MEDICAL COLLEGE OF WISCONSIN

knowledge changing life

SUMMER 2021

MCW magazine

FILLING THE GAP

New Medical Residencies Meet Future Healthcare Needs

SUMMER 2021

MCW magazine

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LEADERSHIP MESSAGE

Moving Forward with Optimism

As we enter our new academic year, we are optimistic on a number of fronts. We are excited to welcome our new incoming students to the MCW Family and to welcome back those who have returned to their studies for the fall semester! As I have frequently said, it is the PEOPLE of MCW who make our institution special, and our students are truly at the center of this sentiment.

We are particularly pleased that our environment has largely returned to pre-pandemic in-person instruction. We value the excellence of our educational programs, and bringing students back to in-person interaction is critical to maintaining excellence. Our ability to safely provide in-person instruction has been enhanced by the students' nearly 100 percent vaccination rate.

I am pleased to share that the Liaison Committee on Medical Education (LCME) – the accrediting body for educational programs at schools of medicine in the US – voted at its June 2021 meeting to continue full accreditation of our medical education program for the maximum term of eight years. My gratitude and congratulations to all the PEOPLE of MCW: students, staff, faculty and trustees who devoted countless hours to ensure this positive outcome. *See story on page 4.*

Earlier this summer we celebrated an exciting milestone: the graduation of the seven members of our inaugural class of psychiatry residents from our new programs in central and northeastern Wisconsin. These new residencies, and dozens of others that we and our partners have created throughout the region in the past few years, are enabling us to fill the projected shortfall of physicians in Wisconsin. MCW not only has brought creative solutions to this issue, but also has provided funding and expertise to ensure success. *See the cover story on pages 16–21 for how we are filling the gap with new medical residencies to meet the state's future healthcare needs.*

Despite unprecedented challenges from the COVID-19 pandemic, MCW will end fiscal 2021 with a better than budgeted margin. The PEOPLE of MCW have been the underlying force allowing us to overcome obstacles and achieve this success. I am grateful for their creativity and flexibility as we re-imagine and jump-start our clinical engine, pursue excellence in our research, education and community engagement missions, and enhance efficiency in order to achieve and surpass our goals!

We continue to be grateful for the thousands of MCW alumni around the globe who are doing their utmost to protect the health and safety of patients, families, loved ones and communities.

"...it is the PEOPLE of MCW who make our institution special, and our students are truly at the center of this sentiment."

Joseph E. Kerschner, MD '90, FEL '98
The Julia A. Uihlein, MA, Dean of the School of Medicine
Provost and Executive Vice President

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PLEASE NOTE: PHOTOGRAPHS THROUGHOUT THIS ISSUE IN WHICH INDIVIDUALS ARE NOT WEARING PERSONAL PROTECTIVE EQUIPMENT WERE TAKEN BEFORE THE PANDEMIC.

COVER STORY

INSIDE EVERY ISSUE

MCW IS COMMITTED TO EQUAL OPPORTUNITY AND NON-DISCRIMINATION INCLUDING COMPLIANCE WITH TITLE IX. PLEASE SEE *MCW.EDU/TITLEIX* FOR MORE INFORMATION.

FEATURED PHOTOGRAPHERS: Greg Calhoun; Michelle Schaefer; Jay Westhauser

ON THE COVER: The US is projected to have a significant shortfall of both primary care and specialty care physicians through 2032. More residency training positions are needed throughout the country to counter this trend. To that end, the Medical College of Wisconsin is working diligently to fill the gap by creating new medical residencies to meet future healthcare needs.

STAT REPORT

School of Medicine Receives Full Accreditation from the Liaison Committee on Medical Education

MCW has received notice that the Liaison Committee on Medical Education (LCME) – the accrediting body for educational programs at schools of medicine in the US – voted at its June 2021 meeting to continue full accreditation of MCW's medical education program. Full accreditation means that the MCW School of Medicine was found to meet or exceed national standards for structure, function and performance.

This important milestone is a testament to the Medical School's faculty, staff and exceptional future physicians, as well as to MCW's trustees – all of whom are committed to improving health across Wisconsin and beyond. This eight-year accreditation, retroactive to 2019, is the maximum length of accreditation awarded by the LCME. To be accredited, a school must demonstrate compliance with LCME standards in five areas: institutional, educational program, medical students, faculty and educational resources. Only LCME-accredited institutions may receive federal grants for medical education and participate in federal loan programs.

MCW's preparations throughout the reaccreditation process were undertaken by a large task force of faculty, staff and students led by William J. Hueston, MD, who served as associate provost for education, senior associate dean for medical education and professor of family and community medicine before his retirement in May 2021. Dr. Hueston and the task force worked with MCW leaders and student representatives to improve specific focus areas that were identified during the LCME Site Visit in 2019.

"I am very grateful for the efforts of Bill and the task force, and especially all of our students who were deeply involved in this meaningful work, for their commitment to MCW and to making our learning environment better every day," says Joseph E. Kerschner, MD '90, FEL '98, The Julia A. Uihlein, MA, Dean of the MCW School of Medicine, provost and executive vice president. ■

MCW and Children's Wisconsin Renew Partnership

For two decades, MCW and Children's Wisconsin (Children's) have been engaged in a successful joint venture, Children's Specialty Group (CSG), to provide the best care for Wisconsin kids. About 650 CSG providers support communities throughout the state through excellence in pediatric clinical, academic and research endeavors.

A new affiliation agreement among MCW, CSG and Children's went into effect on July 1, 2021. It allows the partners to evolve the structure of their pediatric enterprise to ensure it will continue to remain strong well into the future. This important milestone also officially extends the partnership for another 30 years.

Nationally, schools of medicine, children's hospitals and pediatric faculty practices are redesigning their relationships to enhance integration of their clinical work. One of the primary drivers for this change is a desire to better coordinate efforts to jointly achieve goals. The best pediatric enterprises have adopted structures that allow them to be nimble in responding to environmental factors, including the needs of patients and their families.

Benefits of this stable, long-term academic and clinical affiliation include strategic, financial and operational integration. In addition, it will allow Children's, MCW and CSG to reinvest in the academic missions, pursue growth and partnership strategies, offer a unified payer contracting strategy, create a single pediatric billing statement, and recruit and retain the most talented pediatric faculty and staff members. ■

MCW Physician-Scientist Contributes to National Cancer Trial

In an international, multicenter, phase I/II clinical trial, scientists tested Pirtoburtinib, a new protein Bruton tyrosine kinase (BTK) inhibitor, for safety and effectiveness against blood cancers affecting certain white blood cells, called B-cell malignancies. Previously, patients in the trial had been unsuccessfully treated with other approved therapies.

Dr. Nirav Shah

MCW was one of only 30 sites in the world – and the only cancer center in the Midwest – selected to participate in the study sponsored by Loxo Oncology. After analyzing results from 323 patients, researchers found that Pirtobrutinib was safe and active in multiple B-cell malignancies. Trial results published in *The Lancet* suggest the drug's potential to address a growing and unmet need for alternative therapies for patients who have not had success with other treatments. Specifically, the two main indications were for the B-cell malignancies of chronic lymphocytic leukemia and mantle cell lymphoma.

"In many cases, we're looking for a drug like Pirtobrutinib to act as a bridge to get patients to other advanced treatments such as chimeric antigen receptor T-cell therapy or stem cell transplant. What we found was Pirtobrutinib achieved longer-term benefits and remission among some patients in the study," says Nirav Shah, MD, MSHP, a leading investigator of the trial and MCW associate professor of medicine (hematology and oncology). ■

MCW Names New Pediatric Practice CEO

Jason A. Jarzembowski, MD, PhD, was named chief executive officer for Children's Specialty Group (CSG) and senior associate dean for clinical affairs – pediatric practice at MCW. Dr. Jarzembowski had served in these roles in an interim capacity since August 1, 2020, before transitioning to the permanent role in May 2021. Dr. Jarzembowski has provided leadership critical to the successful ratification of the new affiliation agreement between MCW and Children's. His acceptance of this permanent role ensures important leadership continuity during the critical 18- to 36-month implementation period for the agreement, which will position the practice for long-term success.

Dr. Jarzembowski also serves as professor of pathology at MCW and vice chair for pediatric pathology. He also is medical director for pathology and laboratory medicine at the Children's Wisconsin Milwaukee and Fox Valley hospitals, director of perinatal pathology for Children's and director of core laboratories at Children's Research Institute.

NEWS FOR ALUMNI

The Alumni Association Accomplished Many "Firsts" This Year

On behalf of the MCW/Marquette Medical Alumni Association, I extend wholehearted congratulations to the remarkable Class of 2021 from the Graduate School, School of Medicine and School of Pharmacy! I was proud to be a part of the very special graduation events celebrating the achievements of our graduates and conferring their academic degrees, including MCW-Central Wisconsin and MCW-Green Bay. I welcome all the new graduates to our accomplished MCW Alumni Community.

Reflecting on this past year, I feel so gratified with what the Alumni Association has accomplished as I share this list of "firsts":

- We all adapted and thrived in environments that utilized new platforms. Virtual stages meant alumni from all over the country participated in programs with MCW students, including the Student Health Sciences Conference, Operation: Education and Mentor Connections for Wisdom and Wellness. Please continue to explore the new section of the Alumni E-Newsletter that highlights MCW Alumni Opportunities each month.
- Video conferencing capabilities also opened the door for all alumni to experience our MCW Lifelong Learning Programs, which is another new section in the Alumni E-Newsletter. Each month, CME Programming, Grand Rounds, Department Lectures and other programs are featured. The Alumni Association is dedicated to facilitating the lifetime connection of alumni with MCW as a resource for continued learning.
- Virtual Alumni Reunion Activities brought to the table alumni who had never attended an in-person event. Our Alumni Reunion Activities will continue virtually through 2021, and we look forward to in-person events again in 2022.

"Virtual stages meant alumni from all over the country participated in programs with MCW students..."

– Dr. Matthew Goldblatt

- Our focus is now on supporting students from the beginning, at matriculation. All MCW students now receive a monthly communication from the Alumni Association. This will be sustained as a vital connection upon graduation.
- This year, we were able to reach out to each and every MCW student. Through the Masks4Students project, we let them know "We've got you covered" – not just with this gift, but always.

I am so grateful to those who supported me during the past year. It was an honor to lead the Alumni Association. I am excited about our incoming officers, and I welcome George M. Lange, MD '75, who will assume the role of president in October. We need all alumni to keep the momentum going. Remember our ability to connect is vital. If you are not receiving the Alumni E-Newsletter or invitations by email, please share your contact information at alumni@mcw.edu. Your partnership in the work we do is deeply appreciated. ■

Degrees Bestowed by the Graduate School of Biomedical Sciences at Commencement 2021

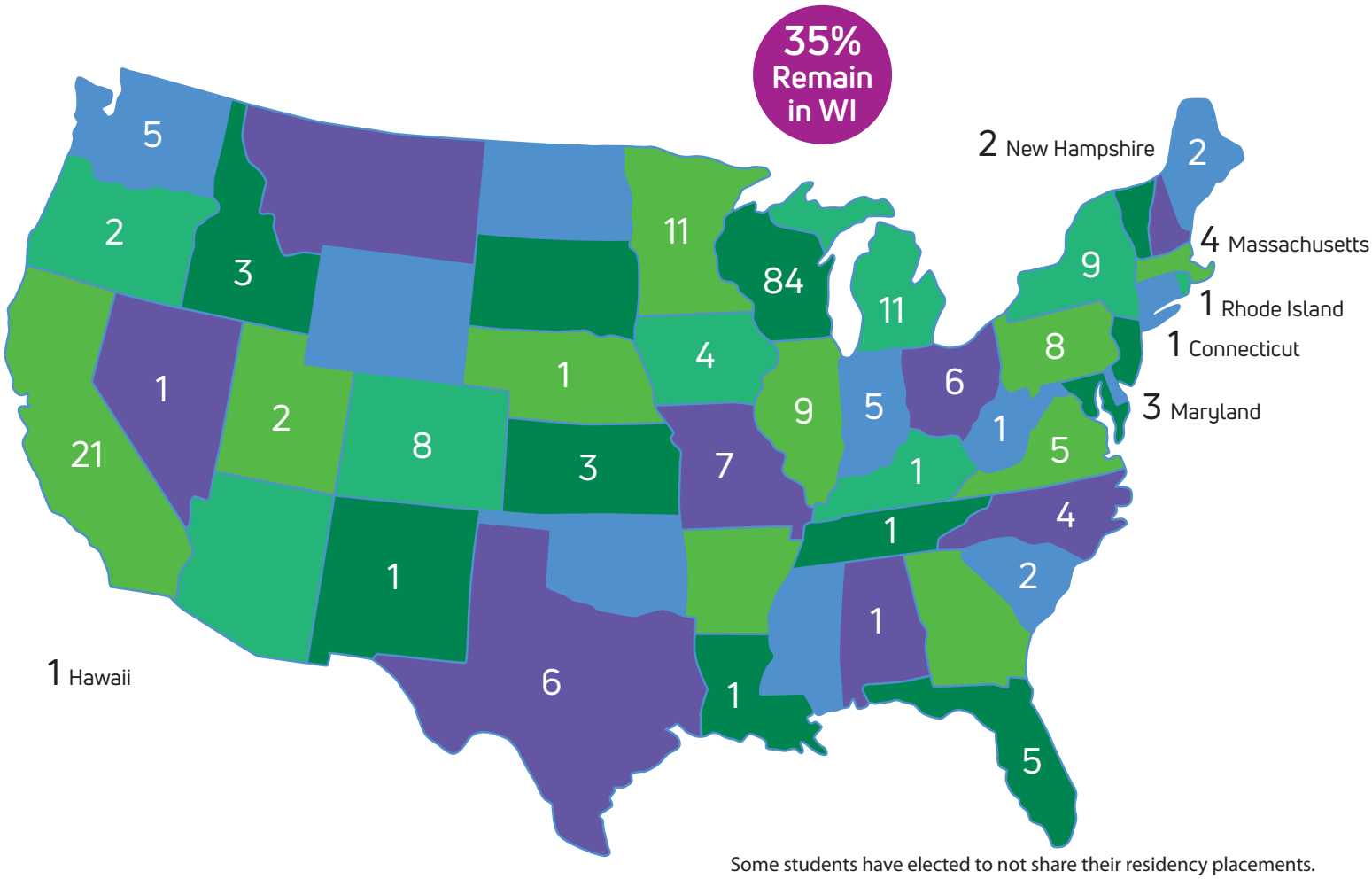
PhD – 38 *MMP - 9* *MA - 7*
MS – 17 *MPH - 9*

Congratulations to these newest MCW alumni!

