



knowledge changing life

ANNUAL REPORT 2023

MCCW *magazine*

CELEBRATING 130 YEARS OF KNOWLEDGE CHANGING LIFE



MCW

magazine

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Celebrating 130 Years of Knowledge Changing Life

Throughout 2023, the Medical College of Wisconsin (MCW) has celebrated 130 years as a cornerstone institution in the region and the state. MCW has achieved prominence despite having teetered on the brink of closure twice in our history. In the past 130 years, MCW has surmounted financial deficits, accreditation challenges and threats of a state takeover.

MCW separated from Marquette University in 1967, and thus has been an independent medical school for a relatively short period of time. The critical support of many benefactors, dedicated civic leaders, elected officials and alumni; visionary leadership; and, most importantly, the incredible work of the people of MCW have enabled the institution to rise to national prominence in each of its missions of education, community engagement, research and clinical care.

Beginning with the founding of our first predecessor institution – the Wisconsin College of Physicians and Surgeons – in 1893, MCW has created new knowledge that changes lives through training the next generation of physicians, scientists and other healthcare professionals; through biomedical research, clinical excellence, specialty expertise and transformative clinical breakthroughs; and through bidirectional interaction with the communities we serve.

In celebration of MCW's 130th anniversary, this issue's cover story on pages 16–21 highlights numerous milestone achievements, impactful alumni and essential contributions made by members of the MCW family that have helped form the foundation for new knowledge, transformative discoveries and healthier communities. On pages 16–17, we share MCW's "Top Ten Advancements and Innovations" that showcase our national and global impact, culled from a list of

almost 200 from the past 13 decades. And on pages 18–21, we take a deeper dive into that larger list by highlighting more than 40 impactful achievements and individuals.

Today, MCW is the nation's third-largest private medical school. More than 1,600 medical, graduate and pharmacy students are enrolled in the three schools that comprise our health sciences university. We are Wisconsin's largest private research institution and rank as a top 100 research university in the nation, according to the National Science Foundation.

Our physician practice groups conduct approximately 5.1 million visits annually. We conduct more than 970 clinical trials each year to test future treatments. And we have invested more than \$337 million in more than 600 projects to improve health and reduce disparities statewide through the Advancing a Healthier Wisconsin Endowment.

It is nearly impossible to acknowledge all of the visionaries, partners, donors, alumni, faculty, staff and students whose contributions during this 130-year span have enabled MCW to make the dreams of its early pioneers a reality. We hope that readers will not infer that those individuals and achievements not included in this cover story are held in lesser esteem or valued to a lesser degree.

As we look toward our sesquicentennial in 2043, we will continue to reimagine our institution – thinking generatively and creatively about how to educate the next generation of health and science thought leaders, how research is conducted and applied, how healthcare is delivered, how to engage with our community, and how to collaborate and partner.

If you are interested in reading more about MCW's history, *Knowledge Changing Life: A History of the Medical College of Wisconsin, 1893–2019*, written by MCW chief historian Richard (Dick) Katschke,

Message From Leadership

is a monumental work that explores MCW's 125+ years of accomplishments, challenges and controversies. Katschke currently is writing a follow-up volume of MCW's history which highlights many of the institution's successes and challenges in pursuit of the aspirational reimagining goals noted above.

In addition to the cover story, this issue highlights many recent impactful achievements across our four missions, including: grants for maternal health and genetics research; three MCW leaders who have earned national recognition; new family medicine residencies in Milwaukee; and graduates of our inaugural master's degree program in genetic counseling.

Additional stories include a unique program to introduce high school students to pharmacy careers; meaningful philanthropic gifts that bring hope to patients; a unique NIH grant to study calcifications in diseases of aging; research findings about neurons responding to soundwaves; and a multigenerational alumni profile.

We ended fiscal year 2023 with a lower than budgeted margin of \$32.3 million, or 2.2 percent compared to our budgeted margin of 2.7 percent (see *FY23 Finance Report* on page 34). A major contributing factor for the shortfall was the cost structure of healthcare, which suffered from

greater than 10 percent inflation in a year. We did finish the fiscal year in the black, however, which many medical schools and health systems were unable to do.

We anticipate continuing macroeconomic challenges as we move through FY24, and we are working together to address these challenges through responsible cost containment, investments in growth initiatives and improved efficiencies.

MCW still is financially strong, and achieving a positive margin is key to investing in our growth and continuing to deliver excellence across our four missions.

Thank you to all of our alumni, donors, partners, faculty, staff and students for your dedication and commitment to MCW during 2023.

You are the driving force behind our 130-year legacy of knowledge changing life! ■

Philip B. Flynn, Chair,
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Provost and Executive
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Dean, School of Pharmacy



The "Hands of Humanity" sculpture at the entrance to the MCW-Milwaukee campus reflects the three hands at work in every patient encounter: the hand of the physician, the hand of the patient and the hand of the Creator.

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FEATURED PHOTOGRAPHERS: Melissa Behling, Dale Reince, Jay Westhauser and Joy Wick.

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ABOUT THIS ISSUE

This publication is a hybrid – joining together some of the content of a fall magazine with the broader focus of an annual report. On pages 24-29 we share special content for alumni including award recipients and new MCW/Marquette Medical Alumni Association board members, as well as photos from class reunions. Pages 30-33 are devoted to sections on Alumni News and In Memoriam. Our fiscal 2023 financials are included on page 34.

STAT REPORT

MCW Scientists Garner Grants for Maternal Health and Genetics Research

Scientists at MCW recently garnered \$18.5 million from the National Institutes of Health (NIH) to support maternal health and genetics research.

In August 2023, the NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development announced it would be providing seven-year grants estimated at \$168 million to 10 maternal health research centers of excellence across the US, a data innovation and coordinating hub and an implementation science hub.

Anna Palatnik, MD, GME '13, MCW associate professor of obstetrics and gynecology, and her team earned a \$10.2 million grant as one of the 10 maternal health research centers of excellence selected for this special NIH initiative. Dr. Palatnik's



Dr. Anna Palatnik

group will focus on addressing key social-structural risk factors for racial disparities in maternal morbidity within southeastern Wisconsin. This will include targeted programs to provide housing, community-based doulas and postpartum telemonitoring through community partnerships, interventions, data sharing and a training program to foster a diverse group of early-stage scientists in maternal health equity research. Dr. Palatnik's MCW co-investigators include Julia Dickson-Gomez, PhD; Jessica Olson, PhD '15, MPH '17; and Joni Williams, MD, MPH.



Dr. Melinda Dwinell

Melinda Dwinell, PhD, MCW Eminent Scholar and professor of physiology, and her team obtained an \$8.3 million grant from the NIH's National Heart, Lung and Blood Institute as part of the NIH Common Fund's Somatic Cell Genome Editing Consortium project.



The project began five years ago with the goal of reducing the burden of diseases caused by genetic changes. With the next five-year phase focused on translating findings into treatments, Dr. Dwinell and her team will focus on coordinating efforts among members of the consortium, designing and developing a platform for data and resource dissemination, and supporting collaborations and partnerships both within and beyond the consortium. Dr. Dwinell's MCW co-investigators include Aron Geurts, PhD, PDF (postdoctoral fellow) '09; Anne Kwitek, PhD; Art Derse, MD, GME '83, JD; Ryan Spellecy, PhD; and Kristin Busse, PharmD, BCPS. ■

Dr. Christa Wagner Named Founding Director of New Center for Sustainability, Health and the Environment

Christa L. Wagner, PhD, was named founding director of MCW's Center for Sustainability, Health and the Environment (MCW SHE Center) within the Institute for Health & Equity. Dr. Wagner also serves as an assistant professor in the institute. Dr. Wagner most recently served as manager of government relations for the Association of American Medical Colleges (AAMC) in Washington, DC.

The mission of the MCW SHE Center is to be a distinguished leader and innovator to foster a healthy and equitable environment, reduce greenhouse gas emissions and waste, and mitigate and resiliently adapt to climate challenges. Under Dr. Wagner's leadership, the SHE Center will work to develop environmentally sustainable paths to a healthier world and collaborate across all MCW departments, centers and institutes, as well as with MCW's healthcare system partners, government agencies, tribal nations, nonprofit organizations, academic institutions and businesses in Wisconsin, across the US and around the globe.

In her previous role with the AAMC, Dr. Wagner was responsible for legislative policy and advocacy in support of medical research, public health and academic medicine's partnership with the Department of Veterans Affairs. Dr. Wagner worked to advocate for environmental and sustainability progress including support for hospital resiliency and has forged substantial ties with staff and elected officials in Washington, DC, and in federal health and science agencies. Please reach out with any questions or comments to SHECenter@mcw.edu. ■



Dr. Christa Wagner

Three MCW Leaders Earn National Recognition

Joseph T. Barbieri, PhD, professor of microbiology and immunology, received the *Dr. Bert I. Shapiro Award* at the annual meeting of the National Association of MD-PhD Programs in July 2023. This award recognizes an individual who has made outstanding contributions to physician-scientist training on a national level for a sustained period. Dr. Barbieri was appointed director of MCW's MD-PhD program in 2005 and served in this role for more than 16 years. As director, he led the program through transformational growth, including its designation as a Medical Scientist Training Program by the NIH's National Institute of General Medical Sciences with continuous training grant support since 2010.

Jon Lehrmann, MD '90, GME '94, Charles E. Kubly Professor and chair of psychiatry and behavioral medicine, was honored by the Association for Academic Psychiatry with a *Lifetime Achievement Award*. This prestigious recognition is awarded by the association to one individual each year who has demonstrated exceptional commitment



Dr. Joseph Barbieri



Dr. Jon Lehrmann



Dr. George MacKinnon III

to the organization through ongoing involvement, leadership and mentorship. Dr. Lehrmann previously served as president of the association from 2013-14. He also has held leadership roles on numerous committees and spearheaded the coordination of its annual conference.

George E. MacKinnon III, PhD, MS, RPh, founding dean of the MCW School of Pharmacy, was installed as chair-elect of the American Association of Colleges of Pharmacy's (AACP) Council of Deans (COD) at the AACP annual meeting in July 2023.

Dr. MacKinnon will serve for one year as chair-elect and ascend to the chair role in July 2024. He will concurrently serve on the AACP board of directors for three years. The AACP represents 142 schools of pharmacy, more than 6,400 faculty members and more than 67,500 learners. ■

Continuing to Address the Shortage of Family Medicine Physicians

The shortage of primary care physicians in Wisconsin is acute. A report published in 2018 by the Wisconsin Council on Medical Education and Workforce found that there would be a shortfall of 745 primary care doctors in the state by 2035, at which time about 40 percent of family doctors are expected to retire.

MCW has long held that primary care improves population health and decreases health disparities, and that a robust family medicine workforce is critical to ensure that patients throughout the country have appropriate, effective and accessible care for generations to come. The most impactful way to address this issue is through the creation of additional graduate medical education residencies. MCW has had much success in this area, including creating two new four-year residency programs attached to its regional medical school campuses as well as new family medicine residency programs in the Milwaukee area and Green Bay.

In 2021, under the leadership of Joseph Gravel, MD, chair of MCW's department of family and community medicine, the new Froedtert & MCW South Side Family Medicine Residency Program was accredited – offering bilingual and culturally competent care to Milwaukee's Hispanic and Latinx patients and their families. In June 2023, the Froedtert & MCW Forest Home Health Center opened, which serves as the home for this new three-year family medicine residency program training six residents per year. The program, led by MCW associate professor Sabrina Hofmeister, DO, GME '12, will train family medicine physicians to gain the expertise and skills needed to provide individualized, evidence-based, culturally competent care to patients and families to address the growing need for compassionate and skilled family physicians who can provide care to underserved communities.

In October 2022, the Froedtert & MCW North Side Family Medicine Residency Program achieved full accreditation through a partnership of Milwaukee's

north side community health centers – led by Milwaukee Health Services, Inc., MCW's department of family and community medicine, and Froedtert Hospital. This new residency program, like the South Side Family Residency Program, is focused on training compassionate family physicians who will address existing health inequities, especially among the Black/African American community. Training of the first 14 residents in the initial cohort began in July 2023 under the leadership of residency program director, MCW associate professor Camille Garrison, MD '06, GME '09.

