and running within a mere 90 days of securing the contract with Phelps Health.

“All of this was done at an unprecedented rapid pace,” says Michael W. Penney, MD, vice chair for community radiology at MIR, who was tapped to lead clinical operations and coordination at the new site. “The success of this endeavor hinged on every component of MIR contributing and working together — physicians, administration, critical support staff.”

A host of radiologists, both in Rolla and back in St. Louis, read studies daily. Due to the complexity of making studies at Phelps available for read in St. Louis and the returning of reports back to Rolla, a skilled technical team was a must. Vamsi R. Narra, MD, senior vice chair for informatics and new business development, as well as Babs Vogelsang, director of information systems, coordinated expertly to launch the essential technical infrastructure.

“The computer needs included developing a robust network between the organizations, setting up six new reading rooms at WashU, acquiring equipment, developing the professional



billing interfaces, training and support of the radiologists during the implementation,” says Vogelsang. “We also provided at-the-elbow support (AES) in the reading rooms for the first two months.” The AES team supported the radiologists and worked directly with Phelps to create processes and procedures between the organizations, she says.

Services and support continue to evolve post-launch. “The location and setup of the reading rooms have changed several times over the last six months,” says Vogelsang. “We continue to make improvements so that there is little to no disruption for the radiologists.”

MIR recruited two experienced radiologists who are providing “excellent, stable on-site coverage,” says Penney. And remote subspecialty coverage by MIR radiologists, which is critical, is working seamlessly, he adds. In addition, James R. Duncan, MD, PhD, MIR’s chief of interventional radiology, and Andrew J. Bierhals, MD, interim vice chair for quality and safety, are developing a quality and safety program.

“We have met and exceeded Phelps’ expectations for radiology services,” says Penney.



Above: Phelps Health, which employs a staff of more than 1,800, is located about two hours southwest of St. Louis in Rolla, Missouri.

Left: Michael W. Penney, MD, chief of radiology at Barnes St. Peters and Progress West, also oversees MIR’s clinical operations at Phelps Health.

Picus Receives SIR Gold Medal

by Tamara Bhandari



Daniel D. Picus, MD, professor of radiology at MIR, was awarded a Gold Medal from the Society of Interventional Radiology (SIR). The award was given in recognition of his distinguished and extraordinary service to the society as well as his achievements in advancing the quality of medicine and patient care through interventional radiology. The Gold Medal, which Picus received in March at SIR's annual meeting in Austin, is the society's highest honor.

Picus, also a professor of surgery, established the vascular and interventional radiology section and served as its first head from 1987 to 2000. His IR areas of focus include imaging the heart and blood vessels,

and treating diseases of the bile ducts and gall bladder. Picus' contributions to interventional radiology were recognized previously when he was invited to deliver the Dr. Charles T. Dotter Lecture at SIR's 2013 meeting.

After stepping down as head of vascular and interventional radiology, Picus took on the role of senior vice chair and director of the division of diagnostic imaging at MIR from 2001 to 2017. In recent years, Picus, who currently serves as senior vice chair for special projects, has turned his attention to medical coding and reimbursement. His contributions to that field recently were recognized by the American Medical Association, which awarded him the Burgess Gordon Memorial Award.



CMMN Mini Symposium

The Center for Multiple Myeloma Nanotherapy held its annual Outreach Program mini symposium on May 1. Keynote speaker (left) James R. Heath, PhD, president and professor at the Institute for Systems Biology in Seattle, presented "New Single Cell Methods for Cancer Immunotherapy." Heath has founded several companies and was named one of the top seven innovators in the world by Forbes Magazine.



Liu Receives \$5.1 Million Emerging Investigator Award from NIH

by Tamara Bhandari

By age 40, almost everyone's arteries have begun to harden as deposits of fat and cholesterol build up on the inside of the blood vessels. These unstable deposits — known as vulnerable plaque — can trigger heart attacks and strokes in seemingly healthy people.

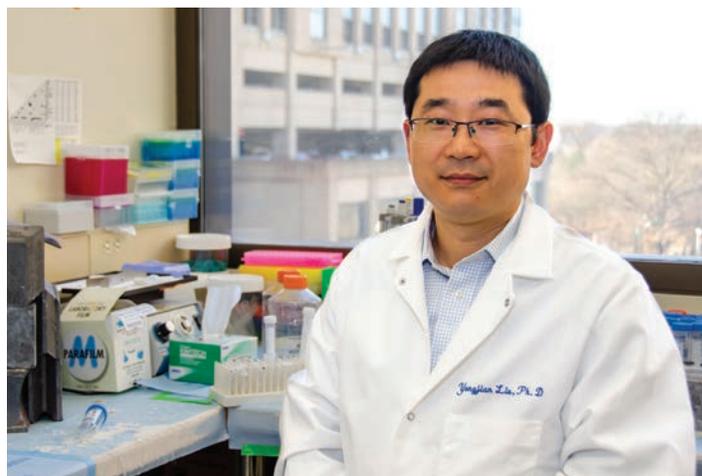
Now, the National Heart, Lung and Blood Institute of the National Institutes of Health (NIH) has awarded Yongjian Liu, PhD, associate professor of radiology at MIR, a \$5.1 million Emerging Investigator Award to find a way to reduce the risk of sudden injury or death by identifying vulnerable plaque and treating it. The prestigious award — which will support Liu's work for the next seven years — represents a vote of confidence in his ability to tackle a critical threat to human health.

"Plaque is the troublemaker behind the scenes," Liu says. "What you see is a person having a heart attack or stroke, but backstage there is a vulnerable plaque that has broken off and clogged a blood vessel. The problem is that there's no way to predict the rupture of a plaque. We can tell that someone has plaque, but not whether it increases the risk of a serious cardiovascular event like heart attack or stroke."

Exercise stress tests and X-ray and CT scans can detect large plaque deposits that narrow arteries and obstruct circulation. Physicians treat such obstructions either with surgery or medications to open a path for blood flow. But for people with smaller plaque deposits, doctors struggle to decide whether and how to intervene. If the plaque lies in arteries in the neck, which supply blood to the brain, doctors often remove it to avert a potential stroke. But experts say that up to 98% of such surgeries could be avoided if we had a better way of distinguishing vulnerable plaque deposits from less-dangerous ones.

"There's really no way to identify people at risk unless you do imaging," Liu says. "Genotyping and blood chemistry don't reveal what's going on inside the blood vessels. Only imaging lets us look inside a person's body and quantify the severity of disease."

This grant provides support for Liu and colleagues including Robert J. Gropler, MD, senior vice chair and division director of radiological sciences at MIR, to design PET radiotracers to distinguish vulnerable plaque from other kinds of plaque in