OPERATION: EDUCATION

On April 7, 2021, 100 registered MCW students from all three campuses attended the virtual event, Operation: Education. Also attending were 30 MCW alumni from graduation years 1968-2019, representing 17 specialty/research areas and 13 states. Operation: Education was co-hosted by the MCW/ Marquette Medical Alumni Association and the Wisconsin Medical Society. Students had an opportunity to explore and engage with a variety of specialties and research areas to discuss how best to prepare for careers in those fields.

2021 MCW SCHOOL OF MEDICINE RESIDENCY DISTRIBUTION



Some students have elected to not share their residency placements. All aggregate statistics are inclusive.

Summary of First-year Residency Programs for Milwaukee, Green Bay and Central Wisconsin Campuses

Anesthesiology	21
Child Neurology	1
Emergency Medicine	18
Family Medicine	28
Internal Medicine (IM)	42
IM/Pediatrics	1
IM/Psychiatry	2
Interventional Radiology (Integrated)	1
Neurological Surgery	1
Neurology	3
Obstetrics & Gynecology	11
Ophthalmolgy	2
Orthopaedic Surgery	11
Otolaryngology	4
Pathology	1
Pathology - Anatomic & Clinical	3
Pediatrics (Peds)	33
Peds/Anesthesiology	2
Peds/Psych/Child Psychiatry	1
Physical Medicine & Rehabilitation	1
Plastic Surgery (Integrated)	1
Psychiatry	14
Radiology-Diagnostic	1
Surgery-General	19
Surgery-Preliminary	2
Transitional Year	13
Urology	4
Vascular Surgery	1

MCW Welcomes and Congratulates New and Extended Faculty Leaders

José Franco, MD '90, GME '93, FEL '94

Interim Senior Associate Dean for Academic Affairs
Professor of Medicine (Gastroenterology and Hepatology)

José Franco, MD, professor of medicine (gastroenterology and hepatology) was appointed interim senior associate dean for academic affairs in the MCW School of Medicine, effective April 21, 2021. Dr. Franco joined the MCW faculty in 1996 as assistant professor of medicine (gastroenterology and hepatology). He was promoted to associate professor in 2002 and professor in 2010. His extensive service to the education mission also includes past roles as Discovery Curriculum director and associate director of the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education.

Dr. Franco has been dedicated to the education of students, residents and fellows since the earliest days of his training. Having completed almost his entire medical training at MCW and MCW Affiliated Hospitals, he has witnessed and/or been involved in curriculum reform, innovation and excellence in teaching at MCW for more than 30 years. Dr. Franco was an active member of MCW's Curriculum and Evaluation Committee for years, including serving as chair from 2008-2011. As director of the new Discovery Curriculum from 2011-2014, Dr. Franco guided the solicitation and synthesis of MCW's collective input reflecting more than four years of planning. ■

David Margolis, MD, GME '92, FEL '95

Interim Chair and Professor of Pediatrics
Interim Pediatrician-in-Chief, Children's Wisconsin

David Margolis, MD, has agreed to extend his appointment as interim chair of pediatrics at MCW and interim pediatrician-in-chief at Children's Wisconsin (Children's). Dr. Margolis has served in this role since January 20, 2020.

Dr. Margolis has demonstrated excellent leadership during his current tenure and has provided insight and direction related to MCW's work toward a new affiliation agreement between MCW and Children's to further strengthen the Children's Specialty Group (CSG) joint venture. Due to his exemplary performance and management, the leadership teams at Children's, CSG and MCW felt it was important to extend his tenure in these roles to provide continuity of leadership during the implementation of the new affiliation agreement. *See story on page 5.*

Dr. Margolis continues to serve as professor of pediatrics (hematology/oncology/BMT) and program director, MCW Bone Marrow Transplant (BMT) and Cellular Therapy Program. He also holds the David A. Margolis Chair in Pediatric BMT at Children's. Prior to beginning his interim role, Dr. Margolis also served as associate chair of pediatrics and program director for Children's BMT and Cellular Therapy Program at the MACC Fund Center for Cancer and Blood Disorders. ■

Staci A. Young, PhD

Interim Director for Community Engagement
Interim Senior Associate Dean for Community Engagement

Staci A. Young, PhD, associate professor of family and community medicine, was appointed interim director for community engagement and interim senior associate dean for community engagement, effective March 1, 2021. Dr. Young succeeds Syed M. Ahmed, MD, MPH, DrPH, who retired from MCW following 20 years of valuable service to the institution.

Dr. Young joined the MCW faculty in 2008 as assistant professor of family and community medicine. She was promoted to associate professor in 2014. Dr. Young has served as director of the Center for Healthy Communities and Research since 2018 and as co-director of the department of family and community medicine's Qualitative Research Consulting Service since 2019.

Dr. Young is a medical sociologist with expertise in qualitative methods and community-based healthcare delivery. Her skill set is in developing and conducting in-depth interviews, focus groups, narrative inquiry and ethnographic fieldwork. Her research examines the structural causes of health disparities and the effects on traditionally vulnerable populations. Her bibliography includes more than 50 refereed journal publications/original papers; books, chapters and reviews; abstracts; and peer-reviewed educational products. ■ – GREG CALHOUN

Expanding the Skills and Abilities of Pharmacy Professionals

The coronavirus pandemic presented challenges unlike anything faced in this country for generations and brought to light gaps and inequities in our health system. Millions of Americans lack adequate access to healthcare services. This limited access may continue to be exacerbated by COVID-19, physician shortages and inequitable reimbursement models that could strain the healthcare system into the future. Leveraging the role of pharmacists, the third-largest number of healthcare providers in the United States, is essential to the health and welfare of all communities.

"Pharmacists are highly accessible, yet vastly underutilized. The average person lives within five miles or less of the nearest community pharmacy, which places the community pharmacist in a unique position to help America close the gap on patient access and bring greater affordability to healthcare costs," says George E. MacKinnon III, PhD, MS, RPh, founding dean of the MCW School of Pharmacy. "More than 200 million Americans visit a community pharmacy within a six-month period each year. Thus, leveraging the pharmacist's unique expertise is essential and necessary."

The MCW School of Pharmacy, in collaboration with other Wisconsin pharmacy schools and the Pharmacy Society of Wisconsin, advocated for passage of legislation (2021 Wisconsin Act 3) that expands pharmacy professionals' ability to provide vaccinations. Members of the Pharmacy School faculty testified to the Wisconsin State Legislature in support of the expansion to back vaccination efforts.

On February 19, 2021, Wisconsin Act 3 was signed into law. The legislation allows first- and second-year student pharmacists to administer vaccinations recommended by the Advisory Committee on Immunization Practices (ACIP) and allows other healthcare providers the ability to supervise student pharmacists during vaccinations. Pharmacy professionals can now administer epinephrine and diphenhydramine to treat anaphylaxis. It also allows pharmacy technicians the ability to initiate and administer vaccines under pharmacist supervision.

"Taken together, these provisions will allow all pharmacy professionals (technicians, students and pharmacists) to be full partners in the vaccination effort and will help bring a quicker conclusion to the ongoing pandemic. These measures move the pharmacy profession forward and increase our capability to vaccinate the people of Wisconsin against COVID-19 and other serious infectious diseases that are preventable through immunizations," remarks Michael DeBisschop, PharmD, professor in the department of clinical sciences at the MCW School of Pharmacy.

Faculty members in the MCW School of Pharmacy, including Dr. Michael DeBisschop, testified to the Wisconsin State Legislature in support of Wisconsin Act 3, which expands pharmacy professionals' ability to provide vaccinations.

In response to the passage of this legislation, the School of Pharmacy is now able to provide immunization training earlier in the Doctor of Pharmacy (PharmD) program. Students previously were certified through the American Pharmacists Association (APhA) Pharmacy-Based Immunization Delivery Certificate Program in Session 5 during the second year of the program, when they are the equivalency of a third-year student compared to a traditional program. Beginning with the incoming Class of 2024, pharmacy students will now complete the certification in their very first session – a full year earlier.

"The MCW School of Pharmacy has prepared us exceedingly well. We have been provided the necessary knowledge and skills to administer not only vaccinations, but intramuscular and subcutaneous medications. Having worked the influenza clinics in September 2020 and now the COVID-19 clinics, giving vaccinations is something I feel we as pharmacy students can do anywhere there is a need," notes Jackson Straughan, MCW pharmacy student.

New Community-Based Residency Programs

For MCW School of Pharmacy Class of 2021 graduate Jessica Barazowski, PharmD '21, a pharmacy career is a seamless combination of her interests.

"After getting my bachelor's degree, I still wanted to do more. I was strongly considering pursuing a career in organic chemistry but had always had an interest in medicine. The job I was working at the time trained me on their pharmacy station (at a veterinary clinic), and it was like a light-bulb moment – medications are organic compounds and pharmacy is a medical profession. It seemed like the perfect marriage between my interests," says Dr. Barazowski.

She will be continuing to pursue her interests in chemistry and medicine as a Post-Graduate Year 1 (PGY-1) resident through the MCW School of Pharmacy's new community-based residency program, developed in partnership with several pharmacies in southeastern Wisconsin: Evergreen Pharmacy in West Allis, Good Value Pharmacy in Kenosha and Racine, and Welltopia Pharmacy in Thiensville. The program will offer intensive patient care and faculty development experiences that will prepare residents as community-based primary care pharmacists and academic leaders who will ensure access to high-quality, innovative primary care services, reduce health disparities and promote community wellness.

"Being an MCW School of Pharmacy graduate, I knew that an MCW residency would be equally as challenging and rewarding. I was also drawn to the fact that, in addition to offering a teaching certificate, the program has an academic component that provides the opportunity to gain more experience with teaching and precepting," shares Dr. Barazowski.

Through the one-year program, residents will participate in comprehensive patient care including medication therapy management, physical assessment and immunization and other injectable medication administration. They will have the opportunity to collaborate directly with interprofessional healthcare providers and scientists with expertise in population health management, patient-centered care and chronic disease self-management. Residents also will receive academic experience through didactic, practical and experiential education. Their time will be split between the clinical setting at one of the partnering pharmacies and the academic environment at MCW.

Dr. Barazowski will fill the residency position at Good Value Pharmacy in Kenosha. Two other pharmacists from the Midwest also matched with the residency program for the 2021-2022 year: Brendan Lehman, PharmD (Concordia University Wisconsin) with Evergreen Pharmacy and Alaura Meister, PharmD (Cedarville University in Ohio) with the position at Welltopia. These new pharmacists participated in the annual post-graduate pharmacy match program sponsored by the American Society of Health-System Pharmacists earlier this year.

A pharmacy residency is one of the post-graduate training options for students once they have earned their PharmD degree. First-year residencies provide additional, in-depth pharmacy practice experiences and offer graduates the opportunity to specialize in areas such as emergency medicine, pediatrics, cardiology, pharmacogenomics, oncology, psychiatry and more in subsequent years. In the US upon graduation, PharmD graduates are deemed to be "practice-ready" per ACPE Accreditation Standards. Thus, postgraduate training is not required in all sectors of practice.

"The goal of the program is to create high-functioning community-based practitioners who will be instrumental in addressing social and economic determinants of health in our communities and delivering optimal care," shares Sara Revolinski, PharmD, residency program director and director of experiential education and professional labs with the MCW's School of Pharmacy.

As access to high-quality and innovative primary care services remains critical across the country, MCW continues to make strides in preparing healthcare professionals to enter the workforce with the experience needed to begin reducing health disparities and promote community wellness in Wisconsin and beyond. The MCW School of Pharmacy Class of 2021 achieved a 75 percent match rate for post-graduate training, surpassing the 2021 national average. More than 20 members of the class will pursue post-graduate training through residencies and fellowships after graduation. Four members of the School's inaugural Class of 2020 are pursuing second-year residencies specializing in ambulatory care, internal medicine and infectious disease. ■

– MICHELLE SCHAEFER

Dr. Jessica Barazowski, a first-year resident through the MCW School of Pharmacy's new community-based residency program, administers a COVID-19 vaccination at a local clinic.

CLINICAL

Breast Cancer Survivor Credits Team of MCW Physicians with Saving Her Life

While it may take a village to raise a child, it often requires an exceptional team of talented, dedicated and compassionate healthcare providers to save a life.

Lauren Lanza can attest to this.

Six weeks after giving birth to baby Louie in March 2017, Lanza, then age 31 and a resident of Wauwatosa, Wis., found a lump in her left breast. Her doctor, who was outside the Froedtert & the Medical College of Wisconsin health network, diagnosed a clogged milk duct from not nursing. But when Lanza became pregnant again several months later, the lump was still present – yet her doctor remained unconcerned.

Twenty-eight weeks into the pregnancy, in December 2017, and after the lump had further grown in size, Lanza finally had an ultrasound – which revealed a large mass. A biopsy confirmed it was malignant, and nearby nodes were involved. The doctor shared the news with Lanza in an offhanded and compassionless manner.

Dismayed at this lack of concern and caring from her physician – especially because Lanza had a family history of cancer – she reached out to a friend who recommended Joseph Bovi, MD, GME '07, professor of radiation oncology and neurosurgery at MCW and medical director of radiation oncology at Froedtert & the Medical College of Wisconsin. Dr. Bovi suggested that Lanza contact Amanda Kong, MD, MS '10, MCW professor and section chief of breast surgery. Within two days, in mid-January 2018, Lanza met with Dr. Kong.

"I was really scared, and Dr. Kong immediately helped calm my nerves," Lanza says. "She was very personable and talked with me like I was a human being and not a patient. She acknowleged that there were more tests to be done to confirm the diagnosis and shared with me a treatment path with two options. This made me feel much more at ease knowing what we needed to do to move forward."

Stage 3 breast cancer was confirmed, and Lanza began meeting with her MCW oncology team, which includes Lubna Chaudhary, MD, FEL '15, MCW assistant professor of medicine (hematology and oncology), Angela Halbach, NP, and "Nurse Patty."

