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SPRING 2023

MICW *magazine*



**Our Partnership with the State of Wisconsin:
Moving Forward Together**

MCW

magazine

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LEADERSHIP MESSAGE

Moving Forward Together

Throughout 2023, MCW celebrates 130 years as a cornerstone institution in the region and the state.

Since 1893, MCW and its predecessor institutions have created new knowledge that has changed lives through training the next generation of physicians, scientists and other healthcare professionals, through biomedical research, clinical excellence, specialty expertise and transformative clinical breakthroughs.

In this anniversary year, I am pleased to acknowledge MCW's essential partnership with the state of Wisconsin that spans nearly six decades. The state's motto, *Forward*, reflects its continuous drive to be a national leader. The motto of *Forward* and the spirit of Wisconsin progress are perhaps nowhere more evident than in the state's partnership with MCW to move the institution forward as a national leader in medical education, patient care and cutting-edge research.

To that end, in our cover story we highlight our special relationship with the state and present an overview of several crucial areas of its support for MCW that underscore the ongoing partnership that is moving us forward together.

The cover story also includes a brief tribute to Kathryn Kuhn, who retired as MCW's vice president of government and community relations following 22 years of valuable service. Her work has included leading and implementing all aspects of MCW's external advocacy strategies in collaboration and partnership with MCW's faculty and senior leadership, as well as with skilled consultants in Madison and Washington, DC (*see page 21*).

This issue also celebrates 25 years of the philanthropic partnership between the MCW Cancer Center and the WBCS, Inc., whose investments have led to advancements in the treatment of breast and prostate cancer (*see pages 28-29*).

We also pay tribute to additional philanthropic partners whose generous support has extended across our missions of education, patient care and research. On pages 24-25 we share an overview of MCW's two-pronged approach to transforming medical education and the profession of medicine via the Kern Institute and Kern National Network, as well as a second transformational investment from the Kern Family Foundation. And on pages 26-27, we highlight philanthropic gifts from Billie and the late Michael Kubly, MD '63, in support of mental health, including suicide prevention.

Our Fiscal Year 2022 Finance Report can be found on page 35 (the inside back cover).

As always, I am deeply grateful to our countless alumni for their commitment and dedication to protecting the health and safety of our patients, families, loved ones and communities. ■

“In this anniversary year, I am pleased to acknowledge MCW's essential partnership with the state of Wisconsin that spans nearly six decades.”



John R. Raymond, Sr., MD
 President and CEO

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

FEATURED PHOTOGRAPHERS: Melissa Behling, Greg Calhoun; James Peck, Dale Reince, Michelle Schaefer, Jay Westhauser, Sara L. Wilkins

ON THE COVER: In 1851, the state of Wisconsin adopted the motto *Forward* to reflect its continuous drive to be a national leader. The motto of *Forward* and the spirit of Wisconsin progress are perhaps nowhere more evident than in the state's partnership with MCW to move the institution forward as a national leader in medical education, patient care and cutting-edge research. The cover story highlights MCW's special relationship with the state of Wisconsin and presents an overview of several crucial areas of support. (Cover design by Kristina Awadallah.)

STAT REPORT

All of Us Participants Receive Health Information Based on DNA

MCW is a dedicated partner of the national *All of Us* research program and a member of the *All of Us* Wisconsin consortium. *All of Us* teams across the US are working to build the largest health database in the world.

Beginning in December 2022, the National Institutes of Health's *All of Us* research program now provides health information to participants in Wisconsin and across the nation based on rigorous DNA analysis. Participants are eligible to receive a "Hereditary Disease Risk" report about risks related to serious health conditions, such as certain cancers or heart disorders. The "Medicine and Your DNA" report can tell participants if their DNA might affect how certain medicines work, including common drugs for conditions such as diabetes and depression.

All of Us worked with many experts and organizations to map out the best way to share health-related results. This included developing a careful consent process and putting in place special privacy and security measures. The program also is ensuring that participants have the support they need. Those who have questions can meet with a genetic counselor. ■



MCW Translational Research Clinic Reaches Milestone

The Clinical and Translational Science Institute of Southeast Wisconsin (CTSI) Adult Translational Research Unit (ATRU) has grown significantly and now supports more than 200 active studies.

The ATRU is one of four translational research units affiliated with MCW, the Froedtert & the Medical College of Wisconsin health network and the CTSI.

"This truly remarkable milestone is a testament to the hard work, cohesion and dedication of the staff," shares Jillian Theobald, MD, PhD, medical director of the CTSI ATRU and MCW associate professor of emergency medicine.

The ATRU is designed as a "hotel for research" that provides a clinical research environment for research participants, investigators and teams. The ATRU delivers infrastructural

support for the conduct of clinical, community and translational research projects by providing access to space, laboratory resources and the expertise of research support personnel and equipment.

"This milestone really shows the increase in volume of the studies the ATRU is able to support," says David Friedland, MD, PhD, director of the Clinical and Translational Research Center, associate director of CTSI and MCW professor and vice-chair of otolaryngology and communication sciences.

The unit is designed to support a range of clinical research from pilot studies to multicenter clinical trials. The ATRU is conveniently located at Froedtert Hospital in Milwaukee and includes five exam rooms, three suites, two lab processing areas, a bone density scanner, a full metabolic kitchen (for research-related meal services) and administrative space. ■

Dr. Curt Sigmund Wins Prestigious Award Recognizing Excellence in Physiological Research

Curt D. Sigmund, PhD, James J. Smith & Catherine Welsch Smith Professor of Physiology, chair of the MCW department of physiology and associate director of the Cardiovascular Center at MCW, received the 2023 *Walter B. Cannon Award* from the American Physiological Society (APS). The award recognizes the lifetime achievement of an established researcher.

Dr. Sigmund presented the virtual 2023 Physiology in Perspective *Walter B. Cannon Award* Lecture titled “A Multigenerational Exploration of the PPAR γ -Cullin-3- RhoBTB1 Pathway” on February 23, 2023, prior to the society’s American Physiological Summit.

This lectureship is the most prestigious award that APS bestows and recognizes the lifetime achievement of an outstanding physiological scientist and APS member.

Dr. Sigmund is a former member of the APS Council, past chair of the APS Joint Program and Publications committees and past editor-in-chief of the *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. ■



MCW Cancer Center Announces New Training Program to Boost Diversity in Cancer Research

The MCW Cancer Center has received a new two-year training program grant to improve diversity, equity and inclusion in cancer research. In partnership with several other Wisconsin universities, the program aims to develop a diverse cancer research workforce – one with the potential to impact cancer disparities in eastern Wisconsin.

Funded by the American Cancer Society’s (ACS) Center for Diversity in Cancer Research Training, the MCW Cancer Center was one of eight institutions selected to offer the postbaccalaureate program which provides underrepresented students in science with an immersive



experience that includes hands-on training in cancer research labs, access to research mentors, participation in community outreach efforts and career development workshops. Student research via MCW’s program will focus on the molecular mechanisms of cancer and cancer health disparities, building on nearly 10 years of cancer disparities research at the MCW Cancer Center.

The new training program complements the MCW Cancer Center’s existing robust educational and pipeline programs that support a diverse population of learners and span the educational spectrum from middle and high school to college and medical school through postdoctoral training, career development and continuing medical education. This includes a longstanding pilot program funded by ACS Institutional Research Grants and led by MCW faculty member Marja Nevalainen, MD, PhD, that enables junior faculty, including those underrepresented in science, to conduct cancer research and successfully compete for national research funding.

According to the Centers for Disease Control and Prevention, Wisconsin ranks above the national average for cancer incidence and mortality rates. In addition, Wisconsinites experience persisting cancer disparities in geographic areas and among racial and ethnic minority populations. Applications opened in March 2023 with the first cohort of students expected to begin in August 2023. ■

NEWS

FOR ALUMNI

Collaborating and Building Community

As we enter the spring season of 2023, I want to take a moment to extend a warm greeting to our incredible alumni community. Graduates from our 32 degree programs are brilliant innovators, compassionate health advocates and inspiring leaders across fields, and as your current president, it has been wonderful to connect with so many of you.

The hard work and dedication of our alumni have not only contributed to the improved health of the communities they serve, but also inspire the next generation of healthcare professionals.



In 2023, let's continue to stay curious, committed and connected.

— Dr. Jessica Olson

The MCW/Marquette Alumni Association remains committed to serving our alumni in meaningful ways, helping our graduates remain committed to the school, each other and the future physicians, scientists, pharmacists and healthcare professionals training with us. In this new year, our Alumni Association will continue our unwavering commitment to student success, providing the resources, mentorship and support our students need to thrive.

We launched 2023 by handing out mugs, snacks and coffee to our medical, graduate and pharmacy students (*see photo on page 7*). We will continue to ensure that our current students know that our more than 19,000 alumni are cheering them on!

We are grateful for the continued support of our alumni community and the donations of time, resources and philanthropic donations. These contributions make a significant difference in the health of our community and help ensure that our institution can

continue to be a leader in research and science. To continue these connections, we welcome all alumni and current students to join us on ENGAGE (mcwengage.com), our online alumni community that provides updates from MCW and opportunities to reconnect with old classmates and expand your professional network.

In 2023, let's continue to stay curious, committed and connected. Let's find ways to collaborate and build community in pursuit of our shared goals, and let's never forget the importance of the work we do and the impact it can have on the world. ■

Upcoming Alumni Events

50-Year Golden Anniversary Reunion

Friday, May 19, and Saturday, May 20, 2023

The reunion celebrates the Medical School Class of 1973.

Symposium for Senior Physicians

Wednesday, May 31, 2023

The Symposium for Senior Physicians is back! Registration will be available soon.

2023 Alumni Weekend

Friday, September 22, and Saturday, September 23, 2023

Registration will be available soon. The weekend will celebrate the 2023 Alumni Association Awards and the Medical School Classes of 2013, 2008, 2003, 1998, 1993, 1988, 1983, 1978, 1968 and 1963.



During his most recent deployment to Iraq in summer 2022, Robert McMurray, MD '13 (second from left), discovered he was serving with three other MCW alumni representing four different decades of education at MCW. Pictured here are (l-r): Wesley Harris, MD '92; David Milia, MD '04, GME '05, FEL '10; and Joseph McMahon, MD '87.



(Above) The Alumni Mug Snack Packs have been a big hit with our students. When exam reviews occurred, the MCW/Marquette Medical Alumni Association was on-site with our MCW camp-style mugs filled with healthy snacks for study sessions. The mugs were distributed to students at all MCW schools and campuses.

(At left) Operation: Education, co-sponsored by the Alumni Association and the Wisconsin Medical Society Foundation, was held on January 18, 2023. At the event, 38 physicians and physician-scientists hosted tables and discussed careers in 22 specialties with more than 125 MCW students.

From Writer to Doctor and Back Again

“My advice to today’s graduates: Keep an open mind and listen to that voice inside trying to tell you something. It’s probably right.”

With an impressive resume as an emergency physician, a US Navy flight surgeon and published author, Michael Krentz, MD '73, modestly jokes that he’s still figuring out what he wants to be when he grows up. He smiles and says, “I don’t plan on growing up!”

Born and raised in Arizona, Dr. Krentz always knew that he wanted to dedicate his life to serving others. Inspired by his mother’s stories as a former nurse, he decided to pursue medicine.

Dr. Krentz’s love for writing and reading led him to study English at the University of San Francisco while completing his basic science requirements for medical school. “I was going to be a doctor,” he says, “but also wanted to be a well-rounded person. I applied to a dozen medical schools, but most rejected me due to my lack of advanced science courses. That summer, I received a late interview at the Marquette University School of Medicine [MCW’s predecessor institution]. Two weeks later, I was accepted. It was the perfect match.”

Hailing from the southwest US, Dr. Krentz vividly remembers the subzero temperatures and snowy walks to the basic science building on the former 15th Street campus. He relishes his robust experiences during clinical rotations at the old Milwaukee county and VA hospitals.

“One of my professors said that patients didn’t read the textbooks, so they couldn’t describe their problems in medical terms. I quickly realized that you could learn the science of medicine from books and lectures, but the art of medicine

comes from your interactions with patients. Those interactions, and the chance to make and learn from mistakes, prepared me for my career far better than the didactic material,” he shares.

Dr. Krentz had wanted to become a neurosurgeon, but during the first few months of his residency in Phoenix, he met the hospital’s first full-time emergency physician. Captivated, Dr. Krentz switched specialties and eventually moved to Dallas, where he established the emergency medicine residency at the University of Texas Southwestern Medical School in the late 1980s.

Outside of work, Dr. Krentz pursued another lifelong dream – flying: “I became a private pilot and flight instructor and owned my own airplane.” With a growing itch for adventure, Dr. Krentz realized he wanted something else in his professional life. “One day, I was sitting at my desk at Parkland Hospital in Dallas when I walked a Navy nurse recruiting flight surgeons. I made the jump!” he recalls.