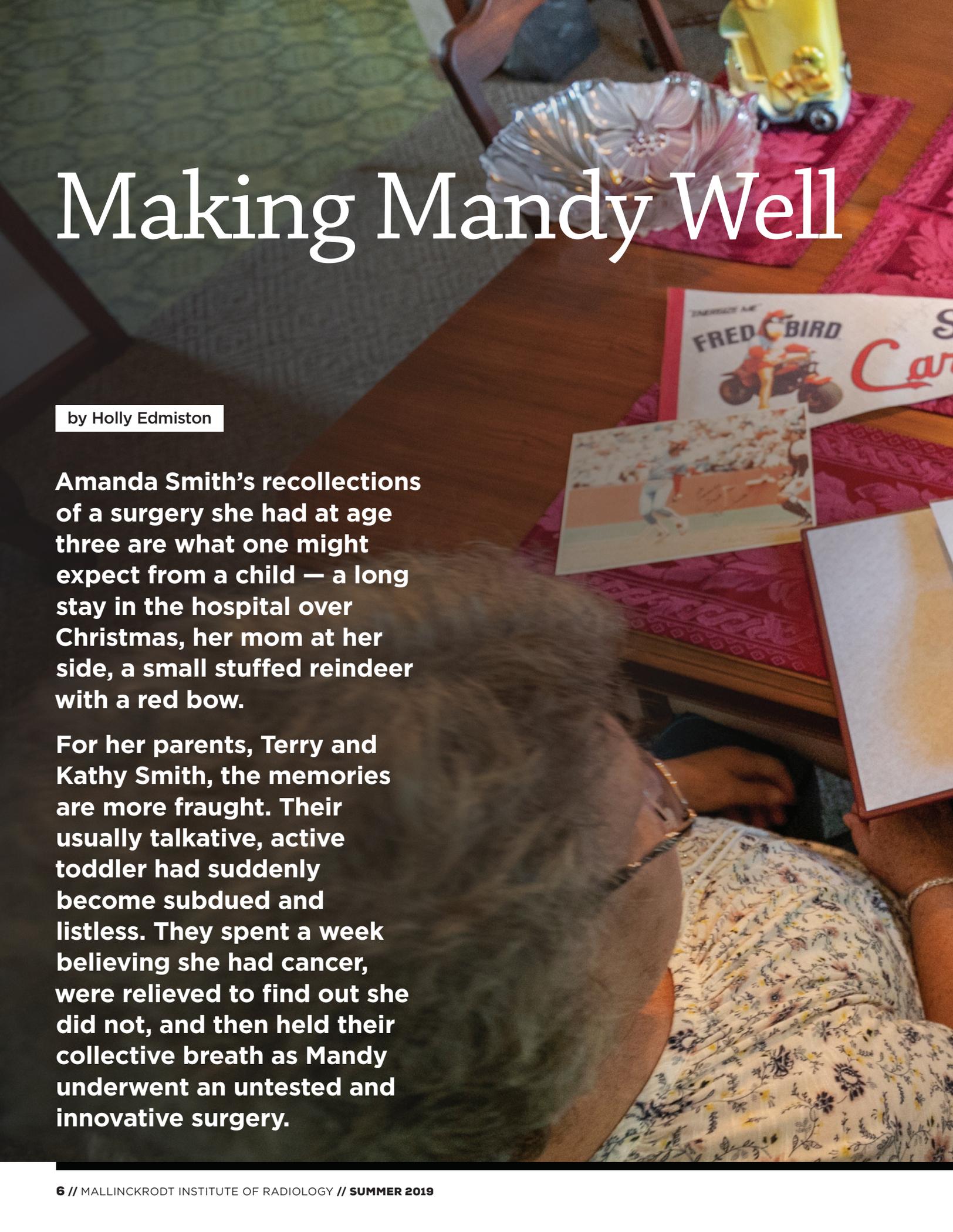


"I hope to be able to deliver a toolbox that will allow doctors to find patients at risk and treat them before they have a heart attack or stroke," says Liu.

the body. MIR is one of the few sites in the country with the equipment and expertise to shepherd a new PET tracer from the design stages through animal studies to clinical trials.

Plaque containing inflammatory cells and proteins are more likely to rupture, so Liu is designing probes to pick up signs of inflammation within plaque. Then, along with colleagues, Liu will study mice with atherosclerosis and samples of blood vessels from people who underwent plaque-removal surgery to assess whether the tracers can reliably detect vulnerable plaque.

"The goal is really individualized, targeted treatment," Liu says. "Right now, we don't know who is at risk and even if we did, we can't deliver drugs precisely and efficiently. With imaging, we'll be able to identify vulnerable plaque, deliver treatment directly to it, and see whether the treatment is effective. In a few years, I hope to be able to deliver a toolbox that will allow doctors to find patients at risk and treat them before they have a heart attack or stroke." 



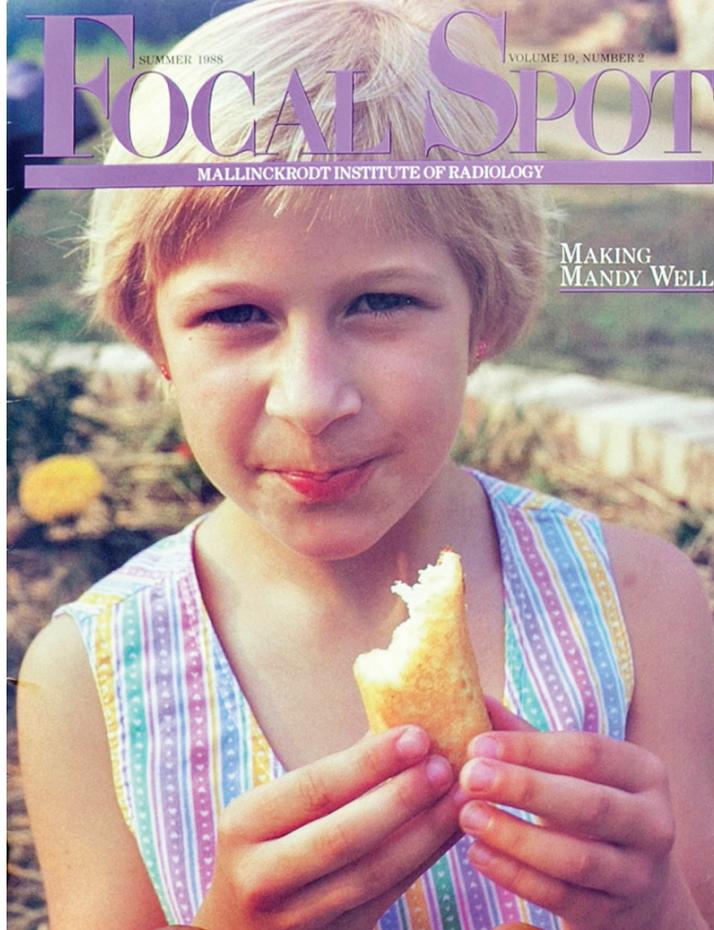
Making Mandy Well

by Holly Edmiston

Amanda Smith's recollections of a surgery she had at age three are what one might expect from a child — a long stay in the hospital over Christmas, her mom at her side, a small stuffed reindeer with a red bow.

For her parents, Terry and Kathy Smith, the memories are more fraught. Their usually talkative, active toddler had suddenly become subdued and listless. They spent a week believing she had cancer, were relieved to find out she did not, and then held their collective breath as Mandy underwent an untested and innovative surgery.





A few years after events unfolded, Amanda's diagnosis, treatment and recovery were chronicled in a Focal Spot cover story:

"Amanda Smith, then just three years old, came to St. Louis Children's Hospital jaundiced and obviously very ill. Amanda's pediatrician suspected hepatitis — a diagnosis that early blood work failed to support.

The real trouble was neither so obvious nor so commonplace. By the time Mandy finally left the hospital 35 days later, she had toughed her way through two major surgeries and had made medical history."

Summer 1988
Focal Spot

Her first ultrasound exam at Children's Hospital was conducted by Gary D. Shackelford, MD, now professor emeritus of radiology at MIR. Shackelford recalls Amanda's case as one of the most memorable of his career.

"It was the coming together of Mandy, as she was known then, being a delightful child, the complexity of her case, along with the thrill of working closely with Jessie Ternberg," he says.

Ternberg made the "courageous and correct" decision to end that first surgery, says Gary D. Shackelford, MD.

Jessie L. Ternberg, MD, who died in 2016, was a renowned Washington University School of Medicine pediatric surgeon, respected by her colleagues and



Amanda's puzzling illness and revolutionary treatment landed her on the cover of Focal Spot's summer 1988 issue.

beloved by her patients. After ultrasound scans identified an enlargement on the head of Amanda's pancreas, Ternberg performed an exploratory surgery. The intent was to locate what pathology had determined was likely a malignant tumor and then perform a Whipple procedure — an operation that removes the head of the pancreas, the first part of the duodenum, the gallbladder and the bile duct.

Ternberg Calls an Audible

Instead, based on what she felt was "a lack of certainty" in the pathologist's report, Ternberg made the "courageous and correct" decision, as Shackelford terms it, to end that first surgery after removing only a tissue sample of the mass for further study.