The program will promote physicians to become health advocates within their respective communities as well as the medical community at large – incorporating a deep understanding of the social determinants of health and a commitment to actively reducing health inequities. Through competency-based education and interaction with innovative healthcare systems and leaders, this new residency program will equip graduates with the

foundation needed to practice successfully in the most challenging of clinical settings and align with the needs of the community. The program also seeks to help build a pathway for underrepresented in medicine students for primary care practice while increasing healthcare access for people living on the north side of Milwaukee.

“We hope that MCW's recent efforts to expand residency programs in family medicine will be duplicated throughout the state so that our communities and our patients will not face as dire a shortfall of primary care physicians as is expected at present. Additionally, we hope that MCW's model of partnering with community health centers will become the gold standard in family medicine residency training,” says Joseph E. Kerschner, MD '90, FEL '98, MCW provost and executive vice president, and the Julia A. Uihlein, MA, Dean of the School of Medicine. ■

– SARA L. WILKINS

The program will promote physicians to become health advocates within their respective communities as well as the medical community at large – incorporating a deep understanding of the social determinants of health.

Residents currently training in the Froedtert & MCW North Side Family Medicine Residency Program.



Master of Science in Genetic Counseling Program Graduates First Class

The availability of genetic tests has increased significantly in recent years, creating an increased demand for genetic counselors. Genetic tests identify errors or mutations in a person's DNA that might cause disease and enable the patient and their provider to know what conditions the patient is at risk of developing. The provider can then build a more personalized treatment plan based around that risk, and the patient can reduce the modifiable risk factors associated with that condition.

Genetic testing is not for everyone, however. As members of the healthcare team, genetic counselors work with patients to determine when genetic testing is appropriate, counsel them on the scientific, emotional and ethical implications of genetic testing and, if patients undergo testing, help interpret the results.

To help fill the demand for genetic counselors in Wisconsin (which has only about half of the number of genetic counselors needed to adequately support demand), MCW began planning for a new 21-month Master of Science in Genetic Counseling (MSGC) program in 2019. Launched in 2021, it is one of only two programs in the state and one of only 55 in the country. In May 2023, the first class of nine students graduated; 100 percent of them found employment, including five who remained in Wisconsin.

"When we began our initial planning, our goal was to develop an innovative and inclusive program that served the needs of communities in Wisconsin – and I think we are moving the needle on that," says Jennifer L. Geurts, MS, CGC, director of MCW's MSGC program, who works with patients in the Froedtert & the Medical College of Wisconsin Cancer Center.

"The genetic counseling profession lacks diversity, as 90 percent of providers are white females. Within Wisconsin, we also



Jennifer Geurts, MS, CGC (top left), with the inaugural MSGC graduating class in May 2023. Front row (l-r): Lizzie Mealey, Anna Ferrigan, Julia Carlson and Sarah Fittanto. Back row (l-r): Geurts, Emma Carlton, Siomara Santana, Phebe Lemert, Erica Her and Katie Schwobe.

suffer from a lack of geographic diversity, as most counselors work in Milwaukee and Madison. The composition of our first cohort and the locations in which they took jobs has helped improve both of those deficiencies," Geurts adds.

Siomara Santana grew up on the south side of Milwaukee in the underrepresented Hispanic community and is a member of MCW's first MSGC graduating class. Her MCW research project evaluated perceptions the Hispanic community had about genetic counseling access and awareness.

Santana currently works at Versiti's Comprehensive Center for Bleeding Disorders in Wauwatosa, Wis. In this role, Santana has a dual responsibility: working with a multidisciplinary patient care team and also holding a position in the diagnostic laboratory specializing in hematology genetics.

"Growing up on Milwaukee's south side, I witnessed the hardships stemming from underrepresentation and limited resources," Santana remarks. "My MCW research project aimed to make a meaningful contribution to the Hispanic

community by delving into ways to address the disparity that exists between the Hispanic population in Milwaukee and genetic counseling."

In fall 2024, the MSGC program plans to add two students who will complete their year-one course work in Milwaukee and then complete their practicums and research projects in Green Bay in the second year.

Looking to make the profession more accessible to all members of the community, the MSGC program launched a free virtual genetic counseling career research and exploration workshop, which provides participants with in-depth exposure to different components of the field of genetic counseling. The program also hosts an annual in-person DNA Day celebration at local middle and high schools.

"These events are a wonderful experience for the young students as well as our MCW learners, staff and faculty who lead the discussions," Geurts shares. "We want to expose as many people as possible to the field of genetic counseling so that our program can continue to benefit all of Wisconsin's residents." ■

– ANTHONY BRAZA

MCW School of Pharmacy Launches Career Exploration Program

The MCW School of Pharmacy is offering a new career exploration program for Milwaukee-area high schoolers. The new Pre-Pharmacy Scholars Program is funded by a \$15,000 National Association of Chain Drug Stores (NACDS) Foundation scholarship, designed to support projects that advance patient care by creating new learning opportunities for students and fostering diversity in pharmacy.

The Pre-Pharmacy Scholars Program is open to all Milwaukee-area high schoolers. In particular, the program leaders are collaborating with three such schools: the Hmong American Peace Academy, the Milwaukee Academy of Science and St. Augustine Preparatory Academy.

The program launched in August 2023 with a weeklong boot camp on MCW's Milwaukee campus. Nineteen students from 11 different Milwaukee-area high schools attended sessions about inclusive leadership, self-care and wellness, and how

to write a college essay, as well as a panel discussion about innovation in pharmacy practice. MCW's School of Pharmacy partners (Froedtert Hospital and Children's Wisconsin) took scholars on a tour of their facilities as well.

"It was a lot of fun meeting everyone. All the students and teachers were so welcoming, and it's such a good community to want to be a part of," says Donovan Hang, a senior at the Hmong American Peace Academy. Hang says his favorite parts of the boot camp were the lab experiences, during which the scholars learned about measuring blood pressure, heart rate, pulse oximetry, temperature and more. In the compounding lab, the scholars made their own hand sanitizers – including learning how to properly use a scale, measure liquids in a graduated cylinder and mix the proper formula to kill viruses.

Hang adds that the Pre-Pharmacy Scholars Program has encouraged him to continue exploring pharmacy career paths.

"Before the boot camp, I just thought a pharmacist was a person in a hospital or a pharmacy who sorted pills," he shares. "But I came here with an open mind, and I learned there are so many levels of pharmacists – such as nuclear, clinical and ambulatory care."

Other activities included shadowing a biochemistry class, a panel discussion featuring current pharmacy students and an engaging "Life of a Pill" activity organized by Lilita Galvan, a 2025 MCW PharmD candidate. The scholars learned how medications are distributed to pharmacies, what the pharmacy workflow looks like and how to counsel patients on medications. This knowledge culminated in a "relay race" during which each scholar filled a prescription and explained to their patient how to use the drug.

"I think the most surprising thing about this program was that it was free," says Anna Vang, a junior at the Hmong American Peace Academy. "It was



Pre-pharmacy scholars, MCW faculty, staff and mentors celebrate the completion of boot camp.



Pre-pharmacy scholars and MCW pharmacy student Liliana Galvan (at center) participate in a pharmacy workflow "relay race."

eye-opening to meet real pharmacists. Hearing the student pharmacists express how they felt while attending pharmacy school makes me prepared for what I might experience in the future."

The Pre-Pharmacy Scholars Program was the collaborative vision of George E. MacKinnon III, PhD, MS, RPh, founding dean of the MCW School of Pharmacy and professor; Abir El-Alfy, PhD, MCW assistant dean for student affairs and professor; and Kajua Lor, PharmD, MCW associate professor and chair of the department of clinical sciences.

Dr. Lor says the public's perception of a pharmacist is usually that of a community pharmacist who dispenses medications. "There are other areas of pharmacy that people might not know about. For example, I'm an ambulatory care pharmacist in academia. Pharmacists also serve in hospitals, clinics, the pharmaceutical industry, compounding pharmacies, veterinary pharmacies and managed care, as well as on the regulatory side. This new program enables students to explore many of the other aspects of the pharmacy profession and to gain an interest in a field with which they may not be familiar," she notes.



Pre-pharmacy scholars Donovan Hang (l) and Kyrell Davis (r) prepare hand sanitizer liquid during the compounding lab.

The Pre-Pharmacy Scholars Program continues with quarterly mentoring activities throughout the remainder of the school year.

The scholars are matched with two mentors – a pharmacist mentor and a pharmacy student mentor – whom the scholars will shadow at their practice sites and in the classroom, respectively. The scholars also will be invited to observe

student pharmacists at community health screening events.

"We really want these young students to develop the understanding that pharmacists serve the community," explains Dr. El-Alfy. "We want them to gain firsthand experience and think about their potential for giving back to their communities through careers in pharmacy." ■ – MELISSA BEHLING

Individuals interested in contributing to the program should contact Dr. Abir El-Alfy at aelfy@mcw.edu.

Foundation Gift Brings Hope for New Treatments for Multiple Myeloma

A philanthropic investment from the Paula and Rodger Riney Foundation is supporting five related multiple myeloma research projects at MCW that are focused on immunotherapies and investigating long-term survivorship among patients.

“We are pleased to partner with the Medical College of Wisconsin Cancer Center in our shared aspiration of finding a cure for multiple myeloma,” says Rodger Riney. “Since the establishment of the foundation, we have sought out the most innovative work in the field, and we are very excited about the promise MCW’s research shows for treating this complex disease.”

For more than two decades, MCW has worked closely with research and healthcare partners to provide patients with research-based myeloma clinical care and access to some of the most pivotal cancer clinical trials and medical discoveries in the country. This includes critical findings in immune therapies – an approach that deploys the body’s natural immune defenses to slow the spread of cancer cells.

Multiple myeloma is a rare and currently incurable cancer of the plasma cells, which are white blood cells that make antibodies to fight infections. These abnormal plasma cells build up in the bone marrow and form tumors in many bones of the body. The disease can permanently damage organs and weaken bones, and is two to three times more common in Blacks/African Americans.

MCW was among the first institutions in the world to produce its own source of CAR T cells, a highly promising immunotherapy designed to target two antigens on cancer tumors and provoke an immune response from the body. This work began in 2017 at MCW and its adult healthcare partner, Froedtert Hospital, as part of a phase I clinical trial that resulted in safe and promising outcomes for patients with cancers of the immune system. It is now part of a multi-institution phase II trial to determine outcomes in a larger set of patients.

That work, along with other research, helped to spur the contribution by the Paula and Rodger Riney Foundation, whose contributions are typically directed to an elite group of academic research centers, including the Dana-Farber Cancer Institute, Mass General Cancer Center and the Mayo Clinic.

“We are grateful for this transformative support from the Paula and Rodger Riney Foundation,” says Gustavo Leone, PhD, director of the MCW Cancer Center and the Dr. Glenn R. and Nancy A. Linnerson Endowed Chair for Cancer Research. “There has never been a more exciting time to be at the forefront of this pioneering research. The scientific advancements we will make with this gift



The Paula and Rodger Riney Foundation funds scientific research leading to a better understanding and possible cure of multiple myeloma and related cancers. The Rineys are shown above.

will yield much-needed benefits for generations of patients and families facing a diagnosis of multiple myeloma.”

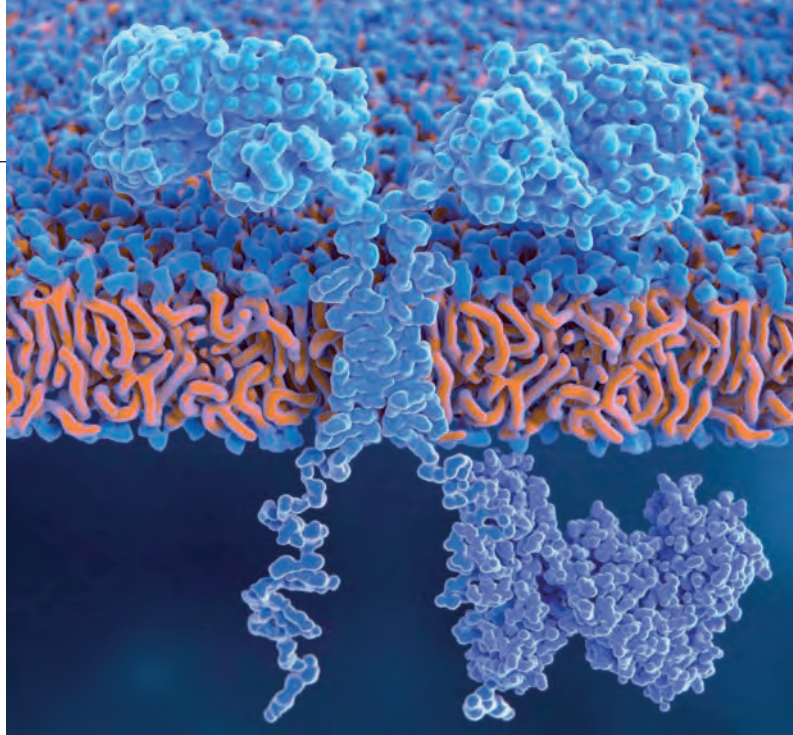
The five projects operating with support from the Riney Foundation enhance MCW’s existing work with immunotherapies and efforts to treat patients who are long-term survivors of myeloma. The projects range from investigations of new therapeutic targets for CAR T cells to work aimed at understanding how patients respond differently to similar therapies.