Lanza immediately began two rounds of chemotherapy (with few side effects) before being induced to deliver at 36 weeks; baby Leni was born healthy on March 7, 2018. Lanza credits her high-risk OB team at MCW – led by Erika Peterson, MD, associate professor of obstetrics and gynecology and chief of maternal-fetal medicine, along with her nurse practitioner, Julia Houdek, NP – with keeping her safe and ensuring, through weekly monitoring, that the fetus was growing properly.

Concurrently, Lanza discovered that she is BRCA-positive – confirming that she has a mutation in one of the breast cancer genes (BRCA1 or BRCA2) and therefore a much higher risk of developing breast and ovarian cancer compared with someone who doesn't have the mutation.

Lanza resumed chemotherapy about a month after giving birth but soon developed cold-like symptoms that sent

Breast cancer survivor Lauren Lanza with her husband, Luke Mytych, son Louie and daughter Leni, 2020.

Lauren Lanza with baby Leni shortly after resuming chemotherapy for breast cancer in 2018.

her to the hospital; blood clots in her lungs were discovered, and she was placed on blood thinners. She continued through June 2018 with 12 rounds of chemo, followed by a double mastectomy performed by Dr. Kong in August and two additional rounds of chemo. Erin Doren, MD, MCW assistant professor of plastic surgery, performed Lanza's reconstructive surgery – which included placing expanders in her chest.

In October, Lanza began five weeks of radiation, led by Adam Currey, MD '05, GME '10, associate professor of radiation oncology and director of the Radiation Oncology Medical Residency Program. Lanza also underwent physical therapy due to the removal of several lymph nodes from her left armpit. She also had to take anti-cancer drugs for a year, which caused significant side effects.

Because of her radiation therapy, Lanza's expanders had to remain in place for a full year; unfortunately, one of the expanders had to be removed within nine months due to an infection.

> "Lauren's case was incredibly complicated and required a well-orchestrated team of doctors with the highest level of communication to ensure the best outcome for mom and baby."
>
> *– Dr. Amanda Kong*

Lanza finally received breast implants in the fall of 2019.

An additional MCW physician relationship arose in October 2020 when Lanza developed a hernia while dancing with her young son. She finally had surgery to repair the hernia in January 2021, which was performed by Rana Higgins, MD, FEL '16, assistant professor of surgery.

After a healthy spring this year, Lanza underwent a preventative oopherectomy (removal of her ovaries) in May due to her BRCA-positive status, which was performed by Camila Bomtempo, MD, MCW assistant professor of obstetrics and gynecology.

Lanza also continues to see Drs. Kong and Currey once a year (in February and September, respectively). "Lauren's case was incredibly complicated and required a well-orchestrated team of doctors with the highest level of communication to ensure the best outcome for mom and baby. Most importantly, though, was Lauren's attitude. Even when she was feeling ill and tired, she persevered knowing that every step of treatment was important for the success of her outcome," Dr. Kong shares.

"I am feeling great and could probably cry when talking about my care team. They saved my life, and changed my life. As I mentioned before, they care for you as a person and not as a patient. I would tell anyone who asks not to go anywhere else but Froedtert & the Medical College of Wisconsin for healthcare," Lanza adds.

Lanza, the consummate grateful patient, continues to live in Wauwatosa, Wis., with her husband, Luke Mytych, son Louie (age 4) and daughter Leni (age 3). ■

– SARA L. WILKINS

Breast Surgery Program

The Froedtert and the Medical College of Wisconsin's world-class breast surgeons completed their fellowship training at:

Amanda L. Kong, MD, MS '10:
The University of Texas M.D. Anderson Cancer Center

Tina W.F. Yen, MD, MS '06:
The University of Texas M.D. Anderson Cancer Center

Caitlin R. Patten, MD '10:
Carolinas Medical Center

Chandler S. Cortina, MD, MS '21:
Northwestern University Feinberg School of Medicine

Shining a Spotlight on Women's Health Disparities

Results from an MCW study published in the *Journal of Clinical Oncology* this year identified a link between contemporary "redlining" (mortgage lending bias based on property location) and mortality after breast cancer diagnosis among women in the US.

Kirsten Beyer, PhD, MPH, MS '12, associate professor of epidemiology at MCW's Institute for Health & Equity and researcher at the MCW Cancer Center, says the results affirm the upstream effects of discrimination on persisting health disparities for individuals facing a cancer diagnosis.

"There is a wide gap for women of color diagnosed with breast cancer," says Dr. Beyer. "We're doing ongoing research to understand why so we can do our part to improve patient care and health outcomes for all people." ■

–NIKITA VILIM

MCW Team Leads Pediatric Study

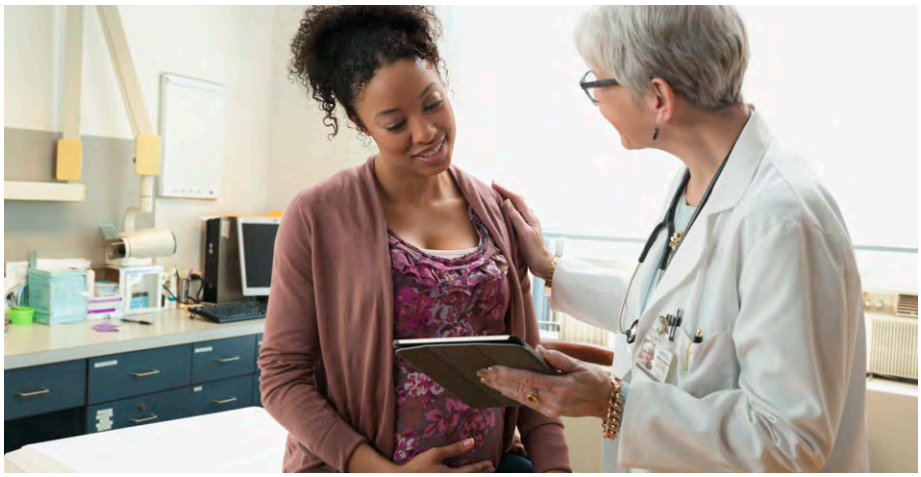
MCW and health system partner Children's Wisconsin are on the vanguard of best practices for gastroschisis, the most common congenital abdominal wall abnormality in developing fetuses.

This birth defect, in which the intestines are outside the body floating in the amniotic fluid, is diagnosed by prenatal ultrasound at 18-20 weeks gestation. During fetal development, the abdominal wall fails to close properly, leaving an opening which is usually to the right of the umbilical cord.

Gastroschisis affects one out of every 4,000 births – and the number of cases continues to increase. Experts do not know what causes gastroschisis, but it is associated with younger maternal age and rarely occurs in mothers over 30 years of age. Gastroschisis is treated immediately after birth with surgery to put the organs back into the baby's body. Often, these tiny patients need additional treatments, such as receiving nutrients through an IV line and antibiotics. As importantly, attention must be paid to their body temperature.

> "The GOOD Study has potential to affect the lives of the thousands of mothers and infants diagnosed with gastroschisis every year."
>
> *– Dr. Amy Wagner*

Some doctors believe pregnancies complicated by gastroschisis should deliver early, while others think that mothers should carry their babies until the onset of labor. Unfortunately, there is no definite answer regarding whether a mother carrying a baby with gastroschisis should deliver early or carry the baby closer to term, and no scientific data exists to show if one delivery method is better than the other. Additionally, babies with gastroschisis are at



an increased risk for being stillborn, and their intestines may be damaged while in the amniotic fluid.

A piece of "good" news is that research is now underway that could help the health of babies diagnosed with gastroschisis. The Gastroschisis Oucomes of Delivery (GOOD) Study, which comprises 26 participating centers across North America, will help doctors determine the best time to deliver a baby with gastroschisis and will help the infant live as healthy as possible post-birth.

The GOOD Study began nationally in February 2018 and had its genesis in a 2016 seed grant from the We Care Fund for Medical Innovation and Research in MCW's department of surgery that was awarded to Amy Wagner, MD '01, FEL '11, professor of pediatric surgery at MCW.

The success of the study and Dr. Wagner's leadership resulted in the receipt in April 2021 of a five-year, $4.2 million grant from the Eunice Kennedy Shriver National Institute of Child Health & Human Development to continue research on the outcomes of babies born with gastroschisis. Dr. Wagner is the principal investigator on the grant and oversees all 26 participating centers. Aniko Szabo, PhD, professor in MCW's Institute for Health & Equity, has been working alongside Dr. Wagner from the beginning of the GOOD Study. Other MCW faculty working with Dr. Wagner include Erika Peterson, MD, associate professor of obstetrics and gynecology (maternal-fetal medicine) and Steven Leuthner, MD, MA, professor of pediatrics (neonatology).

MCW and Children's Wisconsin are home to the Data Coordinating Center for the study, which is designed to answer the question: Should moms of babies with gastroschisis deliver early or carry their babies closer to term? A clinical trial is currently underway to investigate the hypothesis that delivery at 35 0/7 - 35 6/7 weeks in stable patients with gastroschisis is superior to observation and expectant management with a goal of delivery at 38 0/7 - 38 6/7 weeks.

"The GOOD Study has potential to affect the lives of the thousands of mothers and infants diagnosed with gastroschisis every year," Dr. Wagner says. By the conclusion of the study in 2025, the team expects that its research efforts will have made a significant and positive difference in the quality of life for these tiniest of patients and their families. ■ – ELIZABETH KARNOWSKI

MCW and Partners Build Vaccine Confidence Across Milwaukee Area

In December 2020, the Milwaukee Unified Emergency Operations Center (UEOC) COVID-19 Vaccine Coordinating Committee mobilized to coordinate a public health response to the COVID-19 pandemic. MCW – as a member of UEOC – led the way in providing unbiased health and safety information to communities across Wisconsin.

As part of the UEOC response, the Vaccine Integrated Communications and Outreach Mobilization (VICOM) Committee was formed and chaired by Mara Lord, MCW senior vice president for university engagement and strategic planning. The VICOM Committee comprised loaned talent from businesses and organizations across the Milwaukee area and provided affected vulnerable populations with education, information and resources related to COVID-19 through equitable channels and community-informed approaches.

VICOM's communications efforts encouraged individuals to get vaccinated while still respecting their personalized need to make an informed decision. The committee developed supporting materials such as *HealthyMKE.com*, a centralized repository of real-time COVID-19 and vaccine information developed and managed by the Milwaukee-based Black- and women-owned agency INPOWER; a weekly educational newsletter distributed to almost 500 community collaborators; and a multimedia, omni-channel marketing campaign including social media, TV, radio and billboards.

"The overall campaign was developed pro-bono by Milwaukee-based creative agency Hanson Dodge," explains Lord. "We also engaged and equitably paid a variety of local minority- and women-owned vendors to develop photo and video assets to support the campaign theme. These partnerships proved invaluable as we launched a campaign to share the unique and trusted voices of our community members."

Partnership was essential to the growth and reach of COVID-19 response efforts. For example, the Advancing a Healthier Wisconsin Endowment at MCW made a significant financial investment in VICOM's communications work as well as an ongoing commitment to building vaccine confidence through an equity lens.

Since December 2020, more than 25 civic and community partners have contributed to the effort in time and dollars. Combined, the Milwaukee-area multimedia campaign and community mobilization efforts represent a more than $900,000 investment to build vaccine confidence in the Milwaukee area.

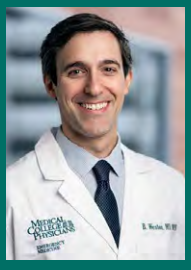
Supporting materials for the community-wide public health response to the COVID-19 pandemic included an ad campaign in support of vaccinations.

Campaign contributors include: 2 Story; Bader Philanthropies; Baird; Children's Community Health Plan; City of Milwaukee; Greater Milwaukee Committee; Greater Milwaukee Foundation; Hanson Dodge; Johnson Controls, Inc.; Jump at the Sun; Marcus Theatres; Milwaukee Bucks; Milwaukee County; Milwaukee County Zoo; Milwaukee Health Care Partnership; Rockwell Automation; Summerfest; United Way of Greater Milwaukee & Waukesha County; VISIT Milwaukee; WE Energies; Wisconsin Department of Health Services; and Zilber Family Foundation. ■

– MAUREEN REMMEL

A Data-Driven Approach

Ben Weston, MD, FEL '15, associate professor of emergency medicine at MCW and emergency department physician at Froedtert Hospital in Milwaukee, serves as director of medical services for Milwaukee County through the Office of Emergency Management (OEM). While navigating the pandemic, he, along with the OEM, developed the Evaluating Vulnerability and Equity Model (EVE Model), which evaluates and guides equitable vaccine deployment strategies across the county with socially vulnerable populations. The model's regular mapping of vaccination rates drove targeted messaging for VICOM communications and vaccine resource allocation in a dynamic, needs-focused manner.



Filling the Gap

By Anthony Braza and Sara L. Wilkins

The United States faces a shortage of up to 122,000 physicians by 2032, according to a 2019 study by the Association of American Medical Colleges (AAMC). The projected shortfall includes both primary care and specialty care physicians. Major factors underlying these predicted shortages include continued population growth and an increase in the proportion of adults over the age of 65.

Wisconsin is facing the same challenges. As early as 2011, a Wisconsin Hospital Association (WHA) report noted that 100 new physicians a year were needed in the areas of primary care, psychiatry and general surgery, especially in rural settings. In 2016, the WHA projected a shortfall of 2,000 physicians in the state.

Medical schools have increased enrollment by more than 30 percent since 2002. However, due to federal caps on support for graduate medical education (GME), the pace of increase in GME positions during this timeframe has substantially lagged the increase in undergraduate medical education (UME) positions – and has led to the physician shortages in the US.

The AAMC notes that fixing the doctor shortage requires a multi-pronged approach that includes finding ways to increase GME positions to augment the overall number of physicians trained in the US annually. The AAMC – of which Joseph E. Kerschner, MD '90, FEL '98, The Julia A. Uihlein, MA, Dean of the MCW School of Medicine, provost and executive vice president, served as chair of the board of directors from November 2019-November 2020 – continues to work closely with elected officials to address this important issue.