Over the next eight days, more tests and additional stains were done on that tissue. It was a long week for the Smiths, who believed that their young daughter had cancer.

By this time, Amanda was a bit of star at the hospital. In what ended up being a 34-day stay,

Previous page: Amanda's hospital stay left the Smith family with countless mementos — photo albums, gifts from visitors and handwritten notes from loved ones.

Left: An early clue in unraveling the mystery of Amanda's illness was this ultrasound image of her liver.

a record at the time, she had amassed quite the roster of local celebrity visitors. St. Louis Cardinals outfielder Andy Van Slyke and legendary shortstop Ozzie Smith stopped by, though Amanda was most excited to meet team mascot Fredbird. St. Louis Blues player Brian Sutter gave her a signed puck, and even Santa Claus made an appearance.

“There I was, holding Mandy in a rocking chair, with six tubes coming out of her, and along comes Brian Sutter and one of his brothers,” says Terry Smith, who notes those visits were bright spots in

“Other doctors always wanted to see it because it was so unusual,” says Amanda of her unique anatomy.

some dark days. “We were very down, and then several days later Dr. Ternberg said things were looking a little better; they weren’t 100% sure the tumor was malignant.”

Finally, the family received the good news they’d been waiting for: the tumor was benign. The enlargement, as it turned out, was the result of bile ducts in the liver not draining properly.

In addition to ultrasound, Shackelford and his radiology colleagues had used computed tomography (CT) to confirm the enlarged head of Mandy’s pancreas. “We did not have MRI at the time,” he says. “We identified this discrete mass, but it was not a ‘slam dunk’ cancer.”

An Unprecedented Procedure

Eventually the mass was classed as a hemangioma-endothelioma, an extremely rare, vasoactive tumor about which little was known. Once Ternberg knew for certain the tumor was benign, she was ready to go in again and “reroute Mandy’s plumbing” in a way that had never been done.

Ternberg undertook a complicated operation that included two procedures that had not previously been combined in a single patient. First, she reestablished flow from the gallbladder by opening its tip directly into the duodenum, bypassing the duct that was blocked by the mass. Then, to drain the pancreatic enzymes, Ternberg resected the tail of the pancreas



Amanda’s parents, Terry and Kathy Smith, were by her side during her 34-day stay at St. Louis Children’s Hospital. These days the family bonds over vintage Chevrolet Corvettes and antiques.

and hooked it into a loop of the small bowel. The pancreas then drained in a reverse fashion in what’s known as a Roux-en-Y anastomosis.

None of Amanda’s physicians knew what to expect of the tumor that had been left undisturbed during the surgery. Some suspected it might have been growing slowly since birth and worried that it would continue. To monitor it, she returned to Children’s Hospital for regular imaging until she reached her 21st birthday.

Although the tumor did not grow and eventually dissipated in the years following the surgery, Amanda’s singular anatomy, courtesy of Ternberg, remained of interest. “Other doctors always wanted to see it,” she says, “because it was so unusual.”



Gary D. Shackelford, MD, professor emeritus of radiology at MIR, recalls Amanda's case as one of the most memorable of his career.

Shackelford continued to conduct follow-up ultrasound exams on Amanda for several years after her surgery, but he eventually fell out of touch with her and her family. "To learn that she is now a happy and thriving adult really warms my heart," he says. "I'm thrilled that Mandy is doing well."

Another thing Shackelford remembers fondly is the close relationship that existed at the time between other clinicians and radiologists. It was a normal occurrence for a clinician to come to the radiology reading room to discuss a case, he says.

Although interaction among physicians may happen differently today, Shackelford says the biggest change in approaching a case like Amanda's would likely be the use of MRI, which was not available at the time of her diagnosis. Back then, even CT was only about 10 years old as a mainstream imaging technology, he says, and to have had MRI would have been game-changing.

Vincent M. Mellnick, MD, associate professor of radiology and chief of abdominal imaging at MIR, agrees with both of those assessments. There's no doubt things being digitized with PACS (picture archiving and communication system) has decreased

the number of daily conversations with surgeons in the reading room, he says. However, he adds that subspecialization actually has led to more consultation, just in a different form.

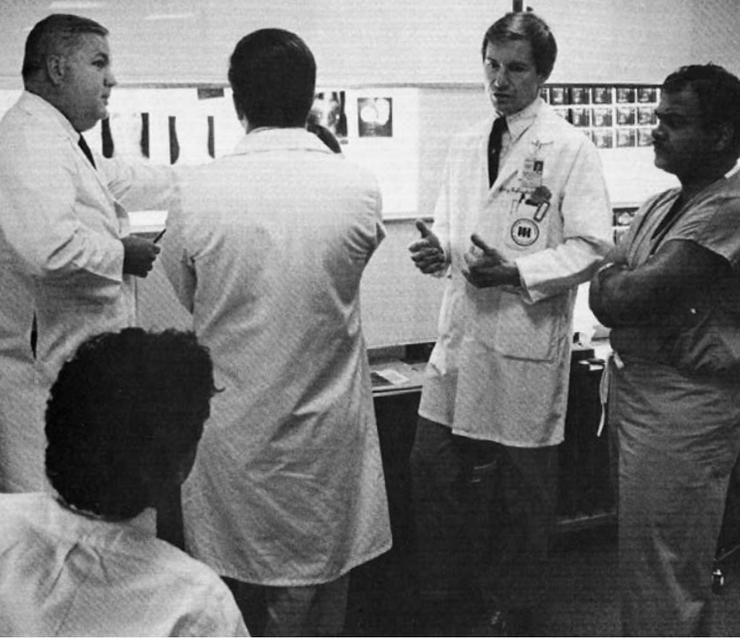
"A case like Mandy's would be discussed in a weekly multidisciplinary conference today," Mellnick says. "I think surgeons still find our opinions valuable; it's just more formalized."

"Today, body MRI has definitely become the main modality for imaging bile ducts and pancreas."

As for MRI, even when it became popular in the 1990s, it was mostly used for the brain and not as widely for the liver and bile ducts, Mellnick says. "Today, body MRI has definitely become the main modality for imaging bile ducts and pancreas," he says. "And not only have other modalities, such as PET and CT, advanced — with more sophisticated machines and greatly increased speeds — but combined PET/MRI allows us to combine two

Instead of performing the scheduled Whipple on Amanda, pediatric surgeon Jessie L. Ternberg, MD, (below, circa 1988) decided to take a tissue sample of the mass for further study.





Above left: Shackelford (second from right) fondly remembers the close relationship between radiologists and other clinicians.

Above right: “Subspecialization actually has led to more consultation, just in a different form,” says Vincent M. Mellnick, MD, chief of abdominal imaging at MIR.

modalities that give a very accurate picture of both the anatomy and function of the area being scanned.” And all of these modalities, he notes, use tracers to clearly show the difference between healthy and diseased tissue.

Depending on the symptoms and the age of the patient, diagnosis today for a child like Amanda would still likely start with an ultrasound scan to examine the bile ducts, says Mellnick, because ultrasound doesn’t use radiation and can easily be redone if the child moves during the scan.

After the source was identified, MRI or CT would often be used. And, as in Amanda’s case, a biopsy would likely be performed. But instead of a full-on exploratory surgery, this would be accomplished with imaging guidance in a noninvasive way. If the mass were found to be benign, next steps would be different for children and adults.

“We can’t thank the hospital and Dr. Ternberg and MIR enough for all of the expertise they had.”

In an adult patient, the duct might be stented and then repeatedly imaged to monitor any growth. Eventually, if it was needed to relieve symptoms, a surgeon might go in to resect the mass and create a new conduit for bile to flow into the bowel.

With children, it might be handled a little differently. “We are not as knowledgeable about

what would happen long-term with these types of tumors,” says Mellnick. “To resect them is more technically difficult in a child, and they would have to live with the altered anatomy so much longer than an older patient. That means there would be a higher likelihood of complications and the need for additional procedures down the road.”

