

MCW

magazine



Three Hearts, One Full Life

Father-son surgeons bring new vitality to a two-time transplant patient

MCW

magazine

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LEADERSHIP MESSAGE

Responding to the Challenges of COVID-19

As this issue of *MCW Magazine* goes to press, our world has changed with the arrival of the 2019 novel coronavirus (COVID-19) in our backyards. This turn of events presents challenges unprecedented in our lifetimes.

Our commitment is unwavering to protect the health, safety and wellbeing of our students, faculty, staff and visitors. We are working extremely hard to ensure that our patients, students and community continue to receive the outstanding care and education that we provide.

As a community of healthcare providers, scientists and thought leaders, we all play a significant role in our regions and in society.

Our physicians and other healthcare providers practicing with our clinical partners in the Milwaukee area are ready to provide the very best treatment to anyone suffering from COVID-19 – as well as to all patients in need of care of any kind.

The local efforts of our scientists are making a global impact in the fight against COVID-19, including developing a rapid molecular diagnostic approach for use in clinical laboratories, developing and partnering with commercial entities to commercialize rapid respiratory diagnostics, and conducting antiviral clinical trials related to infectious diseases. *See page 28 for details on these efforts.*

In the face of these challenges, we also have the responsibility and opportunity for human empathy and compassion. In each action, exhibiting kindness, understanding and flexibility will be very meaningful to people. It is a time when even small acts of compassion benefit the giver as well as the receiver.

To our countless alumni around the globe who stand on the front lines of combating COVID-19 – whether through direct patient care or as scientists and other healthcare providers – our thoughts and prayers are with you at this challenging time. We know that each of you is doing your utmost to protect the health and safety of your patients, families, loved ones and your communities.

These are times that test who we are as an institution and as a profession. I am deeply appreciative of the way our MCW community has come together. While the days ahead will undoubtedly present additional challenges, I have great confidence in our ability to overcome them. ■

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

“In the face of these challenges, we also have the responsibility and opportunity for human empathy and compassion.”



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FEATURED PHOTOGRAPHERS: Alex Boyes; Mary Pat Collins; Gary Porter; Jay Westhauser.

ON THE COVER: MCW father and son transplant surgeons Dr. David Joyce (left) and Dr. Lyle Joyce (center) prepare to retrieve the donor heart from the cold preservation solution prior to transplanting the organ into the patient, Chuck Newman, in April 2019, while medical student Devashish Joshi (right) looks on. This was the second heart transplant performed on Newman by Dr. Lyle Joyce; his first transplanted heart lasted almost 31 years. **PHOTO CREDIT:** NALISSA WIENKE

NEWS

FOR ALUMNI



(l-r) Angela Nelson; Padmaja Doniparthi, MD '92, GME '97; and Anil Doniparthi, MD.

Angela Nelson Named New Executive Director

Angela K. Nelson, MCW's senior director of development and alumni giving, was named executive director of the MCW/Marquette Medical Alumni Association, effective March 9, 2020.

Nelson joined MCW in 2007 and has distinguished herself as a tireless advocate for alumni across the entire institution – physicians and residents, scientists, pharmacists, regional campuses and graduates from MCW's varied and growing programs. Additionally, she has thoughtfully developed lasting relationships with alumni from MCW's predecessor institution, the Marquette University School of Medicine.

During her career at MCW, Nelson has worked alongside leadership and faculty to

ensure that alumni are included as key stakeholders as the strategic objectives of the institution are developed and achieved. She will work even more closely with MCW's alumni leaders as the institution looks to reimagine the programming and services it provides and ensures that they are inclusive of MCW's ever-growing and increasingly diverse alumni community.

It is important to thank Anthony "Tony" Perez, associate director of recruitment for the Graduate School of Biomedical Sciences, for his dedication and hard work as interim director of the Alumni Association during the transition period. Perez led the effort to launch ENGAGE as well as the monthly alumni e-newsletter, and provided a memo-

orable Alumni Weekend in 2019. His thoughtful and engaged leadership was imperative in MCW's ongoing efforts to implement its strategic plan.

Barb Calkins, MD '96, president of the Alumni Association, chaired the search committee. Committee members included Beth B. Krippendorf, PhD '93; George M. Lange, MD '75; Marie L. Nakata, MD '89; Brianne Bakken, PharmD; Mara Lord, MBA; and Mitch Beckman.

In addition, numerous other faculty and institutional leaders were instrumental to the search process, including Daniel Geenen, MD '89; Paul Hankwitz, MD '74; Steven C. Bergin, MD '74; and Matthew Goldblatt, MD '97, GME '04. ■

Expanding Alumni Connections

In my previous letter, I shared the various initiatives and priorities of the MCW/Marquette Medical Alumni Association that were created as part of our Comprehensive Strategic Plan. One of the goals



“I believe that alumni can have a positive impact on the educational, professional and social experiences of MCW’s current students.”

– Dr. Barbara Calkins

included to expand opportunities for alumni to engage with students in our Pharmacy, Graduate and Medical Schools, as well as our medical residents and fellows, through advocacy, mentoring, recruitment and volunteerism.

I am especially passionate about this goal and believe that alumni can have a positive impact on the educational, professional and social experiences of MCW’s current students. I have spent the last several months meeting with leaders from various student government organizations, including the Medical School’s Student Assembly, Graduate Student Association, master of science programs, Pharmacy Student Alliance and faculty, staff and students at MCW-Central Wisconsin.

Also, I have upcoming meetings with students, faculty and staff at MCW-Green Bay to collaborate and leverage ways alumni can network and engage with students, support student programs and events, and define what the school envisions its alumni experience to be – and to tailor this to their unique needs.

Among the things we learned:

- Importance of alumni presence at major student events as noted below.
- Desire of students for more alumni mentorship, networking and career exploration opportunities.
- More alumni-sponsored and supported networking opportunities to enhance the student experience and increase collaboration among schools.

- Activities, program and events we sponsor (including reunions) need to be tailored to each school/program, with more attention to varying age groups.

This past year, we began an initiative for a more prominent alumni role at major events at MCW-Milwaukee, including Commencement, White Coat Ceremony and Orientation. I appreciate our alumni who have been involved in ongoing student activities such as the Common Read; Hoops for Hunger; Operation: Education; clinical apprenticeships; and the Student Health Science Conference. Your engagement is impactful and meaningful.

We are actively working to enhance our current alumni’s experiences by exploring ways to provide alumni receptions at major medical/graduate/pharmacy conferences in different regions, as well as strengthening our current alumni reunions. And we are looking forward to our 2020 Alumni Weekend on October 9-10!

By now, I hope many of you have enrolled in ENGAGE (mcwengage.com). This website provides a way for alumni to stay more informed about MCW happenings and connect with each other, and serves as our only online directory. It also provides ways for alumni to connect directly with students and allows for mentorship and volunteerism. We anticipate rolling out a job posting functionality within ENGAGE within the next several months that will provide further benefit to our alumni and students – stay tuned! ■

UPCOMING ALUMNI EVENTS

MAY

CLASS OF 1970 50-YEAR REUNION GOLDEN JUBILEE CELEBRATION

DATE: MAY 22-23, 2020

LOCATION: VARIOUS LOCATIONS, MILWAUKEE

OCTOBER

ALUMNI WEEKEND

DATE: OCTOBER 9-10, 2020

LOCATION: VARIOUS LOCATIONS, MILWAUKEE

STAY CONNECTED WITH MCW Five Simple Steps to ENGAGE:

- 1 Visit www.mcw.edu/engage. Click “Register Now” button.
- 2 Register using LinkedIn or your preferred email address.
- 3 Select your user type and provide any additional required information (e.g., degree, year earned, etc.).
- 4 Review and select mentorship opportunities.
- 5 Explore ENGAGE and connect with alumni and students!

For more information, contact Angela Nelson, executive director of the MCW/Marquette Medical Alumni Association, at (414) 955-4780 or alumni@mcw.edu.

STAT REPORT



Tissue Bank personnel (l-r): Allyson Gorman, Research Technologist I; Kelli Sorge, Laboratory Assistant; Ellen Schneider, Research Technologist III; Jasmine Pickett, Laboratory Assistant; Hallgeir Rui, MD, PhD, Director; Mary Rau, Program Manager; Mollie Patton, Pathologists' Assistant; Mónica Thom, Laboratory Assistant; Jason Kirkpatrick, Research Coordinator. Not pictured: Janelle Lang-Piette, Research Technologist II; Julie Dropp, Histology Technician.

MCW Tissue Bank Receives National Accreditation

Access to high-quality biospecimens is crucial to the work of clinical, translational and basic science investigators. As molecular and cellular technologies expand and personalized approaches to research and care develop, having a world-class biorepository is ever more crucial for health science universities and academic health systems.

Through a multiyear strategic plan and investments in this important area at MCW, significant progress has been made to enhance the biorepository known as the MCW Tissue Bank. As a result of these efforts, the MCW Tissue Bank recently received a three-year accreditation from the College of American Pathologists (CAP) in

recognition of its quality practices, efficient operations and strong processing standards. The Tissue Bank is an MCW core that provides faculty investigators with research services related to human specimens. Among its services are tissue procurement, peripheral and maternal cord blood products, DNA and RNA isolations, specimen storage and other specialized tissue processing.

CAP Accreditation involves a rigorous inspection, desk review and assessments to ensure that the highest standards are met. Biorepository accreditation from the CAP helps to ensure appropriate ethical and legal frameworks for use of biospecimens in IRB-approved research; well-controlled pre-analytic

variables for optimal scientific investigation or biomarker development; robust chain-of-custody tracking and reduced risk of misidentification; appropriate storage conditions and temperature monitoring; best practice policies and procedures for sample release; and more.

The MCW Tissue Bank is one of 65 CAP-accredited biorepositories in the nation and one of only two in Wisconsin. As MCW's Cancer Center continues to work towards National Cancer Institute (NCI) designation, this accreditation will be important as a demonstration of the strength of MCW's core resources – since only 19 of the 72 NCI national cancer centers have CAP-accredited biorepositories. ■

National Grading Changes for USMLE Step 1 Exam

The Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners® (NBME®) announced that the US Medical Licensing Examination® (USMLE) program will change Step 1 exam grading from a three-digit numeric score to reporting only a pass/fail outcome. Numeric scores will continue to be shared for Step 2 Clinical Knowledge (CK) and Step 3, while Step 2 Clinical Skills (CS) will continue to be conveyed as pass/fail. The new grading policy will be imple-

mented no earlier than January 1, 2022, and further details are anticipated to be announced later in 2020.

As the USMLE co-sponsors, the FSMB and NBME solicited significant input through the Invitational Conference on USMLE Scoring (InCUS), the follow-up InCUS report and suggestions, as well as the many local, regional and national discussions that related to the conference. After taking into account the wide-ranging views of all interested parties, the FSMB and NBME considered how to

best support the educational engagement and overall experience of medical students, especially in terms of advancing the dialogue about integrating multiple assessments of competency during the transition from medical school to residency programs.

The FSMB and NBME have stated that they see this change as a substantive first step toward more systemic changes that enhance student well-being and improve the progression of students into the graduate medical education system. ■



MCW Offers New Master of Science in Global Health Equity

MCW has launched a new, highly interactive Master of Science in Global Health Equity program. Through this program, MCW teachers will prepare students to be global health leaders who learn by engaging with diverse communities throughout the world.

The program includes in-person and online courses with a common theme of health equity and an emphasis on community-engaged approaches to health improvement. Students will have the chance to learn from faculty members with extensive and diverse global health experiences.