While in the Navy, Dr. Krentz received the same basic training as naval aviators. After flying for two years, he knew he wasn’t done. He pursued an aerospace medicine residency, became a senior medical officer on an aircraft carrier and completed two tours in Japan, including as commanding officer (CO) of the US Naval Hospital in Yokosuka.

Following his 20-year naval career, Dr. Krentz returned to his first passion – writing. Inspired by his personal experiences, he now pens medical thrillers, including a series on Dr. Zack Winston – a fictional emergency physician and former Navy doctor who gets himself into all sorts of challenging situations.

Looking back, Dr. Krentz says he never could have imagined where his career would take him.

“When I walked out of MCW with my fresh MD degree under my arm, I thought I would practice neurosurgery for the rest of my career,” he notes. “My advice to today’s graduates: Keep an open mind and listen to that voice inside trying to tell you something. It’s probably right. Even if you try something new and fail, you will always have your ‘Doctor of Medicine.’ Be proud and use it for good!” ■

– REBECCA SCHULZ



1973



2008



2020

Alumna Sees Practice of Medicine as Much More Than Patient Care

Mentorship, Global Healthcare are Cornerstones of Dr. Carolyn Quinsey's Professional Career

Mentorship and global healthcare play significant roles in the professional life of Carolyn S. Quinsey, MD '10. In fact, mentorship has played a role since the very beginning of her career.

"I was paired with a community orthopaedic surgeon in high school as part of a mentorship program. Standing in the operating room during that program, I knew this was something I wanted to do ... I wanted to go into medicine and surgery," says Dr. Quinsey, an associate professor of neurosurgery at the University of North Carolina (UNC) School of Medicine. "I am a first-generation college student, so I had no role models in this field, and my mentor provided support and led me to believe I could do this."

The impact that mentorship had on Dr. Quinsey while in medical school was equally profound – and one of the things she remembers most from her time at MCW.

"MCW faculty had a commitment to education. I wouldn't be here today if people hadn't given their time to teach me and guide me," she adds, noting that the importance and value of this commitment has been ingrained in her. "I feel an obligation to teach and mentor others as a result, and I tell students I've helped that they have an obligation to mentor others as well."

Dr. Quinsey's foray into international medicine also has made an indelible impact on her. This began as an undergraduate when she traveled to Uganda as part of a study-abroad program in public health and nutrition. The trip, Dr. Quinsey shares, "gave me an interest in caring for people beyond my front door." That interest grew exponentially during her residency at UNC, when she participated in a general surgery global initiative in Malawi.

"After that trip, I realized these global experiences would make me a better educator and clinician. I started to see

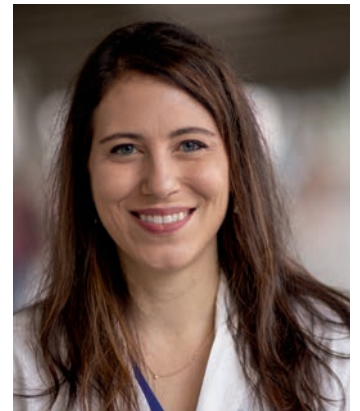
things differently," notes Dr. Quinsey. "I learned what it is like to work in a resource-poor environment and how that can lead to being a more creative problem-solver."

Dr. Quinsey leads UNC's international neurosurgery program, which supports neurosurgeons in Malawi and Mauritania. She hosted monthly international virtual case conferences during the pandemic and plans to visit each country in 2023 – in part because she sees so much value in maintaining and growing these unique training opportunities.

"Interacting with the surgeons in these other countries helps me as a physician and educator," Dr. Quinsey says. "It's not about bringing fancy things to a resource-poor area, but rather is bilateral. The surgeons at our global partnership sites are much more advanced in certain procedures because of the needs of their patients, and I always come home with techniques I learned there that I can use and teach to others."

"Mentoring and working internationally brings me much satisfaction and joy," she adds. "Medicine is about more than patient care."

Dr. Quinsey also serves as director of the UNC Global Neurosurgery Program, residency associate program director and skull base lab director for the department of neurosurgery. ■ – ANTHONY BRAZA



(Top) Dr. Quinsey (at left) takes a "selfie" during a visit to Mauritania in December 2021.

(Above) Dr. Quinsey, 2022.



MCW Pharmacy Students Rank in Top 10 During National Clinical Skills Competition

Isabelle Mahaffy and Gabby Marchese, 2023 PharmD candidates at MCW, were chosen as finalists in the 27th annual American Society of Health-System Pharmacists (ASHP) Clinical Skills competition. The event was held in December 2022 in Las Vegas during the ASHP Midyear Clinical Meeting & Exhibition – the largest gathering of pharmacy professionals in the world. The Mahaffy and Marchese team placed in the top 10 out of 138 competing schools of pharmacy.

The ASHP National Clinical Skills Competition challenges student-pharmacists to make treatment recommendations for complex patient case scenarios – representing situations they may encounter when they become practicing pharmacists.

Marchese adds, “We’re a good team because we have different pharmacy interests and career goals. Isabelle took the most urgent issue, and I took all the outpatient-related programs because I want to work in a clinic someday.”

Each of the teams prepared a written case study for evaluation by judges with expertise in various fields of pharmacy. The final 10 teams then appeared before a panel of judges to present the reasoning behind their treatment recommendations.

Mahaffy and Marchese were selected to represent MCW at the national level after winning a local competition held at MCW-Milwaukee. They expressed their thanks to their mentor and coordinator of the local competition, MCW assistant professor Brianne Bakken, PharmD, MHA, for helping them understand what to expect, which topics would be helpful to review and for supporting them through the entire process.

“Gabby and Isabelle were outstanding students in the classroom, and through the competition they were able to demonstrate their ability to apply the clinical knowledge they obtained at MCW into practice. They did a wonderful job representing MCW at the national level,” Dr. Bakken shares.

“Gabby and I have done the local competition for three years, but in our first year we really didn’t know anything. We’ve come a long way, which was a cool thing to realize,” says Mahaffy.

“The competition really demonstrated the importance of different types of pharmacists, with different interests and different roles,” notes Marchese. “The way we came together to tackle that case on a small-scale level shows how important it is that all of us work together, even if we’re in different roles.”

Each finalist receives an iPad with a one-year subscription to Lexicomp Mobile, an app that offers extensive online drug referencing, information on interactions and medical calculations. ■ – MELISSA BEHLING

Pharmacy School Founding Dean Receives Prestigious Award



George E. MacKinnon III, PhD, MS, RPh, has been awarded the 2022 *Winston J. Durant Lecture Award* from the University of Wisconsin (UW) Health Pharmacy Department. The award recognizes a past UW Hospital pharmacy resident for significant contributions to pharmacy resident training, mentorship, leadership and advancing pharmacy practice.

Dr. MacKinnon leads MCW’s School of Pharmacy in delivering a dynamic and innovative Doctor of Pharmacy curriculum. His research supports expanding pharmacist care models in collaborative approaches to team-based care.

Further, Dr. MacKinnon advocates for pharmacist models of care at the state and national levels.

He has played an instrumental role in modifying immunization regulations for student pharmacists and advancing legislation that resulted in pharmacists being recognized as non-physician providers under Medicaid in Wisconsin.



(l-r) Gabby Marchese and Isabelle Mahaffy

The case presented in the December challenge was a patient with hepatic encephalopathy – a decline in brain function caused by a buildup of toxins in the blood due to liver disease. “This was challenging because it’s not a common problem,” says Mahaffy. “Luckily, I had seen a patient on rotation with this condition. But the bigger challenge was that the patient had 11 problems, and we had only two hours to treat all of them.”

High Stakes Hide-and-Seek

How can surgeons and radiation oncologists treat what they can't see? Scientists at MCW and their peers have discovered the presence of cancerous tissue in some research volunteers that is undetectable by even the most sophisticated medical imaging techniques.

To better understand this problem, Peter LaViolette, PhD '11, PDF (postdoctoral fellow) '12, MS, holder of the Robert C. Olson, MD, Professorship in Radiology and MCW associate professor of radiology and biomedical engineering, and Sam Bobholz, PhD '22, MCW postdoctoral fellow, developed partnerships with a team of collaborators in multiple MCW departments and two California medical schools. The group studied 159 tissue samples from 65 deceased patients who had suffered from brain cancer and volunteered to participate to advance detection and treatment for future generations.

"We used MRI scans from the patients to determine precise measurements and print unique 3-D molds to match each brain," Dr. LaViolette says. This mold allows the brain to be sliced and processed into glass slides that accurately match the corresponding MRI scan. The team's pathologists analyzed the tissue for tumor severity and location before sending annotated images to Drs. LaViolette and Bobholz.

"Next, we employed a machine learning program to read and compare the hundreds of pathologist-annotated slides and the MRI data," Dr. Bobholz notes. Machine learning is a rapidly growing and evolving approach to analyzing and interpreting massive amounts of data. Unlike traditional programming that requires scientists to provide a computer with every parameter of a problem using handwritten code,

This is the first study of its kind to develop and validate maps of probable tumor beyond what is visible on MRI and what is typically treated during surgery or radiation therapy.

”

Dr. Peter LaViolette



(Above) Dr. Peter LaViolette (at left) and Dr. Sam Bobholz use machine learning to compare cancerous brain tissue (identified by pathologists) with MRI scans of the brain to develop a method for predicting tumors undetectable by MRI alone.

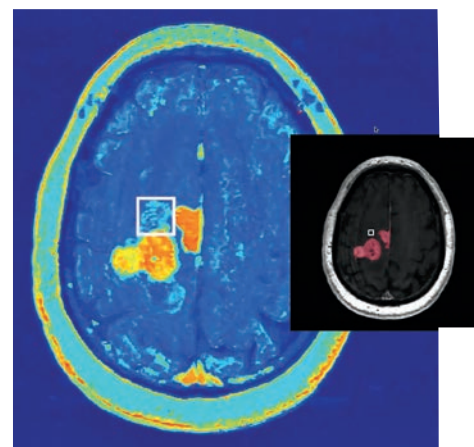
(At right) The cancerous tissue in the white box is an example of tumor revealed by the machine learning model.

machine learning developers and scientists apply artificial intelligence to set up frameworks through which computers learn on their own.

"By comparing the many images in our study, the software learns what features in the MRI are predictive of the tumors found in the annotated slides," Dr. Bobholz adds.

Drs. LaViolette and Bobholz and team reported in a preprint of an upcoming manuscript that they have successfully identified with their tumor probability maps the previously invisible tumor in 72.5 percent of research subjects.

"This is the first study of its kind to develop and validate maps of probable



tumor beyond what is visible on MRI and what is typically treated during surgery or radiation therapy," Dr. LaViolette says.

The team's findings demonstrate that a significant subset of brain cancer patients one day may benefit from clinical application of this mapping technique once further research has been conducted. By revealing these otherwise hidden boundaries of tumors, cancer progression may be able to be monitored with greater precision, and future surgeries and targeted radiation treatments may become more effective, reducing the chance of recurrence. ■ — GREG CALHOUN

Auggie is Back in the Game!

Young Wisconsin Athlete Successfully Faces the Challenges of Celiac Disease

For an athlete of any age, fatigue can be a hindrance to peak performance – especially when it becomes a chronic condition. For then 9-year-old August (Auggie) Tate of Malone, Wis., his excessive tiredness and on-again, off-again stomach pains were negatively impacting his sports activities, including baseball, hockey and basketball.

In April 2021, following a particularly bad stomach ache, Auggie's parents, Missy and Jason, took him to see their pediatrician, who ran a series of blood tests and took an abdominal X-ray. One test in particular detected certain elevated antibodies in Auggie's blood that suggested celiac disease, and within a week's time, the Tates were able to be seen by Ankur Chugh, MD, MCW assistant professor and pediatric gastroenterologist at Children's Wisconsin (Children's) in Milwaukee. Dr. Chugh and his team performed additional tests on Auggie, including an upper endoscopy and biopsy of the small intestine, which confirmed the diagnosis of celiac disease.

Dr. Chugh has served as director of the Bonnie Lynn Mechanic Celiac Disease Clinic at Children's since 2017. He was drawn

to pediatrics because "kids are a pleasure to work with and it makes coming to the office each day worthwhile," and then to the subspecialty of gastroenterology because "there are multiple organs to work with and many things that could be happening." He also enjoys the continuity of interaction and relationship-building with his pediatric patients.

Dr. Chugh's interest in celiac disease was piqued while serving a fellowship at the University of Chicago, which had one of the only celiac centers in the country that melded both clinical care and basic science research into the disease.