New Medical Residencies Meet Future Healthcare Needs

It is clear that Wisconsin continues to require more GME positions – and the Medical College of Wisconsin is working diligently to fill the gap by creating new medical residencies to meet future healthcare needs. MCW not only has brought creative solutions to this difficulty as outlined below, but also has provided funding and expertise to ensure success.

Medical College of Wisconsin Affiliated Hospitals

The Medical College of Wisconsin Affiliated Hospitals, Inc. (MCWAH) combines vast experience and extensive resources to provide a solid foundation for graduate medical education. Led by Kenneth B. Simons, MD, executive director and designated institutional official, and MCW senior associate dean for graduate medical education and accreditation, MCWAH, MCW and its affiliated institutions provide the elements necessary for a broad spectrum of graduate medical education programs. At present, MCWAH offers 98 Accreditation Council for Graduate Medicine Education (ACGME)-accredited residency and fellowship programs; each program is supervised by a dedicated program director. Most of the residents

BY 2032,
122,000
PROJECTED SHORTFALL OF PHYSICIANS IN THE US

IN 2016, PROJECTED SHORTFALL OF
2,000
PHYSICIANS IN WISCONSIN

Sources for infographic:
Association of American Medical Colleges (AAMC);
Wisconsin Hospital Association (WHA)

(at left) Camille Garrison, MD '06; MCW residency in family and community medicine (2006-2009); now an MCW associate professor of family and community medicine.

and fellows rotate through two or three of the MCWAH's 10 affiliated institutions.

MCWAH has more than 900 residents and fellows in its graduate training programs and offers approximately 200 first-year residency positions in 23 disciplines. Fellowship positions are available in 68 ACGME-accredited subspecialties.

New Psychiatry Residency Programs Launched in 2017

Access to mental healthcare is a crisis in the US and much of the rest of the world. Several underlying factors have led to this predicament, including an incomplete (but positive) emerging understanding that mental illness impacts a substantial percentage of individuals, and that with appropriate intervention, positive outcomes are achievable.

According to the Centers for Disease Control and Prevention, about 25 percent of Americans experience some form of mental illness and close to 50 percent will develop at least one mental illness within their lifetime.

In addition, there has been a reduction in the stigma surrounding mental illness and the openness of individuals seeking treatment – both of which have contributed to an increased demand for mental healthcare and professionals. Further, public/governmental policy and healthcare system strategies have underinvested in both personnel and infrastructure for those individuals seeking care. All of these forces have resulted in an aging mental health professional workforce and lack of access, which is arguably among the most important impediments to overall health and well-being in society today. These difficulties are further exacerbated in less populated areas of the US where access to mental health professionals is even more challenged.

A 2012 analysis by the state Department of Health Services found Wisconsin needed more than 200 additional psychiatrists to address shortages. Sixteen counties – all in rural areas – reported having no outpatient psychiatrists.

The difficulties noted above were recognized by leaders at MCW. When new funding provided an opportunity to increase GME positions – particularly in mental health areas – MCW sought partners at the Veterans Administration Health System and elected officials in the state of Wisconsin (among others) to create a novel solution for the state. MCW already had embarked on a regional campus medical school model that allowed students to complete their entire medical training – both medical school and residency – in regions of greatest physician need in Wisconsin.

As such, creating a psychiatry residency program linked to these regional campuses would provide an opportunity to attract medical students and residents to learn and ultimately to practice in areas of greatest need in the state.

Some of the funding for this plan became a reality in 2014 when the US Department of Veterans Affairs (VA)

Continued on page 18

(at left) Malika Siker, MD; MCW residency in radiation oncology (2007-2011); now an MCW associate dean of student inclusion and diversity, and associate professor of radiation oncology.

approved the addition of 10 new training slots for mental health professionals in northeastern Wisconsin. The positions were established to train seven psychiatrists, two psychologists and a pharmacist to help alleviate a critical shortage of mental health professionals in that region of the state.

Concurrently, in May 2014 (as part of the 2013-2015 biennial budget), the Wisconsin Department of Health Services awarded MCW two grants of more than $370,000 each to support the development of psychiatry residency programs in central and northeastern Wisconsin. Additionally, more than $3.3 million was awarded to six Wisconsin healthcare organizations by the State Legislature to help them establish the new residency training programs in their communities.

In May 2016, initial accreditation was received from the ACGME for two new four-year psychiatry residency programs attached to the institution's medical school campuses in central and northeastern Wisconsin. Jon Lehrmann, MD '90, GME '94, the Charles E. Kubly Professor and chair of psychiatry and behavioral medicine and the Milwaukee VA Medical Center's associate chief of staff for mental health, was tapped to oversee the overall program. Carlyle Chan, MD '75, professor and vice chair of psychiatry and behavioral medicine and former training director of MCW's psychiatry residency program, served as interim residency training director, pending ACGME approval of the training program. The assistance of MCWAH and Dr. Simons in creating these new residencies was invaluable.

These new mental health training programs, which were launched in July 2017, are training three residents per year in central Wisconsin and four residents per year in northeastern Wisconsin. The efforts are already bearing fruit, as six medical school graduates from MCW-Milwaukee, four medical school graduates from MCW-Green Bay and two from MCW-Central Wisconsin are current psychiatry residents in these new GME programs. And even more importantly, of the first seven graduates from the psychiatry residency programs, six have taken positions within Wisconsin and one in nearby rural Iowa (*see sidebar*).

According to Robert Gouthro, MD '07, GME '11, program director of the Central Wisconsin Residency Program and MCW assistant professor of psychiatry and behavioral medicine, "One of the biggest impacts of the rural residency programs is that they have brought the psychiatrists in these areas together to train our residents and their future colleagues. With this, the regional psychiatric communities are now connected, and stronger, which has improved care for those in need. When you look at Wisconsin as a whole, we have a severe lack of psychiatrists, and outside of the big cities, the disparity is even worse. Plus, more than half of the psychiatrists in Wisconsin are over 50 and nearing retirement. If we can keep one or two of our residents from every class in Wisconsin, it will make a huge difference."

Dr. Gouthro adds, "Three graduating residents from the rural MCW psychiatry programs are substantially involved in education and will be working in

Inaugural Class of Psychiatry Residency Programs in Central and NE Wisconsin

Six graduates remain in Wisconsin and one practices in rural Iowa:

Amy Butterworth, MD, GME '21: St. Mary's, Ascension, Rhinelander

Daniel Hoppe, MD, GME '21: North Central Health Care, Wausau

Andrew Kordus, DO, GME '21: Winnebago Mental Health Institute, Oshkosh

Brooke Mastroianni, MD, GME '21: Continued training, Child & Adolescent Psychiatry Fellowship, Milwaukee

Ryan Stever, MD, GME '21: Gundersen Health System, Lansing, Iowa

Waqas Yasin, MD, GME '21: North Central Health Care

Albina Zimany, MD, GME '21: Continued training, Child & Adolescent Psychiatry Fellowship, Milwaukee

underserved areas within the state. Not only will they make an immediate impact to the provider needs of the region, but they will also help train future psychiatrists to help continue the cycle. We tend to think about the benefit trainees will provide after they graduate, but even during their residencies, they have helped to double outpatient access for some of our partner organizations in both central Wisconsin and Green Bay. That's an immediate benefit, before they are even out practicing on their own."

This spring, the seven members of the inaugural class of the MCW's psychiatry residency programs in central and northeastern Wisconsin graduated and are practicing in the region. Six are remaining in Wisconsin, and one practices in rural Iowa just across the border.

Waqas Yasin, MD, GME '21, is among this august group. He completed residency in the Northeastern Wisconsin Psychiatry Residency Program in June and immediately started as an inpatient attending psychiatrist at North Central Health Care in Wausau and assistant professor of psychiatry and behavioral medicine at MCW.

"We were the first class in the residency program, and we had a chance to lay down the structure and develop the culture. They needed self-starters, and I think the group of residents they selected fits into that category," Dr. Yasin shares. "I worked with local partners including the VA. We worked with prisoners. We worked with patients at one of the state's only two state hospitals. I leave the program feeling confident I have been exposed to most of what I'll see with my future patients. We have lots to do. MCW has done the work they promised to do, and now it is our turn to do our part. We trained in this community and will be more connected to it."

The Central Wisconsin Psychiatry and the Northeastern Wisconsin Psychiatry Residency Programs now have a total of 28 residents.

"This inaugural class of residents, almost all of whom have taken positions to remain in Wisconsin, is really fulfilling the vision of why we have the regional campuses and the difference they can make in the overall health of Wisconsin. Having these new psychiatrists stay in our state will fundamentally change access to mental healthcare in these regions," says Dr. Kerschner.

(at right) Jennifer Connelly, MD '03; MCW combined residency in medicine and neurology (2003-2008); MCW fellowship in neuro-oncology (2008-2009); now an MCW associate professor of neurology.

Kirubel Woldemichael, MD '17, is an MCW graduate and a third-year psychiatry resident in the Central Wisconsin Psychiatry Program. "At MCW-Milwaukee, I was involved with the Saturday Free Clinic for the Uninsured, served veterans and worked in homeless shelters. MCW's community outreach and education stand out. I wanted to stay with an MCW residency program because I was familiar with the staff and the culture of psychiatry at MCW – which helped make it an easier transition. The impact from these new programs is tremendous. Green Bay and central Wisconsin were psychiatry deserts, and people had to wait a long time to get mental health help. Now, we are making progress. People can meet with us when they want to and when they need to. Access has improved. We are making an impact on the community's well-being," he says.

Although MCW is endeavoring to innovate in many areas of medical education, establishing these new mental health residencies attached to the regional campuses is likely to be among the most significant in improving the health of the citizens of Wisconsin. At the heart of this effort is the realization that these two new residency programs will increase the training of psychiatrists in Wisconsin by more than 40 percent, which will improve access to mental healthcare for many of Wisconsin's citizens.

New Family Medicine Residency Programs

In late 2016, ACGME initial accreditation was received for a new residency program in family medicine at Froedtert Menomonee Falls Hospital, which is beginning to alleviate the current deficit of nearly 200 family medicine/primary care physicians in Wisconsin as well as a projected deficit by 2035 of nearly 750. This new residency program is sponsored by MCWAH, which, along with MCW's department of family and community medicine, is responsible for ensuring that the program meets all ACGME requirements.

This new MCW family medicine residency program, which began on July 1, 2017, trains six residents per year over a three-year period – for a total of 18 new residents now that the program is up to full speed. Three MCW-Milwaukee alumni entered the inaugural residency class in 2017 and graduated in June 2020. An additional MCW-Milwaukee alumnus finished his three-year residency training in June 2021. Currently, four MCW medical school graduates are residents in this new program.

Jason Domagalski, MD '05, serves as program director of the Froedtert Menomonee Falls Hospital Family Medicine Residency Program. "Menomonee Falls is a great place to have a family medicine residency program. There is an aging community, but there also are young families moving in and having babies, so training extends through all stages of life," he notes. "The residency significantly

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increases access, so patients don't have to wait a long time (there are 22 primary care doctors available). Patients also benefit from the teaching and educational component. MCW students rotate with us for their third and fourth years, so we get to see how they work in teams and how they interact with each other. We want to keep as many of them as possible in the state," Dr. Domagalski says. This approach seems to be working, as there are four residents practicing currently in the Froedtert & the Medical College of Wisconsin health network.

Patricia Toro Perez, MD '19, graduated from MCW-Central Wisconsin and is a third-year resident in the Froedtert Menomonee Falls Hospital Family Medicine Program. "My clinical experiences in Antigo, Wisconsin, were the highlight of medical school for me. The preceptors were eager to teach, and everyone in the hospital/clinics was welcoming. I was able to get a lot of hands-on experience that I truly don't believe I would have had otherwise. These experiences helped to set me up for success in residency and made the transition from student to resident very smooth," she remarks.

"I chose to attend MCW-Central Wisconsin after my interview day. I had a gut feeling of belonging during that interview, and I followed it. I had that same feeling during my interview at Froedtert Menomonee Falls. I liked that the residency program was focused on community medicine and based at a community hospital while still being close to the Froedtert & MCW main campus," Dr. Toro Perez adds.

MCW also recently created a new family medicine residency program in Green Bay in conjunction with Prevea Health and Hospital Sisters Health System (HSHS). Founding program director Manal Soliman, MD, MBA, began to build the program in September 2019. The inaugural class of residents began on July 1, 2021; when fully running, the program will train four residents per year for three years. The program was funded in part by a new residency startup grant from Wisconsin's Department of Health Services, state funds earmarked for MCW's family medicine GME development in northeast Wisconsin and the two healthcare systems.

"There is a great shortage of primary care physicians in the Green Bay area," says Dr. Soliman, who also serves as associate professor of family and community

(at center) Martha Grace Courtright, MD '18, graduated from the inaugural class at MCW-Green Bay and completed the Fox Valley Family Medicine Residency Program in 2021. Shown here with classmates Andre Theuerkauf, MD '18, and Allison Meyer, MD '18.

medicine at MCW. "The program provides service to families, especially when it comes to the underserved who don't have access to care. Residents also will be providing health education to the community."

Additionally, in July 2015, MCW became the academic affiliate of the Fox Valley Family Medicine Residency Program in Appleton, Wis., which previously had been a campus of the University of Wisconsin School of Medicine and Public Health department of family medicine. The program is undertaken in collaboration with Mosaic Family Health Clinic in partnership with St. Elizabeth Hospital and ThedaCare Regional Medical Center – Appleton. There are 21 residents in the program, with seven graduating each year.

According to Beth Menzel, MD, program director of the Fox Valley Family Medicine Residency Program and MCW assistant professor of family and community medicine, the crux of the community-based residency program is that most individuals will practice within 100 miles of where they do their residency training. "The academic scholarly approach we can bring into our community and our systems provides an elevated level of care for the residents because the existing physicians need to keep up on the latest approaches to care. This gets infused into the community. The residents practice evidence-based medicine, and they demand it from the physicians they train with, and care is elevated throughout the community. Now, even the patients are making sure they are cared for with evidence-based approaches," she notes.

"We just graduated two residents from the inaugural class of MCW-Green Bay, and they have been phenomenal. We are impressed with the students we get from MCW," Dr. Menzel adds.