Full-time students will be able to complete the program in three semesters and one summer. There is a part-time option available for working professionals. The priority deadline for fall admission was March 1, 2020, followed by rolling admissions until a final deadline of July 1. ■

 See more at mcw.edu/msghe

MCW Earns Record Funding for Clinical Trials

MCW garnered a record amount of financial support for clinical trials in fiscal year 2019. MCW earned more than \$18 million for clinical trials based on data submitted to the National Science Foundation (NSF) for the Higher Education Research and Development (HERD) survey.

Since 2014, MCW's total clinical trial expenditures have trended upward. During fiscal year 2018, MCW achieved the distinction of having the most clinical trial funding of any academic institution in Wisconsin.

The HERD survey is the primary source of information regarding research and development expenditures at US colleges and universities. The survey is an annual census of institutions that expended at least \$150,000 in separately accounted for research and development.

MCW conducts more than 500 clinical trials each year to test tomorrow's treatments. Of these, more than 200 are cancer clinical trials that focus on reducing the burden of this disease in Wisconsin and beyond. ■

Honoring the Legacy of MCW Trustee George Frederick Kasten, Jr.

George Frederick Kasten, Jr. (affectionately known as “Fred” or “Freddie”), was passionate about the idea of education, especially when it came to educating doctors in his beloved Milwaukee community. He particularly loved the education mission of MCW – and backed up that support with 12 years of service on MCW’s board of trustees, from 1996–2008.

“Freddie loved the idea of a medical college, of educating young men and women to become physicians, of having a teaching hospital right here in Milwaukee,” shares Kasten’s wife, Susie.

Kasten passed away peacefully at age 80 on December 12, 2019, at his home in Vero Beach, Fla., after a courageous fight with Parkinson’s disease.

A fourth-generation banker who led the Milwaukee-based investment and wealth management firm Robert W. Baird & Co. for more than 20 years, Kasten was a major force in the Milwaukee community – also serving on the boards of the United Way of Greater Milwaukee, Greater Milwaukee Committee, Forward Wisconsin, United Performing Arts Fund, Milwaukee Metropolitan Association of Commence, St. Michael’s Hospital, Summerfest and more.

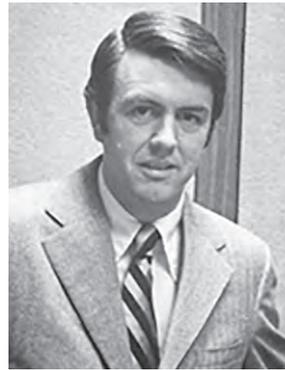
Kasten was a member of MCW’s Investment Committee from June 1996–July 2008 and the Audit Committee from June 1996–July 2004. During his tenure on the MCW board, the institution saw rapid growth, including the establishment of the Graduate School of Biomedical Sciences; new educational partnerships with Marquette University and the Milwaukee School of Engineering; significant research discoveries and expansion

of extramural funding; the construction of the Health Research Center; closer ties with clinical partners; the addition of Community Service (now known as Community Engagement) as a fourth mission; the establishment of the Advancing a Healthier Wisconsin Endowment; expansion of philanthropic support, including endowed chairs; and an overall emergence of MCW as one of the nation’s major medical research institutions.

In 2004, Kasten received the *Warren P. Knowles Award* from MCW’s Digestive Disease Center, which honors an individual or organization with a commitment to health-related issues and whose work reflects the dedication to public service and education marking the career of the late Wisconsin Governor Warren Knowles.

“Freddie was glad to have the talent and ability to share his expertise from the financial world as an MCW trustee,” Susie says. “He chose to give his time and energy to organizations because of their missions and the people who were involved. He served on many boards, but he really enjoyed the people at MCW and working with the doctors in the different departments. I felt a sense of joy from him about his service to MCW.”

She continues, “We used to go to the Christmas dinners that Mike and Ginny Bolger held. Freddie loved the MCW stu-

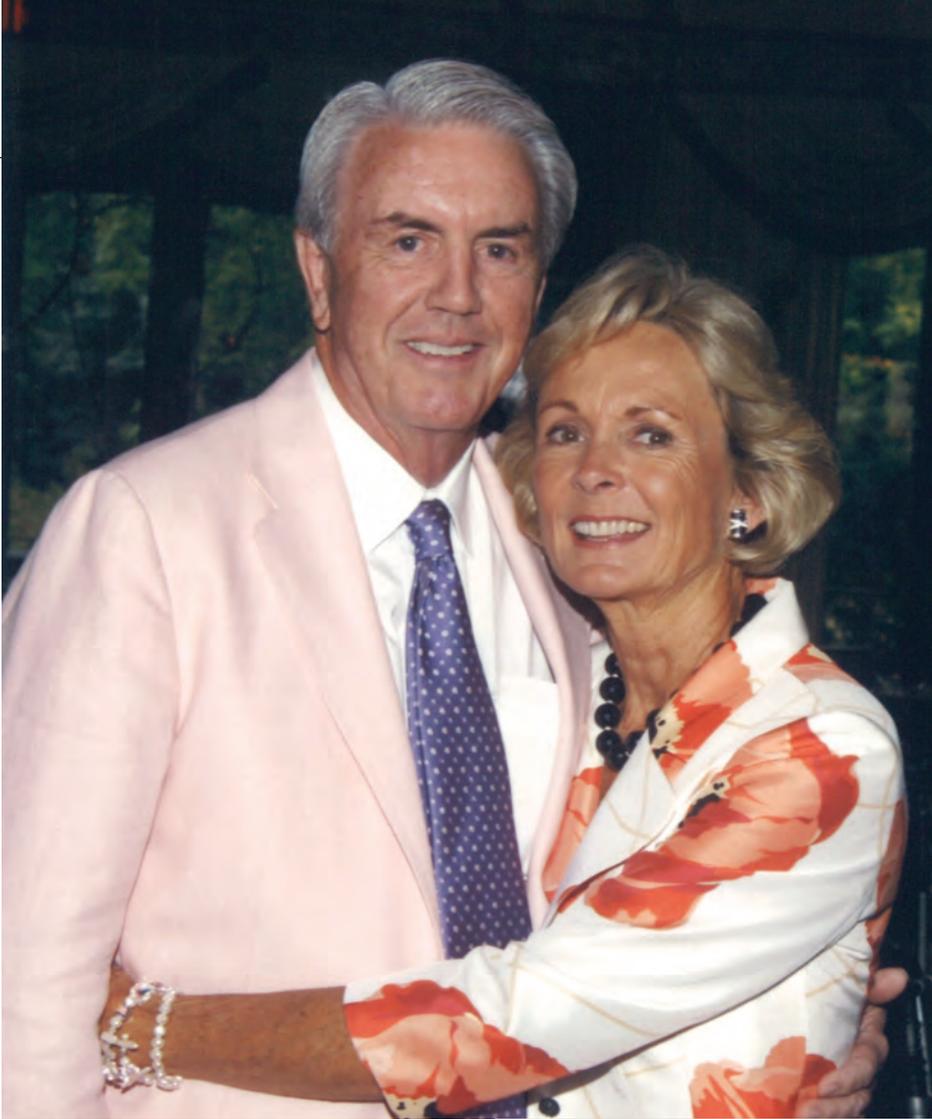


Fred Kasten was a visionary leader with an exceptional sense of fairness and humanism, and the MCW family is forever grateful for his dedication and support.

dents and department heads and their outlooks on life. In fact, it was Mike Bolger [MCW’s president and CEO from 1990–2010] who got Fred involved at MCW, since they were great friends.”

Fred and Susie Kasten shared an endearing love story. Married for 54 years, they had met when she was a freshman in high school and he was a senior. “Freddie was athletic and handsome and looked upon as a ‘hero’ in our school. We had just moved to Milwaukee and our families had mutual friends, so we were introduced to the Kastens early on – and our families became good friends,” Susie says.

She had to wait patiently for a number of years before capturing his eye as anything more than a family friend. “One summer after Freddie had graduated from Williams College and was attending business school at Columbia University, my mother and I were playing tennis, and I noticed him on another court with a group of guys. My mother convinced me to pretend I had sprained my ankle so we could exit the court quickly – since it didn’t look cool to be playing tennis with one’s mother – and as we were leaving, Freddie shouted out a hello to me. I was totally shocked because I didn’t think he had remembered me, but a few days later he called me to ask how my ankle was healing. And the rest is history,” Susie shares.



Kasten’s belief in the value of educating physicians in Milwaukee was well served when in late December 2011, while on a family ski vacation in Park City, Utah, he experienced chest pains at 3:00 am and rushed to an emergency clinic there. To his great surprise – and delight – the young physician who treated him was an alumnus of MCW, which put Kasten at ease. “They were able to chat about people they knew in common in Milwaukee, and the doctor decided to do one more test, which revealed a blocked artery,” Susie recalls. Kasten was flown via helicopter to a hospital in Salt Lake City for an angioplasty. Within days he was back on the ski slopes.

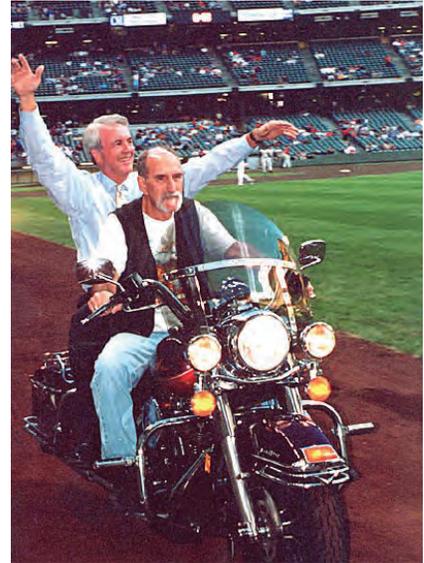
According to his obituary, “Fred’s love for family and friends was inspirational. His values were deeply rooted and provide a model to be emulated by us all. His motto was ‘work hard and play hard.’ Finding balance in life was important, he used to say. He was a sports enthusi-

Paying Tribute

Honoring Kasten’s legacy through the G. Frederick Kasten, Jr. Endowed Chair in Parkinson’s Disease Research will help make significant research advances in curing this devastating disease and will help to build the strength of MCW’s Parkinson’s disease clinical program. To date, gifts exceeding \$2 million have been contributed through the generosity of Baird, its employees and many corporate and community partners.

Please visit mcwsupport.mcw.edu/baird or mail your gift to the Office of Development & Alumni Relations, Frederick Kasten, Jr. Endowed Chair, Medical College of Wisconsin, 8701 Watertown Plank Rd., Milwaukee, WI 53226. ■

ast and avid gamesman, whether it was on the golf course, tennis courts and ski slopes, or with a deck of cards...Fred was



*(top left): Fred and Susie Kasten, ca. 2005.
(top right): Fred at Miller Park, ca. 2001.
(bottom right): Fred, Susie and their grandchildren in Park City, Utah, immediately following his heart attack in late 2011.*

best known for his generosity, integrity, humility and incredible sense of humor.”

Kasten is survived by his wife, Susie, and children: Rick (Eileen) Kasten, Jenny (Chris) Perkin, Ted Kasten and Julie (Cam) Art, and 10 grandchildren.