Happy and Healthy 30 Years Later

It’s fair to say Amanda has been lucky. In the more than 30 years since her second surgery, she has experienced no adverse symptoms or complications, even during her self-described “tomboy” years when she was encouraged to slow down and not overexert, lest she damage her restructured internal organs. But she’s aware that she could at some point experience a complication.

“I do worry sometimes that it might come back,” she says, “but I feel fine.” In fact, Amanda has no recollection of her surgeries, and the only pain she remembers is the IV in her hand and when nurses removed the tape from her staples, leaving a scar she and her family have long referred to as her “upside-down frown.”

“We can’t thank the hospital and Dr. Ternberg and MIR enough for all of the expertise they had,” says Terry. “We did not know what was going on, and they didn’t either for the longest time. But no one gave up.” ▨

The Smarter SEX?

Study shows women's brains appear younger than men's

Time wears differently on women's and men's brains. While the brain tends to shrink with age, men's diminish faster than women's. The brain's metabolism slows as people grow older, and this, too, may differ between men and women.

A new study from Mallinckrodt Institute of Radiology finds that women's brains appear to be about three years younger than men's of the same chronological age, metabolically speaking. The findings, available online in Proceedings of the National Academy of Sciences, could be one clue to why women tend to stay mentally sharp longer than men.

"We're just starting to understand how various sex-related factors might affect the trajectory of brain aging and how that might influence the vulnerability of the brain to neurodegenerative diseases," says senior author Manu S. Goyal, MD, assistant professor of radiology at MIR. "Brain metabolism might help us understand some of the differences we see between men and women as they age."

The brain runs on sugar, but how the brain uses sugar changes as people grow and age. Babies and children use some of their brain fuel in a process called aerobic glycolysis that sustains brain development and maturation. The rest of the sugar is burned to power the day-to-day tasks of thinking and doing. In adolescents and young adults, a considerable portion of brain sugar also is devoted to aerobic glycolysis, but the fraction drops steadily with age, leveling off at very low amounts by the time people are in their 60s.

But researchers have understood little about how brain metabolism differs between men and women. So Goyal and his MIR colleagues — including Marcus E. Raichle, MD, the Alan A. and Edith L. Wolff Distinguished Professor of Medicine and professor of radiology, and Andrei G. Vlassenko, MD, PhD, associate professor of radiology — studied 205 people to figure out how their brains use sugar.

The study participants — 121 women and 84 men, ranging in age from 20 to 82 years — underwent PET scans to measure the flow of oxygen and glucose in their brains. For each person, the researchers determined the fraction of sugar committed to aerobic glycolysis in various regions of the brain. They trained a machine-learning algorithm to find a relationship between age and brain metabolism by feeding it the men's ages and brain metabolism data. Then, the researchers entered women's brain metabolism data into the algorithm and directed the program to calculate each woman's brain age from its metabolism. The algorithm yielded brain ages an average of 3.8 years younger than the women's chronological ages.

The researchers also performed the analysis in reverse: They trained the algorithm on women's data and applied it to men's. This time, the algorithm reported that men's brains were 2.4 years older than their true ages.

"The average difference in calculated brain age between men and women is significant and reproducible, but it is only a fraction of the difference





MIR researchers (left to right) Raichle, Goyal and Vlassenko studied 205 people to figure out how their brains use sugar.

between any two individuals,” Goyal says. “It is stronger than many sex differences that have been reported, but it’s nowhere near as big a difference as some sex differences, such as height.”

The relative youthfulness of women’s brains was detectable even among the youngest participants, who were in their 20s.

“It’s not that men’s brains age faster — they start adulthood about three years older than women, and that persists throughout life,” says Goyal, who is also an assistant professor of neurology and of neuroscience.

“What we don’t know is what it means. I think this could mean that the reason women don’t experience as much cognitive decline in later years is because their brains are effectively younger, and we’re currently working on a study to confirm that.”

Older women tend to score better than men of the same age on tests of reason, memory and problem solving. Goyal, Raichle, Vlassenko and colleagues are now following a cohort of adults over time to see whether people with younger-looking brains are less likely to develop cognitive problems. //

Global Media Madness

Perhaps it’s the age-old “battle of the sexes” that captivated the attention of national and international media. Regardless, MIR’s brain metabolism research spread far and wide, with coverage in national news outlets including CNN and The Wall Street Journal, all the way to The Guardian and International Business Times UK.



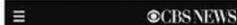
Brain drain? Women's brains appear younger than men's, study finds



Women Have Younger Brains Than Men



Women's brains are 'four years younger' than men's, study finds



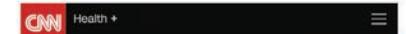
Women's brains appear "years younger" than men's, study finds



Why women's grey matter ages better than men's



Scans Show Female Brains Remain Youthful As Male Brains Wind Down



Women's brains appear younger than men's, study finds



A Study Found That Men's Brains Are Older Than Women's. Should You Be Worried?

What's in a Name?

Named professorships carry storied histories, honoring an institution's influential figures while shepherding in a new era of leaders. Washington University's first named professorship dates nearly to its inception, beginning with the William Greenleaf Eliot Professorship in Chemistry in 1856.

These four MIR leaders have made a permanent mark on the field of radiology — from physics to patient care. And this year they have a new honorific to show for it.



Sherwood Moore

Sherwood Moore, MD, (1880-1963) was the first professor of radiology at Washington University School of Medicine and among the earliest to hold such a position in the nation. Moore, who was the founding director of MIR, installed one of the

first deep therapy units for cancer and is credited with helping build the university's first cyclotron. Developed to produce radioactive isotopes for medical use, the cyclotron was notably used during World War II to produce plutonium for the Manhattan Project.

A visionary in the field of radiology, Moore staffed his team with a physicist, a sign of his ingenuity in the imaging sciences. "Even in a very small radiology department, he recognized that physics was very important," said Wahl at Culver's installation ceremony.

Moore earned his medical degree from the Washington University Medical Department in 1905. After several years of practice, he returned to the university in 1917 as an assistant professor of surgery and roentgenologist-in-chief at then-Barnes Hospital.



**Sherwood Moore
Professor of
Radiology**

Joseph P. Culver, PhD

Joseph P. Culver, PhD, was named the Sherwood Moore Professor of Radiology on April 24, where he presented "Developing Neurophotronics for Blushing Brains." Based in MIR's Optical Imaging Laboratory, Culver develops neurophotonic technology for mapping brain function in both humans and animal models.

Not everyone goes into hard science, said Richard L. Wahl, MD, Elizabeth E. Mallinckrodt Professor and MIR director. "But we need people in hard science to advance medicine." He added that Culver's work has solved pain points within research methods, making way for medical advancement.

For example, Culver and his team have developed a method for using correlation analysis to map functional connectivity (fcDOT) within the brain. This approach enables isolation of functional maps using resting-state measurement, providing taskless mapping of brain function in populations that were previously difficult to research using fcMRI or traditional DOT (for example, neonatal intensive care and open scanning environments). His team also recently presented the first DOT system capable of mapping distributed brain function and networks.

In addition to his own research endeavors, Culver's work is a resource to numerous other scientists, as his more than 100 publications have been cited over 9,000 times. He also co-directs the university's Imaging Sciences Pathway and Imaging Sciences PhD program, rounding out his portfolio with years of dedicated mentorship and teaching experience.

Culver joined MIR's faculty in 2003 after completing a doctorate in physics and a postdoctoral fellowship in biomedical ethics, both at the University of Pennsylvania.

Culver with (from left) then-Chancellor Mark S. Wrighton; Richard L. Wahl, the Elizabeth E. Mallinckrodt Professor and director of MIR; and David H. Perlmutter, MD, dean of Washington University School of Medicine.