"Once the diagnosis of celiac disease is confirmed, the education begins," Dr. Chugh shares. "I discuss with the families what celiac disease is, what's causing it, what the risks are from a nutritional deficiency standpoint and how to read labels. We even designed cartoon-based videos that provide more information." The Celiac Clinic recently created an online education platform and offers one-on-one virtual follow-up classes; in-person educational consultations are available as well. Dr. Chugh sees about 250–300 pediatric celiac patients a year from throughout Wisconsin and northern Illinois.

The Tate Family is very grateful for the excellent care received from Dr. Ankur Chugh and his team at the Bonnie Lynn Mechanic Celiac Disease Clinic at Children's Wisconsin. Shown here during a recent visit are (l-r): Auggie Tate, Dr. Chugh, Missy Tate, Jason Tate and Ella Tate.





(Top left) Auggie's stamina returns sufficiently for him to play basketball in January 2023.

(Bottom left) Auggie at the time he first began experiencing symptoms, February 2021.

(Above) Auggie resumes playing baseball with his recreational league team, summer 2021.

Celiac disease can develop at any age after individuals begin consuming gluten and, left untreated, can lead to additional serious health problems.

The Challenges of Celiac Disease

Celiac disease is a serious autoimmune condition that occurs in genetically predisposed individuals wherein the ingestion of gluten leads to damage in the small intestine; an estimated 1 to 2 percent of people worldwide have celiac disease, but only about 30 percent are properly diagnosed, according to the Celiac Disease Foundation. It can present in children as early as 18 months of age and anytime throughout one's life.

When people with celiac disease eat gluten (a protein found in wheat, rye and barley), their bodies mount an immune response that attacks the small intestine, producing symptoms such as stomach pain, bloating, constipation and diarrhea. These attacks lead to damage on the small fingerlike projections (villi) that line the small intestine and promote nutrient absorption. When the villi become damaged, nutrients cannot be absorbed properly into the body. Celiac disease can develop at any age after individuals begin consuming gluten and, left untreated, can lead to additional serious health problems including anemia, osteoporosis, infertility, small bowel cancers and other autoimmune disorders.

The tissue transglutaminase IgA (tTG-IgA) blood test is a primary screening tool that checks for antibodies (or immunoglobulins) – proteins produced by the immune system. A high number of antibodies in the blood indicates celiac disease, which can be confirmed through a biopsy of the small intestine performed during an upper endoscopy.

Currently, the only treatment for celiac disease is a lifelong adherence to a strict gluten-free diet, which includes avoiding foods with wheat, rye and barley. Even ingesting small amounts of gluten can trigger small intestine damage.

“It’s a massive ordeal to change one’s diet to become gluten-free,” Dr. Chugh shares. “The kids and parents are scared and nervous when they come in to see me. We recognize that they have many questions, try to walk them through the uncertainties and share with them a timeline as to when they will get better. We try to instill a quiet confidence by telling them that we have done this before, we know what to expect and are there to support them. We want to normalize this for kids as much as possible.”

“Once I started following a gluten-free diet, I could finally play sports again without any problems.”

“It’s super great to see the kids when they come in for their three-month checkup and typically are doing a lot better,” Dr. Chugh adds. “I see them every three to six months until we hit smooth sailing. Then I will see them annually to monitor them and update them on new literature and new products. It also becomes more about how the kids are adjusting to the disease at different ages.”

The Invaluable Assistance of the Dietitians

After meeting with Dr. Chugh a second time and receiving the definitive diagnosis of celiac disease, the Tates were referred to Nicole Martin, RD, a senior clinical dietitian and certified specialist in pediatric nutrition within Children’s Wisconsin northeast region, primarily in Neenah at the Children’s Wisconsin–Neenah Clinic, who has served for eight years as a critical educational resource and pediatric celiac dietitian. Martin partners with Lauren Matschull, MBA, RD, a clinical dietitian specialist and certified

nutrition support clinician who works with Dr. Chugh’s patients at Children’s in Milwaukee and who has run the celiac disease support group for more than a decade.

“Our typical process with the celiac patients is that after they see Dr. Chugh for the definitive diagnosis, the families will come to either Lauren or me for the education, which can be either in person or electronic with virtual follow-up,” Martin notes. “We also facilitate the celiac disease support group, which has enabled us to see Auggie and his family a few times a year.”

Martin met the Tates through an in-person class and was able to work with Auggie’s special needs as a traveling athlete – making sure he would be able to find gluten-free options on the road and ensuring that he carries adequate gluten-free snacks such as granola or protein bars, nuts, cheese and other sources of protein.

“Nicole was a tremendous help, especially because Auggie was so involved in sports, which entails eating out and being in social settings with the team. We wondered how we were going to make this work,” Missy shares.

“Nicole provided a lot of great information to help put us at ease. Also, one of the reasons we love Children’s is the support group they have. We were in the middle of the pandemic when Auggie was diagnosed, so we weren’t able to take advantage of in-person support opportunities, but they did a great job facilitating virtual meetings during which Auggie was able to interact with other kids in the region who are dealing with celiac disease,” Missy adds.

Martin is extremely pleased with Auggie’s progress. “It has been great to see Auggie gain confidence and have a willingness to speak up at these virtual support group events, to chime in on camera and share information about his favorite foods or snacks. He’s bright and bubbly, and has adapted well to the gluten-free lifestyle,” she shares. “I especially love how Auggie motivates and encourages others – both the kids and the parents.”

Connecting with Other Celiac Families

An important component of Auggie’s success has been the opportunity to bond with other kids with celiac disease. “Early on, they had a conference call for the kids, and Auggie was on screen and excited to meet other kids,” Jason says. “It’s hard to articulate how scary this can be. Just saying you are going to change your diet doesn’t begin to approach the challenges of living with celiac disease as the new normal. The support group for kids has really helped Auggie turn the corner with how he was going to tackle his condition.”

In December 2022, the Tates joined with about 20 other families at an in-person gluten-free holiday dinner at Children’s that also featured a presentation on current treatments for the disease as



Auggie attends a Milwaukee Bucks game in December 2022 with his family and other members of the Celiac Disease Family Advisory Board.



Auggie competes in his 6th grade school team basketball tournament in mid-February 2023.

well as celiac disease research, including clinical trials. “The cookie exchange was a big hit and helped to normalize things,” Missy says.

Jason adds, “That dinner was really helpful for mom and dad as well because we were really on an island, and we talked to another group of parents there. Just hearing about tips and tricks ... it’s difficult to articulate how meaningful that is, especially for Auggie, who got to talk to other kids. The ability for him to network with other kids with celiac disease has been huge.” The dinner is free of charge to all patients and families through a generous donation from the Bonnie Lynn Mechanic Celiac Disease Fund.

The Tates are dedicated to remaining active within the celiac disease community and have signed up to participate in biobanks and other research opportunities for future studies to help patients with the disease. Additionally, Missy has joined a newly formed statewide Celiac Disease Family Advisory Board sponsored by Children’s, which is helping to make patients’ lives better, including additional events for kids and an informational newsletter.

Auggie is Back in the Game!

Dr. Chugh and his team have continued to monitor Auggie’s antibodies, which have taken more than 18 months to return to a normal level. As a result of this good news, Auggie’s semiannual follow-up visits can now move to once a year with his primary care physician. And, importantly, Auggie has gained close to 35 pounds in the almost two years since his diagnosis.

“Once I started following a gluten-free diet, I could finally play sports again without any problems,” Auggie shares. “And it was great to meet with Dr. Chugh and his support group because they gave us good information in the early months. It was cool because I met some kids my age and we talked about the gluten-free foods we like. My favorites are gluten-free tacos (the shells), steak and rice, and gluten-free pizza.”

Auggie will need to remain gluten-free throughout his life, since if he were to ingest cross-contacted foods, he could suffer from severe stomach pains and be unable to participate in activities. Luckily, there are hundreds of certified gluten-free products available in grocery stores, numerous restaurants that offer gluten-free options, and cellphone apps that note what products are gluten-free or processed in a facility that processes gluten products, and where to find gluten-free restaurants when traveling.

The Tates are ecstatic to see Auggie returning to his old self. “The support groups, Dr. Chugh and his team ... having that full package of care is a huge thing for us. The services, the resources and the caring that we received from Children’s are priceless,” Missy says.

“Dr. Chugh’s compassion and calming presence during our first two meetings were the major reasons Auggie was able to bond with him so quickly,” Jason notes. “Dr. Chugh’s care and expertise have been truly life-transformative for our family and how we live with celiac disease.”

This past summer, Auggie was the first player on his travel baseball team to hit a home run over the fence, and he also pitched a combined no-hitter. In early February, Auggie was selected to participate on an Amateur Athletic Union (AAU) spring select basketball team, and in the middle of the month, he competed in his 6th grade school team basketball tournament.

“Continuing with sports has been a really big part of Auggie’s story,” Jason says. “Youth sports is so competitive these days, and Auggie was on travel baseball and travel basketball – which is a really big deal since it’s very hard to make those teams. With Dr. Chugh’s help, the fact that Auggie was able to stay on these teams is truly remarkable.” ■

– SARA L. WILKINS

“Dr. Chugh saved my sports career!”



OUR PARTNERSHIP WITH THE STATE OF WISCONSIN: Moving Forward Together

By Anthony Braza and Sara L. Wilkins

In 1851, the state of Wisconsin adopted the motto *Forward* to reflect its continuous drive to be a national leader. On the grounds of the Capitol building in Madison sits a replica of the 7-foot-tall allegorical statue *Forward*, created for the World's Columbian Exposition of 1893. And atop the Capitol's dome stands the gilded bronze statue of a woman, *Wisconsin* (although often misidentified as *Forward*), sculpted in 1913-1914 by Daniel Chester French, which, according to the Wisconsin Historical Society, was "placed on the Capitol dome as a symbol of the state's motto, *Forward*, and to represent the spirit of Wisconsin progress."

The motto of *Forward* and the spirit of Wisconsin progress are perhaps nowhere more evident than in the state's partnership with the Medical College of Wisconsin (MCW) to move the institution forward as a national leader in medical education, patient care and cutting-edge research.

Few, if any, health sciences universities have achieved the prominent stature of MCW after teetering on the brink of closure twice in its 130-year history. The institution surmounted financial deficits and accreditation challenges to become jewels in the crowns of Wisconsin and the nation.

MCW attributes its triumphs over adversity in part to support from dedicated elected officials and legislative bodies, citizens of the Milwaukee area and throughout the state, civic leaders, generous donors, strong academic and clinical partners, and loyal alumni, students, faculty and staff. These entities and individuals also sustained MCW during promising times when the institution had opportunities to transform medicine locally, regionally and globally. As a result, MCW has harnessed the knowledge and talents of its faculty physicians and scientists to improve the quality of health and the quality of life for the people and communities it serves.

What follows is an overview of several crucial areas of support for MCW and its predecessor institutions from the state of

Wisconsin – beginning in the late 1960s – that underscore the ongoing partnership that is moving them forward together.

1967–1975 The State Steps In

Concerns about financing were a recurring theme from the earliest days of the founding of the MCW's predecessor institutions. In late 1967, escalating debts prompted Marquette University to terminate its sponsorship of the Marquette University School of Medicine, with which it had been affiliated since 1913. A corporate reorganization then established the entity as a private freestanding institution named the Marquette School of Medicine. In 1970, it was renamed the Medical College of Wisconsin.

In the late 1960s, local business and community leaders realized that the area was in danger of losing its only medical school. Recognizing this threat, Milwaukee County and the Greater Milwaukee Committee formed the Heil Commission to explore the community's options. In January 1967, the Heil Report determined that it was vital for Milwaukee's future growth and for the health of its citizenry to develop an academic medical center –



In 1969, Wisconsin Governor Warren J. Knowles signs legislation authorizing a \$3.2 million appropriation to aid the financially troubled Marquette School of Medicine.

but the heavy financial burden this would require was beyond the capacity of the institution. The report quickly rallied public support for the medical center proposal.

In March 1967, Wisconsin Governor Warren Knowles appointed a task force to develop a comprehensive medical education framework for the state. In July 1967, he signed legislation permitting Milwaukee County to lease land on the Milwaukee County Institution Grounds to private organizations, which removed a barrier that would have prevented the Medical School, the proposed Froedtert



Hospital and Milwaukee Children's Hospital from relocating to the Grounds – which eventually became the site of the Milwaukee Regional Medical Center campus.

Later that same year, the Governor's Task Force recommended an increase in state funding to support the Medical School, and in 1969, Wisconsin Governor Knowles signed legislation in the 1969–1971 biennial budget authorizing a \$3.2 million state appropriation to aid the financially troubled Marquette School of Medicine. Also in 1969, the Wisconsin Supreme Court approved a state increase in the tax on beer that generated \$1 million for the Medical School in 1970.