The promise that immunotherapies (including treatments through CAR T-cell therapies) have for myeloma and other cancers continues to generate enthusiasm from researchers and private and public investments in the field, particularly as evidence started to emerge regarding its effectiveness.

Anthony E. Zamora, PhD, MCW assistant professor of medicine (hematology/oncology) and microbiology & immunology, recalls the widespread excitement that accompanied new discoveries in immunology when he was working on his PhD.

“My decision to pursue cancer research as a career was solidified during my graduate school years studying immunology at UC Davis,” he shares.

“When *Science* magazine announced in its December 2013 issue that cancer immunotherapy had been named the ‘Breakthrough of the Year,’ it opened the floodgates for those of us exploring ways to modulate the immune system to fight cancer,” he continues.



Dr. Zamora shares, “The sense of purpose behind the work I was doing was further ingrained into my psyche the first day I set foot on St. Jude Children’s Research Hospital campus as a postdoctoral fellow and saw firsthand how bench-to-bedside research was making an immediate impact on improving survival in children battling this disease.”

“The Riney Foundation gift for these projects is supporting our vision and giving us the opportunity to dream big and continue working toward our goal of eradicating cancer,” Dr. Zamora adds. ■

– MICHAEL J. MATHIAS

In CAR T-cell therapy, T cells are genetically modified to contain CAR receptors on the cell surface (such as the one depicted at right), which improve their ability to eliminate cancer cells.

A Calling of Hope for Rev. Dr. Trinette V. McCray

For many patients undergoing treatments for multiple myeloma, the critical importance of research inspires their own advocacy for expanding scientific discovery.

For Rev. Dr. Trinette V. McCray, informing the community about the importance of supporting cancer clinical trials was a natural extension of her lifelong calling to help others.

A Milwaukee native who grew up attending Milwaukee Public Schools, Dr. McCray was called to enter the ministry in 1979. A lifelong member of Milwaukee’s faith community, she earned a master’s degree from Morehouse School of Religion and a doctor of ministry degree from Northern Baptist Theological Seminary. She worked at Cardinal Stritch University for 23 years, where she served as a campus minister and the executive director of the Center for Calling and Engagement before her retirement.

Three years later, Dr. McCray’s unexpected multiple myeloma diagnosis led to a new calling and a new community to serve.

“I had extreme bone pain and fractures,” she shares.

“My mother had rheumatoid arthritis, so I assumed I had the same. When I went to the doctor for a checkup, the physician assistant suggested that we do an X-ray of the nodules on my lungs – and the results came back suspicious, likely that it was cancer. I had an appointment with a doctor the next morning, who asked if I had ever heard of multiple myeloma,” she notes.

“I had never heard of multiple myeloma,” she admits. “When a person gets a diagnosis of cancer, there is probably no greater sense of vulnerability that comes into one’s heart. I was given two to five years survival.” Since starting treatment, Dr. McCray has been a patient

of Anita D’Souza, MD, MS ’15, MCW associate professor of medicine (hematology/oncology).

“I learned that Dr. D’Souza had received her training at the Mayo Clinic and specialized in multiple myeloma,” Dr. McCray adds.

“From our first consultation, Dr. D’Souza put me at ease regarding where I was and what our plan of care options were, which was encouraging. She shared that there are new treatments being developed through clinical trials and getting approved every year. I exhaled,” Dr. McCray continues.

Dr. McCray further says, “I prayed for doctors who would be wise and do what I needed. In working with Dr. D’Souza, she explained to me the benefits of clinical trials. They offer the advantage of the latest medical attempts at securing a cure or remission. I believe that being a part of the trials and the latest treatments helped me surpass my initial prognosis. I’m moving into my ninth year.”

Outside the hospital, Dr. McCray’s calling encourages her to share her experiences with others. “I never knew about multiple myeloma or how it affects the Black community,” she says.

“Black women, especially those over 60, are most affected. My experiences with clinical trials and treatments have helped me bond with relatives of friends and family who are going through this. I also recently connected with the Black Myeloma Health Community through the HealthTree Foundation. I have joined its ‘Spread the Word campaign’ to get the word out to the Black community about multiple myeloma,” Dr. McCray remarks.

“Gifts support research, medical approaches and compassionate care to do whatever is humanly possible. Donors become a part of that human possibility.

Together, we can do great things to help bring cures and treatments and extend lives,”

Dr. McCray adds. ■

– REBECCA SCHULZ



A Family's Devotion and a Gift of Hope

Wigdale Family is Dedicated to New Treatments for Memory Disorders and Neurological Conditions

The Wigdale family made a substantial gift to establish the Elizabeth T. and James B. Wigdale Innovation Fund for Memory Disorders in memory of Jim and Libby Wigdale and to honor Dr. Franczak and her research.

Libby and Jim Wigdale lived lives full of devotion – to their family and friends, and in service to their community.

Now, their children are doing the same by devoting their time and support to the improvement of healthcare for patients and families struggling with memory loss and Alzheimer's disease. They have partnered with the Medical College of Wisconsin and Froedtert Hospital to support medical discovery and clinical care programs.

It's a struggle the family knows well, according to Julie Kennedy, Jim and Libby's daughter and one of the five Wigdale siblings who are advocates for new research in the field.

"We learned of the need for new research and clinical trials through the care our parents received from Dr. Malgorzata Franczak at Froedtert Hospital," Kennedy says. "We feel strongly that our support is important, as many

other families are also affected by Alzheimer's disease and memory disorders."

Libby passed away in June of 2021, followed by Jim in January of 2022. The Wigdale family made a substantial gift to establish the Elizabeth T. and James B. Wigdale Innovation Fund for Memory Disorders in memory of Jim and Libby Wigdale and to honor Malgorzata Franczak, MD, GME '98, FEL '99, and her research. The fund advances innovative medical research to treat memory disorders at MCW and Froedtert Hospital – from Alzheimer's disease to dementia to mild cognitive impairment and more.

Dr. Franczak is a professor of neurology and director of the Memory Disorders Program. "It was a privilege to know Libby and Jim Wigdale and to engage with their family," says Dr. Franczak. "Memory disorders affect nearly every family, and I am incredibly grateful for everything they are doing in their parents'



Jim and Libby Wigdale celebrate his 70th birthday on August 11, 2006.

(photo courtesy of the Wigdale family)



Jim and Libby Wigdale, August 29, 2006.

(photo courtesy of the Wigdale family)

memory to undertake the research necessary to treat and cure neurological conditions.”

According to the Centers for Disease Control and Prevention (CDC), Alzheimer’s disease is the sixth-leading cause of death in the US and the most common cause of dementia. Nationally, an estimated 6.2 million people of all ages have Alzheimer’s disease, and by 2050, the number of Americans 65 years of age and older with the disease is estimated to reach 12.7 million.

And while the diseases that affect memory and other neurological conditions are difficult for patients, the emotional and mental impact on caregivers – most often family members – also is striking. A survey cited by the CDC found that 14.5 percent of caregivers experienced at least 14 mentally unhealthy days in the month leading up to the survey. Moreover, nearly 40 percent reported patterns of sleeplessness affecting their physical and mental health.

The Memory Disorders Clinic was established as a hub for discovery and a source for new treatments and is part of the Wisconsin Institute of Neuroscience, an initiative of MCW, Froedtert Hospital, Children’s Wisconsin and the Zablocki VA Medical Center.

“Our parents were longtime supporters of MCW and Froedtert Hospital,” says Kennedy, noting that Jim was a member of the MCW board of trustees, where he served as chair and was elected as an emeritus trustee.

Through Dr. Franczak and her research, the family noticed significant improvements to their parents’ care. While Libby was benefiting from treatments to Alzheimer’s disease, Dr. Franczak noted a decline in Jim’s gait. Jim went from walking to needing a wheelchair for mobility. Dr. Franczak suggested further testing which resulted in a shunt surgical procedure for Jim. Postsurgery, Jim was able to walk independently and live a fuller, more engaged life.

Ekokobe Fonkem, DO, chair and professor of MCW’s department of neurology, stresses that philanthropy is an essential component of furthering research – particularly work in the early phases of understanding how to diagnose a particular disease or advance a new treatment.

“Neurological problems in medicine are uniquely complicated,” says Dr. Fonkem, “but philanthropy helps us invest in new technologies, recruit specialists and researchers, and train the next generation of neurologists. Our collaboration with the Wigdales will help families benefit from new treatments and cures.”

“The type of research we undertake at MCW is devoted to families like the Wigdales all over the country,” says Dr. Franczak. “The burden of Alzheimer’s disease and memory disorders is unique in how it can impact the whole family. Our entire team is grateful for the Wigdales’ support and vision in providing funding for this research.” ■ – MICHAEL J. MATHIAS



The burden of Alzheimer’s disease and memory disorders is unique in how it can impact the whole family. Our entire team is grateful for the Wigdales’ support and vision in providing funding for this research.

– Dr. Malgorzata Franczak



MCW Scientist and International Team Awarded Prestigious NIH Grant

Dr. Francesca Marassi and Collaborators Garner \$13 Million NIH Program Project Grant to Study Misplaced Calcified Deposits that Are a Misunderstood Factor in Macular Degeneration and Alzheimer's Disease

Francesca Marassi, PhD, MCW Eminent Scholar, professor and chair of biophysics and associate director of MCW Cancer Center shared resources, was awarded a five-year, \$13 million program project grant (PPG) by the National Institutes of Health to study misplaced calcification in the eyes and brains of patients suffering from age-related macular degeneration (AMD) and Alzheimer's disease (AD).

AMD affects nearly 20 million adults in the US and is the leading cause of central vision loss and legal blindness. More than six million people in the US suffer from AD, which is the top cause of dementia across the globe. Age is a prominent risk factor for developing these diseases. How AMD and AD progress over time is not well understood, and research is needed to drive the development of effective pharmaceutical treatments.

Both diseases are associated with the progressive accumulation of pebble-like deposits under the retina and in the brain. These deposits are known to contain cholesterol, fats (lipids), proteins and a mineralized form of calcium phosphate called hydroxyapatite – the same material that forms healthy teeth and bone. Scientists do not yet know what causes these misplaced mineral deposits to form in the eye and the brain.

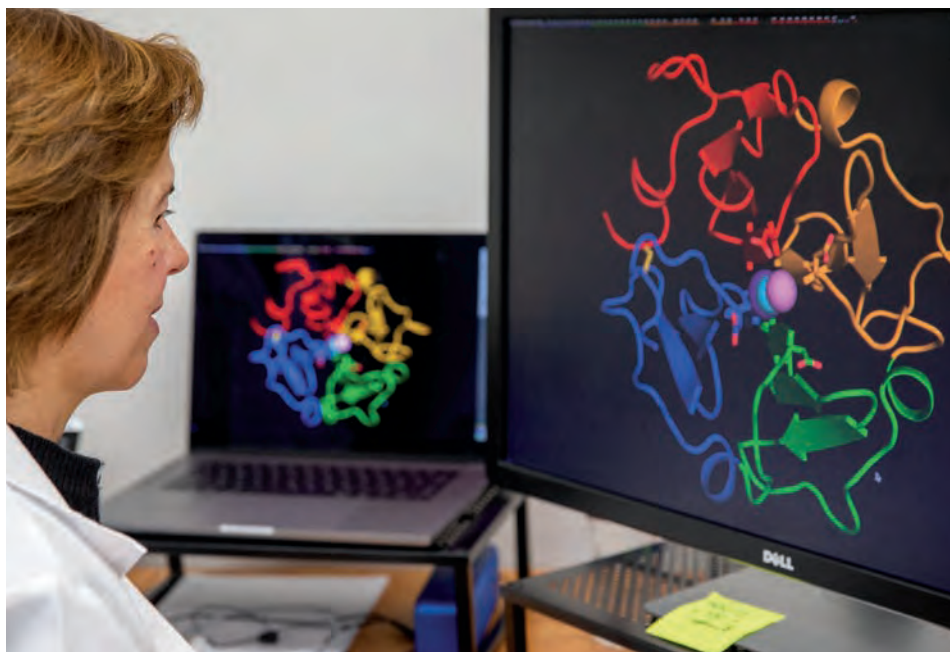
Healthy biological processes for calcification are intended to grow and repair bones and teeth, not to litter the retina or brain with harmful junk. Understanding how and why these wayward biomineral deposits form may provide clues to better understanding AMD and AD, as

well as the development of new ways to diagnose and treat these diseases.