Fred Kasten was a visionary leader with an exceptional sense of fairness and humanism, and the MCW family is forever grateful for his dedication and support. ■

– SARA L. WILKINS

MCW Welcomes New Leaders

Gustavo W. Leone, PhD

Director, MCW Cancer Center
Senior Associate Dean of Cancer Research
Professor with Tenure, Department of Biochemistry

Gustavo W. Leone, PhD, was named director of the MCW Cancer Center (MCWCC), senior associate dean of cancer research, and professor with tenure in the department of biochemistry, effective April 15, 2020. Dr. Leone currently serves as director of the Hollings Cancer Center, a National Cancer Institute–designated cancer center at the Medical University of South Carolina (MUSC) in Charleston, S.C., professor in the department of biochemistry and molecular biology, and senior associate dean for oncology in the College of Medicine at MUSC. Additionally, Dr. Leone holds the Grace E. DeWolff Endowed Chair in Medical Oncology at MUSC.

The MCWCC is the only academic cancer research center in the state that is accessible to large, unique and chronically underserved minority populations. It comprises almost 350 cancer researchers and physicians from more than 35 departments at MCW and its partner organizations. Dr. Leone will be a strategic leader who will work with faculty and staff to develop a vision and collaborative strategy that will capitalize on the upward trajectory of the MCWCC and the Froedtert & Medical College of Wisconsin Cancer Network in growing strong and nationally recognized interdisciplinary programs in cancer-related research, education, clinical care and community engagement.



In addition to his extensive leadership experience, Dr. Leone is an esteemed scientist whose research focuses on identifying how disruption of critical cell cycle regulatory pathways contributes to uncontrolled cell growth – a hallmark of cancer – as well as cell-to-cell communication. His work has been continuously funded by the National Institutes of Health (NIH) since 1999, including almost \$3 million in current NIH funding on which he either serves as principal investigator or mentor. His group's research discoveries, spanning developmental biology to cancer biology, have been published in *Cell*, *Developmental Cell*, *Molecular Cell*, *Cell Reports*, *Cancer Cell*, *Nature*, *Nature Cell Biology*, *Nature Communications*, *Nature Genetics*, *Journal of Clinical Investigations*, *Genes and Development* and other top-tier scientific journals. ■



Jesse M. Ehrenfeld, MD, MPH

Director, Advancing a Healthier Wisconsin Endowment
Senior Associate Dean

Jesse M. Ehrenfeld, MD, MPH, was appointed director of the Advancing a Healthier Wisconsin (AHW) Endowment and senior associate dean at the MCW School of Medicine, effective September 1, 2019. He previously served as Joseph A. Johnson, Jr., Distinguished Leadership Professor, professor of anesthesiology and professor of biomedical informatics at the Vanderbilt University School of Medicine in Nashville, Tenn. He is a fellow of the American Society of Anesthesiologists and the American Medical Informatics Association.

Dr. Ehrenfeld was elected to the American Medical Association board of trustees in 2014 and currently serves as chair. He is a combat veteran and a former US Navy Commander who deployed to Afghanistan during both Operation Enduring Freedom and Resolute Support Mission. Dr. Ehrenfeld's research focuses on understanding how information technology can improve patient outcomes.

The AHW Endowment was established by MCW in 2004 to receive a portion of the charitable funds from the conversion of Blue Cross Blue Shield of Wisconsin from a non-profit organization to a for-profit corporation. AHW is dedicated to changing lives by serving as a partner with community-based health initiatives and through investing in strategic research and education initiatives. ■



Deborah M. Costakos, MD '98, MS
Chair and R.D. & Linda Peters Professor, Department of Ophthalmology and Visual Sciences

Deborah M. Costakos, MD '98, MS, was appointed chair and professor of MCW's department of ophthalmology and visual sciences, effective January 1, 2020. She also was named the R.D. & Linda Peters Professor in Ophthalmology by the MCW board of trustees.

Dr. Costakos served as interim chair of the department from February 15 to December 31, 2019. She joined the MCW faculty in 2009 as assistant professor of ophthalmology and was promoted to associate professor in 2014. Dr. Costakos served as the medical director for pediatric ophthalmology and sees patients at Children's Wisconsin and at several neonatal intensive care units throughout Milwaukee. Her research interests include genetic disorders affecting the eye, retinopathy of prematurity and macular development in infants. She has published 30 scholarly journal articles, books, chapters, reviews and abstracts. ■



Joseph W. Gravel, Jr., MD
Chair, Department of Family and Community Medicine

Joseph W. Gravel, Jr., MD, was named chair of MCW's department of family and community medicine, effective September 30, 2019. He previously served as professor of family medicine & community health at the University of Massachusetts Medical School in Worcester, Mass., and chief medical officer and chair of family medicine & community health at the Greater Lawrence Family Health Center in Lawrence, Mass.

Dr. Gravel currently serves as chair of the Academic Family Medicine Advocacy Committee, on the Society of Teachers of Family Medicine's board of directors and on the Accreditation Council for Graduate Medical Education's Review Committee for Family Medicine. He previously served as treasurer and credential committee chair of the American Board of Family Medicine, which is the second-largest medical specialty board in the US. Dr. Gravel's bibliography includes almost 50 published works. A dedicated teacher and mentor, Dr. Gravel has trained more than 200 family medicine residents, taught more than 500 medical students and mentored four colleagues who later became residency program directors. ■



Steven H. Kroft, MD
Chair, Department of Pathology
Senior Associate Medical Director, Wisconsin Diagnostic Laboratories

Steven H. Kroft, MD, was appointed chair of MCW's department of pathology, effective November 1, 2019, after serving as interim chair since November 2018. He continues to serve as professor of pathology and senior associate medical director of Wisconsin Diagnostic Laboratories.

Dr. Kroft joined MCW as associate professor of pathology in 2005 and was promoted to professor in 2007. His research interests include the application of specialized ancillary techniques – in particular flow cytometry – to diagnostic, clinical and biologic issues related to hematologic disorders. Dr. Kroft's bibliography includes approximately 310 refereed journal publications and original papers, books, chapters, reviews, editorials, letters to the editor and abstracts. He has presented at almost 120 local, regional, national and international lectures and workshops.

Since 2018, Dr. Kroft has served as editor-in-chief of the *American Journal of Clinical Pathology* – the lead journal publication for the American Society for Clinical Pathology (ASCP). He also served as president of the ASCP in 2013–2014. ■

– GREG CALHOUN & SARA L. WILKINS

There is Power in Community

\$2 Million Gift Establishes Sentry Deanship at MCW-Central Wisconsin

In Wausau, Wis., MCW-Central Wisconsin has its foundation in a strong community-based partnership with academic, healthcare, civic and philanthropic leaders who share a passion to preserve and secure the health and well-being of families throughout the region.

Community partners Sentry and the Sentry Insurance Foundation – strong supporters of the mission of MCW’s regional campuses – invested \$2 million to establish the Sentry Deanship at MCW-Central Wisconsin in late 2019. This gift marks the largest charitable commitment to the campus to date and provides the necessary resources to expand training programs for MCW-Central Wisconsin medical students. With this generous investment from Sentry, MCW-Central Wisconsin will continue to innovate around new educational models and programs to make medical school accessible to more rural and underrepresented students from the central Wisconsin region and across the state.

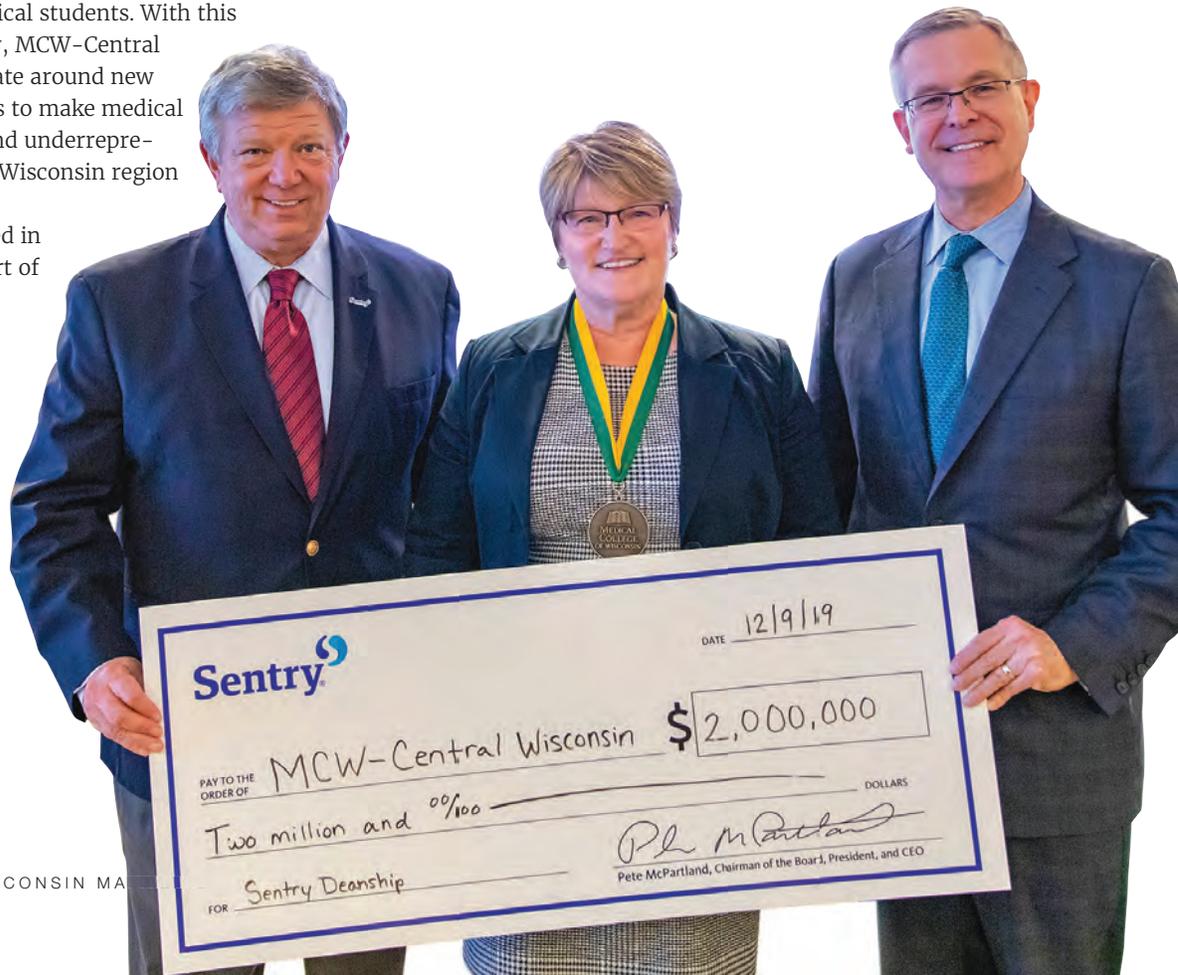
MCW-Central Wisconsin opened in 2016 and graduated its first cohort of

medical students in the spring of 2019. The campus was established along with MCW-Green Bay to address the looming shortage and maldistribution of physicians and other healthcare professionals across the state. Both regional campuses offer an accelerated three-year medical school curriculum.

Sentry has a longstanding commitment to the region and the state that is reflected in the work and volunteerism of its executives and associates, as well as in the philanthropic investments made through its foundation. Sentry’s investment in MCW marks the beginning of a shared commitment to build healthier communities and will help ensure that Wisconsin has sufficient

“We are fortunate to have partners such as Sentry and the Sentry Insurance Foundation who value student scholarship, are invested in advancing research and patient care, and are committed to fueling medical education innovation.”