In 1973, the Wisconsin Legislature authorized a commission headed by businessman David Carley, PhD, to assess the progress of the newly independent Medical College of Wisconsin. In January 1974, the Carley Committee recommended that MCW remain a private institution receiving state support and relocate to the Milwaukee Regional Medical



David Carley, PhD

Center campus. Calling it “an important day for medical education in Wisconsin,” Governor Patrick Lucey signed a bill on August 7, 1975, authorizing \$8 million in state bonding toward the construction of MCW's \$42 million Basic Science Building. Dr. Carley subsequently served as MCW's president from 1975 to 1977.

2000–2004: Conversion of Blue Cross & Blue Shield United of Wisconsin and Creation of the Advancing a Healthier Wisconsin Endowment

On March 28, 2000, the Wisconsin Commissioner of Insurance approved Blue Cross & Blue Shield United of Wisconsin's conversion from a non-profit to a for-profit entity, as well as



Jesse Ehrenfeld, MD, MPH (at center), senior associate dean at the MCW School of Medicine, professor of anesthesiology and director of the Advancing a Healthier Wisconsin Endowment, meets with community partners in December 2019.

Blue Cross's plan to donate the proceeds from the stock sale to the state's two medical schools. Legal challenges and other obstacles ensued over the course of the next several years, and the conversion was not completed until March 2004 – at which time MCW and the University of Wisconsin School of Medicine and Public Health each received \$318 million for endowments intended to improve the health of Wisconsin residents.

The Wisconsin Commissioner of Insurance's order required that the schools spend up to 65 percent of their annual expenditures on medical research and education. The schools were required to spend at least 35 percent of annual expenditures on community health projects throughout the state.

MCW created the Advancing a Healthier Wisconsin Endowment with these funds, and has since invested more than \$337 million in more than 600 projects statewide to improve health and reduce disparities.

2012–2013 Creating the Foundation for Regional Medical Education

On June 25, 2012, MCW's board of trustees authorized the institution to

develop community-based medical education programs (as they were first called) in both the Green Bay and central Wisconsin areas based on a comprehensive, monthslong evaluation. The timeline for development called for matriculating the first class at the initial site in July 2015 and at the second site in July 2016.



Wisconsin Governor Scott Walker receives MCW's Hands of Humanity award on April 9, 2014, recognizing his transformative vision and leadership for healthcare.



Students from MCW-Green Bay's inaugural class celebrate the receipt of their white coats during a Welcoming Reception in July 2015, while Dr. Kerschner and Dr. Raymond look on. MCW gained significant support from elected state officials for the innovative regional medical education program.

On July 1, 2015, MCW-Green Bay's inaugural class of 26 students officially matriculated, and Governor Scott Walker declared the day to be "MCW-Green Bay Day" in the state of Wisconsin.

The estimated cost for the development and implementation of programs for the two new campuses was \$30 million.

MCW gained significant support from elected officials for this innovative program, including Governor Walker, who included a \$7.4 million request in his 2013-2014 biennial state plan to support construction and technology needs. The request was approved and signed into law in June 2013.

State-funded academic institutions in the two regions, including the University of Wisconsin-Green Bay, University of Wisconsin-Marathon County, University of Wisconsin-Stevens Point and University of Wisconsin-Wood County, agreed to work in partnership with MCW to share their facilities in key areas such as physiology and anatomy. Several faculty members from a number of these institutions would teach at the regional campuses as well.

Now, more than a decade later, MCW's two regional campuses have graduated

195 physicians, and MCW has emerged as a national leader and role model for an immersive, community-based medical school program.

2013-Present Wisconsin Child Psychiatry Consultation Program (CPCP)

In 2013, MCW led advocacy efforts toward the creation of the Wisconsin Child Psychiatry Consultation Program (2013 Wisconsin Act 127). The program is housed under the Wisconsin Department of Health Services, and MCW was selected through a request-for-proposal process to operate the program, in partnership with Children's Hospital of Wisconsin (now known as Children's Wisconsin), beginning in 2015.

MCW's department of psychiatry and behavioral medicine created the initial concept for this critically important program, which provides consultation, education and referral support to enrolled primary care providers caring for children and adolescents with behavioral health concerns.

The Wisconsin CPCP's funding has grown dramatically since the program's initial inception as a pilot, funded at \$500,000 annually. MCW's successful advocacy efforts led to the following expansions: \$1 million of annual funding in 2017; \$1.5 million in 2019; and an additional expansion in 2021. The CPCP currently



The Wisconsin Child Psychiatry Consultation Program provides consultation, education and referral support to enrolled primary care providers caring for children and adolescents with behavioral health concerns.



is funded with \$2 million annually, covering the entire state of Wisconsin. This expanded program greatly benefits children and adolescents with mental health challenges while also educating primary care providers on how to better manage their patients' mental health needs.

2014–Present New Statewide Residency Programs *Psychiatry Residencies*

A 2012 analysis by the state Department of Health Services (DHS) found that Wisconsin needed more than 200 additional psychiatrists to address shortages, and 16 counties – all in rural areas – reported having no outpatient psychiatrists.

These difficulties were recognized by leaders at MCW. When new funding provided an opportunity to increase graduate medical education positions – particularly in mental health areas – MCW sought a partnership with the state (among others) to create a novel solution for Wisconsin.

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. Creating a psychiatry residency program linked to these regional campuses provided an opportunity to address the psychiatry shortage highlighted in the state's 2012 report.

In May 2014 (as part of the 2013–2015 biennial budget), the DHS 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 Wisconsin Legislature to help them establish the new residency training programs in their communities.

Subsequently, in May 2016, initial accreditation was received from the Accreditation Council for Graduate Medicine Education (ACGME) for two new four-year psychiatry residency programs attached to the institution's medical school campuses in central and northeastern Wisconsin.



Alexandra Reischman, MD, is a first-year resident in the Central Wisconsin Psychiatry Residency Program.

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 north-eastern Wisconsin.

Family and Community Medicine Residencies

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 program, which began on July 1, 2017, is training six residents per year over a three-year period – for a total of 18 new residents now that the program is at full strength. Among the residents are graduates of MCW's regional campuses.

Also in July 2017, MCW partnered with Prevea Health, HSHS Sacred Heart Hospital and the University of Wisconsin School of Medicine and Public Health to transition the Eau Claire Family Residency Program to a community-based program.

Additionally, MCW recently created a new family residency program in Green Bay in conjunction with Prevea Health and Hospital Sisters Health System. The inaugural class of residents began on July 1, 2021; when fully running, the three-year program will train four new residents each year.

Office of Government and Community Relations

MCW's Office of Government and Community Relations has played a major role in helping build and maintain its relationships with government employees and elected officials at the local, state and federal level.

The office develops and implements all aspects of MCW's external advocacy strategies. These efforts have led to tens of millions of dollars in funding for MCW and public policy accomplishments that have benefited patients throughout Wisconsin.

Kathryn Kuhn, vice president of government and community relations from 1999–2023, retired on March 1.

(See page 21 for more information on Kuhn's retirement.)



Matthew Wheeler, MD '18, GME '21, a graduate of MCW-Green Bay, completed his residency in the Fox Valley Family Medicine Residency Program in Appleton, Wis., and now practices at Essentia Health in Hayward, Wis.

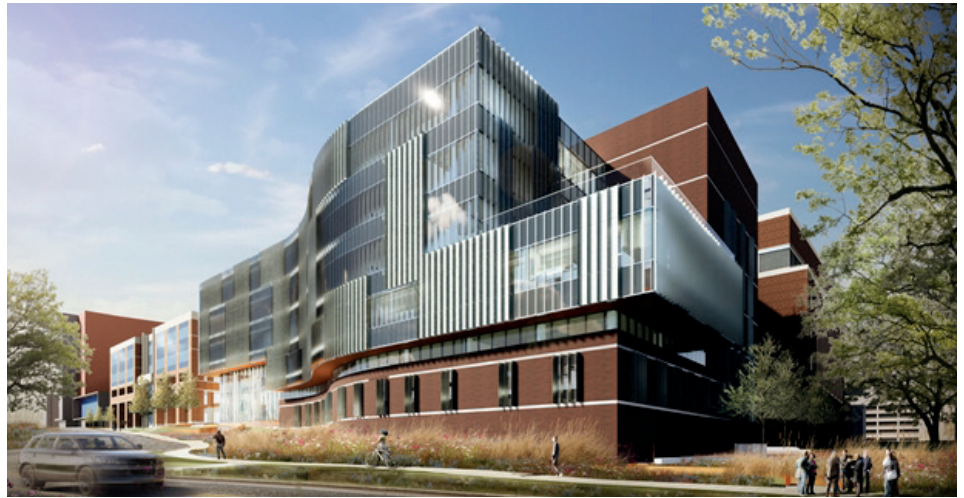
The state of Wisconsin has partnered with MCW to provide \$5.6 million annually to support family and community medicine residency programs in southeast Wisconsin, Green Bay, Appleton and Eau Claire.

MCW's success in growing both its undergraduate and graduate medical education programs and in placing its medical students in Wisconsin-based GME programs is providing an answer for the state's physician shortage.

MCW's regional campus model, which strongly emphasizes Wisconsin residents with roots in the state, will continue to 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, is projected to create more than 450 new physicians in the next 15 years.

2019 Funding for the Cancer Center Research Building

In 2019, MCW received a \$10 million Wisconsin State Building Commission grant for a new Cancer Center Research Building. Construction on the 150,000-square-foot facility broke ground in September 2022; when completed in late 2024, it will be the only cancer-dedicated research facility in Milwaukee and eastern Wisconsin.



An architectural rendering of MCW's new Cancer Center Research Building.

The building will centralize many of MCW's cancer research programs, which comprise nearly 700 researchers in 135 labs campus-wide. It also will play a significant role in mitigating the cancer burden in Milwaukee-area communities and reducing cancer disparities among under-represented groups.

While construction is expected to cost \$153 million, Joseph Kerschner, MD '90, FEL '98, provost, executive vice president and The Julia A. Uihlein, MA, Dean of the School of Medicine, has referred to the funding from the state of Wisconsin as "a springboard" for the project. "The \$10 million grant from the state of Wisconsin is

critical in allowing us to have some early funding as we pushed this concept forward with our trustees, partners, faculty and staff, and provides some much-needed momentum in the early stages," says Dr. Kerschner.

2020 Extending Pharmacy Professionals' Ability to Provide Vaccinations

MCW, with the assistance of the MCW School of Pharmacy and in collaboration with other Wisconsin pharmacy schools and the Pharmacy Society of Wisconsin, advocated for passage of legislation that expands pharmacy professionals' ability to provide vaccinations.

Members of the pharmacy school faculty testified to the Wisconsin Legislature in support of the expansion to back vaccination efforts. In February 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 and allows other healthcare providers the ability to supervise student pharmacists during vaccinations. In response to the passage of this legislation, MCW's School of Pharmacy now is able to provide immunization training earlier in the Doctor of Pharmacy (PharmD) program. ■



MCW School of Pharmacy faculty and students assist in providing more than 19,000 COVID-19 vaccines to healthcare personnel and other eligible populations in 2020-2021.



Kathryn Kuhn Retires as MCW's Vice President of Government and Community Relations

Kathryn Kuhn retired as MCW's vice president of government and community relations on March 1, 2023, following 22 years of valuable service. Her leadership directly resulted in tens of millions of dollars in funding to support MCW's missions.

Kuhn contributed significantly to the creation of MCW's regional campuses as a signature strategy for addressing the projected physician shortage. In 2013, her advocacy efforts with state legislators led to a \$7.4 million State Building Commission grant for the development of MCW-Green Bay and MCW-Central Wisconsin.

Kuhn also helped generate crucial support for graduate medical education expansion efforts that are important for improving patients' access to care. This included helping secure multiple increases for MCW's family and community medicine residency appropriations.

Kuhn's legacy at MCW extends into the research mission, where she helped provide critical infrastructure and laboratory space for MCW scientists pursuing new discoveries. In 2019, her team obtained \$10 million in the state budget to support construction of a new Cancer Research Building, which broke ground in September 2022.



MCW faculty and staff join Governor Evers and others for the signing of 2019 Wisconsin Act 150, which allows for the reimbursement of travel and other costs related to participating in cancer clinical trials.

She also worked to enhance access to specialty care throughout Wisconsin. This includes overseeing efforts since 2013 to support the creation of the Wisconsin Child Psychiatry Consultation Program.

In total, Kuhn worked with five different governors' administrations and was recognized for her bipartisanship and for building relationships on both sides of the political aisle.

Since Kuhn's retirement, Nathan Berken has served as interim vice president of government and community relations. He joined MCW in 2013 and has more than 18 years of government, public policy, healthcare, large employer, nonprofit and higher education experience.

Kuhn will remain with MCW in an advisory role. ■



Nathan Berken currently serves as MCW's interim vice president of government and community relations.



Kathryn Kuhn with former Wisconsin Governor Tommy Thompson, ca. 2018.