Martha Grace Courtright, MD '18, GME '21, is one of the two MCW-Green Bay alumni who graduated from the Fox Valley Family Medicine Residency Program in 2021; she will be practicing full-spectrum medicine (outpatient, inpatient, OB deliveries and nursing home care) at Essentia Health in Hayward, Wis.

"I was able to rotate at Fox Valley Family Medicine Residency in medical school at MCW-Green Bay, and that experience is what made me want to match at Fox Valley. I really felt that the residents were getting a broad education and that their OB curriculum was top-notch. I knew I wanted to do deliveries as part of my future practice, and so I wanted to go somewhere that was going to give me that intense training," Dr. Courtright remarks.

"Fox Valley Family Medicine Residency's goal is to prepare full-spectrum physicians for which rural communities are so desperately searching. A unique part of our residency training is our third year, during

which we function like a mini-call pool covering clinic calls, admissions and deliveries for two hospitals and a nursing home. This really solidifies your training from the first two years and gives you a sense of what a rural, full-scope practice might look like," Dr. Courtright explains.

Recent MCW-Milwaukee graduate Samuel Beschta, MD '21, has just begun his training at the Fox Valley Family Medicine Residency Program. "There were a few factors that led me to an MCW residency. First, I was born and raised in Wisconsin and wanted to stay close to family. Second, the Fox Valley program helps physicians become full-scope rural family doctors, which is my goal. Finally, I was not ready to leave my MCW family," Dr. Beschta shares.

Additional Efforts to Address the Projected Physician Shortfall

Another critical contribution to addressing the projected physician shortfall in Wisconsin was the creation in 2020 of 54.5 additional GME slots made available for MCW's allocation by the institution's adult healthcare affiliate, Froedtert Hospital (FH).

Recognizing the importance of training the next generation of specialists in Wisconsin as well as MCW's singular role in supplying more than 50 percent of the physicians currently practicing in the state, this substantial expansion represented an even larger commitment to Wisconsin's future workforce given that FH is well over the federally mandated cap for GME positions. As such, each of these positions required additional funding in Froedtert and MCW's affiliate funds flow model, and agreement on these positions demonstrated the remarkable cooperation and commitment of both organizations to medical education and Wisconsin's future health.

Determination of where to add these positions was made after a well-defined process and submission of proposals based upon GME needs and conversations with MCW's clinical departments. The 54.5 slots were allotted based on the strategic needs of the Milwaukee Regional Medical Center campus, Milwaukee and Wisconsin as a whole; program growth, expansion of services at FH and the record of filling in the Match.

Eleven departments received the new GME allotments: anesthesiology; dermatology; emergency medicine; medicine (endocrinology and molecular medicine, hematology/oncology, palliative care, pulmonary and critical care medicine); neurology; OB/GYN; ophthalmology and visual sciences; otolaryngology and communication sciences; psychiatry and behavioral medicine; radiology (diagnostic); and surgery (cardiothoracic and vascular).

"We are extremely grateful to our Froedtert Hospital partner in working with the medical school to create these critical additional GME slots, which will significantly expand access to care in Wisconsin and beyond, and substantively help to reduce the state's projected physician shortage. This work represents one of the single largest increases in GME positions in Wisconsin's history, and its importance and future impact are difficult to overestimate," Dr. Kerschner shares.

As part of this GME expansion, MCW also has added positions through the VA program in cardiovascular, emergency medicine, gastroenterology, general surgery, hematology/oncology, nephrology, neurology and pulmonary/critical care. In total, including the psychiatry residencies mentioned above, the VA has added more than 20 full-time equivalent positions – with additional slots expected shortly.

In addition to creating new residency programs, MCW continues to help alleviate the overall physician shortage in the state via its placement of undergraduate medical education (UME) students into Wisconsin GME slots. According to the AAMC's 2019 biennial report on state-specific data about active physicians and physicians-in-training, 37 percent of medical school graduates from Wisconsin's two medical schools remained in the state for residency, while about 45 percent remained here after residency training. In total, 70 percent of all physicians who both attended medical school in Wisconsin and then completed residency in Wisconsin remained in the state to practice.

One way the ACGME measures the adequacy of a state's number of residency positions is to use the ratio of positions per 100,000 members of the population. As Wisconsin has continued to expand residency programs, so too have other states. But according to the AAMC, the state's rank for GME residents per medical school enrollee improved from 25 in 2012 to 20 in 2018.

MCW's success in growing both its UME and GME programs and in placing its medical students in Wisconsin-based GME programs is reflected in the fact that more than 50 percent of all Wisconsin physicians currently practicing in Wisconsin completed some of their training and education at MCW.

MCW's regional campus model, which strongly emphasizes Wisconsin residents with roots in this state, will have an even greater impact on the institution's efforts to alleviate Wisconsin's physician shortage.

These campus expansions, together with state investment in medical residencies, are projected to create more than 450 new physicians in the next 15 years.

Indeed, MCW is helping to fill the physician shortage gap by creating new medical residencies to meet future healthcare needs. ■

Extending COVID-19 Care Beyond "Recovery"

Since the start of the COVID-19 pandemic, more than 612,000 Wisconsinites have been diagnosed with the disease – 95 percent of whom have recovered. However, medical experts are now finding that the "recovered" designation might be misleading. "When the pandemic first started in the US, medical professionals began to notice a pattern of lingering symptoms in a portion of patients who tested positive for COVID-19 and since became negative for the virus," says Julie Biller, MD, professor of medicine (pulmonary) at MCW. "As more data have come in, we've realized that this phenomenon was common to a certain extent, with studies finding prolonged symptoms in 10-30 percent of COVID cases."

The official term used by the medical community is "post-acute sequelae of COVID-19," and describes patients who continue to experience a constellation of symptoms long past the time that they've recovered from the initial stages of COVID-19 illness. Often referred to as "Long COVID,"

Dr. Julie Biller serves as director of the Froedtert & Medical College of Wisconsin Post-COVID Multispecialty Clinic.

symptoms can include fatigue, shortness of breath, "brain fog," sleep disorders, fevers, gastrointestinal symptoms, anxiety and depression – and can persist for months, ranging from mild to incapacitating. New symptoms also arise well after the time of infection or evolve over time.

To that end, MCW experts realized the need for a concerted effort to care for post-acute sequelae of COVID-19 that would cater to each individual's unique symptoms. "We began serious conversations about starting a clinic dedicated to this goal last fall," Dr. Biller says.

Joseph E. Kerschner, MD '90, FEL '98, The Julia A. Uihlein, MA, Dean of the MCW School of Medicine, provost and executive vice president, initially led the initiative that ultimately became the Froedtert & the Medical College of Wisconsin Post-COVID Multispecialty Clinic – which launched on January 28, 2021. Through his leadership, MCW dedicated an administration team and recruited multidisciplinary providers from across MCW. One such specialist is Dr. Biller, who serves as the clinic director.

The clinic operates in a virtual format, allowing physicians across specialties to collaborate on a patient's treatment after being referred by a primary care provider. Patients are evaluated through triage by a specialized nurse coordinator via video consultation, which includes a panel of questions about past medical history and current symptoms. Patients are then further referred to appropriate specialists and treated according to their specific symptoms.

"The true value of this clinic is its ability to seamlessly facilitate collaboration across each department," Dr. Biller says. "By taking a multi-specialty approach, we ensure that patients are being treated by experts who can address their particular symptoms." As of July, the clinic is just one of two in the state dedicated to dealing with post-acute sequelae of COVID. To date, the clinic has received 569 total referrals – and continues to receive about three referrals per day.

In addition to improving clinical outcomes, the ability to collect pertinent information on COVID-19 patients allows the team to better understand the disease. Dr. Biller believes clinicians already have learned several lessons.

"We've found that some of our patients have inflammation of connective tissue around the heart. We also have found many commonalities between our patients and those diagnosed with chronic fatigue syndrome," she shares. "A clinic dedicated to caring for post-COVID patients enables us to uncover more about the disease."

The Post-COVID Multispecialty Clinic team will continue to track the data long-term and hopes to publish its findings. Although the clinic is important to the Wisconsin community, Dr. Biller hopes that it eventually will close for lack of patients. "As we continue to make strides in vaccinating our community, we hopefully will get to the other side of the pandemic, reducing the number of people who will become infected and need this specialized care," she adds. ■ – ALEX KROUSE

Preserving Critical Language Regions During Epilepsy Surgery

When medication can't control the recurrent, unprovoked seizures of epilepsy patients, many turn to a surgery first developed in the 1950s that involves removing a portion of the brain where electrode mapping indicates the seizures arise – often in the temporal lobe. While this treatment can cure epilepsy some 70 percent of time, it does not come without the risk of side effects, especially if the source of the epilepsy is the left temporal lobe.

This is because most people's language abilities come from the left side of the brain, which can be determined on an individual basis using functional MRI imaging, thanks to the pioneering work of Jeffrey Binder, MD, MCW professor and vice chair of research in the department of neurology and director of MCW's Language Imaging Laboratory.

The potential side effect with left temporal epilepsy surgery is post-surgical decline in the ability to come up with names for objects, even with a visual cue. According to Dr. Binder, some people have no change in their naming ability after surgery while others might decline by 20-25 points on the 60-point assessment of this brain function – which neurologists complete through a test that shows 60 pictures of objects and asks patients to identify them.

Known risk factors for this decline, including location of the patient's language functions in the brain, age and later onset of epilepsy in life, explain only about 25 percent of the variation in outcomes for patients in terms of naming ability.

"Very few hold the opinion that you shouldn't do the surgery because it's much more important for most people to get rid of their seizures than to preserve 100 percent of their naming ability," notes Dr. Binder. "But at the same time, we want to limit that decline in naming ability as much as possible."

Dr. Jeffrey Binder is undertaking pioneering research on potential side effects of epilepsy surgery.

Dr. Binder set out to see if the variation could be explained by what parts of the temporal lobe are removed during epilepsy surgery and therefore improve outcomes for patients.

"The surgery isn't done in the same way from person to person. Not only does the suspected location of the seizures vary from patient to patient, so does the way surgeons perform the procedure and which areas of the brain they prioritize in preserving versus removing," explains Dr. Binder.

To see the impact of this variety across both patients and surgeons, Dr. Binder set up a consortium of nine epilepsy centers and built up a database of 59 people who had had left temporal epilepsy surgery over a span of five years. Each patient took the standard naming test before and after surgery and had images taken of their brain before and after so that Dr. Binder and his team could map the area of the brain removed. This was the first study of its kind.

"We found that the more the surgery extends back from the front part of the left temporal lobe into the middle part of the temporal lobe, the more naming decline the patient faced as a result," he explains. The results were published in the September 2020 edition of *Epilepsia*.

According to Dr. Binder, the existence of a language center in that area – the underside of the temporal lobe midway along the axis from front to back – was first suggested about 30 years ago. Evidence was somewhat ignored to a large extent because that region isn't often stimulated in brain mapping studies.

"Our study highlights the critical nature of this brain region for preserving naming abilities," he says. "We hope the results of this study will provide enough evidence to persuade surgeons to try to preserve that area as much as possible and lower the risk of the decline in naming ability." ■ – KARRI STOCK

Philanthropy Spurs Innovation

Donors leave a legacy of excellence through support of named faculty positions

One of the characteristics that distinguishes elite academic institutions is the presence of a long-established and growing donor-supported endowment that provides financial resources for scholarly activities such as research and education.

Although not always considered by the general public in evaluating a university or college's reputation, donor-endowed funds – especially those that support named faculty positions – play a critical role in recruiting top-tier faculty to an institution.

"Academic recruiting, especially for beacon scientists and physicians, is extremely competitive," says Joseph E. Kerschner, MD '90, FEL '98, The Julia Uihlein, MA, Dean of the MCW School of Medicine, executive vice president and provost.

John and Linda Mellowes established a named chair in the department of medicine in addition to named positions for faculty dedicated to advancing the genomic sciences.

"Having the ability to offer a named faculty position or access to a fund supporting research activities as part of an overall recruiting package is of immense importance," Dr. Kerschner adds.

These funds are also a measure of the trust philanthropists have in the mission and leadership of an institution to drive new knowledge and innovation while also leaving a legacy for the benefactors and their families.

Linda A. Mellowes, a key advisor to the recently concluded Hope to Health Campaign for MCW and Froedtert Hospital, and her husband, John T. Mellowes, have established two named funds at MCW – one for the chair of the department of medicine and another in the Genomic Sciences and Precision Medicine Center.

"John and I strongly believe we have a world-class academic health system here in Milwaukee," Mellowes says. "Our support is about sustaining a future that accelerates new treatment and cures for diseases and injuries. We can accomplish this by supporting the faculty and physicians here who are advancing truly innovative discovery and clinical care and attracting leading experts from around the country."

Endowment funds are usually composed of charitable gifts from donors and can be directed for the unrestricted use of an institution or designated to support a specific purpose such as student scholarships, research, patient care programs or community service.

The family of the late Ann Heil established the Ann E.Heil Professorship in Cancer Research.

The funds are governed by the Uniform Prudent Management of Institutional Funds Act, which protects the donor's interests and intent and preserves the capital funds in perpetuity.

The use of endowed funds to establish faculty positions and support scholarly activities has been traced back to the Roman emperor Marcus Aurelius in AD 176, when he created endowed chairs for the major schools of philosophy at the time: Platonism, Aristotelianism, Stoicism and Epicureanism.

Over time, these positions have been associated with some of the most famous academic thinkers and experts in their respective fields. Perhaps the most prestigious of these is the Lucasian Professor of Mathematics at Cambridge University, which was held by Isaac Newton and Stephen Hawking – both of whom were renowned for their seminal contributions to physics.

At MCW, 64 faculty members currently hold named positions established through endowed funds. The income supporting these positions benefits a diverse range of activities, from basic science to patient care to medical humanities and bioethics. These funds support named chairs, professorships and deanships.

Some families have established multiple named funds held by faculty. In addition to Linda and John Mellowes, generations of Milwaukee's Heil family established three named positions for professorships in the department of ophthalmology and visual sciences and for cancer research.