Drs. Barry A. and Marilyn J. Siegel Professor of Radiology

Farrokh Dehdashti, MD



Farrokh Dehdashti, MD, was installed as the inaugural Drs. Barry A. and Marilyn J. Siegel Professor of Radiology on May 29, where she presented “Oncologic PET Beyond Tumor Detection: Assessing Cancer Biology with Novel PET Tracers.”

Dehdashti’s research focuses on PET imaging for cancer diagnosis and treatment, with applications across many cancers, including cervical, pancreatic, prostate and breast. She has conducted first-in-man studies of several novel PET radiotracers and has advanced PET usage for tumor detection,

characterization of tumor phenotype and predicting treatment response.

Earlier in her career Dehdashti, who is senior vice chair and director of the division of nuclear medicine at MIR, proved that PET could accurately and noninvasively predict response to endocrine therapy. This breakthrough discovery held significant potential for patients, who could be spared the invasiveness of multiple biopsies and ineffective therapy. Most recently, she translated a novel progesterone receptor radiotracer to assess whether it can accurately predict a response to endocrine therapy.

In addition to her translational research pursuits at the School of Medicine, Dehdashti co-leads the Oncologic Imaging Program at Siteman Cancer Center and holds Investigational New Drug status from the FDA for investigational radiotracers.

Dehdashti joined the faculty at the School of Medicine in 1990 after working as a research fellow in PET imaging following a nuclear medicine residency at the Medical College of Wisconsin and at MIR.



Then-Chancellor Mark S. Wrighton (far right) secures Dehdashti’s medal, while (from left) David H. Perlmutter, MD, dean of Washington University School of Medicine, Barry A. Siegel, MD, and Marilyn J. Siegel, MD, look on.

Barry A. and Marilyn J. Siegel

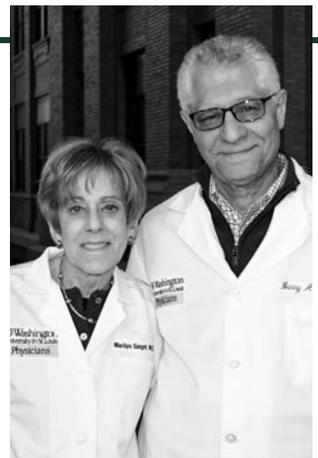
Barry A. Siegel, MD, is professor of radiology and of medicine, and former senior vice chair and division director of nuclear medicine.

Marilyn J. Siegel, MD, is professor of radiology and of pediatrics. The couple, who met when Marilyn Siegel was completing a residency and fellowship at MIR, established the professorship in 2016.

Barry Siegel’s Washington University career spans more than 55 years, beginning as an undergraduate and leading up to a faculty appointment in 1973. His groundbreaking work using PET to enhance cancer diagnosis and monitor tumor response to therapy has culminated in numerous awards, including the

prestigious Benedict Cassen Prize from the Society of Nuclear Medicine and Molecular Imaging and a Lifetime Achievement Master Physician Award from the Barnes-Jewish Hospital Medical Staff Association.

Marilyn Siegel was the first woman to serve as chief resident in radiology at the School of Medicine and has been a pioneer of CT scanning since the technology’s infancy. She has authored more than 300 works, including the internationally known “Pediatric Sonography.” She was recently honored with a Gold Medal from the Society of Computed Body Tomography & Magnetic Resonance.





Ronald and Hanna Evens Endowed Chair in Women's Health

Steven P. Poplack, MD

Steven P. Poplack, MD, was named the Ronald and Hanna Evens Endowed Chair in Women's Health on November 7, where he presented a summary of his research endeavors titled "Pilot'-ing through Turbulence." The Foundation for Barnes-Jewish Hospital bestows this honor to recognize excellence in the field of breast imaging.

Poplack's contributions to radiology include an array of novel techniques for breast cancer diagnosis using digital breast tomosynthesis, near-infrared light, microwave and electrical impedance spectroscopy, and treatment with US-guided cryoablation. He helped lead a multisite clinical trial of tomosynthesis that resulted in FDA approval of the technology.

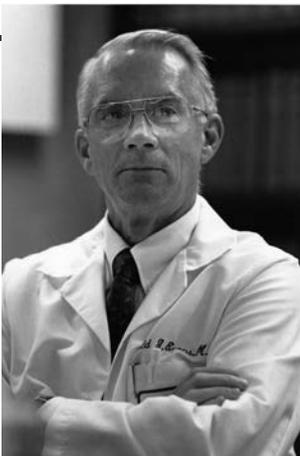
Like the professorship's namesakes Ronald and Hanna Evens — the former served as MIR's director for nearly 30 years, the latter as a nurse at St. Louis Children's Hospital — Poplack's work has advanced patient care in more ways than one.

"Steve is a true innovator in breast imaging, whose work has helped lead to the introduction of important imaging technologies that directly improve our patients' care," says Richard L. Wahl, MD, the Elizabeth E. Mallinckrodt Professor and director of MIR. "He is constantly exploring and carefully validating new methods in well-performed clinical trials."

Poplack, along with Quing Zhu, professor of biomedical engineering, is currently evaluating a noninvasive imaging technique that could significantly reduce unnecessary biopsies by utilizing US-guided diffuse light tomography.

Poplack arrived at Washington University in 2015 following 21 years at Dartmouth-Hitchcock Medical Center. He succeeds former chair and professor emerita of radiology, Barbara S. Monsees, MD, who retired from MIR in 2018.

Poplack with (from left) Hanna Evens; Barbara S. Monsees, professor emerita of radiology; and former MIR Director Ronald G. Evens, MD, professor emeritus of radiology.



Ronald and Hanna Evens

The Foundation for Barnes-Jewish Hospital established the Ronald and Hanna Evens Endowed Chair in Women's Health in 2004 to recognize the distinguished career of former MIR Director Ronald G. Evens, MD. Evens has held many leadership roles at BJC HealthCare and Washington University, including president of Barnes-Jewish Hospital and St. Louis Children's Hospital, the university's vice chancellor for financial affairs, senior executive officer for special projects at BJC HealthCare and interim president of Barnes-Jewish College of Nursing.

Former Washington University Chancellor William H. Danforth, MD, called Evens "a whiz from the start." In 1971, at just 31 years old, Evens was tapped to lead MIR and a year later became the first endowed chair in radiology as the Elizabeth E. Mallinckrodt Professor. During his time as president of Barnes-Jewish Hospital, Evens co-created the Alvin J. Siteman Cancer Center, an international leader in cancer treatment.

Evens' wife Hanna graduated from Barnes Hospital School of Nursing and is a former nurse at St. Louis Children's Hospital.

Hugh Monroe Wilson Professor of Radiology

Pamela K. Woodard, MD



Pamela K. Woodard, MD, was installed as the Hugh Monroe Wilson Professor of Radiology on January 31, where she presented “Imaging the Biology of Atherosclerosis.”

The endowed chair honors Hugh Monroe Wilson, MD, MIR’s second director. Like Wilson, Woodard specializes in cardiothoracic imaging and is internationally recognized for her achievements.

At MIR, Woodard’s responsibilities are numerous, encompassing both clinical and educational pursuits. She is senior vice chair and division director of radiology research facilities, director of the Center for Clinical Imaging Research, head of Advanced Cardiac Imaging CT/MRI and director of the Radiology Research Residency Program.

Woodard with (from left) David H. Perlmutter, MD, dean of Washington University School of Medicine; Richard L. Wahl, MD, the Elizabeth E. Mallinckrodt Professor and director of MIR; and then-Chancellor Mark S. Wrighton.



Not only has she taught clinical residents and fellows, but she has trained 27 others, ranging from graduate students to post-doctoral students. Woodard also serves as principal investigator for the NIH-funded T32 Training Opportunities in Translational Imaging Education and Research (TOP-TIER) program.

“The inaugural recipient, Dr. Woodard, like Dr. Wilson, is both a leader in the department and a phenomenal clinician who has demonstrated a deep commitment to the health and well-being of others,” says David H. Perlmutter, MD, executive vice chancellor for medical affairs and dean of the Washington University School of Medicine.