Dr. Marassi and her PPG team of international scientists will explore the characteristics of misplaced calcifications in the eye and brain, as well as their roles in AMD and AD. A central goal is to examine and image calcifications at multiple levels, from the atom-by-atom structures to their aggregated morphologies, to their accumulation in cells and animals. "I'm really excited about exploring these disease pathologies over the full range of scales from the atomic to the animal. This type of structural information is essential for moving forward into diagnostic and drug development," says Dr. Marassi.

The PPG team includes Galia Debelouchina, PhD, University of California San Diego; Jose Luis Millan, PhD, Sanford Burnham Prebys Medical Discovery Institute; Richard Thompson, PhD, University of Maryland School of Medicine; and Imre Lengyel, PhD, Queen's University Belfast. Led by Dr. Marassi, they designed four PPG projects to accomplish their scientific goals.

The first project will be led by Drs. Marassi and Debelouchina and will focus on the molecular structure and function of the misplaced calcified deposits and their components. Their respective research teams will use sophisticated biophysical techniques to elucidate the makeup of these



With the support of a \$13 million NIH program project grant, Dr. Francesca Marassi and collaborators will investigate a misunderstood factor in common diseases of aging.

deposits and how they form by examining the interactions among the protein, cholesterol, fat and mineral components of the pebble-like deposits.

Dr. Thompson will head the second project to develop and test new methods for tagging biominerals within the deposits. The small molecules added to mark the minerals will cause the minerals to emit specific colors or wavelengths of light for the scientists to detect on images. These fluorescent and luminescent sensors will serve as research tools for the other projects and may eventually lead to new tools for diagnosing and monitoring AMD and AD.

The third project, spearheaded by Dr. Lengyel, aims to develop new cellular models of calcifications that mimic the deposits found in animals and humans. His team will study how levels of certain proteins, genetic predispositions and other factors influence deposit formation.

Dr. Millan directs the fourth project to study how cells and tissues maintain their balance of phosphorus levels, which is essential to healthy bone development. In human adults, approximately 90 percent of the body's total phosphorus is contained in bone as hydroxyapatite crystals, which also are part of the errant calcified deposits that form in AMD and AD. Dr. Millan's team will study mice that produce an excessive amount of a particular enzyme to determine how the enzyme's control of phosphorus levels contributes to the formation of calcified deposits in the eye.

"Our collaborative program is truly synergistic, with each team member bringing unique expertise and technology to the partnership," Dr. Marassi says. "While the principal goal is to do excellent basic

science that contributes to fundamental knowledge about misplaced calcification in disease, we believe there is tremendous potential for these advances to provide a foundation for new diagnostic techniques and treatments in the future, as best expressed in the MCW tagline, *Knowledge Changing Life.*"

The program project grant is funded by the National Institute on Aging and titled "Molecular mechanisms of calcification: roles and opportunities in diseases of aging." In addition to the four projects, the grant will fund a protein and chemical biology core that will develop and provide biologic reagents for experiments, as well as an administrative core housed at MCW that will facilitate interactions among the team's laboratories. ■ — GREG CALHOUN



I'm really excited about exploring these disease pathologies over the full range of scales from the atomic to the animal. This type of structural information is essential for moving forward into diagnostic and drug development." — *Dr. Francesca Marassi*



Celebrating 130 Years as a Cornerstone Institution in the Region and the State

By Greg Calhoun, Richard N. Katschke and Sara L. Wilkins

Throughout 2023, MCW has celebrated 130 years as a cornerstone institution in the region and the state. Throughout its history, MCW has created new knowledge that changes lives through training the next generation of physicians, scientists and other healthcare professionals through biomedical research, clinical excellence, specialty expertise and transformative clinical breakthroughs; and through bidirectional interaction with the communities we serve.

This year marks the 130-year anniversary of the founding of MCW's first predecessor institution, the Wisconsin College of Physicians and Surgeons, in 1893. The following year, our second predecessor institution, the Milwaukee Medical College, was established. These two medical schools merged to become the Marquette University School of Medicine in 1913 – an outstanding institution that would last for more than half a century. In 1967, Marquette terminated its sponsorship of the medical school, which became a private freestanding institution renamed the Marquette School of Medicine. In 1970, the institution was renamed the Medical College of Wisconsin.

Educational programs were enhanced with the creation of the Graduate School of Biomedical Sciences in 1995 (renamed the School of Graduate Studies in 2023); the opening of regional medical school campuses in Green Bay and Central Wisconsin in 2015 and 2016, respectively; establishment of the School of Pharmacy in 2015; recent expansion of master's and doctor of philosophy degree programs and the upcoming launch of the new Physician Associate Program in 2025.

In celebration of MCW's 130th anniversary, this cover story highlights numerous milestone achievements, impactful alumni and essential contributions made by members of the MCW community that have helped form the foundation for new knowledge, transformative discoveries and healthier communities.

It is nearly impossible to acknowledge all of the visionaries, partners, donors, alumni, faculty, staff and students whose contributions during this 130-year span have enabled MCW to make the dreams of its early pioneers a reality. We hope that readers will not infer that those individuals and achievements not included in this cover story are held in lesser esteem or valued to a lesser degree.

TOP TEN MCW Advancements & Innovations



1935▲

Armand Quick, PhD, professor and chair of biochemistry, created the Quick Test – the first standardized test for measuring blood coagulation. He also contributed to the discovery of the widely prescribed anticoagulant drug Warfarin.

1937▶

Edgar End, MD, professor of physiology, collaborated on a world-record scuba dive of 420 feet that led to the development of the field of hyperbaric medicine.

1964▶

Richard Stewart, MD, MS, MPH, PhD, professor of environmental medicine, developed the hollow-fiber kidney dialysis machine, which still serves as the prototype for kidney dialysis machines.

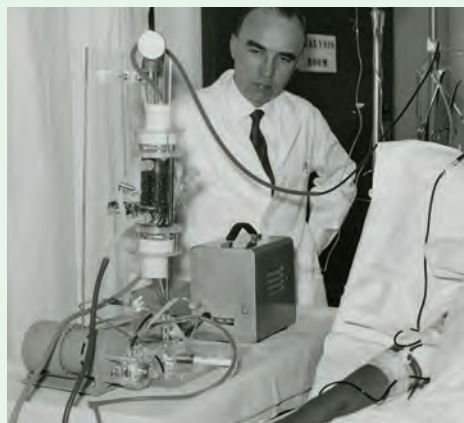
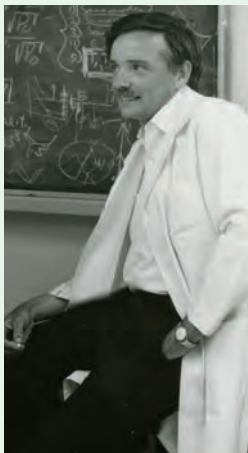


1972▲

MCW established what is now the Center for International Blood and Marrow Transplantation Research, the world's largest resource for blood and marrow transplantation research results.

1992▼

James Hyde, PhD, professor of biophysics and director of MCW's National Biomedical Electron Paramagnetic Resonance Center, Peter Bandettini, PhD '94, and Eric Wong, PhD '92, MD '94, helped develop functional magnetic resonance imaging, which allows for the noninvasive assessment of brain function.



2003▲

Thomas Aufderheide, MD, professor of emergency medicine, determined that automated external defibrillators, when used in conjunction with cardiopulmonary resuscitation, doubled the survival rate for cardiac arrest victims.

2004

MCW used proceeds of \$318 million from the conversion of Blue Cross & Blue Shield United of Wisconsin to establish the Advancing a Healthier Wisconsin Endowment, which to date has invested more than \$337 million in funding awards to more than 600 initiatives to improve the health of Wisconsin residents.

2010

Howard Jacob, PhD, professor of physiology, led the world's first application of whole genome sequencing technology to diagnose and successfully treat a patient with a rare and previously undiagnosable disease.



2012▲

Vehicle crash research conducted at the MCW Crash Injury Research and Engineering Network Center by neurosurgery faculty members Thomas Gennarelli, MD, Frank Pintar, PhD, and Narayan Yoganandan, PhD, led to the establishment of federal standards for side-impact air bags.

2012-2016▼

MCW created regional medical school campuses in Green Bay and Central Wisconsin to address Wisconsin's pending physician shortage, especially in the primary care fields. Since June 2018, 242 new physicians have graduated, 36 percent have remained in Wisconsin for residency training and 31 currently are practicing physicians in the state.



1893-1963

The Wisconsin College of Physicians and Surgeons in Milwaukee, MCW's predecessor, was founded on May 20, 1893. The Milwaukee Medical College was founded in 1894.

On January 14, 1913, the Marquette University School of Medicine was created through the merger of the Wisconsin College of Physicians and Surgeons and the Milwaukee Medical College.

The *Marquette Medical Review*, the nation's first medical student-edited medical journal, was established in 1936.

In June 1936, Marquette University awarded the first graduate degrees to students studying in medical departments.

Walter Zeit, PhD '39, served as a faculty member in the department of anatomy, chair of anatomy (1947-1967) and medical school administrator for almost 60 years – during which time he instructed more than 4,500 medical students.

Marvin Wagner, MD '44, MS '51, served as a faculty member in the department of cell biology, neurobiology and anatomy, and clinical professor of surgery for almost 50 years. He also authored a major anatomy textbook, *Segmental Anatomy: Applications to Clinical Medicine*.

The Marquette University School of Medicine and the Milwaukee Veterans Administration (VA) Hospital formalized a partnership on January 22, 1946, which was one of the nation's first affiliations between a VA hospital and a medical school.

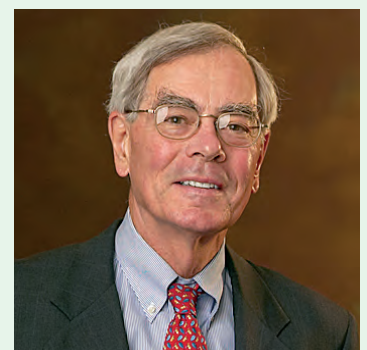
In 1946, Walter Blount, MD, and Alfred Schmidt, MD, both professors of orthopaedic surgery, created the "Milwaukee brace" to treat scoliosis in children and adolescents. It still is used to treat certain forms of scoliosis.

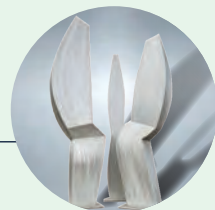
Upon his death on December 6, 1951, Kurtis Froedtert left an estimated \$11 million to create a new hospital to support medical education and research.

In 1952, as dean, John Hirschboeck, MD '37, unveiled plans for a University Medical Center of Milwaukee to include the proposed Froedtert Memorial Lutheran Hospital.

Michael Dunn, MD '62, served as dean and executive vice president of MCW from 1995-2008, and as distinguished professor of medicine and emeritus dean from 2008 until his death in 2021.

Two alumni have served as president of the American Medical Association (AMA): Edward Annis, MD '38 (1963-1964) and Timothy Flaherty, MD '59 (2001-2002). Faculty member Jesse Ehrenfeld, MD, MPH, is the current AMA president.





1964-1979

In January 1967, the *Heil Report* determined that it was vital for Milwaukee's future growth and the health of its citizenry to develop an academic medical center.

On September 30, 1967, Marquette University severed all ties with its medical school, which continued as a private, freestanding institution renamed the Marquette School of Medicine.

On November 4, 1967, the first kidney transplant was performed in Milwaukee under a joint program of the Marquette School of Medicine, Milwaukee County General Hospital, VA Medical Center and private physicians.

On October 21, 1968, Marquette School of Medicine cardiothoracic surgeons – led by Derward Lepley, Jr., MD '49 – performed Wisconsin's first heart transplant.