The Kerns established the Dr. Robert D. and Dr. Patricia E. Kern Professorship of Biomedical Engineering to support technological advances across healthcare and science. They and the Kern Family Foundation also established the Kern Institute for the Transformation of Medical Education. Former chair of the MCW board of trustees, Stephen Roell, and his wife, Shelagh Roell, PhD, provided a substantial gift to establish the Stephen and Shelagh Roell Endowed Chair of the Kern Institute.

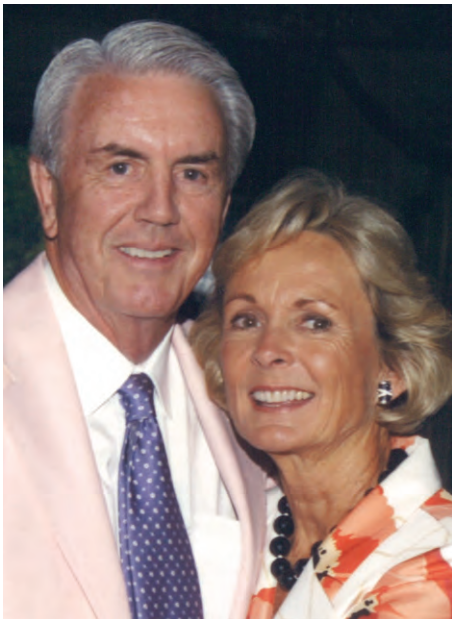
The family of the late Ann Heil, a founding member of the Cancer Center Board, established the most recent of these – the Ann E. Heil Professorship in Cancer Research, which is held by Melinda Stolley, PhD, professor and associate director for prevention and control at the MCW Cancer Center.

Generous support from Baird, its employees, corporate and community partners, and family provided the funds to endow the G. Frederick Kasten, Jr. Endowed Chair in Parkinson's Disease Research to discover treatments and build the strength of MCW's Parkinson's disease clinical program. (Kasten and wife Susie, ca. 2005).

During the Hope to Health Campaign, donors established 16 new named endowed positions, including MCW's first deanships. In addition to the deanship held by Dr. Kerschner, Lisa Grill Dodson, MD, the founding dean of MCW-Central Wisconsin, now holds a deanship established by Sentry Insurance.

Vice President and Chief Development Officer Mitch Beckman has made establishing named faculty positions a priority for MCW.

"These are outstanding opportunities for benefactors to have an incredible impact on all of our missions," says Beckman. "MCW and Froedtert Hospital are investing in some of the most innovative research, patient care and education programs in the country. Donors can have an impact on that work now and far into the future." ■ – MICHAEL J. MATHIAS



Recognizing New Holders of Named Faculty Positions

Honoring the donors who provide support for named positions varies among academic institutions. MCW recognizes new holders of named faculty positions each September at an annual Convocation ceremony, along with faculty promotions, new department chairs, deans, center directors and others for distinguished achievements.

The holders of named faculty positions receive a personalized medallion engraved with the name of the donor.

Specific ceremonies between donors and holders of named endowed positions are sometimes referred to as an "investiture," an event that honors the partnerships with donors that sustain scholarship and academic excellence. ■

Billie Kubly and her late husband, Mike Kubly, MD '60, endowed the Charles E. Kubly Chair in Psychiatry and Behavioral Medicine to inspire new research and treatments and to reduce the stigma of mental illness.

A New Puzzle Piece

MCW scientists are the first to demonstrate a role for transfer RNA fragments in hypertension

Scientists at MCW are shedding new light on the biological puzzle pieces that interact in hypertension and kidney disease, which may contribute to improvements in how these conditions are diagnosed and treated. Mingyu Liang, MB, PhD, PDF (postdoctoral fellow) '02, Kohler Co. Professor in Cardiovascular Research, professor of physiology and director of the Center of Systems Molecular Medicine; Pengyuan Liu, PhD, adjunct professor of physiology; and their teams published results in the March 2021 issue of *Hypertension* from the first study to identify specific noncoding RNAs called transfer RNA (tRNA) fragments in rats and in preserved human kidney tissue from patient biopsies. The researchers also demonstrated that tRNA fragments likely play a role in hypertension and kidney disease that will need to be explored in more detail in future experiments.

"Our work is guided by the concept of molecular systems medicine. To continue advancing our understanding of human biology and disease, we need to define the genes, proteins and small molecules that make up a system, as well as determine how they interact with one another," Dr. Liang says. He has been a proponent of a fundamental shift in biomedical research away from an overemphasis on individual molecules – which is reflected in his lab's approach to studying RNA.

Among the RNA family, messenger RNAs, or mRNAs, are coding RNAs that carry the recipes for proteins directly from DNA in the cell's nucleus to the cytoplasm where proteins are made. Dr. Liang and other epigenome experts have elevated the importance of noncoding RNAs over the last 10-15 years by discovering that these RNAs have significant effects on gene expression.

Dr. Liang's lab has become one of the leading teams researching the influence of a form of noncoding RNA, called microRNA, in hypertension. As evidence continues to grow regarding the ability of noncoding RNA to enhance or diminish gene expression, Dr. Liang has turned his attention to tRNA fragments as a group that had not been studied previously by hypertension scholars.

"Transfer RNAs themselves are well-understood as they carry the building blocks of proteins – amino acids – to locations where proteins are being made, and are often cleaved into fragments. Little is known about what tRNAs do, especially in hypertension," Dr. Liang notes. He and Dr. Liu hypothesized that tRNA fragments might alter gene expression in a similar fashion to microRNA, which binds to messenger RNA. Dr. Liang's and Dr. Liu's teams used next-generation RNA sequencing on four groups of salt-sensitive rats that are widely studied as a model for hypertension, as well as on kidney biopsy specimens from patients diagnosed with hypertensive kidney damage, and control patients. The scientists found more than 300 different tRNA fragments in rats and more than 150 different fragments in humans.

Transfer RNAs (tRNA) (shown above) are noncoding RNAs that often get split into fragments. MCW scientists recently published the first study to demonstrate that tRNA fragments likely play a role in hypertension and kidney disease.

"In terms of defining another level of a molecular system, the volume of unique tRNA fragment types and the many copies of each fragment appear to be similar to the quantities of microRNA," Dr. Liang adds.

In addition, the teams found that rats with hypertension caused by excessive salt consumption had different tRNA fragment levels than the control rats. A similar result was reported from the human kidney tissue biopsies from the patients with hypertensive kidney injury. The researchers also demonstrated that one of the tRNA fragments found in higher levels due to hypertension also alters gene expression by reducing the abundance of multiple messenger RNAs.

"Our findings have identified tRNA fragments as another important puzzle piece to study in hypertension as we continue to define larger molecular systems. There also is the potential that some of the fragments could be used to improve diagnostic methods or potentially become therapeutic targets for drug development," Dr. Liang says. ■

– GREG CALHOUN

Examining Concussion Incidence in College Football

Recent research from the Concussion Assessment, Research and Education (CARE) Consortium sheds new light on how to reduce the incidence of concussion and head impact exposure (HIE) in college football. Over the past few years, data from this study have resulted in incremental changes geared at improving the health and safety of athletes.

"It was really these data from the CARE Consortium that ignited the focus on football practice policy and guidelines," says Michael McCrea, PhD, professor and eminent scholar, vice chair of research and co-director of the Center for Neurotrauma Research (CNTR) in MCW's department of neurosurgery.

The study builds upon Dr. McCrea's many years of research into how to most effectively detect, treat and reduce traumatic brain injuries and sports-related concussions. "In the last 10 years or so, the study of concussions has expanded to ask about the lower-magnitude impacts that contact-sports athletes sustain even in the absence of diagnosed concussion. That concept is captured in what is called 'repetitive head impact exposure,'" he explains.

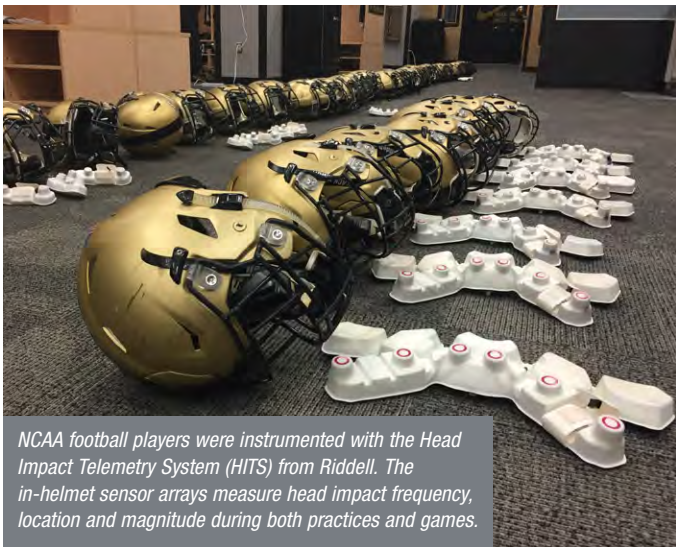
Dr. McCrea, Brian Stemper, PhD, professor of neurosurgery at MCW, and their CARE Consortium colleagues examined the pattern of concussion exposure as well as repetitive HIE. Six Division I NCAA football programs participated in the study from 2015-2019, during which 658 collegiate football players were instrumented with head impact measurement technology from Riddell. "This was the largest and most comprehensive study of concussion and head impact exposure in collegiate football," says Dr. McCrea.

The findings from the study were published in *JAMA Neurology* in February 2021. The results revealed that while football's preseason accounts for only about 20 percent of the full season, 50 percent of concussions occurred in the preseason, and HIE occurring in the preseason was twice the proportion of that in the regular season.

"Because of how training and contact are approached in the preseason, there's really a piling up of exposure and concussions in collegiate football during that time. A similar pattern can be seen in lower and higher levels of competition," Dr. McCrea shares.

The study also examined the pattern of exposure in concussion across practice and games. Over five seasons, 72 percent of concussions and 67 percent of HIE occurred during practice.

"These findings offer a powerful opportunity to modify approaches to preseason training and football practices to keep players safer," says Dr. McCrea. "By modifying practices and preseason training, football teams can greatly reduce the risk of injury and exposure for their players while still maintaining the competitive nature of game play. Through a combination of policy and education, similar strategies could be implemented to help prevent concussion and HIE in high school and youth football, too."



NCAA football players were instrumented with the Head Impact Telemetry System (HITS) from Riddell. The in-helmet sensor arrays measure head impact frequency, location and magnitude during both practices and games.

"The NCAA is working within its framework, and changes are already in motion to reduce the incidence of concussion and exposure in college football players," Dr. McCrea adds.

Philanthropic Support for the Center for Neurotrauma Research Builds on Excellence in the Department of Neurosurgery

Visionary MCW neurosurgery leaders pursue innovation that is transforming neurotrauma research and providing world-class care for spine and brain injury. The Center for Neurotrauma Research (CNTR) accelerates innovative research that has profound impact on patients regionally, nationally and internationally. To realize this bold vision, MCW aspires to endow a new chair in the department of neurosurgery and to invest in spinal cord and brain injury research.

"Philanthropy allows our early career scientists to get started. It also allows senior and more established researchers to conduct groundbreaking, novel work that might be considered high-risk by federal funding agencies," says Dr. McCrea. "Philanthropy is critically important across the continuum of our ranks and also allows us to do innovative work that other institutions can't do without that type of support." ■

– EMILY MARQUARDT

50 Years in Academic Medicine

Steven Shelov, MD '71, MS, has experienced the best of both worlds in his 50-year career in academic medicine: advancing the health of children and families as a pediatrician, and excelling as a well-respected leader in medical education.

Currently, Dr. Shelov is founding dean and chief academic officer of the NYU Long Island School of Medicine and professor of pediatrics. He has authored more than 15 books and 100 articles and abstracts, and has received numerous academic awards in medical education and leadership from prominent academic organizations.

Dr. Shelov was born in 1944 in Hawaii, where his mother was a lieutenant in the nursing corps and his father was a civilian architect for the US Navy. In 1945, the family resettled in New York City, where Dr. Shelov remained until he matriculated at Yale. His path to MCW (then known as the Marquette University School of Medicine) was a bit unusual, as he was accepted during the interview process in May, shortly before classes started.

Dr. Shelov attributes his opportunity to attend MCW's predecessor institution to then-dean Gerald Kerrigan, MD, who, as a graduate of Harvard, was determined to spread the reputation of the medical school outside the Wisconsin area – especially to the Ivy League schools. "A very good friend of mine from Yale, John Amatruda, MD '70, had matriculated at Marquette the year before – and he brought me to the attention of the registrar," Dr. Shelov says.

Dr. Steven Shelov, ca. 1971.

"In my third year of medical school, I fell in love with pediatrics while working at the Milwaukee Children's Hospital. The medical school faculty...were great, and I loved working with the kids."

"I had never been to Milwaukee, but I had a wonderful experience there in medical school. I put my nose to the grindstone throughout medical school, resulting in my membership in the Alpha Omega Alpha Honor Medical Society. I got married the summer after my first year, was determined to excel and worked very hard. I also was very lucky. In my third year of medical school, I fell in love with pediatrics while working at the Milwaukee Children's Hospital. The medical school faculty, especially Drs. Harold and June Dobbs and Dr. Frederick Blodgett, were great, and I loved working with the kids," Dr. Shelov shares.

Dr. Steven Shelov (center) with his wife, Marsha, and (l-r) children Josh, Danielle and Eric, 2020.

Dr. Shelov's pediatric residency at Montefiore Medical Center in New York was quite innovative at that time. A community-based experience known as the "residency program in social medicine," it focused on training young pediatricians and internists in a community setting; it still exists today serving communities in need. Charles Gessert, MD '71, trained alongside Dr. Shelov.

After completing his residency, Dr. Shelov began what would become a flourishing career in academic medicine. He served as vice chair and professor of pediatrics at Albert Einstein College of Medicine; chair of pediatrics at Maimonides Medical Center; vice president at Lutheran Medical Center (now NYU Brooklyn Medical Center); chair of pediatrics at Cohen Children's Medical Center at Northwell Health; and associate dean for undergraduate medical education at Winthrop University Hospital (now NYU Langone Hospitals-Long Island).

In his current position at NYU Long Island School of Medicine, Dr. Shelov leads a tuition-free institution that encourages medical students to train as primary care physicians. "I thought this was a great opportunity to solidify everything I'd been doing in medical education and patient care, and have an impact on educating a workforce that would be both diverse and dedicated to primary care," he remarks.