– John R. Raymond, Sr., MD



physicians and other healthcare professionals to respond to the needs of families throughout the state.

“We are fortunate to have partners such as Sentry and the Sentry Insurance Foundation who value student scholarship, are invested in advancing research and patient care, and are committed to fueling medical education innovation,” says John R. Raymond, Sr., MD, president and CEO of MCW. “Their investment advances our shared goals of transforming medical education to create a healthier region and state – now and into the future.”

The Sentry Deanship is held by Lisa Grill Dodson, MD, founding dean of MCW-Central Wisconsin. Dr. Dodson’s leadership – with the support of the Sentry gift – will ensure that the necessary resources are available to support the highest strategic goals of the campus. An endowed deanship is one of the highest forms of recognition that an institution can bestow, as it recognizes distinctive accomplishments in education, research and patient care. Holders of these endowments are leaders in their fields. Dr. Dodson is nationally regarded for her leadership, commitment to an innovative medical curriculum and firm dedication to community engagement. As founding campus dean, she serves as the primary liaison for MCW’s healthcare, academic and community partnerships in the central Wisconsin region. This deanship also is the first deanship received by a faculty member of MCW.

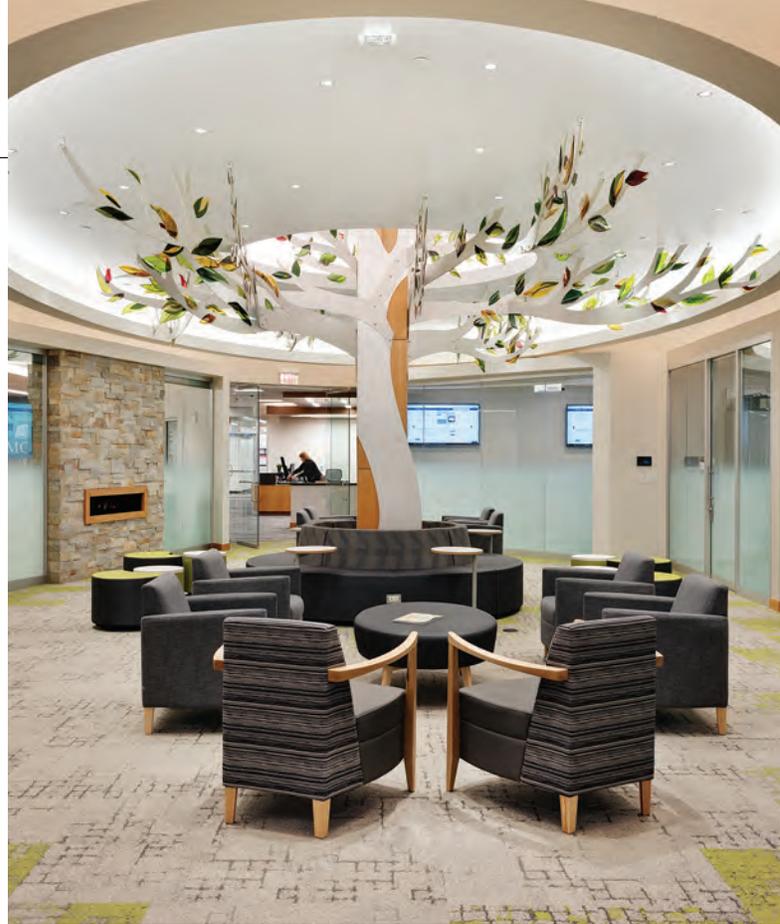
“As our community ages over the next 10 to 15 years, and as more physicians retire, our state will face a critical shortage of primary care physicians, surgeons and psychiatrists,” explains Dr. Dodson. “These shortages will be felt most acutely in rural areas and underserved urban communities. We are honored that Sentry supports MCW in its efforts to address our physician shortage and provider maldistribution by training and graduating physicians every year at MCW-Central Wisconsin to help ensure that our region has the very best care.”

A 2017 study by the Association of American Medical Colleges stated that 70% of all physicians who both attended medical school in Wisconsin and then completed residency in Wisconsin remained in the state to practice, taking care of people they know and understand. This support is vital to improving the quality of care for communities in central Wisconsin.

The campus’s first Sentry-funded projects include working to increase the pipeline of rural and underrepresented students, increasing the opportunity for talented regional students to attend medical school close to home, and developing projects to promote and invest in the health and wellness of its students and faculty.

“We are making this gift to build healthier communities and to secure access to quality healthcare for families in central Wisconsin,” says Pete McPartland, chair of the board, president and CEO of Sentry, which is headquartered in Stevens Point, Wis. “The innovative programs provided by the Medical College of Wisconsin enrich us all, and we’re honored to stand with the institution in committing to improve the health of people here and across our state.” ■

– MAUREEN REMMEL



The new space at MCW-Central Wisconsin offers a cohesive campus feel and features an open concept using glass and natural elements to inspire collaboration, clarity and energy among faculty, staff and students.

MCW-Central Wisconsin Boasts New Digs

In December 2019, MCW-Central Wisconsin opened the doors to its brand-new space across the street from Aspirus Wausau Hospital. After more than a year of planning by the MCW design and development team, MCW-Central Wisconsin administration and leaders, the Somerville architectural firm and many others, the new campus space offers an open concept using glass and natural elements to inspire collaboration, clarity and energy among faculty, staff and students.

The new space offers a cohesive campus feel, featuring more collaboration and study spaces, expanded lounge and wellness spaces, and easier access to anatomy and simulation labs. Faculty and community partners also have access to additional conferencing space to encourage collaboration. As a destination for innovation, specialty care and education, the new space will provide MCW-Central Wisconsin with the opportunity to transform the way it teaches future generations of physicians – encouraging day-to-day interactions that promote a deeper connection across missions and greater collaboration in innovation.

“This new building represents growth at MCW-Central Wisconsin, as well as with our partners at Aspirus, and will shape how future generations of students work together in prioritizing innovative and empathetic patient care,” says Dr. Dodson.

Classes began in the new location on January 2, 2020, and a community open house and ribbon-cutting were held at the end of February.

Spanning the Breadth of Pharmacy Practice

Third-year Students Complete Advanced Pharmacy Practice Rotations

The increasing demand for more healthcare providers of primary and preventative care services means that the role of the pharmacist is changing. To that end, the MCW School of Pharmacy, through its innovative curriculum, is preparing students to fulfill this evolving role.

When students reach their full-time clinical rotations in the final year of the doctor of pharmacy (PharmD) program, they do so with certificates in hand for immunizations, diabetes management, medication therapy management and more. The inaugural class, which will graduate in May 2020, is finishing these rotations – known as Advanced Pharmacy Practice Experiences (APPEs). By graduation, these third-year students will have completed seven unique APPEs that span the breadth of pharmacy practice.

One student, Christopher Tran, MBA, provided direct care to patients during his recent ambulatory care APPE at Cass Lake Indian Health Service (IHS) Unit in Cass Lake, Minn. Tran's daily activities included Medication Therapy Management, physical assessments, tobacco cessation counseling and disease state management. "Every day I would counsel at least 20 patients and administered nearly 150 influenza and shingles vaccinations in the six-week span of my rotation. I also was able to travel to neighboring tribal clinics and participate in community outreach presentations," Tran says.

While on this ambulatory care rotation, Tran received specialized training to work with the Native American populations that the IHS serves. "The experience really



"I value that pharmacy is growing and there are so many disciplines you can do with your PharmD degree."

— Christopher Tran,
MCW PharmD student

opened my eyes to a different side of care and provided me with some cultural insights," he added.

Tran's Patient Care Laboratory courses at the MCW School of Pharmacy prepared him with the expanded skillset he needed to succeed while on rotation.

Tran's experiences motivated him to apply to a postgraduate residency with the IHS. He is currently in Washington, DC, for a rotation with the FDA Pharmacy Student Experiential Program at the Office of Surveillance and Epidemiology. "I value that pharmacy is growing and there are so many disciplines you can do with your

PharmD degree," he says. "Allowing me to have that exposure now, as a student, is so much more beneficial than to do it later."

Becka Anton didn't know that the field of pharmacogenomics existed before attending the MCW School of Pharmacy. Now, she's sure that it's the right choice for her. She learned about pharmacogenomics when it was the topic of the School of Pharmacy's Annual Symposium in 2017. Ulrich Broeckel, MD, founder and CEO at Right Patient Right Drug (RPRD) Diagnostics, was a speaker at the symposium; he also is an MCW professor of pediatrics, chief of genomic pediatrics and associate director of pharmacogenomics for MCW's Genomic Sciences and Precision Medicine Center.

Anton approached Dr. Broeckel and the School of Pharmacy's Office of Experiential Education (OEE) about completing a pharmacogenomics rotation at RPRD Diagnostics. "It's nice that the MCW environment is open and inviting to new ideas. We're innovators," says Anton.

Her rotation at RPRD Diagnostics was the first time the precision medicine company had a student pharmacist work with its staff. "It was great to have Becka at our company. We look forward to having more pharmacy students join us in the future," Dr. Broeckel shares.

"The most important thing I learned from this rotation is how broadly the pharmacist can be utilized," Anton adds. "We're trained to look at the scientific side of things and then translate that to patient care. We can really be that linking piece."



MCW PharmD student Nathan Jaco visited patients at their homes as part of his Advanced Pharmacy Practice Experiences.

Home visits aren't a service that every pharmacy offers – but it is one that Nathan Jaco had the chance to experience first-hand while on his community rotation at Hayat Pharmacy, an independent community pharmacy serving the greater Milwaukee area that focuses on underserved communities. Two days a week, Jaco and his preceptor visited patients at their homes to review their medications, improve medication adherence and educate on the correct use of medical devices. Jaco also checked blood pressures and heart rates, and often assisted with the administration of medications.

"For a while now, I've wanted to work in the community setting. This rotation has really cemented that," says Jaco. "I'd be much more interested to be involved in an independent pharmacy to take advantage of some of the resources that you wouldn't be able to find elsewhere."

Jaco's rotation comprised Hayat Pharmacy's corporate offices and a retail pharmacy location in South Milwaukee. In the community setting, he provided patients with services such as bubble packaging and had the chance to work with translators for patients who spoke Spanish, Arabic, Burmese and Rohingya.

"The biggest takeaway I have is that if you have the time and resources to make an impact on a patient's regimen, you can really build that connection. In the long

"The biggest takeaway I have is that if you have the time and resources to make an impact on a patient's regimen, you can really build that connection. In the long run, that will lead to better outcomes."

– Nathan Jaco, MCW PharmD student

run, that will lead to better outcomes," he remarks. "The education and training we have received with MCW is practical and has translated to this rotation really well."

During a Longitudinal APPE at Walgreens – where he has been an employee for more than five years – Erik Everton worked on a project to incorporate Medication Therapy Management within store pharmacies. The program can help patients with chronic conditions optimize their medication use and adherence. He also worked on a project to update pharmaceutical compounding standards in different Walgreens stores.

"The most important thing I learned at Walgreens is that community pharmacy does have a clinical pharmacy side, including opportunities to make patient interventions," Everton shares. "Having these rotations be tailored to me was important to understand what my future job might look like."