In addition to her role in educating the next generation of scientists, Woodard’s research has moved the needle for patient care. As an assistant professor in 1995, she and her colleagues led an NIH-funded multicenter trial that resulted in a landmark paper that established multidetector CT as the standard of care for pulmonary embolism diagnosis. She is currently leading an NIH-funded first-in-human clinical trial for an atherosclerosis PET tracer and holds several patents for receptor-targeted imaging agents.

Woodard completed her clinical fellowship in cardiothoracic radiology at MIR and joined the faculty in 1997. In 2018, she was appointed to the Board of Chancellors of the American College of Radiology.

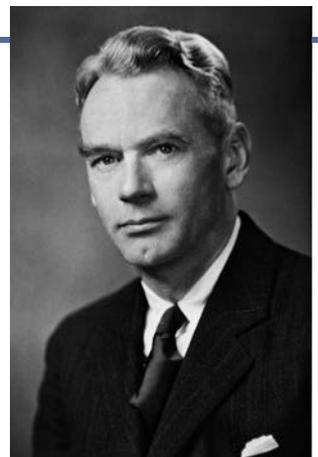
Hugh Monroe Wilson

Hugh Monroe Wilson, MD (1902-1978), graduated from Washington University School of Medicine in 1927 and pursued surgical training, then radiology training at MIR. In 1949, after a 15-year tenure at Yale, he returned to become MIR’s second director and usher in an ambitious future for the department.

Wilson arrived during a time when the field of radiology was broadening and MIR was prepped for unprecedented growth. Wilson, who specialized in chest imaging, played a key role in developing specialty areas within the department.

A phrase frequently attributed to Wilson speaks to his clinical philosophy: A missed diagnosis is a personal loss to both the patient and the radiologist. Beyond his clinical work, Wilson was a valued teacher and established the Association of University Radiologists, which still has over 1,600 members.

Despite a plethora of professional accomplishments, Wilson was a modest man and largely refused to be publicly recognized. However, he eventually agreed to an award in his name for medical students who excelled in radiology. //



Alumni Spotlight

by Kristi Luther

Michelle Dorsey, MD, is a diagnostic radiologist and the first female chief of radiology at the Phoenix VA Health Care System. Dorsey established the Phoenix VA's first breast imaging program, which became the VA system's first ACR designated Breast Imaging Center of Excellence. In October 2018, she was the first physician chosen to represent the Department of Veterans Affairs as a White House Leadership Fellow, a yearlong post in Washington D.C. where she works to improve customer experience across federal government agencies.

How did you end up working at the VA, and what's unique about working there?

I felt called to serve and that I had the potential to help more people at the VA, particularly the women veterans who would not have had access to the same level of care otherwise. Unlike the private sector, there is a continuity of care at the VA which was also appealing to me. You see a patient for their screening mammogram and then their diagnostic workup, perform their biopsy and refer them to surgery, do their follow-up exams, and visit them while they're in the hospital. Long after I became chief and wasn't as involved in the day-to-day care, I would still see patients in the hallway who would come up for a hug and to say thank you. That's something that really stays with you as a physician.

How has your experience solving complex problems at the Phoenix VA informed your work as a White House fellow?

I became the chief of radiology in the midst of a fairly public national concern regarding access to care for veterans in 2014. As chief, my overarching management philosophy was to put the veterans' needs at the center of all my decision making, which really led to a lot of success for our department. This philosophy carries over quite well into the work I'm doing now because the goal with customer experience is to put our customer at the center of our decision making, streamline our processes and break down some of the silos in government.

You're the first physician to represent the Department of Veterans Affairs as a White House fellow. How is your perspective as a physician an asset to the position?

Radiologists are adept at making a finding and coming up with a differential diagnosis. That sort of problem-solving mentality has really served me well. Especially working in government, the first idea you think of may not be the



As a United Nations General Assembly observer, Dorsey has been a delegate at multiple high-level UN meetings in New York.

one that ends up working — perhaps because of a regulation or staffing constraint. It's helpful to have a toolkit with several possibilities, as well as being willing to consult people outside of your department or even your agency.

How did you wind up at MIR?

It was recommended to me while I was a medical student at the University of Wisconsin. When I came for my interview at MIR there were these amazing faculty whose names are all over the books that you study, and here I was trying to quasi-impress them. Plus, MIR's facilities are phenomenal and the best of any place I visited — no place had a 12-floor radiology building — and there was such a breadth of experience. I made the right choice and never looked back.

Which MIR faculty members had a significant impact on you?

Dr. Monsees and Dr. Barton were early role models for me in breast imaging. They were truly thought leaders in that field. With ultrasound, it's totally due to Dr. Middleton that I can scan a patient and biopsy with either hand to this day. Those are skills you think are normal when you're at MIR, but then you go out into the world and realize many radiologists just don't have the same expertise.

Looking back on your career, you've had a lot of firsts. Which milestone means the most to you?

One of the things I'm still really proud of is starting the breast program at the Phoenix VA. We had so many obstacles to overcome. At first it was just myself and one technologist. I called and scheduled patients. I cleaned and turned over the ultrasound rooms. We had next to nothing — just the machine and the will to do it. Now we have two full-time breast imaging radiologists, three technologists and multiple administrative support staff. We've made such a difference in the lives of women veterans, providing access to care and even a shoulder to cry on when those memories of military sexual trauma were triggered. Serving veterans has truly been the greatest honor of my career.

Dorsey, her husband Tony Dorsey, MD, chief of anesthesiology at the Phoenix VA, and daughter Taylor smile for a family photo op in the White House press briefing room.



Alumni News

Focal Spot is looking for submissions from MIR alumni. If you've received an award or honor we should know about or have professional news you'd like to share, please email us at mirmarketing@wustl.edu.

MIR Alum Reunion at ASNR

MIR held its inaugural fellowship reunion night (below) at the American Society of Neuroradiology Annual Meeting in Boston. The May event brought together more than two dozen former and current faculty and fellows.



Former Chief Resident Menias Receives Distinguished Educator Award

Christine "Cooky" O. Menias, MD, professor of radiology and chief of abdominal imaging at Mayo Clinic College of Medicine and Science in Arizona, was named the 2019 ARRS Distinguished Educator at the American Roentgen Ray Society's annual meeting in Honolulu, Hawaii. The award celebrates outstanding radiology educators committed to providing education that ultimately improves patient outcomes. Menias, an alumna of Mallinckrodt Institute of Radiology, completed her residency in 1999 and an abdominal imaging fellowship in 2000. She is currently an MIR adjunct professor of radiology. 

About the Evens Society

Evens Society members include current full-time and past MIR faculty, as well as trainees who have spent a year in one of MIR's training programs.

MIR is excited to announce the following new faculty arrivals for 2019:

Tabassum Ahmad, MD

Assistant Professor of Radiology
Breast Imaging

Trevor J. Andrews, PhD

Assistant Professor of Radiology
Physics (Neuroradiology)

Maria del Pilar Bayona Molano, MD

Assistant Professor of Radiology
Interventional Radiology

Janine D. Bijsterbosch, PhD

Assistant Professor of Radiology
Electronic Radiology Lab

Cihat Eldeniz, PhD

Instructor in Radiology
Center for Clinical Imaging Research

Tyler J. Fraum, MD

Assistant Professor of Radiology
Abdominal Imaging/Nuclear Medicine

Saul N. Friedman, MD

Instructor in Radiology
Nuclear Medicine

Bruce L. Hedgepeth, MD

Clinical Instructor
Community Radiology
(Phelps Health)