James Youker, MD, chair of the department of radiology from 1968-2014, guided its growth into a nationally recognized leader in teaching and patient care.

In November 1968, the predecessor of the Milwaukee Regional Medical Center (MRMC) was created.

The Marquette School of Medicine was renamed the Medical College of Wisconsin in 1970 to reflect the importance of the medical school to the entire state of Wisconsin.

In 1974, the state-sponsored Carley Commission recommended that MCW remain private and continue to move forward with plans for new facilities on the Milwaukee County Grounds.

In 1975, MCW launched a major campaign to fund a new \$40 million building on the MRMC campus.

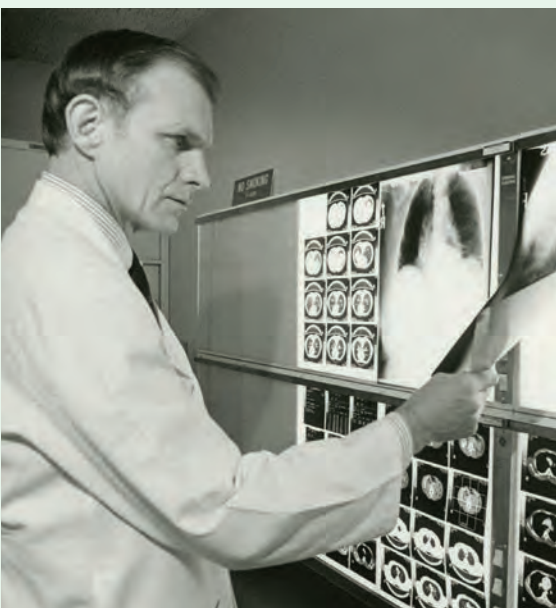
In 1975, Frederick Blodgett, MD, professor and chair of pediatrics, developed the first rapid blood screening test to detect lead poisoning – which became the standard test used by public health officials throughout the US.

In 1976, Eddie Doucette and Jon McGlocklin cofounded the Milwaukee Athletes Against Childhood Cancer (MAACC) Fund. The MAACC Fund remains the largest organizational donor to MCW, with more than \$71.5 million gifted.

MCW's Eye Institute, which opened in late 1976, is the only facility in southeastern Wisconsin devoted exclusively to eye care, graduate medical education in ophthalmology and vision research.

In 1979, MCW created the Medical College of Wisconsin Affiliated Hospitals (MCWAH), which brought together the residency training programs at two county hospitals, one federal hospital and 18 private institutions.

MCW relocated its teaching, research and administrative offices to the MRMC with the opening in November 1978 of the Medical Education Building and the Basic Science Building.



1980-2000

Janis Orłowski, MD '82, served as chief healthcare officer for the Association of American Medical Colleges from 2013-2022. In 2016, she helped MCW develop a joint department of biomedical engineering with Marquette University.

The MCW Research Foundation (now known as the Office of Technology Development) was established in 1983 to support faculty research activities that produce new knowledge in many fields – which has led to new products, devices and processes that have commercial value.

In 1989, Bruce Camitta, MD, professor of pediatrics, collaborated nationally to develop medication protocols that resulted in a 90 percent cure rate for children with acute lymphocytic leukemia (previously the cure rate was 70 percent).

In 1990, MCW added a fourth mission, then known as “Community Service,” which in 2008 was renamed “Community Engagement.”

Since 1992, three MCW faculty members have been elected to the prestigious National Academy of Sciences' National Academy of Medicine: John Kampine, MD '60, PhD '65 (1992); Thomas Aufderheide, MD, GME '86, MS '11 (2009); and Stephen Hargarten, MD '75, MPH (2011).



The Graduate School of Biomedical Sciences (now the School of Graduate Studies) was established as a distinct academic school in 1995.

From 1996-2005, Allen Cowley, Jr., PhD, professor and chair of physiology, discovered that an inherited defect in the control of kidney function leads to hypertension, identified genetic causes and markers of hypertension, and discovered 46 chromosomal areas associated with hypertension.

In 1999, MCW faculty researchers Shi-Jiang Li, PhD; James Hyde, PhD; John Ulmer, MD; and Piero Antuono, MD; developed an MRI method for diagnosing Alzheimer's disease.



2001-present

In 2005, Rodney Willoughby, MD, professor of pediatrics, developed the “Milwaukee Protocol” – the world's first successful treatment for rabies – which placed a patient in a medically induced coma after being bitten by a bat.

Between 2010-2020, MCW received three five-year multimillion-dollar Clinical and Translational Science Awards from the National Institutes of Health to support the Clinical & Translational Science Institute of Southeast Wisconsin, a unique academic-community partnership for clinical and translational research and training.





MCW FUSION™



The MCW School of Medicine initiated the Discovery Curriculum in 2012, which offered a new dynamic model featuring multifaceted learning modalities.

In 2014, Aoy Tomita-Mitchell, PhD, and Michael Mitchell, MD, professors of surgery, developed a genetic diagnostic test to detect rejection of a transplanted organ and to monitor the health of transplant patients by analyzing DNA shed by the donated organ into the patient's blood.

Kulwinder Dua, MD, professor of medicine, in 2016 was the first in the world to successfully repair and regenerate a damaged esophagus that was still inside the patient.

The first class of MCW's School of Pharmacy, created to train a new generation of pharmacists and address healthcare maldistribution in Wisconsin, matriculated in August 2017.

In 2017, MCW received a \$37.8 million gift from the Kern Family and Kern Family Foundation – the largest single donation in MCW's history – to establish the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education.



In October 2023, Adina Kalet, MD, MPH, the Stephen and Shelagh Roell Endowed Chair and Director, Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education, received the prestigious Association of American Medical Colleges' (AAMC) 2023 *Award for Excellence in Medical Education*, which honors an individual whose contributions have had a demonstrable impact on advancing medical education. Dr. Kalet is the first MCW faculty member to have received a national leadership award from the AAMC.

The Kern Institute, in partnership with the National Transformation Network (which includes more than 40 medical schools), is leading a movement to transform medical education across the continuum, from pre-medical school to physician practice.

In 2017, MCW faculty members Parameswaran Hari, MD, FEL '02, MS '06; Nirav Shah, MD; Bryon Johnson, PhD, FEL '92; and David Margolis, GME '92, FEL '95, launched a first-in-the-world phase I clinical trial for an innovative form of CAR T-cell therapy in individuals suffering from relapsed and refractory B-cell non-Hodgkin lymphomas.

Beginning in March 2020, MCW leaders worked to build community partnerships to help the region and state weather the COVID-19 pandemic. (See the cover story in MCW Magazine's *Summer 2023* issue.)

In June 2022, MCW, the Greater Milwaukee Foundation and the Royal Capital Group commenced construction on the future home of the ThriveOn Collaboration north of downtown Milwaukee, which will support housing, early childhood education, health and wellness, social cohesion and economic opportunity.

In September 2022, MCW broke ground on a new 150,000-square-foot cancer research building to stimulate new synergies in science that will decrease the region's cancer burden and improve clinical outcomes. Construction of the building is expected to be completed in 2025 and is supported by \$10 million from the Wisconsin State Building Commission.

In July 2023, the MCW School of Medicine launched the MCWfusion™ Curriculum – a phased curriculum that integrates foundational science and clinical medicine. ■

Making Neurons “Dance” to Help Patients Recover

Music, often considered the universal language of emotions and expression, has long been intertwined with human culture and evolution. A paper published in *Frontiers of Neuroscience* in 2014 said that music “is intertwined with many basic human needs and is the result of thousands of years of neurobiological development.”

However, beyond its cultural significance and emotional impact, music also may hold the key to recovery for patients grappling with various neurological disorders.

Kajana Satkunendrarajah, PhD, associate professor of neurosurgery and member of MCW’s Neuroscience Research Center, has discovered that neurons in the primary sensory cortex, which play a crucial role in initiating movement, also respond to discrete aspects of music.

Dr. Satkunendrarajah shares, “The universal responses of dancing, nodding one’s head and tapping a foot to music strongly suggest an inherent link between music and movement. Our laboratory research has demonstrated at both the cellular and circuit levels that this response extends beyond humans to animals, eliminating bias and affirming its cellular foundation.”

Dr. Satkunendrarajah’s team has pinpointed a specific group of neurons – the pyramidal neurons located in the primary somatosensory cortex. These neurons previously have been recognized for their role in integrating human senses.

Interestingly, the rhythmic structure of music can differentially modulate the excitability of these neurons. Sensory cortical neuronal activity is more significantly enhanced by music pieces that exhibit predictability.

“These ‘dance neurons,’ as we’ve informally dubbed them, have the remarkable capacity to influence movement based on their response to specific musical compositions,” explains Dr. Satkunendrarajah.

“Importantly, certain music has been shown to alleviate symptoms in patients,

including a reduction in the frequency of seizures in individuals with epilepsy,” she continues.

Recently, Dr. Satkunendrarajah’s work was awarded a \$1.58 million R01 grant from the National Institute of Neurological Disorders and Stroke. She and her team will investigate motor function recovery following spinal cord injury (SCI). Their primary objective is to unravel this novel neural pathway’s anatomical and functional intricacies. Subsequently, the team aims to harness this newfound understanding to pave the way for innovative methods to restore the ability to walk among individuals who have endured SCI.

Dr. Satkunendrarajah envisions that the significance of her research extends far beyond spinal cord injury recovery and believes it holds promise for other clinical specialties, transcending traditional boundaries. Through their pioneering efforts, the team aspires to broaden the concept of neuromodulation – moving beyond the conventional definition limited to devices delivering drugs or electrical stimulation. The goal is to encompass any intervention capable of precisely modulating neural activity, including the powerful medium of music.

The potential for precise targeting of neurons holds the promise of tailoring personalized treatments for conditions such as Parkinson’s disease, potentially reducing motor tremors. Moreover, utilization

of highly predictable music could be explored as a means

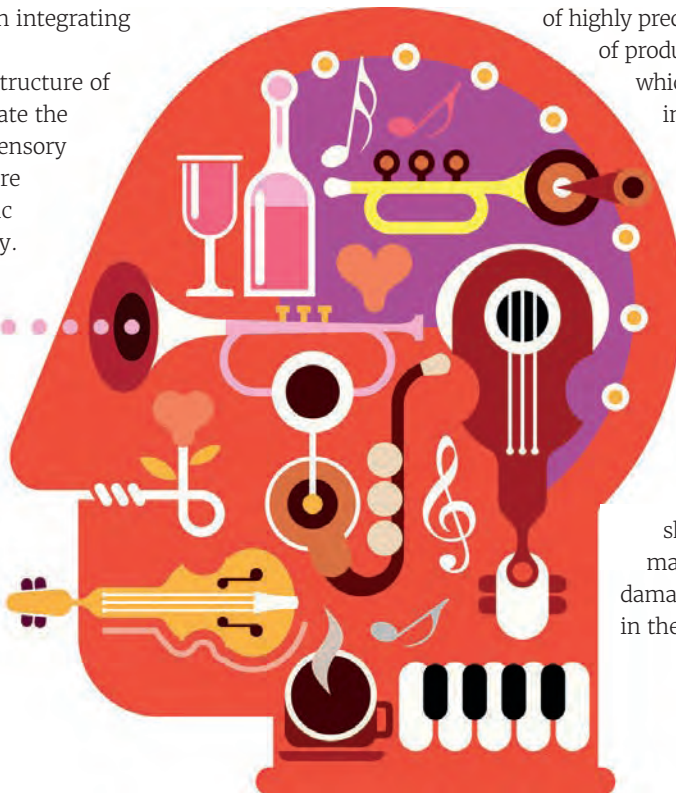
of producing highly synchronous neuronal firing, which could offer fresh avenues for therapeutic interventions. Future studies will investigate neuronal firing using scrambled or shifted music patterns (called “syncopation”), which have beats that may not sound as common to the human ear. Musicians use syncopation to surprise a listener and grab their attention.

Dr. Satkunendrarajah’s team hopes to find a similar response within the neurons they are studying and seeks to uncover the involvement of the sensory-cortical pathway in music-movement coupling. “This is extremely exciting,” she says. “Music guides movement and may be able to help caregivers bypass damaged or otherwise abnormal circuitry in the brain.” ■

– CHRIS COMBS



Dr. Kajana Satkunendrarajah



A Family Legacy: Meet the Kodalis

In September 2023, Satish Kodali, MD '93, GME '98, and his wife, Malaika Mathai, MD '93, GME '96, celebrated their 30-year class reunion at MCW.