Everton previously completed a required APPE rotation focused on ambulatory care at Ascension-Wisconsin's All Saints Family Care Center with preceptor David Ombengi, PharmD, MBA, MPH, associate professor of clinical sciences at the MCW School of Pharmacy, and clinical pharmacist at the Center. During this rotation, Everton met with patients to review their medication regimens and disease states, aid in goal-setting and lifestyle modification, and find solutions to patient-perceived barriers to health-care. He also served as a resource to physicians and residents and participated in community clinics in underserved areas. "The MCW School of Pharmacy offers a comprehensive set of possible rotations so that any area of pharmacy that might be a future career is available to experience," he notes.

"We are lucky to be able to offer our students a rich variety of experiences during their experiential rotations, especially during the APPE year," says Sara Revolinski, PharmD, BCPS, director of experiential education and assistant professor of clinical sciences at the MCW School of Pharmacy. "Our individualized approach to scheduling rotations based on student interests and goals provides students with opportunities to experience rotations in the areas they would most like to explore." ■ – BRITTANY CALLAN



(l-r) Research technologist Jaimy Pettit, Dr. John Routes, medical technologist Kelly Beck and Dr. James Verbsky discuss results from a mandatory genetic test for Severe Combined Immune Deficiency (SCID).

MCW Doctors Pioneer Life-Saving Test

On January 23, 2018, Milwaukee residents Alyssa and Tony Matuszak welcomed their first child, Evelyn. The new parents were overjoyed. “It was wonderful and amazing,” says Alyssa.

Like all babies born in the US, Evelyn’s heel was pricked to draw blood for a newborn screening test, which in Wisconsin screens for nearly 50 diseases.

Six days after Evelyn’s birth, the Matuszaks received a call that would rock their world. The test had revealed that Evelyn had Severe Combined Immune Deficiency (SCID), a rare genetic disorder, sometimes referred to as the “bubble boy disease,” in which the body is unable to fight off serious and life-threatening infections.

Alyssa, a critical care pediatric nurse

Test to Determine Rare Genetic Disorder Now Mandatory Nationwide and Around the Globe

practitioner, knew more than most new parents the gravity of this diagnosis.

“When the doctor said SCID, my world stopped,” Alyssa shares. “I knew that this was a life-threatening diagnosis for her, and we had to prepare ourselves for the worst.”

The test results revealed that Evelyn’s blood lacked T-cells – a type of white blood cell that is critical to the immune system – rendering her unable to fight viruses, infections and bacteria.

“Children with SCID will look totally

normal at birth, and then several months later, they’ll start getting infections,” notes pediatric immunologist James Verbsky, MD, PhD, associate professor of pediatrics (rheumatology) and microbiology & immunology at MCW. “Eventually, they acquire life-threatening infections and usually die by one year of age if not detected early enough and treated.”

In the days following the telephone call, the Matuszaks were understandably devastated by the diagnosis. Evelyn’s pediatrician turned to Dr. Verbsky and pediatric immunologist John Routes, MD, MCW professor of pediatrics (allergy, asthma and immunology) and microbiology & immunology, who offered hope.

The two doctors have focused on the detection and treatment of SCID for more than 15 years – and they knew that

Evelyn's early diagnosis and timely treatment were her best chances at a long, healthy life.

"If you can identify SCID in a baby early on in life, before they get an infection, the results of treatment are much better – consistently over 90 percent long-term survival," says Dr. Routes. "However, if you make the diagnosis late, when the baby has an infection, the long-term survival goes down considerably."

Shortly after Dr. Routes joined MCW in 2006, he began to pursue the idea of screening babies for SCID. Throughout 2007, Drs. Verbsky and Routes, in partnership with Children's Wisconsin and the Jeffery Modell Foundation, began to adjust and prepare a test for SCID after local and national advocacy efforts convinced Wisconsin to become the first state in the country to include it on the newborn screening panel. In January 2008, the first baby in Wisconsin was screened for SCID. In June, an infant in Wausau was the first to test positive.

Word of Wisconsin's successful implementation of SCID screening quickly spread throughout the pediatric and immunology communities, particularly though the dedication of the Modell family, which had lost a child to SCID and provided half the initial trial cost for the screening pilot program in Wisconsin.

The Modells advocated directly to other states around the country for the addition of the SCID test to their newborn screen, pointing to the lives saved in Wisconsin. Progress was slow – but since 2018, when Nevada, Alabama, Indiana and Louisiana added the screening to their newborn panel, infants in all 50 states are now tested for SCID. The screening test also is used in more than 20 other countries.

"[The SCID test] is the most important thing I did as a physician-scientist," Dr. Routes shares. "I'm really grateful that I was in the right place at the right time with the right people to get this done."

When Drs. Verbsky and Routes started

"If it wasn't for Drs. Verbsky and Routes, my Evelyn might not be here today... You would never know what she went through in her first year of life."

– Alyssa Matuszak

focusing on SCID, it was believed to affect one in 100,000 babies. Thanks to their efforts, that number now is one in every 40,000–50,000 births.

"It's something that we're very proud of," says

Dr. Verbsky. "I don't think I'll do anything that is this important again in my career because this made a huge difference so fast."

More than a decade after the first SCID screening in Wisconsin, the accumulated knowledge surrounding SCID would result in a life-saving transplant for Evelyn.

For children with SCID, the standard treatment is a bone marrow transplant to reset their immune systems. Thanks to the screening advances made by the MCW team, however, SCID is typically discovered months before the child is ready for a transplant – providing the family with an opportunity to maintain a sterile environment to greatly reduce the risk of infection.

The Matuszak family sequestered themselves in their home, sanitizing everything Evelyn could encounter and giving her medication to fight off viruses, bacteria and fungi. "We had to isolate ourselves," recalls Alyssa. "The hardest part about the diagnosis was that nobody could come to see her."

On October 11, 2018, after several rounds of chemotherapy, Evelyn received her bone marrow transplant at Children's Wisconsin.

"After she received the transplant, her bone marrow kicked in too fast and she ended up in the ICU," says Alyssa. "We were eventually able to take care of her at home. She was building the foundation that she needed to be a healthy toddler."

Alyssa learned from Dr. Verbsky that she shares the genetic mutation with her daughter. Thus far, Alyssa has been asymptomatic, but the revelation may have a positive impact on her health going forward.

"Dr. Verbsky has most likely saved my life because of this screening," she remarks. "I am now screened every year for cancer, and I am more on top of it if I get sick."

Evelyn is a happy, healthy nearly 2-year-old. This past summer, she enjoyed playing with other kids at a birthday party and chasing her dog around.

"If it wasn't for Drs. Verbsky and Routes, my Evelyn might not be here today," Alyssa says. "She's a normal toddler. She's always happy and learns something new every day. You would never know what she went through in her first year of life. Watching her grow has been one of the best things I've ever been able to witness."

When the family recalls that devastating phone call, they know it eventually paved the road for the healthy Evelyn they see today. "It's amazing that now that SCID is screened in every state and babies can be identified early on, many thousands of lives have been saved," Alyssa says. "MCW doctors are not only predicting the future, they're changing it." ■

– NICHOLAS L. HONECK



Heart Transplant Surgeon Duo Helps
World-Champion Cowboy Get

Back in the Saddle Again



By Alex Krouse

To become a world-champion cowboy, it takes heart. For Chuck Newman, it required a second heart...and then a third.



(top to bottom) Chuck Newman and Dr. Lyle Joyce in 1988, at the time of Newman's first heart transplant.

In 1987, Chuck Newman, a rodeo cowboy in his 40s, placed third in the Rodeo World Championships. It is a feat that required immeasurable strength and vigor – two traits that he was missing less than a year later. This physical deterioration eventually led him to Lyle Joyce, MD, PhD, at that time a surgeon at the Mayo Clinic and currently a professor of surgery at MCW.

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Chuck Newman prepares to practice his roping skills in 2019, shortly after his second heart transplant.

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“Chuck was at a rodeo and started to feel ill. He thought it was a virus and shrugged it off for a while,” recalls Dr. Joyce. “However, he rapidly deteriorated as his heart began to give out. He came into our hospital in cardiogenic shock.”

Newman’s condition was so dire that it necessitated a heart transplant, and he was placed on the list of patients needing a heart donation. As he waited, his health worsened – and he was running out of options to keep him alive. At the last moment, however, an organ became available. Dr. Joyce flew to the donor location to procure the heart and returned to sew it into Newman’s chest.

The procedure was a success, and just 10 days following the surgery in 1988, Newman was back to roping. Some five months later, Newman went on to win the world championship in team roping. This was a dream come true!

Joyce Family of Surgeons

Professions aside, Newman and Dr. Joyce share many similarities. Dr. Joyce hails from a rural background as the son of a farmer and grew up riding horses and raising animals. In fact, both he and Newman were raised in small towns about an hour apart in northern Nebraska. The two seemed almost destined to cross paths. “I was one of those fortunate kids who grew up on the farm,” recalls Dr. Joyce. “The family was the unit working together, so I spent every day of the first 18 years of my life basically working side by side with my dad.”

After leaving the family farm to pursue his education, Dr. Joyce embarked on a medical career that solidified his place as a pioneering figure in the field of cardiac surgery. Among many highlights, he was part of the surgical team responsible for implanting the first permanent total artificial heart in a human in 1982.

His son, David Joyce, MD, MCW associate professor of surgery, grew up witnessing the surgical triumphs of his cardiothoracic surgeon father and following in his footsteps – earning his medical degree at Harvard Medical School and completing residencies at Johns Hopkins and Stanford University Hospital. In 2014, Dr. David Joyce teamed up with his father for the first time as a surgeon at the Mayo Clinic. Both Drs. Joyce joined MCW as faculty members in May 2017 and remain one of the few (if not only) father-son duos in cardiothoracic surgery in the country.

“When someone has seen as much and done as much across the entire spectrum of cardiac surgery as Lyle Joyce has, that’s a resource that you do not take lightly,” reflects Dr. David Joyce. “I can still remember being 7 years old and watching my dad put in the first total artificial heart. And I also vividly remember being 12 when my dad performed Chuck’s transplant.”

Reuniting with his Surgeon

Newman and the Joyce family became close following the 1988 transplant. Newman spent countless afternoons teaching the Joyce children, including David, how to ride horses and rope stationary cattle.

Newman, by all accounts, was a terrific steward of his donated

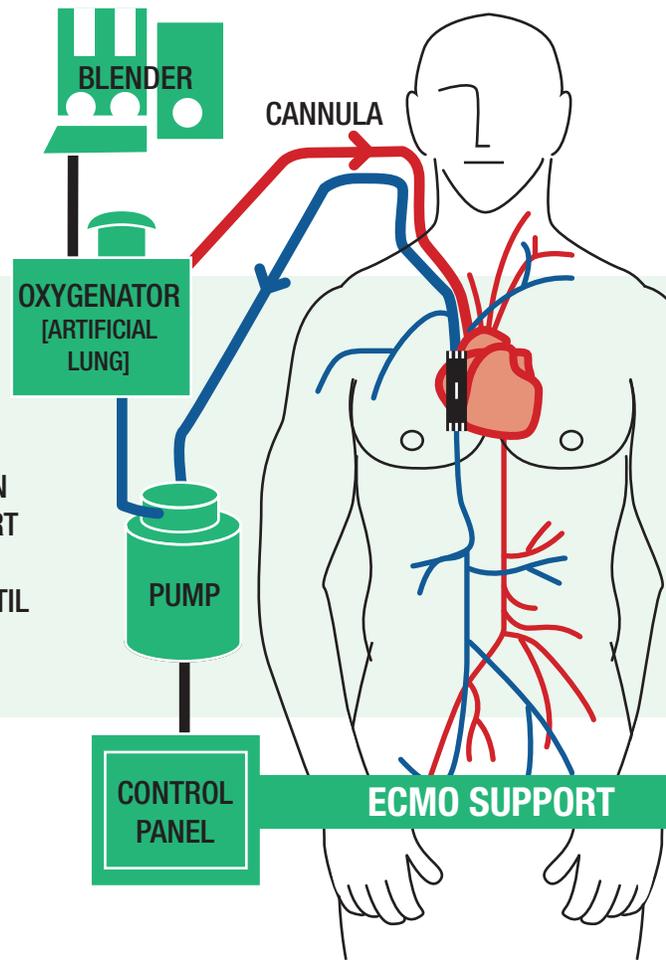
Heart Transplant Step-by-Step



■ PATIENT IS REGISTERED IN NATIONAL ORGAN SHARING LIST AND WAITS FOR A DONOR.