Amir Irvani, MD

Assistant Professor of Radiology
Nuclear Medicine

Mariam A. Malik, MD

Instructor in Radiology
Musculoskeletal Radiology

Ali Y. Mian, MD

Assistant Professor of Radiology
Neuroradiology

Aaron J. Mintz, MD

Instructor in Radiology
Abdominal Imaging

Suman B. Mondal, PhD

Instructor in Radiology
Optical Radiology Lab

Kelby B. Napier, MD

Assistant Professor of Radiology
Musculoskeletal Radiology

Kevin A. Neal, MD

Instructor in Radiology
Cardiothoracic Imaging

Michael L. Nickels, PhD

Assistant Professor of Radiology
Director, Cyclotron
Cyclotron Facility

Martin N. Reis, MD

Assistant Professor of Radiology
Neuroradiology

Ryan G. Short, MD

Assistant Professor of Radiology
Cardiothoracic Imaging

Cornelius J. von Morze, PhD

Instructor in Radiology
Biomedical Magnetic Resonance Lab

Andrew B. Wallace, MD

Instructor in Radiology
Pediatric Radiology

Danielle M. Weems, MD

Instructor in Radiology
Abdominal Imaging

Hongwen Zhang, PhD

Assistant Professor of Radiology
Radiological Chemistry and
Imaging Laboratory

Zhongwei Zhang, MD, PhD

Assistant Professor of Radiology
Physics (Pediatric Radiology)

Appointments/ Promotions

Joelle Biernacki, MD

Assistant Professor of Radiology

Ajay R. Chapa, MD

Assistant Professor of Radiology

DeWitte T. Cross III, MD

Professor Emeritus of Radiology

Ronald G. Evens, MD

Professor Emeritus of Radiology

Michael V. Friedman, MD

Associate Professor of Radiology

Punita Gupta, MD

Assistant Professor of Radiology

Cheryl R. Herman, MD

Associate Professor of Radiology

Michelle V. Lee, MD

Associate Professor of Radiology

Daniel S. Marcus, PhD

Professor of Radiology

Aseem Sharma, MD

Professor of Radiology

Hui Hua Shu, MD

Assistant Professor of Radiology

Aristeidis Sotiras, PhD

Assistant Professor of Radiology

Robert P. Stachecki, MD

Assistant Professor of Radiology

Kimberly N. Wiele, MD

Associate Professor of Radiology

Duncan Named Chief of Interventional Radiology



James R. Duncan, MD, PhD, professor of radiology, has been named chief of interventional radiology at MIR.

Prior to his appointment as section chief, Duncan served as MIR's vice chair for quality and safety, beginning in 2015.

He has been on the School of Medicine's faculty since 1992. He succeeds Michael D. Darcy, MD, professor of radiology, in his new role. Before Darcy, the role was held by Daniel D. Picus, MD, who founded MIR's interventional radiology section in 1987.

Duncan earned his medical degree and doctorate in cellular and molecular biology from Washington University and his bachelor's degree from the University of Michigan.

He is an alumnus of the MIR interventional radiology fellowship program and completed his diagnostic radiology residency at MIR, in addition to being the department's first research resident.

Since 2008, he has led interventional radiology services at St. Louis Children's Hospital, where he has managed a team of nurses, technologists and physicians.

"Given the strength of the interventional faculty, as well as the section's history of teamwork and exemplary leadership, I am confident that Jim will build on this tradition of excellence," says Richard L. Wahl, MD, the Elizabeth E. Mallinckrodt Professor and director of MIR.

In 2012, Duncan completed the Improvement Advisor Professional Development Program at the Institute for Healthcare Improvement, an independent nonprofit organization based in Boston. The intensive, 10-month program cultivates leaders invested in improvement within health organizations.

Earlier this year, he helped secure a two-year grant to help close the loop on radiology follow-up recommendations for patients, specifically those with lung nodules discovered incidentally during unrelated imaging studies.

MIR Chief Residents 2019-2020

From left:
David H. Ballard, MD
Chelsea R. Samson, MD
Wesley N. Bryson, MD



Honors/Awards

Samuel I. Achilefu, PhD, the Michel M. Ter-Pogossian Professor of Radiology and vice chair for innovation and entrepreneurship at MIR, received the 2019 SPIE Britton Chance Award in Biomedical Optics, which recognizes outstanding lifetime achievements in the field of biomedical optics. Achilefu was also named a fellow of the American Institute for Medical and Biological Engineering.

Kevin M. Bennett, PhD, associate professor of radiology, **Joel R. Garbow, PhD**, professor of radiology, and **Dmitriy A. Yablonskiy, PhD**, professor of radiology were each honored with the 2019 Distinguished Investigator Award from the Academy for Radiology & Biomedical Imaging Research.

Mikhail Y. Berezin, PhD, associate professor of radiology, was named a 2019 SPIE Fellow. Fellows are SPIE members of distinction who have made significant scientific and technical contributions in the multidisciplinary fields of optics, photonics and imaging.

Abhinav K. Jha, PhD, assistant professor of biomedical engineering and a researcher in MIR's Radiological Chemistry and Imaging Laboratory, was selected for the Council of Early Career Investigators in Imaging by the Academy for Radiology & Biomedical Imaging Research.

Seung Kwon Kim, MD, was inducted as a 2019 Society of Interventional Radiology Fellow at the society's annual meeting on March 23-28 in Austin, Texas. The honor recognizes demonstrated excellence in the field of interventional radiology, along with society contributions and involvement.

Robert C. McKinstry, MD, PhD, the William R. Orthwein Jr. and Laura Rand Orthwein Professor of Radiology and Pediatrics and senior vice chair and division director of diagnostic radiology, was selected for the Association of University Radiologists' radiology management program, which took place April 10-11 in Baltimore.

Vamsi R. Narra, MD, professor of radiology and senior vice chair for imaging informatics and new business development, passed the American Board of Preventive Medicine's Clinical Informatics exam.

Daniel D. Picus, MD, professor of radiology, received the William T. Thorwarth Jr., MD, Award at the American College of Radiology's annual meeting on April 18-22 in Washington, D.C. The award recognizes outstanding contributions in the field of health policy and economics for radiology.

Sally W. Schwarz, professor of radiology, received the 2019 St. Louis Science and Technology Award. The award is presented by the American Chemical Society to a St. Louis chemist who has demonstrated a high degree of professionalism and scientific contribution.

Barry A. Siegel, MD professor of radiology, was honored with a named lecture at the Society of Nuclear Medicine and Molecular Imaging's annual meeting. The inaugural lecture took place on June 23 in Anaheim, California.

Richard L. Wahl, MD, the Elizabeth E. Mallinckrodt Professor of Radiology and director of MIR, was named 2019-20 vice president-elect for the Society of Nuclear Medicine and Molecular Imaging.



PET-RTRC Annual Meeting

The Radiotracer Translation and Resource Center's (PET-RTRC) nationwide network of leaders and collaborators gathered at the School of Medicine campus in April for the center's first annual meeting. The event, which included a mini poster session, highlighted the PET-RTRC's primary research projects.

Grants

James R. Duncan, MD, PhD, professor of radiology, received a two-year, \$256,700 grant from Coverys Community Healthcare Foundation for “Closing the Loop for Radiology Follow-Up Recommendations.”

Vijay Sharma, PhD, professor of radiology, **Thomas H. Schindler, MD**, associate professor of radiology, and **Pamela K. Woodard, MD**, the Hugh Monroe Wilson Professor of Radiology and senior vice chair and division director of research facilities, received a four-year, \$2.9 million grant from the NIH’s National Heart, Lung and

Blood Institute for “Development and Translation of Generator-Produced PET Tracer for Myocardial Perfusion Imaging.”

Barry A. Siegel, MD, professor of radiology, along with a team of researchers at Washington University School of Medicine, was awarded more than \$7.8 million over six years by the National Cancer Institute as part of the Lead Academic Participating Site grant. This funding, which was created especially for the National Clinical Trials Network, allows participating sites to offer a broad range of clinical trials and confirm preliminary findings.

Daniel L.J. Thorek, PhD, assistant professor of radiology, received a five-year, \$1.9 million grant from the National Cancer Institute for “Opening the Therapeutic Window for PSMA-Targeted Molecular Radiotherapy.”