Notable Benefits of the MCW/Wisconsin Partnership

State Building Commission Grants:

- 1997: \$2 million for the construction of MCW's new Health Research Center.
- 2001: \$25 million for the construction of MCW's Translational and Biomedical Research Center.
- 2007: \$10 million for the purchase of a 7-Tesla Magnetic Resonance Imaging (MRI) Scanner.

Tax Check-Off Program: In 2003, the state established a State Income Tax Check-Off Program for cancer research that has provided an annual stream of research funding to MCW. Proceeds from the program, which are donated by tax filers, are split between the MCW Cancer Center and the University of Wisconsin Carbone Cancer Center.

CARES Act Coronavirus Relief Fund Grant: In 2020, the state provided a \$4 million CARES Act Coronavirus Relief Fund grant, which, along with similar funds from the federal government, served as a critical support to MCW during the most financially uncertain months of the pandemic.

Medical School Tuition Assistance: Each year, the state provides tuition assistance to MCW medical school students who are residents of Wisconsin. For the 2022-2023 academic year, the amount of assistance per student was \$3,580. The total amount of tuition assistance each year is then paid to MCW by the state.

Ongoing Advisory Roles: Over the years, MCW faculty and staff have generously shared their expertise in volunteer advisory roles to numerous state committees and programs focused on health-related topics such as veteran care, opioids, emergency response and preparedness, and suicide prevention.

The Future of Epilepsy Treatments at the Comprehensive Epilepsy Center

From advanced diagnostics to advanced therapeutic and surgical treatments to cutting-edge clinical trials, the neurologists, neurosurgeons, neuropsychologists, nurse practitioners, nurses and other staff at the Comprehensive Epilepsy Centers at Children's Wisconsin (Children's) and Froedtert Hospital specialize in unique, personalized plans that can control seizures and improve quality of life.

"Approximately 3.5 million people are living with epilepsy in this country, and every one of those cases is different. That makes treating it extremely expensive for

most healthcare systems," says Manoj Raghavan, MD, PhD, director of the Comprehensive Epilepsy Program, medical director of the Magnetoencephalography Program and MCW professor of neurology and neurosurgery. "MCW, Froedtert and Children's stand out because we offer the resources, equipment and providers that other systems in Wisconsin can't."

Working in conjunction with MCW faculty, both centers are certified Level 4 by the National Association of Epilepsy Centers (NAEC) – the highest level of certification possible – and offer the state's only magnetoencephalography (MEG) program.

MEG is a noninvasive tool that works like a three-dimensional electroencephalogram (EEG) to monitor brain function and track where seizures begin.

But that's far from the only thing bringing the future of treatment to today's patients.

Implanting the Future

For one patient who experienced frequent, drug-resistant seizures on both sides of her brain – making traditional surgery impossible – the team implanted a Responsive Neurostimulation (RNS) System in May 2022. The RNS device monitors

Following the "Jennifer Aniston Neuron"

In 2005, neuroscientist Rodrigo Quian Quiroga, PhD – when looking for the areas of the brain that cause epileptic seizures – discovered what he called the "Jennifer Aniston Neuron," which lighted up each time his research subject saw an image of the actress Jennifer Aniston or heard her name. This discovery of a neuron that is linked to a particular concept was a major milestone in understanding how the mind works.

Using a new intracranial research program, scientists at MCW have found that similar processes occur for many different brain stimuli. This work may even help uncover how one's brain creates a memory.

Researchers in the lab of Hernan Rey, PhD, MCW assistant professor of neurosurgery, working with MCW neurosurgeon and epilepsy specialist Sean Lew, MD, at the Epilepsy Monitoring Unit at Froedtert Hospital, are implanting a series of specialized

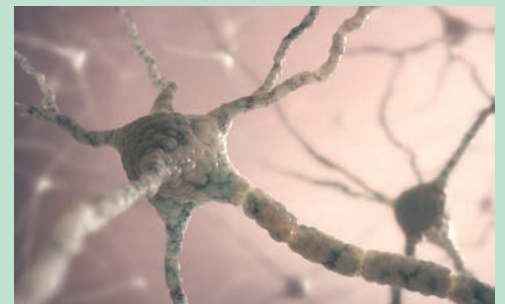
electrodes in deep areas of the brains of patients with refractory epilepsy.

As their seizures cannot be controlled by medication, these patients require invasive recordings to identify the area of the brain where their seizures originate. While undergoing these recordings, Dr. Rey and his team give patients numerous behavioral tasks to perform.

As neurons in their brains respond to each task, the activity is tracked via microwires that extend beyond the end of a standard clinical probe. A computer compiles the activity, response time, intensity and more, and processes the data almost immediately.

The data then allows Dr. Rey to interpret a variety of brain processes, including memory, attention and decision-making by reviewing how different areas of the brain react during the experimental tasks.

"We already know that certain neurons in the hippocampus are part of memory creation," shares Dr. Rey. "This



During intracranial tests, specialized electrodes track brain activity as close as possible to an individual neuron. A computer immediately compiles the data and produces results that allow Dr. Rey to interpret brain processes.

research puts us on the leading edge of finding how the hippocampus and other parts of the brain respond so we can better understand how these neural networks connect. We're studying the memories that make us, us."

Dr. Rey hopes this work ultimately may identify epilepsy biomarkers that could lead to clinical trials of more efficient treatments, improved margins for resection and better indicators for treatment options, as well as reduced side effects.

brain activity, and when a possible seizure is detected, it immediately provides stimulation to the area of the brain where seizures arise in an attempt to disrupt the seizure.

The patient and her family saw immediate improvement, as her seizures dropped from approximately once per week to once per month or fewer, and her family hasn't needed to use rescue medication (fast-acting drugs with anticonvulsant effects that are administered during seizures to stop or reduce the activity) since the implant.

"Nothing has increased quality of life like the RNS," says LouAnn Counihan, the patient's mother. "My daughter used to be tired all the time and we didn't know why. Information from the RNS showed that she was having numerous seizures that we weren't observing. Since the implant, her fatigue and moods are dramatically improved."

Due to the combination of the patient's improvements and the ability to know what's happening during a seizure (via the information the RNS device provides), the family is planning to move to a new home that will offer their daughter the opportunity to live more independently and require less direct care.

Meanwhile, additional research underway at MCW includes recruiting patients for a study on implantation of inhibitory cells into the hippocampus.

The majority of neurons in the brain are excitatory, meaning that they activate other neurons to further transmit electrical signals. Inhibitory cells do the opposite. Researchers hope to determine whether the inhibitory cells may be able to make neurons involved in a seizure less likely to fire, thus lessening the intensity and frequency of seizures and improving outcomes.

Next-Level Mapping of the Brain

Approximately two-thirds of people living with epilepsy can be treated with medication that will control their seizures. For the other third, however, surgery often is needed to improve their quality of life. For example, resecting (removing) the source of seizures can prevent seizures or limit their spread within the brain, thereby also limiting what patients experience

or feel with their seizures. Before that can happen, however, vital areas of brain function must be perfectly mapped.

Research that was pioneered at MCW helped develop functional MRI (fMRI), which can help locate vital areas of the brain prior to surgery, as well as predict outcomes for language and memory capabilities.

Functional mapping with direct stimulation of the brain can be used during surgery to identify key brain functions in real time. For example, if seizure activity occurs near a portion of the brain vital to necessary functions – speech, skin sensations, ability to read, etc. – fMRI can help identify and protect those areas.

Other tools critical to detecting seizure location include positron emission tomography (PET)/MRI, which combines information on the metabolic activity of the brain (using PET) with structural images of the brain (from MRI) to help identify potential causes or foci for seizures which may be subtle and difficult to identify.

Neuropsychological testing provides a detailed neurocognitive picture of brain functions such as memory. This testing also may provide information regarding areas of the brain from which seizures arise and define risks of potential surgical procedures.

After reviewing all of these data to optimize outcomes, the epilepsy team can develop an individualized treatment plan designed to preserve function and control seizures. The neurosurgical team makes use of tools, including robotic-assisted surgery, laser ablation and stereoelectroencephalography (SEEG) to better understand and ultimately treat seizures.

Building for Tomorrow

"Seizures during critical times of a child's development can reduce cognition later in life," says Dr. Sean Lew, Mardak/Vandenberg Family Chair of Pediatric Neurosurgery at Children's, MCW professor of neurosurgery, and director of epilepsy surgery at Froedtert Hospital and Children's. "Thus, it's important that we're focused on reducing or eliminating

Check Out Our WINS!

The Wisconsin Institute of Neuroscience (WINS) – initially created in 2022 as the MCW Neuroscience Institute through a partnership among MCW, Froedtert Hospital, Children's Wisconsin and the Clement J. Zablocki Veterans' Administration Medical Center – was launched in January 2023 to assert MCW's national presence in neuroscientific research and treatment.

WINS strives to enhance basic and translational neuroscience through multidisciplinary, world-class clinical care, unique clinical trials, groundbreaking research and innovative education.

WINS is led by Shekar Kurpad, MD, PhD, Sanford J. Larson Professor and chair of neurosurgery at MCW.



The WINS name reflects the integration of the extraordinary capabilities, resources and clinical expertise of its four partners into a singular set of offerings.

The name also highlights the regional and national authority WINS brings to the neurosciences.

seizures as much, and as early, as possible to maximize long-term quality of life."

Every Tuesday, MCW faculty from the adult and pediatric epilepsy teams meet to review the latest cases and discuss the best options for treatment.

For each case, they consider the long-term effects of each treatment option and what tomorrow may hold for the person living with epilepsy, as well as for their respective caregivers.

The result is the future, today. And tomorrow. ■ – CHRIS COMBS

Fulfilling the Promise: Philanthropic Partnership Promotes Character and Caring in Medicine



Founding Members of the Kern National Network

- Geisel School of Medicine at Dartmouth
- Mayo Clinic Alix School of Medicine
- Medical College of Wisconsin
- University of California San Francisco School of Medicine
- University of Texas at Austin Dell Medical School
- University of Wisconsin School of Medicine and Public Health
- Vanderbilt University School of Medicine

What if medical education not only produced highly competent, innovative doctors, but also developed the whole person so medical professionals can flourish and reach their full potential while providing excellent, equitable care? How might that improve quality of life for physicians, patients and communities?

These questions continue to be at the center of the unique philanthropic collaboration between the Kern Family Foundation and MCW – a partnership dedicated to transforming medical education and practice. The lessons learned from seeking answers drive innovation at MCW and, increasingly, at medical schools and healthcare organizations nationwide.

“From the inception of our collaboration with MCW,” reflects James Rahn, president of the Kern Family Foundation, “we were impressed with the commitment of the board, leadership team and faculty champions to transform medical education anchored in a commitment to character and caring as integral to human flourishing. As we have extended this work across MCW and a broader network, we are thrilled to see the promise for the future.”

Investing in Transformation

In 2017, a transformational investment of \$37.9 million from the Kern Family Foundation and Kern Family Trust, as well as a generous \$1 million endowed chair given by Stephen A. and Shelagh M. Roell, PhD, allowed MCW to formalize two complementary efforts: the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education and the Kern National Network for Flourishing in Medicine (KNN).

The Kern Institute, an academic department, focuses on ensuring MCW becomes an exemplar of centering character and caring in educating future physicians. Recognizing the simultaneous importance of systemic change, the KNN works to integrate character, caring, practical wisdom and flourishing into the medical profession.

Both entities have continued to grow, leading to renewed support from the Kern Family Foundation. In 2022, the foundation contributed \$50 million – \$10 million of which is designated as a matching opportunity to inspire additional support from philanthropists and foundations with an interest in transforming healthcare.

Driving Innovation in Medical Education

For MCW, transformation started from within, supported by the Kern Institute. The institute has pioneered programming and labs in areas ranging from student well-being and faculty development to data science and scholarship.

The longitudinal REACH curriculum has prepared 1,200 first- and second-year medical students for the emotional demands of caregiving. Further, the KINETIC³ staff and trainee enrichment program has graduated 90 faculty, 22 staff and 26 trainees, equipping them to shape the future of medical education by combining principles of character, caring and competence with pedagogical knowledge.

Program learnings and faculty expertise from the Kern Institute are uplifting the medical school’s new MCWfusion™ curriculum, launching in summer 2023. It will integrate scientific knowledge with clinical applications, emphasize inquiry-based learning and graduate physicians on the leading edge of technical *and* humanistic aspects of medicine.

“MCWfusion is an exemplar medical school curriculum which will ensure all Americans have the physicians we deserve – those committed to the core values of our ancient profession while also being advocates and leaders in the rapidly evolving healthcare system. We will do so with character and caring for all,” says Adina L. Kalet, MD, MPH, Stephen and Shelagh Roell Endowed Chair, professor and director of the Kern Institute.