The couple, who come from families of doctors, met at the University of Wisconsin–Milwaukee on the first day of undergraduate classes. “It took a year and a half for us to date!” Dr. Mathai recalls with a laugh. “My parents were missionary doctors in Africa and completed their residencies at MCW. Medicine was the only thing that I wanted to do,” she adds.

When asked about their time at MCW, their favorite memories were the enduring friendships they made. “We still visit our classmates,” shares Dr. Kodali. “During COVID, we had FaceTime cocktail hours.” Shortly before graduation, they received a couple’s residency match at MCW – their first choice! After Dr. Kodali’s residency in otolaryngology and Dr. Mathai’s in internal medicine, the couple went into private practice.

In 2015, Dr. Kodali became a full-time faculty member at his alma mater. “The area in which I could be most helpful and add the most value at MCW was on the business side,” he notes – referring to his current roles as the chief strategy officer for the Medical

College Physicians adult specialty practice and senior medical director for the Froedtert & MCW ambulatory surgery centers.

Dr. Mathai continues her practice in internal medicine in New Berlin, Wis. “My favorite experiences have been the relationships I have with my patients. I have seen some families for three generations,” she shares.

The Kodalis have three sons. Their youngest, Sanjiv, is a senior in college, and Ravi, their middle child, is an electrical engineer.



The Kodalis celebrated their graduation from MCW in 1993 with Dr. Mathai’s mother, Rachel George, MD, GME '78 (at center), who was a faculty member in the department of psychiatry and behavioral medicine.

After studying business, their oldest son, Rajiv, switched paths to follow in his parents’ footsteps and is a third-year medical student at MCW. “I really like helping people,” he says. Adds Dr. Mathai, “I want Rajiv to realize how lucky he will be to have a job like ours where he can touch so many souls.”

In gratitude for everything MCW has done for their family, the Kodalis make it a priority to give back to their alma mater. Over the years, the couple has contributed to several funds in honor of their mentors, including James M. Cerletty, MD '58, FEL '64, who served as the residency program director in the MCW department



Drs. Kodali and Mathai with their son, Rajiv, at his MCW White Coat Ceremony in 2021.

of medicine for nearly 40 years, and Robert J. Toohill, MD '60, a beloved MCW faculty leader in otolaryngology.

Recently, the Kodalis made gifts to ThriveOn – a collaboration among MCW, the Greater Milwaukee Foundation and Royal Capital Group to improve the health of three historically Black/African American Milwaukee neighborhoods: Halyard Park, Harambee and Brewers Hill. “ThriveOn is a fantastic opportunity to support a part of the city that MCW should help,” shares Dr. Kodali.

Reminiscing on their impact over the past 30 years, the Kodalis have the following advice for Rajiv and his classmates as they begin their careers in medicine: 1) always try to do the right thing; 2) master the objective things in medical school and residency needed to be a good physician; 3) temper those objective learnings with empathy; 4) learn the business of healthcare so you are a better advocate for your patients and yourself, but never at the cost of doing the right thing; and 5) once you have done all the above, help your fellow physicians do the same. Upon hearing his parents’ wisdom, Rajiv smiles. “I wholeheartedly agree.” ■

– REBECCA SCHULZ

NEWS

FOR ALUMNI

Celebrating and Creating Connections

As I stepped into the role of Alumni Association president at Alumni Weekend in September, I was surrounded by hundreds of Marquette Medical and Medical College of Wisconsin alumni in various stages of their professions. What we all shared was an appreciation for our alma mater and a respect for the institution that instilled in each of us a lifelong commitment to learning and curiosity.

It is my pleasure, along with the board of directors, to represent you – the more than 20,000 MCW alumni. I would like to thank Jessica M.G. Olson, PhD '15, MPH '17, for her exceptional leadership as president of the Alumni Association over the past year.



“Together we can help young people reach their full potential. MCW’s mission as a leader and innovator in the education and development of the next generation of physicians, scientists, pharmacists and healthcare professionals has never been more important.”

– Dr. Betty Pace

The Alumni Association continues to be grateful for all of the ways our alumni are active on and off campus, whether in person or virtually. We have created tools to support students, and we know that connecting students with those in our MCW alumni community is a powerful resource.

While giving back to our professions by developing the next generation of leaders is a great reason to work with students, I can tell you that the personal rewards you will receive are even greater. This has been the case for me as I have dedicated my career to mentoring and promoting diversity in health-related research.

I hope you will join me on the MCW Alumni ENGAGE platform (mcwengage.com) and say “YES” to mentoring opportunities at MCW. Together we can help young people reach their full potential.

MCW’s mission as a leader and innovator in the education and development of the next generation of physicians, scientists, pharmacists and healthcare professionals has never been more important.

Our ability to connect is vital; if you are not receiving the monthly Alumni E-Newsletter, please share your contact information at alumni@mcw.edu. As we head into 2024, I am confident that our incredible alumni will continue to elevate this great institution by increasing their engagement and support of MCW. The Alumni Association award nominations are due December 31, 2023. Please nominate one of our exceptional alumni.



Call for Alumni Award Nominations

Please submit your nominations for the 2024 Alumni Association awards online at www.mcw.edu/alumniawards no later than **December 31, 2023**.

Note: More information on the 2023 Alumni Association award recipients can be found online at www.mcw.edu/alumniawards.

Alumni Association Awards

DISTINGUISHED SERVICE AWARD (POSTHUMOUS)

A. JOHN CAPELLI, MD '78, GME '81



Dr. Capelli's life was full of meaning and purpose. His greatest passions were medicine, philanthropy and family, which included many MCW alumni. Dr. Capelli practiced primary care in his hometown of Kenosha, Wis., maintained a focus on educating future physicians and was an exceptional mentor. Dr. Capelli modeled generosity, inclusiveness, an amazing work ethic, persistence, thoughtfulness, affection and compassion. His classmates established the A. John Capelli, MD Endowed Scholarship Fund at MCW in 2018. ■

HUMANITARIAN AWARD

ROLAND WINTER, MD '83



Dr. Winter is an orthopedic surgeon with St. Joseph's Medical Center in Stockton, Calif. He is recognized for consistently sharing his knowledge, skills and time. During US Air Force deployments overseas, he volunteered for duties beyond what was required – for which he received two USAF Humanitarian Service medals. He also volunteered with the Flying Samaritans at the San Quentin Free Clinic in Baja California, Mexico. ■

GRADUATE SCHOOL ALUMNUS OF THE YEAR

PHILIP S. CLIFFORD, PHD '85



Dr. Clifford is a professor in the College of Applied Health Sciences and associate dean of kinesiology and nutrition at the University of Illinois at Chicago. He is a former associate dean of the MCW School of Graduate Studies and was the founding associate dean of MCW's Office of Postdoctoral Education. Dr. Clifford is an inspirational and dedicated mentor and has had a measurable impact on graduate students and postdoctoral fellows around the country. ■

MEDICAL SCHOOL ALUMNUS OF THE YEAR

MICHAEL A. STOCKER, MD '68, GME '69, MPH



Dr. Stocker has been a clinician, healthcare executive and health policy adviser for almost 50 years. He served as corporate executive vice president of Anthem, chief executive for Empire Blue Cross and Blue Shield, president of Cigna Health Plans, general manager of the New York area of US Healthcare and chair of the board of the New York City Health and Hospitals Corporation. Early in his career, Dr. Stocker was a practicing physician in Chicago, serving as associate chair of family practice at Cook County Hospital. ■

HONORARY ALUMNA

BILLIE W. KUBLY



Billie Kubly and her late husband, Michael C. Kubly, MD '63, have been longtime partners with MCW and their community. They have made many gifts to fund numerous psychiatric and behavioral medicine programs and research projects, including the Charles E. Kubly Foundation, Charles E. Kubly Chair in Psychiatry and Behavioral Medicine, and the Dr. and Mrs. Michael C. Kubly Community-Based Suicide Prevention Research Program. ■

Newly Elected Alumni Association Board of Directors



MARK BOSBOUS,
MD '05, GME '11



CLARENCE P. CHOU,
MD '77, FEL '83



RAYMUND J. LLAURADO,
MD '94



CHRISTOPHER J. OTT,
MD '97

Alumni Weekend, September 22-23, 2023



CLASS OF 1963 - 60th REUNION

◀ (l-r): Ferdinand Niehaus, MD; Walter Gager, MD; Robert Birschbach, MD; Michael Bachhuber, MD; Ralph Sett, MD; Patrick Limoni, MD.



CLASS OF 1968 - 55th REUNION

◀ *FRONT ROW (l-r): Richard Lampe, MD; Roger Wargin, MD; John Thomas, MD; Roger Strube, MD; William Listwan, MD; Edeltraud Hondl, MD.*

BACK ROW (l-r): James Pollock, MD; John Keenan, MD; Gary Poehling, MD; Joseph Latina, MD; Benjamin Fiorica, MD; Robert Warth, MD; Ronald Ruskowski, MD.

▶ *FRONT ROW (l-r): Patrick Brody, MD; Patrick McWey, MD; Richard Gallo, MD; Robert Gahl, MD; Kristine Miller-Pinti, MD; Francis Mlynarski, MD.*

BACK ROW (l-r): Mark Siegel, MD; Ron Stark, MD; Dennis Anderson, MD; Stephen Nord, MD; Martin Fox, MD; Frederick Woelfel, MD; Armand Rothschild, MD; Thomas Runyon, MD; Blaine Nowak, MD; Priscilla Metcalf, MD.



CLASS OF 1978 - 45th REUNION

◀ *FRONT ROW (l-r): Scott Krasner, MD; Margaret Leonhardt, MD; Kathy Hartke, MD; Richard Staudacher, MD; Steven Halle, MD; Mary Gavinski, MD; Beth Bonner Gall, MD; William Crelin, MD.*

SECOND ROW (l-r): Philip Stieg, MD; John Foley, MD; Mark Freedman, MD; Peter Roman, MD; Cynthia Pan, MD; Steven Weinstein, MD; Carol Ehlinger Ritter, MD; Donald McDonald, MD.

THIRD ROW (l-r): William Gershan, MD; Paulette Trum, MD; John Christianson, MD; Jeffrey Chenoweth, MD.

FOURTH ROW (l-r): Stephen Krummel, MD; Bernadette DeMuri, MD; Bruce Berry, MD; John Martini, MD.

FIFTH ROW (l-r): Brian McSorley, MD; Paul Writz, MD; Raymond Zastrow, MD; Jeffrey Hartwick, MD; Roland Winter, MD.

SIXTH ROW (l-r): Michael Schmalz, MD; Frederick Schmidt, MD; Kristina Austin, MD; Douglas Frye, MD.

BACK ROW (l-r): Thomas Zoch, MD; Roy Guse, MD.



CLASS OF 1983 - 40th REUNION

ALUMNI



CLASS OF 1988 - 35th REUNION

◀ **FRONT ROW (l-r):** Steven Nakata, MD; Jane Machi, MD; Lisa Rich, MD; Kristi Kanitz, MD.

BACK ROW (l-r): Ross Molot, MD; Kenneth Mishark, MD; Andrew Saterbak, MD; Wendi Ehrman, MD; Joan Gill, MD.

▶ **FRONT ROW (l-r):** Kellie Brown, MD; Lynn Bartl, MD; Jennifer Niedfeldt, MD; Malaika Mathai, MD; Shannon Doyle, MD.

BACK ROW (l-r): Kenneth Morris, MD; Satish Kodali, MD; Joseph DiPiazza, MD; Scott Van Valin, MD; Lance Sathoff, MD.



CLASS OF 1993 - 30th REUNION



CLASS OF 1998 - 25th REUNION

◀ **FRONT ROW (l-r):** Divyang Joshi, MD; Caroline Joshi, MD; Genevieve Jones, MD; Kristin Schroederus, MD; Scott Koss, MD; Ryan McAdams, MD.

SECOND ROW (l-r): Peter Balingit, MD; Jeffrey Bahr, MD; Jean Robertson, MD; Deborah Costakos, MD; Brian Green, MD; Jean Watson, MD; Heather Stanko, MD; George Gilmore, MD.

BACK ROW (l-r): Stephen Handrich, MD; Christopher Fox, MD; David Litzau, MD; David Robertson, MD; Daniel Vogel, MD; Forrest Olson, MD; Peter Hoepfner, MD; James Waltenberger, MD; Peter Stanko, MD; Timothy Devraj, MD.