■ PATIENT MAY BE GIVEN ECMO OR VAD SUPPORT DEVICES TO MAINTAIN HEART CONDITION UNTIL TRANSPLANT.

Graphic courtesy of Kristin Pelisek



heart. In fact, it is believed that in the 31 years following the 1988 transplantation, he was the fourth-longest person to live on a donated heart. Much of this success can be attributed to exercise, healthy diet, maintenance of weight and blood pressure, and strict adherence to prescribed medication.

Regardless of how well maintained the heart is, it eventually runs its course. Three decades after his first transplant, Newman found himself consulting with Dr. Lyle Joyce once again on heart issues – although this time, Dr. David Joyce was part of the team.

Both heart surgeons realized that time was of the essence to find a new heart for the now 73-year-old cowboy. After three weeks of waiting and searching for the perfect match, the window to find Newman’s new heart was dwindling to mere days. In the meantime, in order for him to survive, Newman was placed on an extracorporeal membrane oxygenation (ECMO) machine to do the work for his heart and lungs.

The situation was dire, and the Drs. Joyce were unsure if Newman was going to survive without a second heart transplant. “We knew Chuck’s heart had limited time of functional use left. This time restriction became vanishingly small. We’re talking days – and if we didn’t get that organ during that time, Chuck wouldn’t have made it,” says Dr. David Joyce.

On March 31, 2019, lying in his bed at Froedtert Hospital, Newman wasn’t sure that he would make it through the night. But for the second time in the cowboy’s life, another miracle heart became available at that moment. With the clock running against them, on April 1, Dr. David Joyce boarded a jet to retrieve the donated organ to save Newman’s life once again.

A Student Experience of a Lifetime

On board that jet was Devashish Joshi, a then third-year MCW medical student who was getting his first opportunity to be part of a live heart transplant. Joshi, who will graduate in May 2020, is interested in entering the field of surgery during his residency and jumped at the chance to be mentored by one of the leaders in heart transplantation.

“I was wide-eyed at the prospect of learning from one of the very best heart surgeons in the country,” recalls Joshi. “It was an opportunity of a lifetime.”

Throughout the day, Joshi was able to follow and assist Dr. David Joyce from organ procurement to transplantation – witnessing in real time the intricacies involved in organ removal, preparation and transportation.

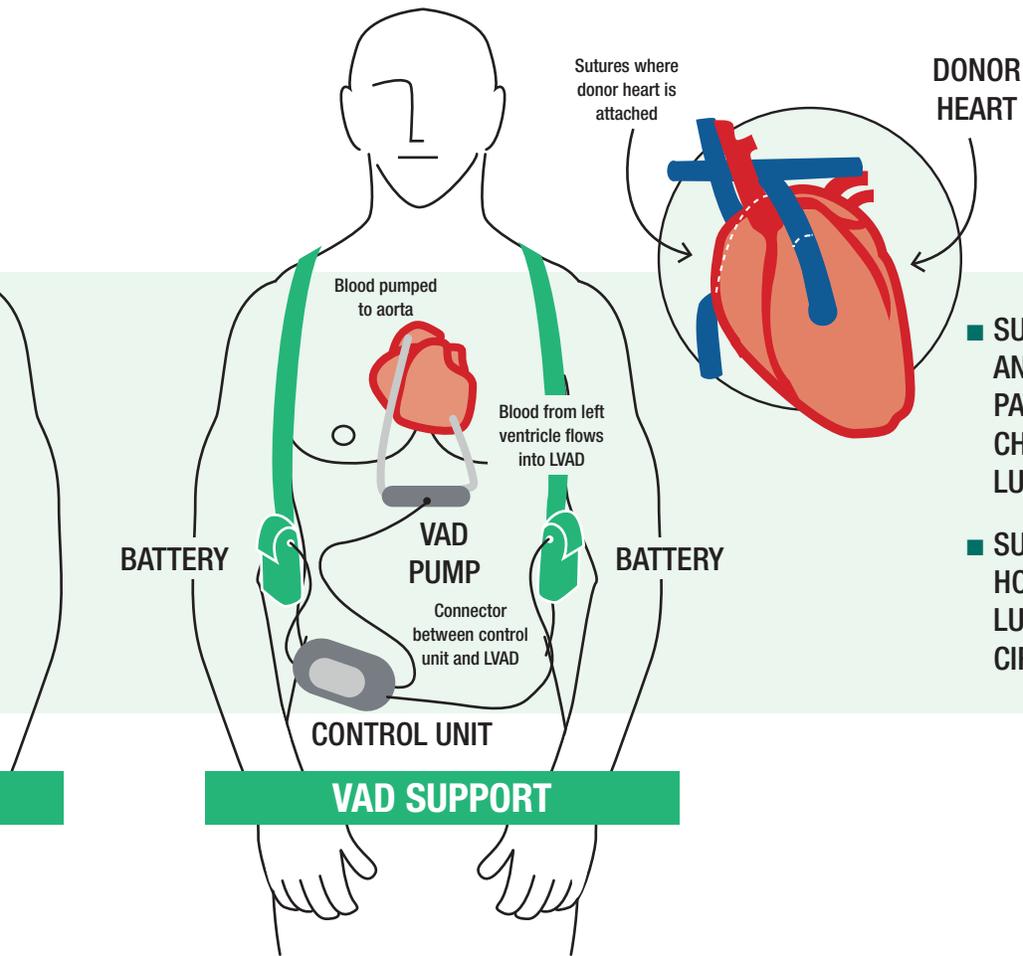
Joshi believes the experience will be invaluable for pushing him toward his goal of becoming a surgeon as esteemed as his mentor.

Continued on page 22



When someone has seen as much and done as much across the entire spectrum of cardiac surgery as Lyle Joyce has, that’s a resource that you do not take lightly.

– David Joyce, MD



- SURGEON REMOVES THE DISEASED HEART AND SEWS THE DONOR HEART INTO PLACE. PATIENT HAS A VENTILATOR AND TUBES IN CHEST TO DRAIN FLUIDS FROM AROUND LUNGS AND HEART.
- SURGERY LASTS APPROXIMATELY FOUR HOURS. PATIENT IS PLACED ON A HEART-LUNG MACHINE TO KEEP BLOOD CIRCULATING DURING THE PROCEDURE.

Sources: American Thoracic Society, Mayo Clinic.

VAD SUPPORT



(l-r) Dr. David Joyce and then third-year medical student Devashish Joshi discuss the organ procurement procedure while on the flight to retrieve Newman's new heart on April 1, 2019.



The father-son relationship between Dr. Lyle Joyce and Dr. David Joyce makes them a unique pair because there is a certain innate empathy and teaching aspect that goes into their relationship. The amount of experience that they have together really made them the perfect team to do this second transplant for Chuck.

– Devashish Joshi, current fourth-year MCW medical student

From page 21

“I will never forget that day. It is something that I will carry with me for the rest of my medical career,” says Joshi. “I can’t articulate how grateful I am that Dr. Joyce gave me this opportunity to learn.”

Apart from gaining invaluable surgical skills, Joshi also received insight into why the Drs. Joyce are held in such high regard as surgeons. He believes that the relationship the two have, inherent with being father and son, makes them dynamic and effective in the operating room.

“The father-son relationship between Dr. Lyle Joyce and Dr. David Joyce makes them a unique pair because there is a certain innate empathy and teaching aspect that goes into their relationship,” Joshi notes. “The amount of experience that they have together really made them the perfect team to do this second transplant for Chuck.”

Time is of the Essence

As Joshi observed that day, organ transplantation is a process that takes precise timing. The goal is to have the heart outside the body for as short a time as possible. Thus, while Dr. David Joyce, Joshi and a team of organ procurement professionals were jetting out of state to retrieve the organ, Dr. Lyle Joyce remained at the hospital to prepare Newman for his transplantation.

The Drs. Joyce would be in contact throughout the trip to ensure that the preparation was in step with the organ retrieval trip in order to give Newman the best chance for success. Their communication included continual texts on how the procurement was progressing and estimated time of takeoff and arrival.

“Right when we landed the airplane, I let my dad know that we were 20 minutes away. That’s when he started removing Chuck’s heart. By the time we arrived at Froedtert, Chuck was ready for

implantation,” says Dr. David Joyce. “We were able to get it sown up pretty quickly. Things went very smoothly during the surgery. We brought Chuck back to the ICU, and the rest is history.”

The surgeons credit the procedures and efficiencies in place at Froedtert Hospital, which allowed the transplant to run so smoothly.

“It’s a really well-oiled machine that they have at Froedtert and the Medical College of Wisconsin. The infrastructure enables us to pull together all the people who might have an opinion or any ability to think through the procedure rationally, and to recommend a course of action,” says Dr. David Joyce. “We’re pushing the edge time-wise, and it gets to the point where even a few minutes can make a big difference.”

Altogether, Newman’s new heart was outside a human body for fewer than three hours.

Joshi, fresh off his first participation in an organ transplant, was in awe – not only of the skill of the surgery team but also the passion the team exhibited in helping get Newman back on his feet.

“It was incredible to witness pioneers in the field of cardiothoracic surgery working together to help this man continue living his life,” Joshi shares. “They were not doing a heart transplant... they were treating Chuck and working to give him his life back.”

Riding off into the Sunset Again

Almost immediately after the surgery, Newman was feeling back to his old self. “I felt great the next day. I couldn’t believe how much better I felt already,” he recalls.

When jokingly asked if he likes his new heart better than his old one, he says that he can’t pick one over the other. He’s just so grateful for the gift of life.

Despite feeling almost immediately better post-transplant, his physicians didn’t think he’d be able to get back on a horse for at least 12 weeks. Instead, the cowboy was saddled up and able to partake in teaching at a youth rodeo bible camp – one that is near and dear to his heart – only nine weeks after surgery.

“To be able to support Chuck again at this stage of his life, and to see his progress, is extremely rewarding,” reflects Dr. Lyle Joyce. “It is a testament both to his resilience and the hard work and dedication to patients that our team at Froedtert & MCW embodies.”

Ruminating on what the future holds with his new heart, Newman is not ready to hang up his lasso just yet. He still has major aspirations as both a cowboy and a mentor to youth. He sees himself continuing his work at his summer camp and coaching the next generation of cowboys.

“I am so grateful for this next chapter in my life. I want to use the rest of my time helping others. And really, I foresee myself working with a younger generation and, hopefully, winning a few more roping championships.”

Cowboy Chuck has his third heart...and he is putting it into everything he does. ■

 See more at mcw.edu/chuck



Dr. Lyle Joyce visits Chuck Newman at Froedtert Hospital several days after his successful second heart transplant surgery.