The Kern Institute also is driving innovation in medical education by funding projects through the Transformational Ideas Initiative, as well as its



The Kern Institute and KNN's booth at the 2022 annual meeting of the Association of American Medical Colleges receives many accolades, signaling continued growth for their strategic initiatives.



Participants respond with "inspired," "grateful" and "hopeful" when asked to describe the KNN's 2022 conference in a single word.

Medical Education Transformation Collaboratories. The institute has invested more than \$500,000 in its first cohort of seven Collaboratories – group projects involving individuals from more than 20 institutions. A second call for Collaboratory projects opened in November 2022.

The institute also plans to launch new initiatives, including a Health Equity Scholars program and the MCW Kern Press, a national press to share medical education discoveries and solutions so that physician training reflects the latest instructional techniques.

Advancing a Movement for Flourishing in Medicine

The KNN began as a network of seven founding medical schools that demonstrated how collaboration accelerates innovation and ignites change. Together, they shaped the KNN's framework, which uses tree imagery to show how the foundational concepts of character, caring and practical wisdom offer a path toward flourishing. Pilot programs by founding members infused those concepts into each institution.

Nearly 550 learners at KNN schools gained structured time for reflection and identity formation through coaching programs, while professional development program-ming shaped the educational philosophies of more than 2,000 faculty and educators from 41 states and six other countries.

Although the framework can inspire new programs, its true power lies in offering a new mental model for evaluating and improving existing practices, whether in the classroom, exam room or board room. With the framework as its

north star, the KNN is now expanding – bringing more organizations into the fold and advancing flourishing by connecting and convening stakeholders, catalyzing transformative initiatives and influencing policy and systems change.

That energy reverberated throughout the KNN's inaugural national conference in September 2022. Approximately 250 participants shared and celebrated transformational work, with the seven founding member-schools joined by 28 other medical schools and health-related organizations.

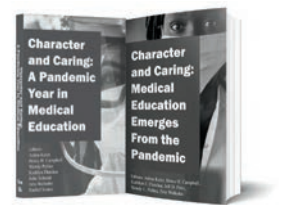
"In building rich, diverse pathways to come together and share knowledge and practices, the KNN is becoming a true movement at the headwaters of flourishing in medicine," says Cheryl A. Maurana, PhD, MCW Eminent Scholar, senior vice president for strategic academic partnerships, professor and KNN founding director. "We are excited to see stakeholders across healthcare bring their passion, energy and talent to this work."

A shared mission unites individual efforts, creating a swell of momentum. As the KNN grows, focus areas include investing in future generations through a national student conference and student chapters and strengthening efforts to cultivate diversity of thought and open inquiry in academic medicine.

Continuing the Legacy

In advancing this essential work, MCW is honored to continue Robert D. and Patricia E. Kern's legacy of generational impact by shaping clinical learning and practice environments where all those within can truly flourish. ■

– SARAH WILLIAMS



Camaraderie and Connection for Medical Educators

Complementing internal programming, the Kern Institute amplifies diverse voices across the medical community.

The weekly *Transformational Times* e-newsletter brings personal narratives to the inboxes of more than 6,500 individuals, and highlighted essays have been published in two book volumes.

What Sorrow Reveals: How Billie Kubly Transformed Tragedy Into a Mission

The author P.S. Jagadeesh Kumar once observed, “Sorrow doesn’t change someone, it reveals them.” Billie Kubly’s sorrow revealed an inner drive to help others and a voice to advocate for change.

When Billie talks about Charlie, her youngest son, it is with obvious pride and love. But there also is a catch in her voice, and occasionally her eyes well up with tears.

To the outside world, Charlie was funny and adventuresome, an accomplished skier who also liked tennis and sailing and was working to earn a pilot’s license. An entrepreneurship major at the University of St. Thomas, Charlie worked in the finance industry in Milwaukee and was developing Care by Air, a company that would send care packages from parents and friends to college students.

But inside, Charlie struggled.

Despite numerous treatments and therapy, in October 2003, Charlie died from suicide at age 28 after a lengthy battle with depression.

The Kubly family was devastated by Charlie’s death. Still, Billie’s immediate thought was to help others.

“I don’t want anyone to have to go through what I went through,” she says. “I never talked about it when he was alive because he asked me not to. But after, I thought, ‘No, we’re going to come out and talk about this.’”

After receiving \$130,000 in memorial gifts for Charlie, Billie and her late husband, Michael Kubly, MD ’63, established the Charles E. Kubly Foundation, a public charity that funds projects and research aimed at reducing suicide and erasing the stigma that shrouds depression and suicide.

The foundation hosts the annual *Beyond the Blues* event (celebrating its 20th year in 2023) to fund its philanthropic work. The name entwines both Charlie’s love of blues music (especially John Lee Hooker) and the family’s goal to help people navigate through and beyond depression.

The foundation is only a fraction of Billie and Michael’s philanthropic work to help prevent suicide, however. It has made several gifts to MCW to fund numerous psychiatric and behavioral medicine programs and research projects, including:

- a pilot child psychiatry consultation program that initially was focused in one-fourth of Wisconsin but was so successful that it became a state-funded program available in all counties
- suicide prevention expertise that caps off the Child Psychiatry Consultation Program endowed by the Kublys and provided across Wisconsin



Billie and Dr. Michael Kubly, 2015.

• the Charles E. Kubly Chair, held by Jon Lehrmann, MD '90, GME '94, chair of MCW's department of psychiatry and behavioral medicine

In September 2022, the Kubly family donated \$5 million to establish the Dr. and Mrs. Michael C. Kubly Community-Based Suicide Prevention Research Program in honor of Dr. Kubly, who passed away in 2018.

The program is working to find solutions to the ongoing suicide crisis in Wisconsin by combining the strengths of MCW's department of psychiatry and behavioral medicine together with the division of suicide prevention in the institution's Comprehensive Injury Center (CIC).

In addition to research, the gift will endow a named faculty position in the division of suicide prevention to support a nationally recognized leader who will coordinate suicide prevention efforts.

Wisconsin's suicide rate of 14 suicides per 100,000 individuals is slightly higher than the national rate, according to the most recent statistics (2020).

Alarming, the state's suicide rate increased 40 percent between 2000 and 2017, particularly among the most vulnerable – including veterans and people living in urban areas.

"A national study found that reimbursement for mental health care is 24 percent less than for primary healthcare," says Dr. Lehrmann. "A repeat study found that



Billie Kubly and Charlie, 1987.

Dr. Michael Kubly and Charlie, 2001.

in Wisconsin, reimbursement for mental health care is 44 percent less than it is for primary care. We've been able to do much of what we do because of Billie, who has turned tragedy into a mission. She is a difference-maker and an agent of change."

According to Terri deRoon-Cassini, PhD, MS, director of the CIC, "The level of expertise that comes with our new endowed faculty position will help push our work to the next level and will enable us to reach evidence-based interventions more quickly. I think this can push Wisconsin to the forefront of suicide research."

"I am so grateful that we have the means to do this," Billie says. "It's so rewarding. I always told my children growing up that you have to make a difference, even if it's only for one person in your life. I never dreamed I would be



doing this kind of thing, reaching so many people in my son's name. I love that part."

Billie does more than make donations, however. She also serves as a one-woman suicide hotline, sharing her phone number and taking calls from people in crisis.

"When people call me, I just want to help them so badly," she adds. "They don't have the resources to find out where to go and what to do. I'm very lucky. I'm connected to Rogers Memorial Hospital, so I can call them, and they respond to me right away. The same with the Medical College of Wisconsin. The foundation has a newsletter, and sometimes I write an article and say, 'Please call me.' And I give out my phone number. I've never had anyone call me who isn't sincere about getting help. The more I can help, the better I feel."

When he was alive, Charlie didn't want Billie or the rest of his family to talk about his depression. Billie thinks he might have a different mindset today, however.

"I think Charlie would be very proud of us," she says. "Maybe now he would wish that he did talk about it. But he's already all over the city and all over the country."

Billie gives a hearty laugh. "So, he's probably going, 'Oh my gosh mother, you've overdone it.' He had a great sense of humor," she adds. ■ – JAMIE DEPOLO



We've been able to do much of what we do because of Billie, who has turned tragedy into a mission. She is a difference-maker and an agent of change.

– Dr. Jon Lehrmann

A Shared Vision: Philanthropic Partnership Fuels Cancer Discoveries

The driving force among many philanthropists is the desire to make a meaningful difference in the health and well-being of our community – today and for generations to come. For the Medical College of Wisconsin (MCW) Cancer Center, generous investments from donors make all the difference as MCW researchers and clinicians take on the biggest health challenge of our time – cancer. Funding helps spark new ideas, supports continued research, enables scientists to open potentially lifesaving clinical trials and, ultimately, leads to medical breakthroughs for patients and families.

This year, the MCW Cancer Center celebrates 25 years of partnership with the WBCS, Inc. (formerly known as the Wisconsin Breast Cancer Showhouse), an all-volunteer organization whose investments have led to advancements in the treatment of breast and prostate cancer – two of the most common cancers in eastern Wisconsin. WBCS's ongoing investments have led to a \$117 million research impact at MCW. Its cumulative investment of \$7.4 million has funded research grants and two endowed WBCS professorships in breast and prostate cancers. To date, WBCS-funded researchers have leveraged their awards into a substantial return on investment of \$110.3 million in external research funding.

Below are a few ways that MCW Cancer Center scientists and the WBCS are making a difference with the help of generous donors.

Intervening Before Cancer Recurs

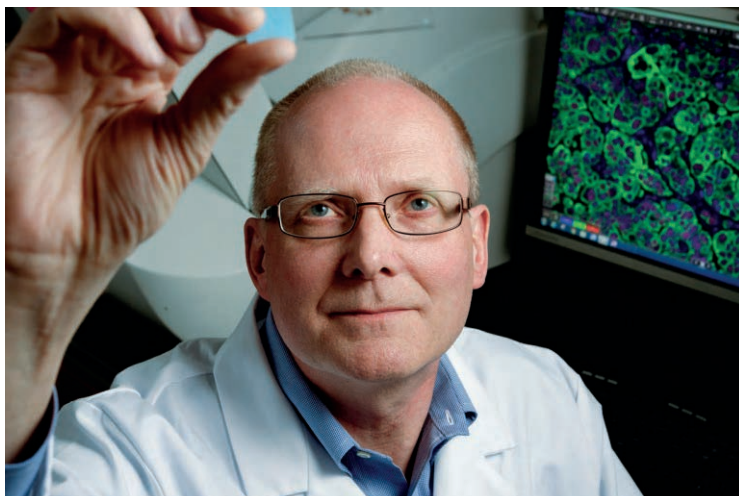
Eighty percent of patients diagnosed with breast cancer have what's called "estrogen receptor-positive (ER+) breast cancer," a type of cancer that uses estrogen to grow. While patients with ER+ breast cancer experience positive short-term outcomes, these cancers sometimes recur as metastatic disease many years after treatment, resulting in a much less favorable prognosis.

Hallgeir Rui, MD, PhD, WBCS Endowed Professor of Breast Cancer Research at MCW, recently led a team of clinical investigators who discovered that patients with elevated levels of the protein PD-L2 often suffer an early recurrence of ER+ breast cancer. "Before our work, PD-L2 was largely ignored, and all attention was focused on a similar protein called PD-L1," says Dr. Rui. "It's our hypothesis that measuring both proteins will improve our ability to predict which patients will benefit from promising new immunotherapies."

Continued research is now underway in a phase II clinical trial led by Lubna Chaudhary, MD, FEL '15, MCW associate professor of medicine (hematology and oncology).



The research interests of the Nevalainen Lab (pictured here in 2018) include understanding prostate cancer progression, developing therapies and identifying predictive biomarkers.



Dr. Hallgeir Rui, 2017.

Improving Patient Outcomes Using Machine Learning

Prostate cancer is one of the most complex cancers to treat because it differs greatly from patient to patient. Anjishnu Banerjee, PhD, MCW associate professor of biostatistics, aims to untangle some of this complexity by using Bayesian data analysis to determine the probability of a patient's response to certain treatments.

"Traditional statistical models are not equipped to predict how cancer will respond in individual patients," says Dr. Banerjee. "Our research uses a prediction model to better understand how certain cancers will respond based on an individual's unique cell type so we can adapt their treatment plans accordingly."

The improvements the researchers have seen are substantial. "While we don't have a panacea akin to antibiotics for bacterial infection, we can demonstrably prove that survival times for prostate cancer patients have improved," notes Dr. Banerjee.

Adapting Cancer Treatments Leads to Increased Health Benefits

Like Dr. Rui, Yunguang Sun, MD, PhD, MCW assistant professor of pathology and laboratory medicine, aims to uncover new therapies for patients with ER+ breast cancer. His focus includes luminal B ER+ breast cancer, a subtype of breast cancer that grows quickly and is more likely to spread.