CLASS OF 2003 - 20th REUNION

◀ **FRONT ROW (l-r):** Elizabeth Godin, MD; Ellen Wenberg, MD; Megan Tkachuk, MD; Amy Zosel, MD; Alissa Camden Diehl, MD; Michelle Kushnir, MD; Jeannette Flammang, MD; Jean Carstensen, MD; Wenlan Cheng, MD.

SECOND ROW (l-r): Tracy Kelly, MD; Erin Dawson, MD; Amy Mellor, MD; Christine Wynveen, MD; Steven Dubner, MD; Sarah Oswald, MD; Gary Sweet, MD; Amy Sweet, MD; Mary Rupp, MD; Rebecca Keim, MD.

BACK ROW (l-r): Renee Smith, MD; Mary Coleman, MD; Sachin Patel, MD; Heather Stefaniak, MD; James Modir, MD; James Gill, MD; Travis Murray, MD; Daryl Knoedler, MD; Brandon Barton, MD.

▶ **FRONT ROW (l-r):** Mary Keen, MD; Mark England, MD; Amy Rider, MD; Mary Burnett, MD.

BACK ROW (l-r): Derrick Siebert, MD; Lance Retherford, MD; Jill Arganbright, MD; Heather Brown, MD; Beret Casey, MD; Jacquelyn Kulinski, MD; Christopher Bermudez, MD.



CLASS OF 2008 - 15th REUNION

◀ **FRONT ROW (l-r):** Alexander Raskin, MD; Nathan Zokoe, MD; Timothy Botler, MD; Christopher Ford, MD; Philip Sommer, MD.

BACK ROW (l-r): Sarah Thill, MD; Claudia Yeung, MD; Meg Vanostrand, MD; Nicole Krimmer, MD; Cara Zokoe, MD; Katherine Kelley, MD; Mallory Salentine, MD; Elizabeth Pyne, MD; Sreevalli Atluru, MD; Lisa Chowdhury, MD; Brilliant Nimmer, MD.



CLASS OF 2013 - 10th REUNION

ALUMNI NOTES

1960s

Ramon Bermudez, MD '61, shared the following reminiscences and updates:

I graduated from the Marquette University School of Medicine in 1961 and recently had a most enjoyable alumni catch-up reunion. In my senior year, I met Dr. Burton Waisbren, an attending physician in internal medicine who proctored me. He had trained in infectious diseases at Minnesota University School of Medicine and Boston City Hospital, both leading centers for this particular field at that time.

After graduating from medical school and serving in the US Army, I started a residency in internal medicine at the San Juan Veterans Administration Hospital in Puerto Rico. While there, I wrote to Dr. Waisbren about coming back to Milwaukee to train with him in infectious diseases. Dr. Waisbren agreed, and I was accepted as a research fellow sponsored by the US Public Health Service.

During my time working with Dr. Waisbren at Milwaukee County Hospital, we worked on research protocols with new antibiotics, an animal model of bacterial clearance following antibiotic therapy and an animal model of septic shock, which was Dr. Waisbren's favorite project.

In 1968, I returned to Puerto Rico to join the VA faculty and establish a training program in infectious diseases. We also established a joint program with the University of Puerto Rico School of Medicine to train fellows in infectious diseases. Over the next 25 years, we trained more than 50 physicians in infectious diseases that greatly helped Puerto Rico manage both the AIDS and COVID-19 pandemics. The Marquette-MCW-Puerto Rican connection was definitively key to this success!

the improved outcomes of using ECMO to support infants. These studies helped establish ECMO as an effective intervention. The approach has since saved the lives of hundreds of thousands of patients worldwide. Dr. Krummel's research and subsequent work advanced surgical technology and the understanding of the biochemical and cellular mechanisms of scarring and tissue damage.

1980s

Stephen Sherman, MD '80, has retired as a neurologist serving Adrian, Mich. He was affiliated with the Adrian Clinic of Neurology.

David Wilcox, MD '82, announced that he is retiring as a family medicine physician after 35 years of service to the Bemidji, Minn., community. He also is retiring as vice president and chief medical officer of Sanford Bemidji Medical Center.

Stephen Cheng, MD '86, is a transplant surgeon specializing in hepatobiliary and liver surgery at Medical City Dallas.

Jean-Bernard Durand, MD '88, is a professor of cardiology at the University of Texas MD Anderson Cancer Center in Houston, where he also is director of cardiovascular genetics research. Dr. Durand's research led to the localization of a gene to chromosome 1q32 and the identification of the gene as Troponin, one of the first genes for familial dilated cardiomyopathy.



Mary Beth Phelan*, MD '88, professor and vice chair of emergency medicine at MCW, received MCW's 2023 *Leonard Tow Humanism in Medicine Award* presented by the Arnold Gold Foundation.

1970s

Robert Lehrmann, MD '73, owner of the Lehmann Eye Center in Nagadoches, Texas, is the 2023 recipient of the Nagadoches County Chamber of Commerce *Lifetime Service Award*. He also serves as a clinical associate professor of ophthalmology for the Baylor College of Medicine in Houston.



Thomas M. Krummel, MD '77, of Austin, Texas, is a pediatric surgeon who pioneered lifesaving advances in newborn life support and championed simulation

and virtual reality in surgical education. He received the American College of Surgeons (ACS) 2023 *Jacobson Innovation Award*. The international surgical award from the ACS honors living surgeons who are innovators of a new development or technique in any field of surgery.

Dr. Krummel's focus on innovation began in residency when he formed the world's second-ever program focused on extracorporeal membrane oxygenation (ECMO), then a new form of advanced life support designed to keep blood moving through the body in newborns with life-threatening cardiac or respiratory conditions. Dr. Krummel's team conducted research demonstrating

1990s

Gregg Olsen, MD '91, has two careers: one as a physician and another as a licensed fisherman. He is an emergency medicine physician in Santa Barbara, Calif. Since 2007, he also has operated a commercial lobster business.

Anne Sykes Cahill, MD '94, GME '97, joined the Freeman Heart & Vascular Institute in Joplin, Mo., as a cardiothoracic surgeon. She previously served as interim chief of cardiac surgery at St. Louis University Hospital.



Drew Remignanti, MD, MPH '97, recently published *The Healing Connection: A Partnership for Your Health*. His book discusses how a strong patient-physician relationship can help overcome the obstacles imposed on it by entities seeking to commoditize healthcare delivery.

Arun Kadambi, MD, FEL '98, is an immunologist with the Allergy, Asthma & Sinus Center in Lexington, Ky.



James Park, MD '98, MHA, was appointed as North Puget Sound chief medical officer for Providence Swedish Health Alliance, headquartered in Seattle, Wash. He is responsible for the coordination of care, quality, patient safety and physician services at three hospitals. Dr. Park leads more than 1,500 physicians and clinicians, supports physician and advance practice clinician engagement and development, strategy and operational optimization across the care continuum.

Marybeth Anderson, MD '99, is an obstetrician/gynecologist with Mercyhealth System in south central Wisconsin.

Sukhjot Takhar, MD '99, is an emergency medicine physician at Mills-Peninsula Medical Center in Burlingame, Calif. He is board certified in emergency medicine, internal medicine and infectious diseases.

2000s



Monika Krzesniak-Swinarska, MD, GME '02, is the 2023 recipient of the American Association of Neuromuscular & Electrodiagnostic Medicine's *Ernest Johnson Outstanding Educator Award*. She is an associate professor of neurology at the University of New Mexico School of Medicine in Albuquerque.

Horace Lo, MD, GME '02, joined SSM Health Fond du Lac Regional Clinic in Waupun and Beaver Dam, Wis., as a general surgeon. He specializes in robotic surgery, hiatal hernias and reflux surgeries.

Nathan Christie, MD '03, joined Emerge Ortho – Triangle Region as a pain management physician and anesthesiologist. He treats patients at offices in Burlington and Chapel Hill, N.C.

Adam D. Currey*, MD '05, GME '10, MCW associate professor of radiation oncology, was elected to the executive committee of the Association of Directors of Radiation Oncology Residency Programs. As part of this role, he serves as vice president for one year, president for one year and then past president for one year.



Marcella Woiczik, MD, GME '07, has joined Intermountain Park City (Utah) Hospital as its first pediatric orthopedic surgeon.

2010s

Terence N. Mukonje, MD '11, is an internal medicine specialist and serves as a hospitalist at IU Health Southern Indiana Physicians and on staff at IU Health Bloomington (Ind.) Hospital.



Tara Graff, DO, GME '12, FEL '15, a hematology/oncology specialist at Mission Cancer + Blood in Des Moines, Iowa, was awarded an *Oncology Icons Q2 Award* from Targeted Oncology, a multimedia resource that offers content and expert opinions on standard and emerging treatments in the field of oncology.



Lucas Boehm, MD '16, GME '21, joined Parkins Plastic Surgery with clinics in the Madison and Milwaukee areas. Dr. Boehm is a plastic surgeon specializing in aesthetic surgery of the face, nose, breast and body. He specializes in rhinoplasty, skin health and facial aging.

Joshua Kolz, MD '17, joined The Spine Center at Black Hills Orthopedics in Rapid City, S.D. He specializes in minimally invasive spine surgery, spinal decompression, spinal trauma and disc replacement.

Joey Kevin Grochmal, MD, FEL '18, is an assistant professor of neurosurgery at Baylor College of Medicine in Houston.

continued on page 32

2020s

Dalton Grimm, MD '20, joined St. Luke's Hospital in Duluth, Minn., as an emergency medicine physician.



Allison McCurdy, MD '20, a fourth-year surgical resident at Huntington Hospital in Pasadena, Calif., received the first-place award in the hospital's annual resident research competition.

Michelle Prentice, MD, GME '20, joined the Massena (N.Y.) Hospital Primary Care Medical Group as a family medicine practitioner.

Bryan Thiel, MD, GME '22, an ophthalmologist, is leading Marietta Eye Clinic's new facility in Cummings, Ga.

Ryan Anderson, MD, FEL '23, joined Essentia Health-St. Mary's Medical Center in Duluth, Minn., as a non-invasive cardiologist.



Zabrina Ebert, DO, GME '23, joined Sanford Health in Bemidji, Minn., as a psychiatrist specializing in adult psychiatric conditions, including attention deficit/hyperactivity disorder; anxiety and depression; bipolar disorder; post-traumatic stress disorder; and other trauma-related conditions, psychotic disorders and substance use disorders.



Waqas Yasin, MD, GME '23, was appointed interim medical director of North Central Health Care headquartered in Wausau, Wis. A psychiatrist, Dr. Yasin provides oversight for the North Central Health Care's adult and youth behavioral health hospitals, a substance abuse treatment center and intensive outpatient programming.

IN MEMORIAM

1950s

Orlando Manfredi, MD '52, of Ponce Inlet, Fla., and Pawling, N.Y., died on June 30, 2023, at the age of 98. Dr. Manfredi joined the nascent radiology department at St. Vincent's Hospital in Staten Island, N.Y., in 1957 and served as the hospital's chair of radiology until 1999. He founded and directed St. Vincent's radiology residency program. Dr. Manfredi made pioneering advancements in the field of cobalt therapy cancer treatments. He and his wife established the Dr. and Mrs. Orlando L. Manfredi Endowed Scholarship Fund at MCW. The scholarship was established as a gift in memory of Dr. Charles F. Snopak, a mentor from Dr. Manfredi's days in the Navy.

Donald E. Chisholm*, MD '56, GME '64, of Elm Grove, Wis., and Keystone, Colo., died on July 3, 2023, at the age of 92. After his service in the US Air Force, Dr. Chisholm dedicated himself to the practice of ophthalmology and served on many medical boards. He previously served as a president of the MCW/Marquette Medical Alumni Association. He also led the establishment of the Class of 1956 Lecture Fund at MCW.

Alexander Joseph MacGillis, MD '56, died on September 7, 2023, at the age of 94. He was a co-founder of Urology Associates of Wauwatosa (Wis.), where he served until 2001. Dr. MacGillis then continued his practice as a urologist at the Clement J. Zablocki Veteran's Administration Medical Center in Milwaukee from September 2001 until November 2013. He continued to serve as a volunteer faculty member at MCW until July 2015.

1960s

Paul Thesing, Jr., MD '61, of Dayton, Ohio, died on August 30, 2023, at the age of 87. He was a family practitioner in Dayton for 35 years and a partner in the Beavertown Clinic. Dr. Thesing also served as the soccer team's physician at Archbishop Alter High School in Kettering, Ohio, in the late 1980s. He was a tennis and golf enthusiast.