World-class Cardiovascular and Cardiothoracic Surgical Specialists

In the past several years, MCW has recruited a number of pioneering and world-class cardiovascular and cardiothoracic surgical specialists – positioning Milwaukee and the state of Wisconsin as a hub for some of the top such talent in the country.

These distinguished individuals include:

Viktor Hraska, MD, PhD,
professor of surgery and chief of congenital heart surgery

Jeanne James, MD,
professor of pediatrics and chief of cardiology

David Joyce, MD,
associate professor of surgery (cardiology)

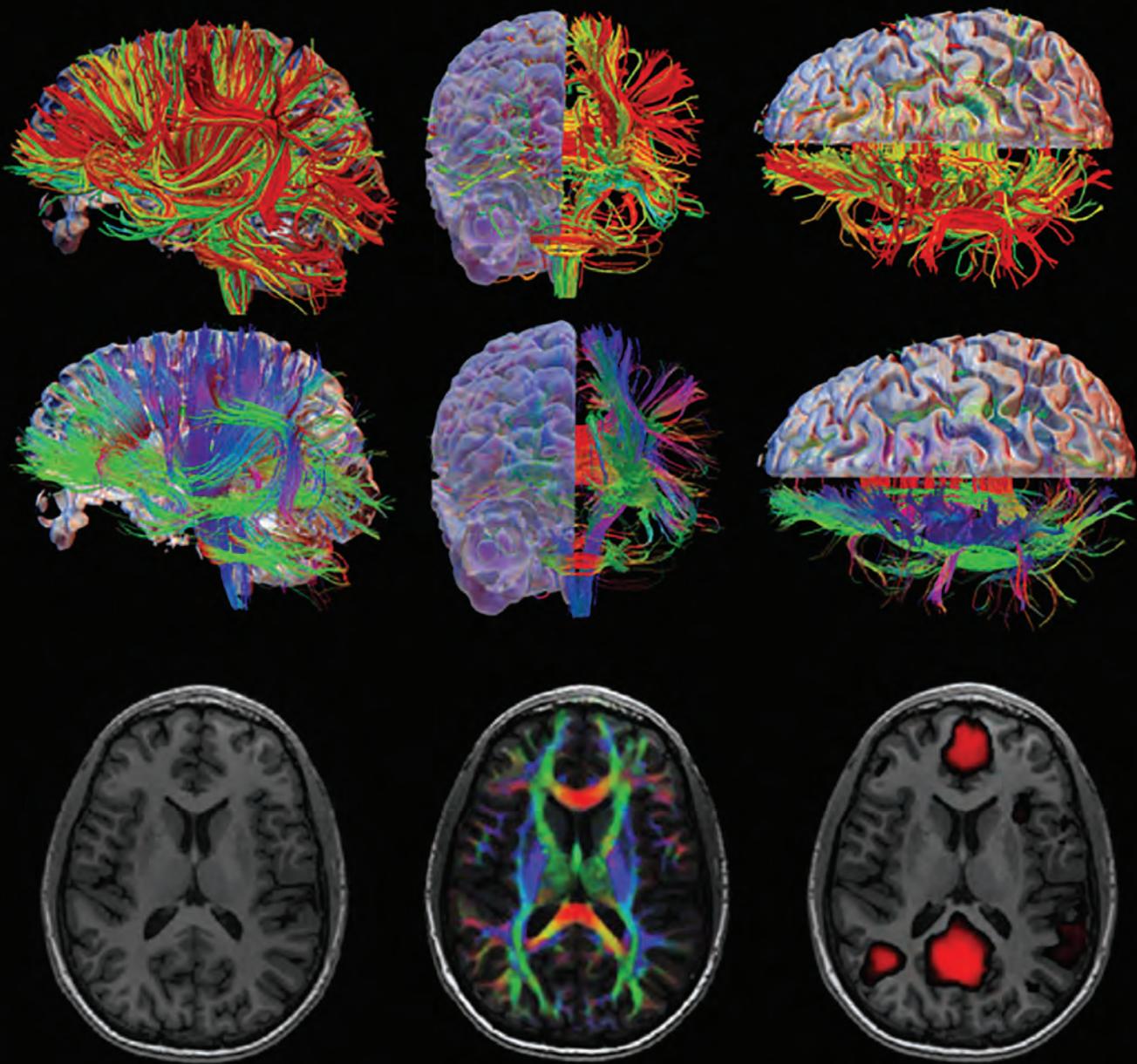
Lyle Joyce MD, PhD,
professor of surgery and chief of adult cardiac surgery

Paul Pearson, MD, PhD,
professor of surgery and chief of cardiothoracic surgery

Michael Salinger, MD,
professor of medicine (cardiology)

Mitchell Saltzberg, MD,
professor of medicine (cardiology)

Jorge Saucedo, MD, MBA,
professor of medicine, chief of cardiovascular medicine and an MCW Eminent Scholar



Hammes Gift Drives Innovation

\$2 Million Supports MCW and Marquette University Joint Biomedical Engineering Department

The Neural Imaging Laboratory in the joint department of biomedical engineering is dedicated to the research of imaging of neural structure and function using techniques such as diffusion tensor imaging (DTI), functional magnetic resonance imaging (fMRI) and magnetoencephalography (MEG).

Entrepreneur Jon Hammes and his wife, Ann E., inspired by the innovative work being done within the Marquette University (Marquette) and Medical College of Wisconsin (MCW) department of biomedical engineering (BME), recently made the largest donation to the joint department in its almost four-year history.

Jon Hammes is founder and managing partner of Milwaukee-based Hammes Company, a healthcare project management firm that provides strategic planning, implementation and development services for capital construction projects.

This gift signifies an investment in the institutional partnership's transformational leadership in biomedical engineering, as well as in each entity's role as a driver of economic vitality, innovation and workforce development in the region, state and beyond.

The Hammeses gifted \$2 million in philanthropic support to MCW, Marquette and the BME department as a catalyst for additional industry and individual support. The gift funds an endowed faculty chair in the BME department to a scientist who specializes in a priority area of biomedical research such as imaging, medical device innovation or neuro-systems and neurorehabilitation.

Brian D. Schmit, PhD, associate dean for research in the Marquette Opus College of Engineering, professor in the Marquette and MCW department of biomedical engineering, was named the Hammes Family Endowed Chair in March 2020.

"Ann and I are inspired by the work being done within the department of biomedical engineering and its impact on the future of patient care. Both the Medical College of Wisconsin and Marquette University recognize the impact that strategic philanthropy, dedicated leadership and collaborative infrastructure make in advancing innovation in medical education," Hammes explains. "It is our hope that this investment, along with support from other stakeholders, will continue to grow the department as a nationally recognized center for biomedical engineering and thought leadership – driving economic and workforce development in our region."

In July 2016, MCW and Marquette partnered to create the joint BME department, bringing together the engineering education and research expertise of Marquette and the medical research, technology and clinical expertise of MCW to provide an inclusive education model for the

next generation of engineers, scientists and physicians. The BME department strives to become a premier destination for learning and research, ultimately transforming and improving healthcare delivery and patient care.

Biomedical engineering is an expanding field that is vital to the future of healthcare in today's world. In fact, the US Bureau of Labor Statistics expects the employment of biomedical engineers to grow 23 percent from 2014–2024. Additionally, the need to apply advanced technologies to remedy the myriad complex problems in delivering healthcare to an aging population further amplifies the need for biomedical engineers.

MCW and Marquette have a long history of collaboration, dating back to the years when MCW was known as the Marquette University School of Medicine. In the 1960s, while they were still a single institution, the biomedical engineering program at Marquette was launched as one of the first in the country and was



Jon and Ann Hammes

known as a pioneer in developing solutions for clinical applications.

More recently, Marquette and MCW faculty members have worked together on numerous transformational

research discoveries in rehabilitation medicine, orthopedics, trauma and cardiovascular and pulmonary physiology.

Research themes within the department include cardiovascular and pulmonary imaging; medical device innovation; analytics, informatics and software engineering; computational biology and systems biology; molecular systems and modeling; orthopedics and orthopedic rehabilitation; and neurosystems and neurorehabilitation.

The department boasts five graduate degree programs: a five-year bachelor's/master's in biomedical engineering; Master of Science in biomedical engineering; Master of Science in healthcare technologies management; Master of Engineering in biomedical engineering; and PhD in biomedical engineering.

"We express our sincere gratitude to Jon and Ann for their generous investment in our joint biomedical engineering department," says John R. Raymond, Sr., MD, president and chief executive officer of MCW. "This gift supports the Hope to Health campaign and will significantly advance the impact of the BME department as a nationally recognized hub for biomedical engineering innovation, as well as an international destination for industry research and development partners to help develop cutting-edge medical treatments and devices that accelerate healthcare advancements, improve patient care and overall quality of life."

"MCW and Marquette University have an extraordinary bioengineering partnership," notes Michael R. Lovell, president of Marquette University. "With the support of the Hammes family, our BME department is further positioned to become a national leader in education and research as well as a catalyst for stimulating industry and improving lives in greater Milwaukee and beyond." ■

– HOLLY BOTSFORD

DEPARTMENT OF BIOMEDICAL ENGINEERING BY THE NUMBERS

360

Undergraduate students

49

Engineers focusing on biomedical work and research at MCW across 12 departments

43

Students in PhD program

24

Students in master of science and master of engineering programs

16

Full-time, PhD-level faculty from Marquette's Opus College of Engineering

10

Full-time, PhD-level faculty from MCW



Dr. Joseph Bovi (opposite page), Kimberly Roller-Voigt, PA, (left) and Jennifer Lindstedt, BSN, MSN, ACNP, (right) demonstrate the NIMBLE mobile application. It connects experts from multiple specialty areas and enables them to discuss patients and treatment plans through encrypted text messaging and with access to relevant health information and test results.

Brain Invaders

MCW Team
Improves
Treatment of
Cancer that
Spreads to
the Brain

Joseph Bovi, MD, GME '07, MCW professor of radiation oncology, always knew he wanted to be a doctor. His grandmother's battle against pancreatic cancer during his high school years further strengthened his resolve to enter medicine and specialize in cancer care. While in medical school, he was setting up a medical oncology rotation when a clinical faculty member's vacation plans presented a fork in the road.

"I was initially planning to pursue a residency in medical oncology. The medical oncologist I was going to rotate with was headed out of town and instead I was presented with the opportunity to rotate in radiation oncology for a week," Dr. Bovi says. "Within that week I was awestruck by this specialty. I knew it was the field I needed to enter."

After completing his residency training

in radiation oncology through Medical College of Wisconsin Affiliated Hospitals, Dr. Bovi began to narrow his clinical focus to radiation therapy for tumors of the central nervous system. Under the mentorship of Christopher J. Schultz, MD '85, Bernard & Miriam Peck Family Professor of Radiation Oncology, Dr. Bovi trained in Gamma Knife® radiosurgery – an alternative to traditional brain surgery and whole brain radiation therapy that uses precisely delivered radiation beams to treat complex brain conditions.

Dr. Bovi uses radiosurgery and other radiation therapy techniques to treat brain tumors and brain metastases, which are tumors that have spread to the brain from elsewhere in the body. Over time, he became increasingly concerned about the state of treatment for patients suffering from brain metastases, which is the most

common brain tumor in adults. In fact, more than one in four patients with any form of cancer in the US also develop brain metastases.

“When I entered the field, patients with brain metastases had little consistency in their plans of care. We observed long-term survivors with brain metastases in our own clinic, so we knew there had to be differences in these patients that could become opportunities for better outcomes if we understood the disease process better,” Dr. Bovi recalls.