Dr. Sun and his research team recently created a tumor model that mimics the hormone environment in women. Tumor models help researchers study the development and progression of cancer to identify which precision medicine therapies work best for each patient's individual characteristics.

"Because every breast cancer is unique, molecular profiling of tumors is needed to match the right drugs to the right patients," says Dr. Sun. Dr. Sun expects the studies will yield insights that can be rapidly adapted to clinical trials. ■ – LEE DICKERT


 To learn more about the WBCS, including upcoming events and ways to give, visit breastcancershowhouse.org.

Bringing Promising Cancer Research to Milwaukee, the Region and the State

Support from the WBCS has led to the appointment of two endowed professorships at the MCW Cancer Center – funding some of the brightest minds in cancer research to protect and improve the health of Wisconsin residents.


"Funding from the WBCS enables the development of new prevention strategies, earlier detection, more effective and individualized treatments and a better quality of life for cancer survivors. Additionally, this funding means patients don't need to relocate to other states to access specific clinical trials. Instead, clinical trials offering new treatments and treatment strategies are available here in Wisconsin, so patients can be closer to their caregivers and support networks."

Marja Nevalainen, MD, PhD
WBCS Endowed Professor of Prostate Cancer Research


"Cancer has been called the 'emperor of all maladies' and may be the most complex class of diseases. Giving to cancer research directly increases the chances of breakthrough discoveries that lead to new cures.

Eight years ago, when I was exploring the opportunity to bring my breast cancer laboratory to the MCW Cancer Center, I was truly astonished by the dedication of MCW's cancer researchers and the WBCS team. Novel clinical trials of new drugs or treatment combinations and promising new diagnostic methodologies made by WBCS-supported investigators have shown tremendous impact for patients in Wisconsin."

Hallgeir Rui, MD, PhD
WBCS Endowed Professor of Breast Cancer Research

ALUMNI NOTES

1970s

E. Christopher Ellison, MD '76, was installed as the 103rd president of the American College of Surgeons (ACS). Dr. Ellison is the Robert M. Zollinger Professor of Surgery Emeritus at The Ohio State University College of Medicine in Columbus, where he previously served as chair of the department of surgery, interim dean and president and CEO of The Ohio State University Physicians Practice Plan. With more than 84,000 members, the ACS is the world's largest organization of surgeons.

1980s



Dorothy Novak, MD, GME '81, has been recognized by northwest Wisconsin emergency medical technicians for her support and mentorship. She is a board-certified family medicine practitioner and emergency department physician at the Hayward (Wis.) Area Memorial Hospital. Dr. Novak served in the US Army for more than 20 years, earning the rank of colonel.



Arthur Derse*, MD, JD, GME '83, was elected to membership in the American Law Institute. The American Law Institute is the leading independent organization in the US producing scholarly work to clarify, modernize and otherwise improve the law. Dr. Derse is the Julia and David Uihlein Chair in Medical Humanities, director of MCW's Center for Bioethics and Medical Humanities and professor of bioethics and emergency medicine at MCW.

**MCW faculty member*



Beth A. Erickson*, MD '84, GME '88, led the American Society for Radiation Oncology's task force to develop updated clinical guidelines on the use of radiation therapy and systemic therapy after surgery for endometrial cancer. The guideline also considers the role of surgical staging and molecular profiling techniques in determining whether a patient should receive postoperative therapy. Dr. Erickson is the J. Frank and Vera B. Wilson Professor in Radiation Oncology at MCW.

1990s

Constance DiAngelo, MD '92, was appointed chief medical examiner for the city of Philadelphia. She is a board-certified anatomic, clinical and forensic pathologist with more than 20 years of experience in determining cause and manner of death. In 2019, she was appointed inaugural director of autopsy at the Children's National Hospital in Washington, DC. Dr. DiAngelo also served for more than five years as the pathologist assigned to the Virginia infant and child mortality review committee.



Rashmi Chugh, MD '94, was appointed by Illinois Governor J.B. Pritzker to continue serving on the Illinois Board of Health. She has served as a medical officer for the DuPage County (Ill.) Health Department since 2003, providing communicable and chronic disease surveillance oversight while also providing medical consultation for direct services.

Brian Curry, MS '94, PhD '04, was appointed president and CEO of the International Institute of Wisconsin, an organization dedicated to the promotion of international cooperation, understanding

and a multiethnic, multicultural perspective. He previously served as assistant vice president of international affairs for Concordia University Wisconsin and Concordia University Ann Arbor (Mich.).



Ashok Rai, MD '97, was the featured speaker at the University of Wisconsin-Milwaukee's (UWM) commencement ceremony in December 2022. He is president and CEO of Prevea Health, a health system with more than 40 health centers and 26 employer-based clinics in northeastern Wisconsin as well as the Chippewa Valley in western Wisconsin. Dr. Rai graduated from UWM's Target MD program, which provided early admission to MCW.



Matthew Scanton*, MD, FEL '99, was named co-director of the Quality Improvement and Patient Safety Scholarly Pathway in the MCW School of Medicine. He is a professor of pediatrics at MCW.

2000s



Matthew Cooper*, MD, GME '00, was named the Mark B. Adams Chair in Transplant Surgery at MCW and chief of the division of transplantation in the department of surgery. He previously served as professor of surgery and director of kidney and pancreas transplantation at Georgetown University School of Medicine and medical director of transplant quality at the MedStar Georgetown Transplant Institute.

Jason Bentley, PhD, MS '01, completed his PhD in 2021 at the University of Texas Medical Branch in Galveston. He now is an assistant professor of exercise and health

sciences at the University of Houston–Clear Lake. His family grew with the birth of his third child in April 2022.



Sandra Amaral, MD, MHS, GME '03, holds a Distinguished Endowed Chair at Children's Hospital of Pennsylvania in Philadelphia, where she also is an attending physician in the kidney transplant and dialysis treatment program. Dr. Amaral is an associate professor of pediatrics and epidemiology at the Perelman School of Medicine at the University of Pennsylvania and an associate fellow in the university's Center for Health Behavior Research.

Shawn Bartel, MD, GME '04, joined Sanford Aberdeen (S.D.) Clinic as an internal medicine and pediatric provider. He is certified through the American Academy of Pediatrics and the American Board of Internal Medicine.

Adam D. Currey*, MD '05, GME '10, was elected to the executive committee of the Association of Directors of Radiation Oncology Residency Programs. He will serve as the association's vice president for one year, president for one year and then past president for one year. Dr. Currey is an associate professor of radiation oncology at MCW.



Srividya Kidambi*, MD, FEL '06, was named to the Froedtert & the Medical College of Wisconsin's ambulatory specialty medical leadership team. She will serve as senior medical director for procedural specialties. Dr. Kidambi serves as professor of medicine and chief of endocrinology and molecular medicine at MCW. Additionally, Dr. Kidambi is a 2022–2023 fellow in The Hedwig van

Ameringen Executive Leadership in Academic Medicine® (ELAM®) program.

William K. Lobb, DDS, MPH '08, professor and dean of the Marquette University School of Dentistry, announced that he will retire on June 30, 2023, after nearly 30 years of service. Dr. Lobb is the longest-serving dental school dean in the country. In 2021, Dr. Lobb was awarded a *Lifetime Achievement Award* from the Wisconsin Dental Association, the organization's highest honor.



Jennifer Nagy, MD '09, GME '12, was appointed associate chief medical officer for Froedtert & the Medical College of Wisconsin Community Physicians, headquartered in Menomonee Falls, Wis. Dr. Nagy will work with the practice group's executive leaders to improve the value of services offered to the market and advance care team development. She will manage provider capacity and patient demand, ensuring consistency in patient experience and outcomes across all Community Physicians locations.

2010s

Julian K. Berrocal, MD '11, joined Jupiter (Fla.) Medical Center as a breast surgical oncologist. Previously, Dr. Berrocal was the associate program director of the general surgery residency for the University of Miami Miller School of Medicine Regional Campus. He is a member of the American College of Surgeons and the American Society of Breast Surgeons.

Oluwatosin Thompson, MD '13, joined Elliot (N.H.) Health System in Manchester. As a neurologist, he specializes in headache

disorders, including migraines and tension-type headaches.



Jamie Aranda*, MD, GME '15, was appointed the inaugural medical director of MCW's Physician Associate Program. She will lead the development and implementation of the MCW School of Medicine's PA graduate degree program. Dr. Aranda is an assistant professor of emergency medicine at MCW and medical director at the Froedtert Hospital emergency department.

Chris Newland, MD '16, joined Mercy Clinic Bolivar (Mo.) as a primary care physician.

Joshua Lawson, MD, GME '18, joined the Center for Sports Medicine and Orthopaedics in Chattanooga, Tenn.

Brandon Manderle, MD '18, joined Bronson Primary Care Partners – East Centre in Portage, Mich., as a board-certified family medicine practitioner.

2020s

Jacob S. Martin, MD, GME '21, FEL '22, has been named assistant professor of ophthalmology and visual sciences at MCW. He specializes in pediatric ophthalmology and adult strabismus, and will provide both patient care and resident education.

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

1950s

Tom R. Hodges*, MD '52, died on September 29, 2022. Dr. Hodges established his medical practice as the first full-time physician in Malibu, Calif., in 1953 after his internship at Santa Monica Hospital. He retired from practice 40 years later, in 1993. He built Hodges Castle in Malibu, which was his home for many years. In 2015, he established The Tom R. Hodges, MD Annual Scholarship Fund at MCW to support the next generation of physicians.

Ervin Kuglitsch, MD '52, GME '71, died on November 11, 2022. An anesthesiologist and family medicine practitioner, he practiced in the Milwaukee area for 71 years, most recently with the Eye Surgery and Laser Center of Wisconsin in Milwaukee.

1960s

George Gersch, MD '61, died on January 16, 2023. Dr. Gersch joined the West Salem (Wis.) Clinic in 1963 as a family practitioner. He served with the US Army Medical Corps in Vietnam. After retiring in 2007, he volunteered for the St. Clare's Health Mission in La Crosse, Wis.

Robert A. Baratz, MD '63, died on January 14, 2023. From 1971 to 2010, he practiced anesthesiology in Phoenix and served as president of the Arizona Society of Anesthesiology. Dr. Baratz donated his time and knowledge to treat patients in Israel, Senegal, Ecuador, Guatemala and Peru. He also taught conversational English to children in Poland, Vietnam and Cuba.

John Francis Stremple, MD '63, died on December 5, 2022. He was a professor emeritus of surgery at the University of Pittsburgh and retired from the US Army with the rank of lieutenant colonel. After

his Army career, Dr. Stremple became professor of surgery at the University of Pittsburgh and chief of surgery at the Veterans Administration Medical Center in Pittsburgh. As chief of surgery, he instituted the VA's liver transplant program, and created the Spinal Cord Clinic and the Women's Veterans Clinic.

Andrew J. Meholic, Jr., MD '64, of Platte Lake, Mich., died on October 7, 2022. He was a radiologist at hospitals and clinics in Michigan before relocating to teach radiology residents at the University of New Mexico.

John Finneran, MD '65, of Bloomfield, Iowa, died on December 26, 2022. After serving in the Air Force, Dr. Finneran moved to Bloomfield in 1972, where he was the epitome of a small-town community physician. Dr. Finneran was a strong supporter of the athletic programs in Bloomfield and started the town's Junior Olympics program for track and field.

Michael Reinardy, MD '66, died on December 26, 2022. After completing his family medicine residency, Dr. Reinardy co-led a medical clinic on the Menomonee Reservation in Neopit, Wis. In 1991, he joined the faculty of the UW Family Practice Residency program in Appleton. He later worked in several locations in Wisconsin and retired from Affinity Healthcare in Appleton in 2003.

Glenn Boris, MD '69, of Lubbock, Texas, died on September 29, 2022. Dr. Boris moved to Texas in 1975 and had a thriving pediatric practice in Lubbock for more than 30 years. He retired from practice in 2004.

Bruce Buchanan, MD '69, of Anderson Island, Wash., died on November 6, 2022. Dr. Buchanan practiced pulmonology in Tacoma and Spokane, Wash. Late in his career, he was a hospitalist before retiring as director of primary care at American Lake Veterans Administration Hospital in Joint Base Lewis-McChord, Wash.

1970s

William S. Wilke, MD '71, died on October 2, 2022. After completing a fellowship in rheumatology at the Cleveland Clinic, he joined the Cleveland Clinic staff and remained there for 37 years. Dr. Wilke retired in April 2011. Throughout his career, in addition to teaching and mentoring, he chaired various medical committees, edited journals and books, and authored more than 100 publications, including *The Cleveland Clinic Guide to Fibromyalgia*.