Joseph Pilon, MD '63, of Sherwood, Wis., died on August 11, 2023, at the age of 84. An orthopedic surgeon, he established the Orthopedic Clinic of Menasha (Wis.) and served on the medical staffs of Fox Valley hospitals. Dr. Pilon specialized in complex procedures including joint replacement. He organized and participated in multiple medical mission trips throughout his career to serve patients with no access to medical care in remote areas of Brazil, Tanzania and Uganda. Dr. Pilon enjoyed singing, photography and spending time in nature.

Richard Rock, MD '63, of Albuquerque, N.M., died on September 20, 2023, at the age of 86. After medical school, he began his career by enlisting with the Public Health Service. He completed a two-year placement in a general surgical role at the Phoenix (Ariz.) Indian Medical Center. In 1970, he opened Rock Professional Association in Albuquerque providing orthopedic care. He retired in 2005 and then began a second career instructing medical residents at the Albuquerque VA Medical Center for 10 years.

John Joseph Finneran, MD '65, of Bloomfield, Iowa, died on December 26, 2022, at the age of 83. He began practicing in Bloomfield in 1972. He was described as the epitome of a small-town community physician whose door was always open

and who took every patient's phone call. He retired in 2012. Dr. Finneran was a strong supporter of the athletic programs in Bloomfield and at Davis County High School. He started the Junior Olympics program in Bloomfield for track and field and spent countless hours attending track meets throughout Iowa.

William Curran*, MD '66, GME '73, of Poway, Calif., died on June 23, 2023, at the age of 82. Dr. Curran was an orthopedic surgeon who specialized in sports medicine. He was a team physician for the San Diego Chargers and other professional and collegiate teams. He was an avid Green Bay Packers fan, as he grew up near Green Bay and his father was an original season ticket holder. Dr. Curran also enjoyed golfing and swimming.

Walter Piering, MD, GME '66, of Brookfield, Wis., died on July 3, 2023, at the age of 87. He served on MCW's faculty as a nephrologist from 1968 until his recent retirement. Dr. Piering developed the renal unit at Milwaukee County General Hospital, where he also managed the kidney dialysis unit. He was part of the team with Richard Stewart, MD, MS, MPH, PhD, and other colleagues who performed and published the initial studies on the capillary kidney dialyzer, which has become the current standard for dialysis treatment. Dr. Piering found his role mentoring and training more than 95 nephrology fellows particularly fulfilling, especially when he helped train his son, Andrew Piering, MD '99.

1970s

Patricio Viernes, MD, FEL '70, of Brookfield, Wis., died on September 15, 2023, at the age of 84. During his 50-year professional career, Dr. Viernes focused

his medical practice on internal medicine and pulmonary diseases. He served as medical director of internal medicine at Elmbrook Memorial Hospital in Brookfield, president of the Philippine Medical Society of Wisconsin and as assistant clinical professor of medicine at MCW.

Edward Dancewicz, MD, GME '72, of Danvers, Mass., died on September 7, 2023, at the age of 82. Dr. Dancewicz was a dermatologist with offices in Reading and Billerica, Mass. He retired in 2007. In 1969, Dr. Dancewicz was commissioned by President Lyndon B. Johnson as assistant surgeon in the Reserve Corps Public Health Service of the Department of Health, Education and Welfare.

Ernest J. Sorini, MD '74, JD, MBA, of Ann Arbor, Mich., died on June 5, 2023, at the age of 74. He was a practicing emergency medicine physician for 48 years. He founded ER-One, a physician-staffing company committed to raising emergency room healthcare standards. At ER-One, Dr. Sorini introduced the first 30-minute guarantee to enhance the timeliness and effectiveness of care in emergency rooms. He was appointed by Michigan Governor Jennifer Granholm to the Michigan Board of Medicine and the board's disciplinary subcommittee.

David D. Wisnfske, MD '75, GME '76, of Fitchburg, Wis., died on August 17, 2023, at the age of 73. He was a radiologist for more than 20 years and retired in 1999 to pursue what would become his new passion: prairie restoration. He dedicated the next 20 years of his life to restoring the historic landscapes of western Green County, Wisconsin. Dr. Wisnfske also assisted others with their own restoration projects and served as a volunteer educator to pass on his conservation ethic to future generations.

Carol Louise Hendrick, MS '76, of Saginaw, Mich., died on August 13, 2023, at the age of 85. Hendrick was a medical technologist at St. Luke's Hospital in Saginaw as well as the University of Michigan Hospital in Ann Arbor and Dow Chemical in Midland (all in Michigan). She also spent one year working on the Good Ship Hope in Ecuador. Hendrick was an avid traveler and enjoyed playing duplicate bridge at tournaments around the Midwest.

1990s

Paul Morgan II, MD '96, GME '99, of Libertyville, Ill., died on September 8, 2023, at the age of 57. Dr. Morgan spent his career in internal medicine with the Veterans Administration health system. He started at the Clement J. Zablocki VA Medical Center in Milwaukee and then moved to the James A. Lovell VA in North Chicago, Ill. He was passionate about working with his hospitalist team at the VA and teaching younger resident physicians. He was an enthusiastic reader and photographer who enjoyed collecting cameras.

2020s

Kyle Phillip Stoltz, PhD '23, of Stevens Point, Wis., died on July 29, 2023, at the age of 30 as a result of a boating accident.

On April 14, 2023, Dr. Stoltz successfully completed his doctoral dissertation defense, earning his PhD in biomedical sciences from MCW. In addition to his dedication to science, Dr. Stoltz had a passion for computer programming, which he integrated into his analyses of experimental data.

Fiscal Year 2023 Finance Report

Revenues*

Fiscal year ended June 30, 2023	Total All Funds (\$ in millions)
Clinical revenue**	1,053.2
Grants and contracts	244.9
Tuition and fees	68.0
Investment income	44.0
Contributions	4.1
Other	63.3
Total revenues	\$1,477.5

Expenses*

Fiscal year ended June 30, 2023	Total All Funds (\$ in millions)
Salaries and fringe benefits	1,118.7
Supplies and expense	281.9
Other operating	44.6
Total expenses	\$1,445.2
Excess of revenues over expenses	\$32.3

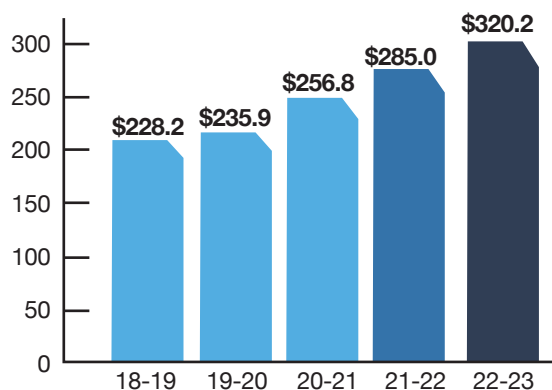
*Excludes nonoperating revenue and expense, including realized and unrealized gains and losses on investments.

**Includes adult and pediatric revenues.

Externally Funded Expenditures***

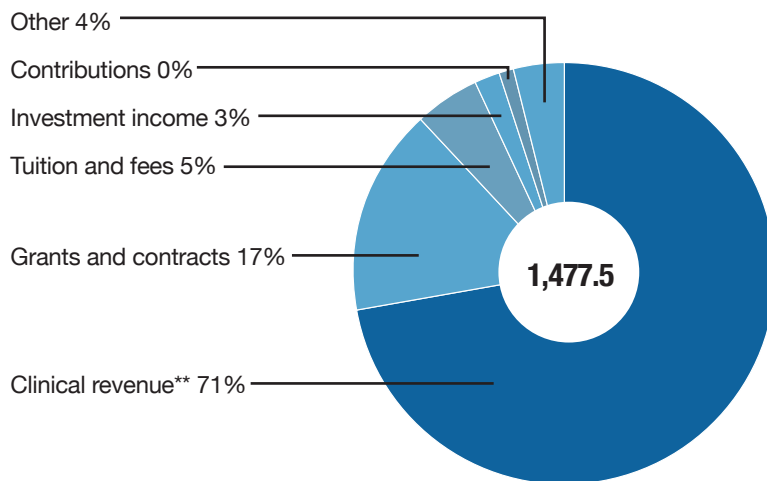
July 1, 2018 to June 30, 2023

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

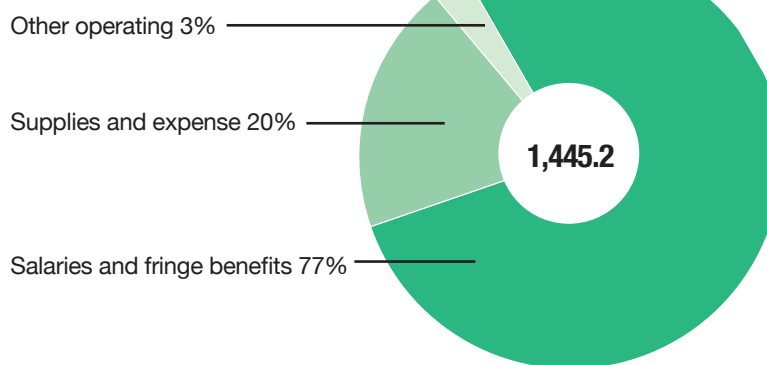


***Expenditures relate to multiple revenue sources, including Grants and contracts, Contributions and Other.

Revenues Fiscal Year 2023

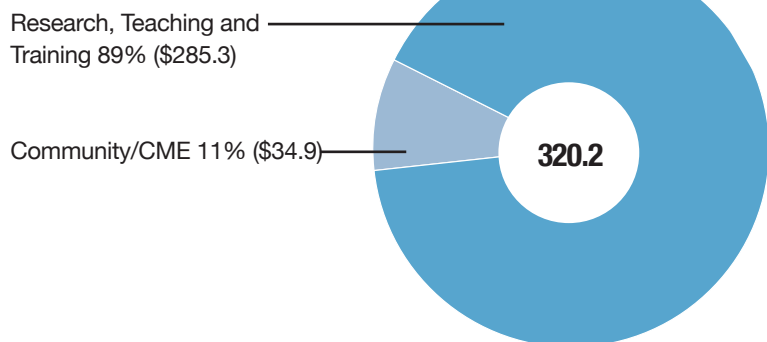


Expenses Fiscal Year 2023



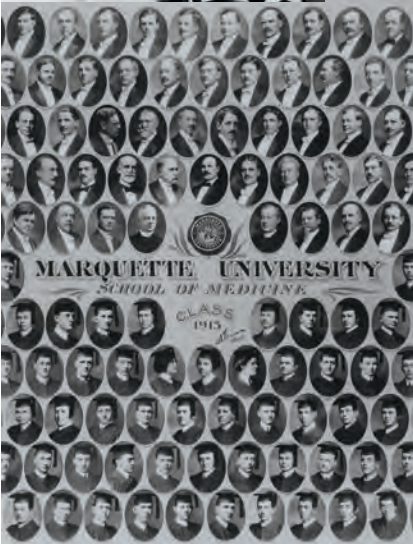
Externally Funded Expenditures by Purpose Fiscal Year 2023

(\$ in millions)



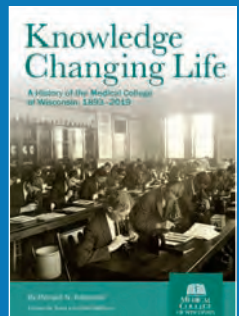


A Photographic History of the Medical College of Wisconsin

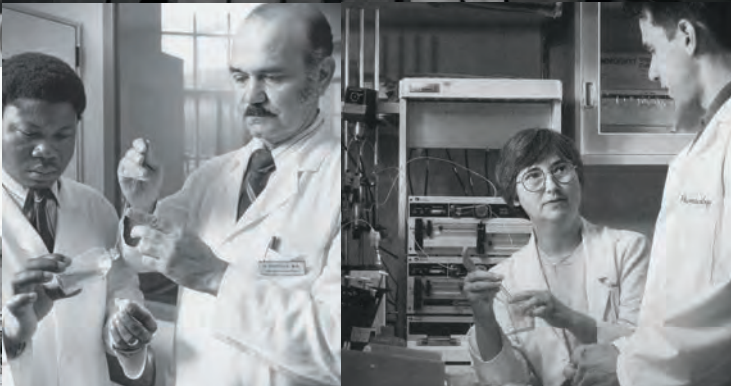


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