Dr. Shelov has maintained a strong relationship with MCW and was recognized as *Alumnus of the Year* at his 25th Class Reunion. He also was a committee leader for the MCW Class of 1971 50th Reunion Committee.

Dr. Shelov and his wife, Marsha, have three children and seven grandchildren, and live in Scarsdale, New York. ■

– SARA L. WILKINS

Transitioning from Mentee to Mentor

As I take one step after another in my education at MCW, I have learned to tackle one of the hardest sentences for me to say: "Can you please help me?" I now counter any of my worrisome feelings with, "Am I already supposed to know this?"

This query has been key for me to identify what questions to ask and which mentors to seek. Early on in graduate school, I thought that independent work was the mark of success. I realize now that this approach benefited no one, least of all me. I am a student, and my entire purpose is to learn from others, develop skills through training and rise to a stage of competence.

"In this reciprocal relationship, not only am I helping to advance the college students' scientific knowledge base, but I also am taking the next step in my own journey as I transition from a mentee to a mentor."

– Sai-Suma K. Samudrala, MCW MD/PhD student

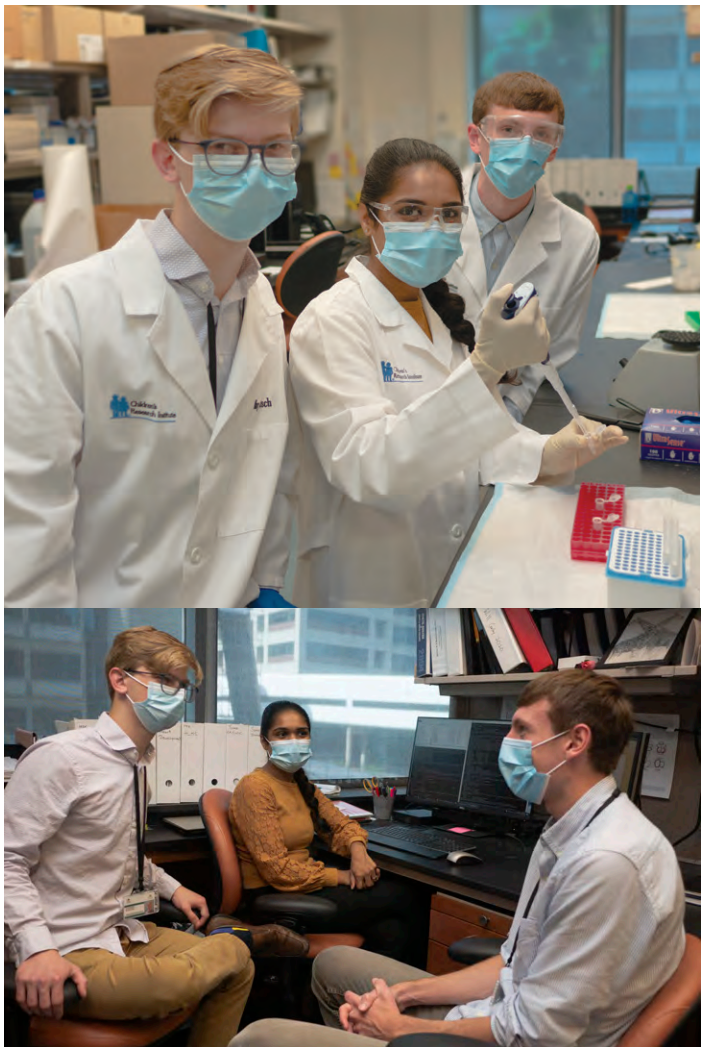
Grant writing is one such example. I realize now that I should have reached out for early guidance at the brainstorming stage rather than waiting until after I had formed a presentable draft. Once I sought guidance, everyone I reached out to, including fellow peers, older student peers in my Medical Scientist Training Program and my committee members, all became my advocates.

I am immensely thankful for everyone who helped me revise my writing until the essence of what I hoped to convey could be easily understood among scientific readers. As I asked questions and sought help, I found that many of my colleagues had faced similar situations in the past. Their shared guidance enabled me to quickly address issues that would have independently taken me significantly more time.

The pandemic has had negative consequences for all bench research. For me, this included having to push back my research schedule to a degree that I never anticipated. To those students worrying about their academic future, I share my challenges in the hope that I offer reassurance. If in a similar situation, I encourage you to seek out your peers and mentors. You will find advocates and well-wishers at every corner.

One of my confidants introduced me to what is now a favorite quote that has helped me through hills and valleys: "This too shall pass."

Legend has it that this adage was inscribed inside a ring by sages who were summoned by a king who sought to stabilize his inner state. Humans, as of yet, cannot rewind time. Therefore, I believe this quote neatly summarizes the hurdles of personal development; once you acknowledge a problem, you are already closer to a solution than you were in the uncomfortable moment of realization.



Photos courtesy of Greg Calhoun

This summer, Sai-Suma Samudrala is mentoring two undergraduate students (l-r) Jackson Radandt and Peter Lamberton from Marquette University in her lab at MCW.

Every summer, our MCW lab hosts trainees. This year, we have had the privilege of working with two bright undergraduate students from Marquette University. I am able to realize how far I have come as a scientist as I teach them concepts of congenital heart disease, generation of testable hypotheses and various cell biology experimental techniques.

In this reciprocal relationship, not only am I helping to advance the college students' scientific knowledge base, but I also am taking the next step in my own journey as I transition from a mentee to a mentor. I'll make sure they know that they have an advocate in me! ■

– SAI-SUMA K. SAMUDRALA

ALUMNI NOTES

1970s

Gerald A. Hanson, MD '71, GME '76, retired from private practice as a lab director in 2006. He is married with one child, three stepchildren and four grandchildren. Dr. Hanson enjoys biking, gardening, traveling and reading.

David R. Holmes, Jr., MD '71, was honored by Mayo Clinic in Rochester, Minn., as one of the recipients of its 2020 *Distinguished Alumni Award*. Dr. Holmes was recognized as a leader and pioneer in interventional cardiology. He is a physician in the department of cardiovascular medicine at Mayo Clinic and a professor of medicine at Mayo Clinic College of Medicine and Science. Dr. Holmes was director of pacing and electrophysiology at Mayo Clinic during a time when the practice was changing due to advances in science. He developed surgical approaches and electrophysiologic mapping techniques for supraventricular arrhythmias. He was director of Mayo's Cardiac Catheterization Laboratory and treated pulmonary vein stenosis as a complication of radiofrequency ablation for atrial fibrillation.

Dr. Homes was involved in introducing percutaneous transluminal coronary angioplasty (PTCA) to Mayo Clinic and in establishing a multicenter PTCA registry that has recruited more than 35,000 patients. He has trained two generations of interventional cardiologists, is the named inventor of the Watchman Left Atrial Appendage Occluder device and has made remarkable contributions to scientific literature. Dr. Holmes is past president of the Society for Cardiac Angiography and Interventions and the American College of Cardiology.

H. Michael Mynatt, MD '72, GME '79, is an orthopaedic surgeon specializing in complex joint arthroplasty and revision surgery. He operates a private practice and serves as associate clinical professor at the University of Southern California Keck Medical School Medical. He has held a number of medical staff hospital administration leadership positions. Dr. Maynatt is married and has five children and five grandchildren. He enjoys spending an increasing amount of time at his home in Sun Valley, Idaho.

Larry S. Perry, GME '78, FEL '81 practiced as a cardiologist for more than 30 years. His many achievements include earning the *Congressional Award in Medicine*, *Maryland Doctor of the Year* award and recognition for his engagement and generosity by the Morgan State University Alumni Association. Dr. Perry helped establish The Larry S. Perry, MD and Ira D. Thompson, MD Cardiac Surgery Endowed Scholarship at Meharry Medical College in Nashville. He also played a major role in founding *The Keelan-Tresch Award for Scholarship in Cardiovascular Medicine* at MCW. This award, endowed by former cardiology fellows, is given to a senior student who has embraced the humanitarian ideals of the profession and has demonstrated an exceptional interest and expertise in cardiovascular medicine.

1980s

William G. Armington, MD '82, is a radiologist specializing in neuroradiology and diagnostic radiology. He practices teleradiology in Louisiana from his home in Sanabel, Fla. Dr. Armington previously served as clinical professor of radiology at Tulane University School of Medicine in New Orleans, as Louisiana partner at Mercy Baptist Radiology Group in New Orleans and as president of the New Orleans Radiology Society.

Cecilia J. Hillard*, PhD '83, PDF (postdoctoral fellow) '85, was named the G. Frederick Kasten, Jr. Endowed Chair in Parkinson's Disease Research at MCW. Dr. Hillard joined MCW's faculty in 1985 and steadily rose through the ranks. She served as inaugural director of the Neuroscience Graduate Training Program from 1996-2010 and since 2010 has served as inaugural director of the Neuroscience Research Center.

Dr. Hillard's research has focused on the pharmacology and biochemistry of the cannabinoids and endocannabinoids. She has published more than 215 peer-reviewed original papers and review articles. In 2011, Dr. Hillard received MCW's *Distinguished Service Award* – MCW's highest faculty and staff honor.

1990s

Jon A. Lehrmann*, MD '90, GME '94, was selected as one of the *Milwaukee Biz Times* "Notable Alumni of 2021." He received the honor for his commitment to expanding mental healthcare access. Dr. Lehrmann helped establish the Wisconsin Child Psychiatry Consultation Program to help pediatricians get guidance about patients from

** MCW faculty member*

psychiatrists. Recently, Gov. Tony Evers announced new additional funding to expand the program to cover the entire state.

Dr. Lehrmann also helped launch the MCW-Green Bay and MCW-Central Wisconsin psychiatry residency programs to train psychiatrists and keep them employed in areas of greatest need. Both residency programs hosted their first graduations this year, and six of the seven inaugural residents have accepted positions in underserved areas or will continue training in fellowships serving youth. *See story on pages 16-21.*

Joseph J. Souza, MD '90,
started a new position in February 2021 as associate professor of medicine at the University of Kentucky College of Medicine in Lexington. He practices at the University's Gill Heart & Vascular Institute.

Catherine F. Reuter, MD '92,
is married to Mark G Reuter, MD '92. Their son, Thomas G Reuter, is a third-year medical student at MCW. Drs. Catherine and Mark Reuter currently practice in pediatrics and family medicine, respectively, in Spooner, Wis.

Judy E. Kim*, MD, GME '96, was selected by *The Ophthalmologist* for its "Power List" of the "Top 100 Women in Ophthalmology." The publication received more than 1,200 nominations for 300 individuals, and the list was whittled down by an international panel of judges to the final 100. The list represents the most influential female figures currently in ophthalmology in the world.

2000s

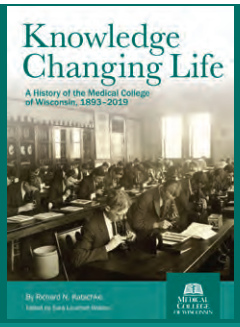
Amy Wagner, MD '01, FEL '11, earned a five-year, $4.2 million grant from the Eunice Kennedy Shriver National Institute of Child Health & Human Development to continue her research on the outcomes of babies born with gastroschisis. Dr. Wagner is the principal investigator of The Gastroschisis Oucomes of Delivery (GOOD) Study, which will both help doctors determine the best time to deliver a baby with gastroschisis and the infant to live as healthy as possible post-birth. *See story on page 14.*

2010s

Abby Kroken, PhD '13, started a new position in February 2021 as assistant professor of microbiology and immunology at Loyola University Chicago Stritch School of Medicine.

Dustin T. Hansen, MD '15, completed his pediatrics residency at the University of Minnesota Medical School and currently is a pediatric critical care medicine fellow at The Johns Hopkins Hospital in Baltimore.

Knowledge Changing Life Available for Purchase



Knowledge Changing Life: A History of the Medical College of Wisconsin, 1893-2019*, written by MCW Chief Historian Richard N. Katschke, MA, was published recently. The 720-page book explores MCW's 125+ years of accomplishments, challenges and controversies, and serves as a comprehensive history not only of MCW, but also of Marquette University, Milwaukee County and Milwaukee's hospitals and healthcare facilities. It is available for purchase through the MCW online retail store at *mcw.edu/store* for $35.00 plus tax and shipping and at the Matthews Bookstore on the Milwaukee campus for $40.00 plus tax. Questions? Contact *MCWmagazine@mcw.edu.

MCW MAGAZINE wants news of your accomplishments and activities. We encourage you to send updates through ENGAGE, MCW's online platform for alumni. You also can send updates by email to alumni@mcw.edu.

IN MEMORIAM

1940s

Jean E. Foley Ranalletta, MD '48,
of Irondequoit, N.Y., died on November 24, 2019, at the age of 95. In 1945, she became the first graduate of Nazareth College in Pittsford, N.Y., to matriculate to medical school. Dr. Ranalletta focused her practice on family medicine. She is survived by seven children, 16 grandchildren and 11 great-grandchildren.

1950s

Paul M. Lucas, MD '51,
of Marquette, Mich., died in October 2020, at the age of 94. He operated a private psychiatry practice in Milwaukee from 1963-1977 and then moved it to Marquette, Mich., where he practiced until 2002. Dr. Lucas was proud of his Croatian heritage and was an active tambura player who performed traditional music with the Shaky Strings band, the American Croatian Silver Strings and others. He also was an avid Green Bay Packers fan and loved living in Michigan's Upper Peninsula, where he hunted, fished and camped near Lake Superior. Survivors include his wife, Loretta, six children, eight grandchildren and eight great-grandchildren.

John J. Burroughs, MD '54,
of Monroe, Mich., died on October 11, 2020, at the age of 94. He practiced family and community medicine for 65 years and delivered hundreds of babies in Monroe during the first 25 years of his career. He also served as medical director of Lutheran Home in Monroe for 25 years and previously was president of the Monroe County Medical Society and chief of staff at Memorial Hospital. Dr. Burroughs was a major supporter of the Monroe High School football team, including serving as team physician for 25 years. He was inducted into the Monroe High School Hall of Fame. Dr. Burroughs is survived by four children, nine grandchildren and eight great-grandchildren.