Dmitriy A. Yablonskiy, PhD, professor of radiology, received a one-year, \$14,000 grant from Amazon Web Services for “AWS-Based Infrastructure for Data Transfer and Significantly Accelerated Data Analysis.”

The Twenty-Fifth Annual Hyman R. Senturia Memorial Lecture



Sanjeev Bhalla, MD (right), MIR’s chief of cardiothoracic imaging, with lecture speaker James F. Gruden, MD.

James F. Gruden, MD, professor of clinical radiology at Weill Cornell Medicine, presented “CT in the Diagnosis of Diffuse Fibrotic Interstitial Lung Disease” at the twenty-fifth annual Hyman R. Senturia Memorial Lecture in February. Gruden serves as director of the division of body and cardiothoracic imaging at NewYork-Presbyterian Hospital/Weill Cornell

Medical Center. His interests include high-resolution imaging of diffuse lung disease, imaging of the pulmonary vasculature, and lung cancer screening and post-treatment assessment.

Gruden is also the section editor for cardiothoracic imaging in *Clinical Imaging* and has reviewed abstracts for the American Roentgen Ray Society Annual Meeting since 2014.

The Thirty-Third Annual Daniel R. Biello Memorial Lecture

Homer A. Macapinlac, MD, the James E. Anderson Distinguished Professor of Nuclear Medicine and chair of the department of nuclear medicine at the University of Texas MD Anderson Cancer Center, presented “Evolution of Nuclear Medicine in the Multidisciplinary Care of Cancer Patients at MD Anderson Cancer Center” at the thirty-third annual

Daniel R. Biello Memorial Lecture in March. Macapinlac’s expertise is in the field of nuclear medicine and theranostics.

Prior to joining MD Anderson, he served as clinical director of the Lauren and Alberta Gershel Positron Emission Tomography Center of Memorial Sloan Kettering Cancer Center. 



Speaker Homer A. Macapinlac, MD, (center) with Barry A. Siegel, MD, (right) and Farrokh Dehdashti, MD.

Nurturing the Neuroradiologists of Tomorrow

by Kristin Rattini

Throughout his esteemed career in neuroradiology, Franz J. “Jay” Wippold II, MD, who retired in 2017 and is now professor emeritus of radiology at Mallinckrodt Institute of Radiology (MIR), has held the role of mentor in highest regard.

“I was raised with the notion that we are here as stewards,” he says. “We are all given certain gifts and talents, and we are expected to use them not just for ourselves, but for others.”

As reflected by his multiple teaching awards, his Washington University School of Medicine Distinguished Clinician Award and the deep respect of his colleagues, Wippold generously shared his talents and nurtured those of students and faculty during his three-plus decades at MIR, and particularly during his 17 years as chief of the neuroradiology section.

“As chief, Dr. Wippold worked tirelessly to create a world-class academic section with state-of-the-art imaging facilities, outstanding neuroradiologists to deliver the highest quality care to patients, and talented academic neuroradiologists to advance the field,” says Katie D. Vo, MD, professor of radiology, who succeeded Wippold as section chief. “I feel very fortunate to have inherited the section from Dr. Wippold.”

The Early Years

Wippold is quick to give credit to the mentors in his own life who encouraged his passion for medicine and guided his career path, starting when he was in grade school in South St. Louis County. “Relatives would give me preserved frogs and dissecting kits,” he remembers. Family friends who were physicians invited him to shadow them in their practices. And when neurology piqued his interest at Saint Louis University School of Medicine, the chairman of the neurology department took him under his wing. Shortly after Wippold arrived at Walter Reed Army Medical Center on an Armed Services Health Professions Scholarship, CT scans were introduced to clinical practice. It changed the trajectory of his career from clinical neurology to neuroradiology.

“Here was this brand-new technique that was amazing,” Wippold remembers. “The puzzle of clinical neurology, of trying to solve where a lesion is, was miraculously revealed with this CAT scan device. After much soul searching, I decided to switch from neurology to neuroradiology for my residency.

“There were only one or two neuroradiologists in the entire U.S. Army at the time, so I received carte blanche to pursue it.”

That pursuit led him to a fellowship in neuroradiology at MIR, where Mokhtar H. Gado, MD, and Fred J. “Ted” Hodges III, MD, served as his role models. “I respected them so much, not just for their mental accomplishments and academic prowess,” Wippold says, “but also their humanity, their understanding of human nature and the ethos of taking care of patients.” He felt honored to become their colleague when he joined MIR’s full-time faculty in 1989.



Right: While assigned to Walter Reed, Wippold reviews scans during a field deployment to investigate a U.S. Army airplane crash.

Chief Accomplishments

In 2000, he followed in the footsteps of his mentors Gado and Hodges when he was appointed section chief. Among the many milestones during his tenure, Wippold forged a lasting partnership with his colleagues in neurology and neurosurgery during their joint efforts to develop the first accredited endovascular neuroradiology program in the U.S. In concert with his work on the American Society of Neuroradiology's education committee, Wippold instituted an ambitious neuroradiology training curriculum at MIR.

"I tried to instill in the residents not just what to think, but how to think," he says. "How to look at patterns, establish differential diagnoses and approach findings."

Through his involvement in the Center for Bioethics and Culture of Missouri — for which he served a term as president — Wippold expanded his role of teacher and mentor into areas beyond what was on the film. "Dr. Wippold made a tremendous effort to remind the institutions — both MIR and the Washington University School of Medicine — of their ethical responsibilities by speaking and inviting others to speak about significant moral issues of the day and of our lives," says Christopher J. Moran, MD, professor of radiology and of neurological surgery. "Through his moral courage, he reminded all of us of our oaths to care for people."

And as he staffed up the neuroradiology section from three to nearly a dozen members, Wippold recruited individuals he was confident could take the department to the next level.

"I am so proud of the people who came in on my watch," he says. "They are not just smart and talented, but they are thoughtful, caring, wonderful people. They are my best legacy of the neuroradiology section." ■■■

Right, from top: Franz J. "Jay" Wippold II, MD, after receiving his medal as one of six inaugural Evens Society Honorees at the MIR alumni gala in 2018; with fellow Distinguished Teachers at MIR's 2014 End of the Year Dinner; alongside R. Gilbert Jost, MD (left), and Benjamin Lee, MD (center), to celebrate Lee's retirement.



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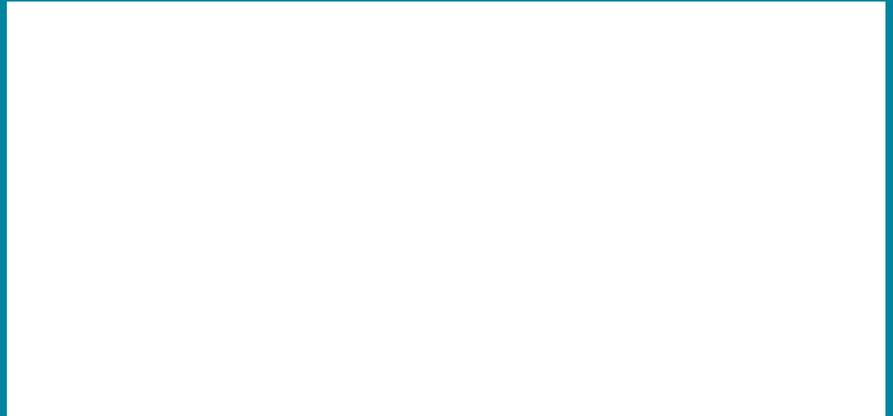
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MIR Physicians of
Washington University



2019 MIR Research Symposium

Front (left to right): Richard L. Wahl, MD, keynote speaker Janet F. Eary, MD,
Pamela K. Woodard, MD, and Robert J. Gropler, MD

Back (left to right): Daniel S. Marcus, PhD, Akash Kansagra, MD, and guest speakers
Brent Mombourquette and Mark A. Anastasio, PhD