Deborah Erdman Luder, MD '77, of Livingston, Mont., died on December 15, 2022. She moved to Livingston in 1982 and became only the second female obstetrics and gynecology doctor practicing at that time in Montana. She was a partner at the Park Clinic in Livingston until her retirement in 2000.

1990s

Mark Balas, MD '91, of Winchester, Wis., died on October 15, 2022. After completing his residency in orthopaedic surgery at Michigan State University in Lansing, he moved to northern Wisconsin and opened his medical practice, Northwoods Family Orthopaedics, in Hurley.

2000s

Sister Mary Elizabeth Glueckstein, OSF, MA '00, of Wheaton, Ill., died on September 30, 2022. She was a member of the Wheaton Franciscan Sisters. After completing her master's degree in bioethics at MCW, Sister Mary served in Wheaton Franciscan's formation ministries, in hospital administration and in ethical consultation.

Special Remembrances

Julian De Lia, MD, former MCW professor of obstetrics and gynecology, died on November 28, 2022. He began his career in academic medicine in 1978 at the University of Utah, where he investigated Twin-to-Twin Transfusion Syndrome (TTTS), a condition with high morbidity and mortality at the time. In 1991, he joined MCW where he went on to develop a pioneering laser treatment of TTTS and document a significant nutritional aspect of the disease, resulting in the saved lives of hundreds of babies.

Marvin Glicklich, MD, MCW professor emeritus and founding chief of the division of pediatric surgery in MCW's department of surgery, died on November 12, 2022. Dr. Glicklich established pediatric surgery as a specialty in Milwaukee and in 1975 founded MCW's pediatric general surgery program.

He also served as surgeon-in-chief at Children's Hospital of Wisconsin. In 1999, MCW established the Marvin Glicklich Lecture in recognition of his many contributions to pediatric surgery.

Thad Hagen, MD, MCW professor emeritus of medicine (endocrinology and molecular medicine), died on June 17, 2022. He served on MCW's faculty for 38 years until his retirement in 2010.

Dr. Hagen joined MCW as an assistant professor of medicine (endocrinology) in 1972. He was chief of endocrinology at the Zablocki VA and later acting chief of endocrinology for MCW and vice chair of the department of medicine from 1978 to 1989. As a researcher, he was a pioneer in the field of prolactin regulation and pituitary tumors and with collaborators was the first to identify the connection

between pituitary gland imbalances and female infertility.

Robert D. Kern, the force behind the largest non-corporate philanthropic investments in MCW's history, died on November 8, 2022. With his late wife, Patricia, Kern created the Kern Family Foundation (KFF). The Kerns and KFF contributed nearly \$100 million to MCW to accelerate research and education in biomedical engineering and led to the creation of the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education and the Kern National Network for Flourishing in Medicine (*see pages 24-25 for more information on the Kern Institute and Kern National Network*).

In 2009, Robert and Patricia Kern donated \$10 million to establish the Dr. Robert D. and Dr. Patricia E. Kern Professorship in Biotechnology and Bioengineering and for overall support of biomedical research, education and collaboration. The Kern Institute and Kern National Network were established in 2017 through a \$37.9 million contribution by the Kern Family Trust and KFF. In 2022, the KFF donated an additional \$50 million for transforming medical education and practice. The Kerns also were major donors toward the creation of the Joan K. Van Deuren Professorship in Breast Cancer Research in 1999.

In 2009, MCW conferred Honorary Doctor of Science degrees upon Patricia E. and Robert D. Kern.

William D. Petasnick, who served as the president and CEO of Froedtert Hospital and oversaw the development of Froedtert Health (where he also was president and CEO), died on November 8, 2022.

Petasnick's leadership spanned from 1993 to 2012, during which time the Froedtert & the Medical College of

Wisconsin health network (the only academic health system in eastern Wisconsin) was created. During his tenure, Froedtert Hospital, the primary adult teaching affiliate of MCW and the academic health center of the Froedtert & MCW health network, grew from 241 to 473 beds, increased staff from 1,325 to 2,100 and more than doubled annual operating revenue.

During Petasnick's tenure, Froedtert Hospital seamlessly assumed the programs and services of Milwaukee County's John L. Doyne Hospital – with no disruption in care for many of the region's most vulnerable residents.

Petasnick continued the expansion of Froedtert Health with the addition of Community Memorial Hospital (now Froedtert Menomonee Falls Hospital) and St. Joseph's Hospital (now Froedtert West Bend Hospital).

Petasnick served as chair of the American Hospital Association board of trustees, the Council of Teaching Hospitals of the Association of American Medical Colleges and the Wisconsin Hospital Association. In 2014, MCW bestowed an Honorary Doctor of Medical Science degree upon Petasnick.

Joseph "Jim" Sedmak, PhD, former MCW associate professor of microbiology, died on September 25, 2022. Dr. Sedmak taught at MCW for 17 years.

Herzl Robert Spiro, MD, former MCW professor and chair of psychiatry, died on February 7, 2023. He led MCW's psychiatry program and served as Milwaukee County Commissioner of Mental Health from 1975 to 1982. He was identified nationally as a founding member of the community mental health movement.

Roy L. Silverstein, MD



Roy L. Silverstein, MD, is the John and Linda Mellowes Professor and chair of the department of medicine; associate director of clinomics, Linda T. and John A. Mellowes Center for Genomic Sciences and Precision Medicine; and associate director, Medical Scientist Training Program.

What Drives You?

I am very fortunate that nearly 44 years after graduating from medical school, I still wake up every morning and can't wait to get to work! Nothing motivates me more than helping our trainees and early-career faculty and staff succeed in their own careers.

What Has Been the Highlight of Your Career?

First, I am incredibly proud of the accomplishments of those I have touched as a mentor; many are now highly successful scientists, clinicians, educators and leaders. Second, representing my field around the world and advocating on behalf of members and patients as president of the American Society of Hematology was an amazing experience. Third, I have served in three different leadership roles at three major academic medical centers: New York Presbyterian/Weill Cornell, Cleveland Clinic and MCW. I am quite proud that the programs I helped build have had a sustained track record of success.

What Do You Still Hope to Accomplish Over Your Career?

I will focus the next chapter of my career on my role as a mentor to the next generation of students, trainees and early-career faculty. I also look forward to continuing my scientific work collaborating with scientists at MCW and the Versiti Blood Research Institute.

What Would You Like Your MCW Legacy to Be?

After nearly 12 years as chair of the department of medicine, I would like to be remembered as a selfless leader for MCW and the department – one who built a strong and diverse team; fostered a culture of teamwork, caring, stewardship and excellence; and, through deliberate attention to faculty and staff recruitment and development, left the department in a stronger position across all missions and well-prepared for the next 12 years.

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

Relationships matter! Invest your time in learning deeply about your colleagues so that you can succeed together as a team. Only through teamwork will we advance our missions to improve the health of our patients and community, educate and train the next generation of physicians and researchers and make discoveries that change lives.

Since joining MCW in 2011, Dr. Silverstein has led MCW's largest clinical department with dedication, care and humility. During the past 12 years, his people-focused vision has helped expand and transform the department across the institution's missions of patient care, research, education and community engagement.

During his tenure, Dr. Silverstein has guided the launch of new initiatives such as the Inclusion Health Clinic and has overseen the growth of the department's research program to more than \$50 million in total funding awarded annually. He has served as associate director for clinical research of the MCW Cancer Center and chair of the board of Medical College Physicians. Dr. Silverstein received MCW's *Distinguished Service Award* – the institution's highest faculty and staff honor – in 2018.

Dr. Silverstein is a highly accomplished researcher, boasting 37 years of continuous funding from the National Institutes of Health. His research focuses on platelet and macrophage biology as they relate to common vascular diseases. As a globally respected leader in his field, he has served as president of several national organizations, including the American Federation for Clinical Research and the American Society of Hematology.

Dr. Silverstein has announced his intention to step down as chair of the department of medicine following a national search for his replacement. He will remain at MCW to continue his research and to shape future generations of scientists as associate director of the Medical Scientist Training Program. ■

– CAROLINE LADD

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.

Fiscal Year 2022 Finance Report

Revenues*

Fiscal year ended June 30, 2022	Total All Funds (\$ in millions)
Clinical revenue**	1,015.7
Grants and contracts	226.7
Tuition and fees	63.8
Investment income	24.2
Contributions	6.8
Other	60.5
Total revenues	\$1,397.7

Expenses*

Fiscal year ended June 30, 2022	Total All Funds (\$ in millions)
Salaries and fringe benefits	1,061.4
Supplies and expense	250.1
Other operating	45.7
Total expenses	\$1,357.2
Excess of revenues over expenses	\$40.5

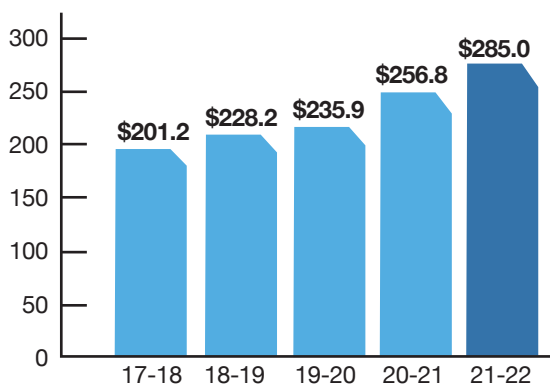
*Excludes nonoperating revenue and expense, including realized and unrealized gains and losses on investments.

**Includes adult and pediatric revenues.

Externally Funded Expenditures***

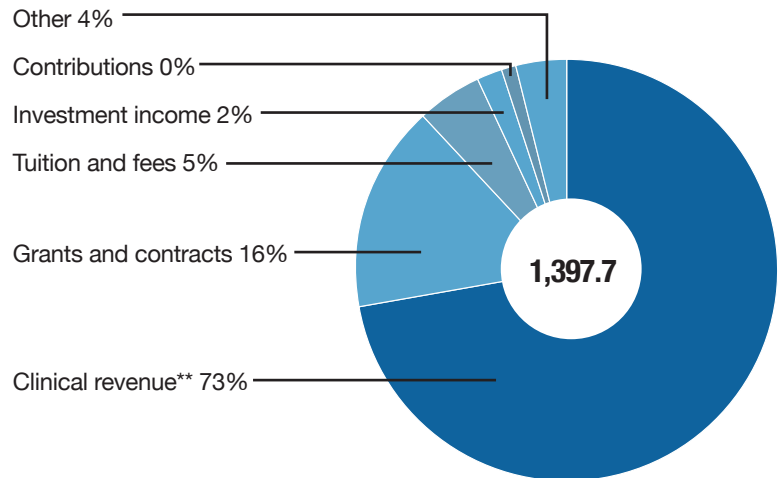
July 1, 2017 to June 30, 2022

Total Externally Funded Expenditures for Research, Teaching, Training, and Related Purposes (\$ in millions)

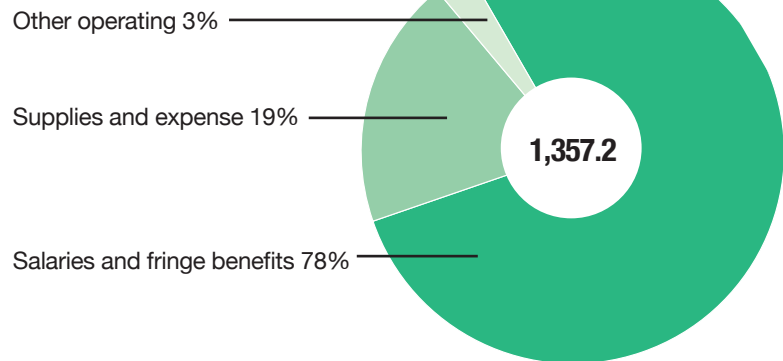


***Expenditures relate to multiple revenue sources, including Grants, contracts, Contributions and Other.

Revenues Fiscal Year 2022

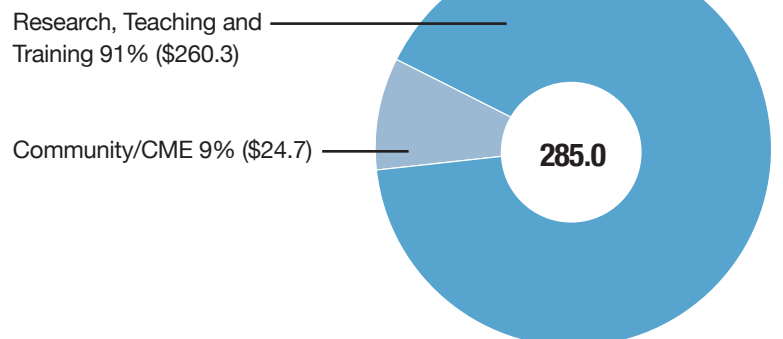


Expenses Fiscal Year 2022



Externally Funded Expenditures by Purpose Fiscal Year 2022

(\$ in millions)





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