Charles A. Novotny, MD '55,
of Lady Lake, Fla., died on January 15, 2021, at the age of 92. After completing medical school, Dr. Novotny served in the US Navy until 1965, when he moved his family to Merced, Calif.; he practiced medicine there until his retirement in 2000. He is survived by eight children, 14 grandchildren and seven great-grandchildren.

Charles P. Dries, MD '56,
of Phoenix, died on August 9, 2020, at the age of 88. He served as a captain in the US Air Force for two years after completing his medical training. He moved to Phoenix and practiced pediatrics for 37 years, including as a partner at Northwest Clinic for Children. Dr. Dries became a leader in Arizona's pediatrician community as a founding member of Phoenix Children's Hospital, where he served as chief of staff from 1988-1990. Dr. Dries also served terms as the chair of pediatrics at what is now Banner Good Samaritan Medical Center, Phoenix Baptist Hospital and St. Joseph's Hospital and Medical Center. After retiring in 2012, he volunteered his health expertise to families supported through Head Start programs and the St. Vincent de Paul Medical Clinic in Phoenix. Dr. Dries is survived by his wife, Kay, six children and 16 grandchildren.

Gerald F. Powell, MD '57,
of Ashland, Ore., died on March 24, 2020, at the age of 87.

Charles A. Skemp, MD '57,
of La Crescent, Minn., died on December 25, 2019, at the age of 87. Dr. Skemp practiced urology in the greater La Crosse, Wis., community following his service in the US Navy. He also loved farming and raising Angus cattle. Survivors include his wife, Barbara, seven children, 28 grandchildren, nine great-grandchildren and Barbara's four children.

1960s

Thomas P. Belson, MD '63, GME '70,
of Elm Grove, Wis., died on October 14, 2020, at the age of 84. After medical school, Dr. Belson served in the US Army for two years as assistant chief of preventive medicine and was stationed in Okinawa, Japan. He earned commendations for excellence from both the US Army and Air Force. Dr. Belson practiced otolaryngology at Moreland Ear, Nose and Throat Group in Waukesha, Wis. He had an encyclopedic knowledge of automobiles and enjoyed driving performance cars, which meshed well with his role as a track physician for races at Road America in Elkhart Lake, Wis. He is survived by his wife, Suzanne, one child and three grandchildren.

Edward C. Parker, MD '64, GME '68,
of Franklin, Wis., died on March 9, 2021, at the age of 82. He operated a private practice in obstetrics and gynecology, delivering more than 6,000 babies during his career. He also previously served as department chair at what is now Aurora West Allis Medical Center. Dr. Parker ran more than 50 marathons after the age of 50. He also enjoyed golfing, basketball and cultivating rose bushes. Dr. Parker is survived by his wife, Kathleen, eight children, 22 grandchildren and three great-grandchildren.

Richard C. Zimmerman, MD '66, GME '71,
of West Bend, Wis., died on November 4, 2020, at the age of 88. He served in the US Marines during the Korean War before attending medical school and served in the US Navy for 20 years after

earning his medical degree, including as commanding officer of what is now the Captain James A. Lovell Federal Health Care Center in Great Lakes, Ill., and as head of the psychiatry department for Fleet Hospital 23 in Minneapolis-St. Paul. Survivors include his wife, Kathleen, six children, 37 grandchildren and five great-grandchildren.

M. Charles Warren, MD '67,
of Riverside, Calif., died on December 29, 2019, at the age of 78.

John F. Kuglitsch, MD '69,
of Pewaukee, Wis., died on November 1, 2020, at the age of 77. He practiced internal medicine for 40 years, including 20 years in Fond du Lac, Wis., and 20 years in Milwaukee. In 1982, he was inducted as a fellow of the American College of Physicians. Dr. Kuglitsch enjoyed serving as a mentor to both physicians and nurses. He was recognized by the American Association of Nurse Practitioners in 2012 with a *State Award for Excellence* for his role as an advocate for nurse practitioners. He is survived by his wife, Maureen, two children and four grandchildren.

1970s

Arthur J. Elman, MD '70, GME '72,
of Kansas City, Mo., died on April 11, 2021, at the age of 76. He practiced at the University of Utah Hospital in Salt Lake City and Cape Cod Hospital in Hyannis, Mass., before relocating to Kansas City and establishing a private practice as a radiation oncologist at Saint Luke's Hospital. Dr. Elman served on the boards of the Kansas City Free Health Clinic and the Family Conservancy in Kansas City, Kan. He also was the honorary French consul in Kansas City for many years. Dr. Elman enjoyed traveling, golfing, reading, watching films and playing bridge. Survivors include his wife, Carolyn, two children and two grandchildren.

William W. Merrill, MD '71,
of Louisville, Ky., died on August 30, 2020, at the age of 74. After completing his residency training in internal medicine, he served as a member of the US Public Health Service from 1973-1975, providing medical care to underserved rural communities in central Tennessee. He became a pulmonologist and physician-scientist at the Yale School of Medicine, where he contributed to an article in *Nature* that was the first paper to show that asthma-promoting molecules called leukotrienes could be released by certain immune system cells in the lung. The scientists found that this could occur through a reaction with immunoglobulin E antibodies, which detect allergens and initiate the body's allergic reaction. Dr. Merrill also provided extensive leadership service throughout his career, beginning with his role as chief of the pulmonary section of the West Haven (Conn.) VA Medical Center. He later served as associate chair of the department of medicine at Tulane University School of Medicine in New Orleans, and as the chair of medicine and vice-chair of veterans' affairs at the Medical University of South Carolina in Charleston before retiring in 2016. Dr. Merrill is survived by his wife, Mary-Eliese, two children and five grandchildren.

Cornelius J.P. Sullivan, MD '71,
of Northport, Ala., died on December 19, 2020, at the age of 76. He began his practice of medicine in the US Army and served 14 years before creating a private pulmonary medical practice in Tuscaloosa, Ala. He is survived by his wife, Barbara, four children and seven grandchildren.

Charles W. Troup, MD, GME '71,
of Green Bay, Wis., died on March 5, 2020, at the age of 84. Dr. Troup moved to Green Bay after completing his residency and practiced adult and pediatric urology with Urologic Surgeons. In 1982, he created a private practice, Green Bay Urology, LTD. Dr. Troup previously served as secretary, treasurer and president of the Wisconsin Urological Society. He also was the Wisconsin representative to the executive committee of the north central section of the American Urological Association and served a term as that body's president. Dr. Troup is survived by three children and six grandchildren.

Dennis L. Rand, MD '76,
of Sudbury, Mass., died on September 15, 2019, at the age of 67. He operated a private practice for more than 30 years at Metrowest Medical Center in Framingham, Mass., and enjoyed cooking, exploring the outdoors, cycling and skiing. He also loved spending time with family in New Hampshire and was a devoted sports fan. Survivors include his wife, Marilyn, and three children.

Teresita Tolentino-Bustos, MD, GME '78,
of Greendale, Wis., died on April 9, 2021, at the age of 76. She was born in the Philippines and immigrated to the US for her anesthesiology residency. Dr. Tolentino-Bustos practiced for more than 30 years at what is now Ascension St. Francis Hospital in Milwaukee. She was an avid gardener and traveler who found medical mission trips to the Philippines to be her most rewarding excursions. Dr. Tolentino-Bustos is survived by her husband, Roberto, three children and three grandchildren.

1980s

Mark R. Hennick, MD '86,
of Marshfield, Wis., died on August 7, 2020, at the age of 60. He retired in 2019 after nearly 35 years of service as

Continued on page 34

IN MEMORIAM

a physician, educator and hospitalist. Dr. Hennick loved to teach and was most proud of his role as director of the Marshfield Clinic internal medicine residency program, as well as his receipt of the *George Magnin Teaching Award*. He enjoyed reading and motorcycling. Survivors include his wife, Kathy, and one child.

1990s

James M. Bearden, MD, MPH '90,
died on May 4, 2020.

2000s

Rachel Thompson-Fleming, MD '08,
of La Crosse, Wis., died on August 19, 2020. As a pediatrician, she was fluent in Spanish and French, and could hold a conversation in Swahili, which helped her take care of patients and families from around the globe. She was an explorer who trained or cared for patients on four continents and visited all seven. Dr. Thompson-Fleming's travels included climbing mountains, hiking and diving deeply into oceans and cultures. The MCW Office of Global Health honored her by creating the Dr. Rachel Thompson Global Health Equity Scholarship, which will support graduate and medical students echoing Dr. Thompson-Fleming's commitment to a healthier world through local and international clinical and research efforts. She is survived by her husband, Nathan, and one child.

Special Remembrances

George J. Korkos, MD '59, DDS,
of Elm Grove, Wis., died on May 28, 2021, at the age of 89. As a plastic and reconstructive surgeon, Dr. Korkos specialized in facial reconstruction. He founded Plastic Surgery Associates in Milwaukee and practiced cosmetic surgery there for more than 45 years. Dr. Korkos was recognized for excellence, philanthropy and influence by MCW and the MCW/Marquette Medical as a recipient of the Alumni Association's *Distinguished Service Award* in 1992 and through his role as the second chair of the Walter Zeit Fellowship.

Dr. Korkos previously served as president of the MCW/Marquette Medical Alumni Association and represented alumni as a representative to the MCW board of trustees. He also contributed countless hours as a mentor in his role as a volunteer faculty member training surgical residents. In 2006, numerous donors made gifts to honor Dr. Korkos by naming the George J. Korkos, MD Professorship in Plastic and Reconstructive Surgery at MCW. Beyond medicine, he was a basketball enthusiast and co-founder of the Milwaukee Bucks. Dr. Korkos is survived by three children and eight grandchildren.

Theodore A. Kotchen, MD,
of Milwaukee died on July 6, 2021, at the age of 83. He was an internationally recognized physician-scientist and held leadership positions at the University of Kentucky School of Medicine in Louisville, West Virginia University School of Medicine in Morgantown and MCW, where he served as chair of the department of medicine from 1992-2000. Dr. Kotchen's research was funded throughout his career by the National Institutes of Health. He was among the world's leading experts in the study of the effects of dietary salt and other nutrients on blood pressure. He published more than 250 manuscripts related to hypertension and population health. Dr. Kotchen played a key role in establishing the NIH-funded Clinical and Translational Science Institute of Southeast Wisconsin at MCW. He was a renowned mentor who enhanced the academic careers of many junior investigators. He is survived by his wife, Dr. Jane Morley Kotchen, five children and nine grandchildren.

Harry Prosen, MD,
of Mequon, Wis., died on June 21, 2021, at the age of 90. He was appointed chair of the MCW department of psychiatry and mental health sciences in 1986, a position he held until he stepped down in 2003. During his tenure, the department changed its name to psychiatry and behavioral medicine to better reflect its greatly expanded research efforts, including the development of the Center for AIDS Intervention Research. Dr. Prosen's scientific focus was on intergenerational issues in families, especially regarding empathy and empathetic deficits. He found that among the members of the primate world, bonobos displayed the highest degree of empathy. Dr. Prosen became an expert on bonobo culture and development and was a consultant to the Milwaukee County Zoo and other zoos worldwide on the rehabilitation of emotionally disturbed bonobos.

During his long career, he held leadership positions with national societies of psychiatry and medicine in the US and Canada. Dr. Prosen earned MCW's highest honor, the *Distinguished Service Award*, in 2003. He retired from MCW in 2005 and was named professor emeritus in 2006. Survivors include four children and four grandchildren.

– GREG CALHOUN

Richard N. (Dick) Katschke, MA

Richard N. (Dick) Katschke, MA, is chief historian at the Medical College of Wisconsin and author of *Knowledge Changing Life: A History of the Medical College of Wisconsin, 1893-2019.*

Before being named chief historian in 2016, Richard (Dick) Katschke, MA, shaped almost every aspect of communications for MCW for more than 30 years. He served three MCW presidents and oversaw media relations and external communications, web communications, publications, brand development, marketing communications and special events.

Katschke joined MCW in 1985 as director of public affairs and was promoted to assistant vice president in 1996 and associate vice president in 2002. He was named senior associate vice president for communications in 2015. During this time, he has helped to significantly enhance MCW's visibility and reputation, and to build the institution's identity as a tremendous asset to Wisconsin and a national leader in academic medicine.

Katschke's crowning achievement is the recent publication of *Knowledge Changing Life: A History of the Medical College of Wisconsin, 1893-2019*. This 720-page book explores MCW's 125+ years of accomplishments, challenges and controversies, and serves as a comprehensive history not only of MCW, but also of Marquette University, Milwaukee County and Milwaukee's hospitals and healthcare facilities. It also serves as a foundation for MCW's future.

Katschke received MCW's *Distinguished Service Award* in 2015, was named an *Honorary Alumnus in 2019* and was awarded an honorary *Doctor of Humane Letters* degree at MCW's 2021 Commencement ceremonies. ■ – JAMES PECK

What Drives You?

Discovering new information and knowledge and sharing it with others – getting the word out on our discoveries and technologies so that the public can understand and appreciate what we're doing here and connect that information with those with health issues.

What Has Been the Highlight of Your Career?

I'm proud to have been able to tell the story of increasing diversity and inclusion at MCW. In 1902, we were the first in the state to graduate a woman from medical school. The first Hispanic to graduate medical school in Wisconsin was at our institution in the late 1890s. The first Native American graduated in 1904. Unfortunately, it wasn't until 1954 that the first African American graduated from here. That needed to change, and I am proud to be able to tell the stories of how MCW has progressed and taken a leadership role in diversity and inclusion.

What Do You Still Hope to Accomplish Over Your Career?

My book on the history of MCW ends in 2019, right before the pandemic. I am working now on an addendum about major issues at MCW over the last two years and continue to collect historical information on MCW.

What Would You Like Your MCW Legacy to Be?

My legacy will probably be the history book of the institution, and that I tried to save the information for others. Hopefully, I inspired others to be our information-keepers for the future. I want to make sure that people in each and every department realize they're making history every single day...and that it needs to be saved.

What One Piece of Advice Would You Like to Share With Your Colleagues?

Appreciate, value and love this institution. You're at a very special place. MCW is a world-class institution and can go toe-to-toe with any other health sciences university in the country.

Change Agent highlights a Medical College of Wisconsin faculty or staff member who has had significant impact on the institution's mission to be a leading innovator in transforming healthcare and advancing the health of our communities.

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