Dr. Bovi discussed this issue with Dr. Schultz, and they determined there was a need for a treatment algorithm, which is a flowchart diagram that depicts different treatment decisions based on symptoms and other clinical criteria. This algorithm would help guide the creation of more personalized treatment plans by taking into account numerous factors – including the amount and size of brain tumors in a single patient. Their goal was to achieve better patient outcomes while reducing side effects to the brain that factor heavily into patients’ quality of life.

“Dr. Schultz has been the consummate mentor in supporting me through the 20–30 iterations of a treatment algorithm that then positioned us to innovate in a number of areas,” Dr. Bovi notes.

After the algorithm was endorsed by the physicians in all of the specialty areas involved in treating brain metastases, it initially was formatted as a large poster that hung in the clinic to help guide consistency in decision-making. It wasn’t long before a colleague with experience in smartphone application development commented that the flowchart also could



“...it took 30 minutes from start to finish to reach a consensus via virtual messaging, and the patient will begin treatment today.”

– Dr. Joseph Bovi

be used as the “wireframe” – or conceptual foundation – for creating a mobile application that physicians could consult by using technology that nowadays is always at hand.

“I began conversations with Dustin Hahn at the UW–Milwaukee’s App Brewery, and he shared our enthusiasm for the project,” Dr. Bovi says.

Dr. Bovi and his team are at the finish line on the creation of a mobile app that provides access to Dr. Bovi’s treatment algorithm and mirrors the forum of the weekly Froedtert & MCW Cancer Network’s Brain and Spine Tumor Program’s neuro-oncology tumor board. This tumor board is

a multidisciplinary group that reviews unique aspects of each patient’s case and collaboratively renders an appropriate, evidence-based treatment plan. The tumor board includes experts in neuro-oncology, neurosurgery, radiation oncology, medical oncology, neuropathology, neuroradiology and neuropsychology.

“What we’ve found is that in many instances we can’t wait up to a week to develop a plan of care for certain patients with brain metastases. They need immediate treatment. We also discovered that it would be beneficial to give our physicians practicing at other clinical locations access to the expertise of a multidisciplinary tumor board, but in a virtual way as an application on their mobile device,” Dr. Bovi adds.

Dr. Bovi’s solution (the app) is called NIMBLE, which stands for “Network for the Integrated Management of Brain Metastases: Linking Experts.” The NIMBLE app allows providers to submit a patient for consideration in a virtual tumor board discussion, which unfolds in real time and

looks similar to a group text messaging thread in the default messaging app on any smartphone.

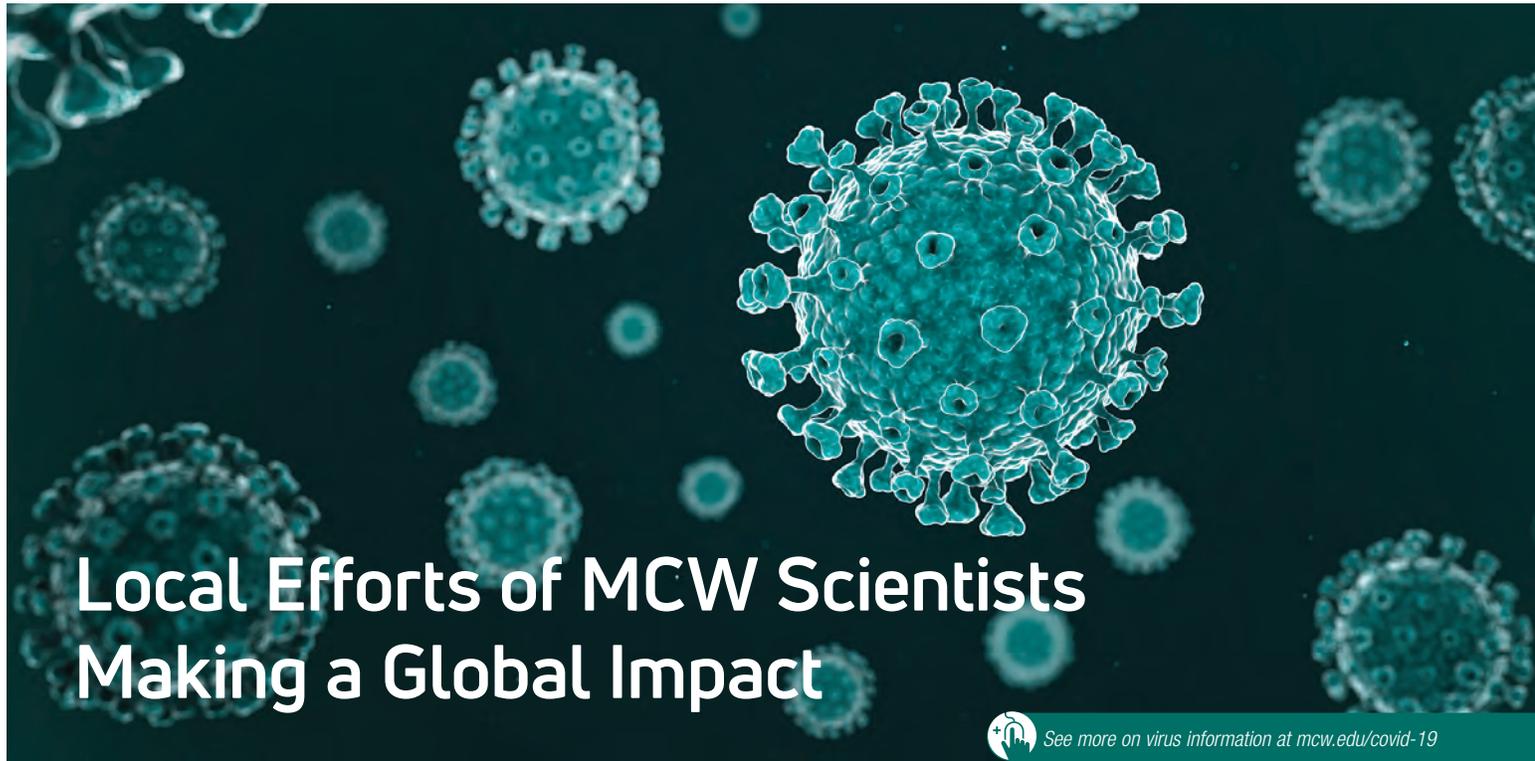
“The difference is in the details. The messaging feature in NIMBLE is encrypted to allow for the sharing of personal health information and also allows for the sharing of medical imaging and other test results relevant to reaching a consensus opinion on treatment,” Dr. Bovi comments.

Immediately prior to beginning the interview for this story, Dr. Bovi was wrapping up a conversation with the pilot group currently putting the NIMBLE app to the test. They were discussing a patient who previously would have had to wait almost a full week before a treatment plan could be determined at the next in-person tumor board meeting. Instead, “it took 30 minutes from start to finish to reach a consensus via virtual messaging, and the patient will begin treatment today,” Dr. Bovi shares.

While the NIMBLE app is being finalized, Dr. Bovi also has led the formation and launch of the Froedtert & MCW Cancer Network’s Brain Metastases Program, which is one of the first of its kind in the US. Dr. Bovi says that the development of this program reflects the national momentum behind the emerging field of brain metastasis treatment. The inaugural Society for Neuro-Oncology’s Conference on Brain Metastases was held in New York City in August 2019, and it marked a major milestone in the growth of this subspecialty.

“Considering where we were at the beginning of my career, it was surreal to be one of the speakers at the first-ever weekend symposium focused only on the treatment of brain metastases. Our team is on the leading edge of a field that is rapidly evolving, and I am excited to help lead, implement and share innovations such as the NIMBLE app that will improve care for our patients,” Dr. Bovi concludes. ■

– GREG CALHOUN



Local Efforts of MCW Scientists Making a Global Impact

 See more on virus information at mcw.edu/covid-19

(This piece is based on information at the time the spring 2020 issue of MCW Magazine went to press.)

The 2019 novel coronavirus (COVID-19), its impact and potential solutions, has occupied the consciousness of nations around the globe. Medical schools, including the Medical College of Wisconsin (MCW), and their associated academic health systems stand at the front lines in the United States in developing plans, providing systems of care and investigating potential solutions.

The benefits of a medical school and academic medicine are often felt locally – such as cutting-edge cancer clinical trials or Level 1 Trauma care for seriously injured patients. Here at MCW, however, our local efforts are making a global impact in the fight against COVID-19. Most direct is work related to the Midwest Respiratory Virus Program (MRVP) in MCW's department of pediatrics. This group has focused on developing a rapid molecular diagnostic approach for COVID-19 that is being used in clinical laboratories, allowing a reduction in turnaround time for diagnosis of the disease from the current 1–2 weeks to less than 24 hours.

MCW's impact through expertise in creating new diagnostic techniques to assist diagnosis and limit disease spread was highlighted during the H1N1 (Swine Flu) outbreak in 2009, when the MRVP developed a specific type of molecular testing

that allowed for rapid and highly specific diagnosis of this dangerous infectious disease. Our partnership with health systems throughout the state enabled Wisconsin to rank as one of the only states in the country to provide a large volume of testing throughout the outbreak. A similar approach would be implemented should the spread of COVID-19 accelerate throughout the U.S.

Additionally, MCW's Clinical Microbiology Research group in the department of pathology has spent the last decade working to develop and partner with commercial entities to commercialize rapid respiratory diagnostics. In a patient suspected of being infected with COVID-19, it is critical to rule out other respiratory viruses (including flu) in a timely manner. Through our advancements, the turnaround for both a flu test and comprehensive respiratory profile is less than one hour from the time the specimen is collected bedside without sacrificing test performance.

Also related to COVID-19 are antiviral clinical trials conducted by MCW's division of infectious diseases in the department of medicine, which have led to multiple new antivirals that have been cleared in recent years – and which ultimately may be the foundation to treatments for COVID-19.

COVID-19 has created substantial loss and suffering already. MCW's preparation, as well as its current generation of new knowledge as part of the academic medical community, is likely to limit future loss and expedite cures. ■ – SARA L. WILKINS

Gifts Honor Troncas' Devotion to Education, Organ Transplant Research

Virginia and Edward Tronca believed in the power of education. So strong was their conviction in 1992 that they didn't tell their daughter, a nursing student at Marquette University, about Ed's upcoming kidney transplant, for fear it would interrupt her studies.

Their daughter, Annlia Way, is still amazed at how they kept the transplant a secret until after the surgery was performed. "It's still kind of a blur. They didn't want me to worry. They wanted me to concentrate on my classes," she recalls.

Many years later – honoring their devotion to education and Ed's surgical and postoperative care through the Medical College of Wisconsin and Froedtert Hospital – MCW received a considerable gift from the Troncas' estate. The funds have been designated for the Organ Recovery Laboratory and the MCW Endowed Scholarship Fund.

Ed's experience also influenced Way's educational path – and ultimately her career path as well. "It got me interested in transplant," she says, "and I wrote a paper in nursing school on pediatrics and chronic kidney disease." Three years after Ed's transplant, Way took her nursing degree to the Mayo Clinic in Rochester, Minn., where she'd completed an internship between her junior and senior years. She spent the last 10 of her 17 years at Mayo as a heart and lung transplant coordinator.

Ed's transplant also spurred him to advocate for organ donation. As the longtime owner of Middle West Manufacturing in Menomonee Falls, Wis., he managed to squeeze in time to educate people – young and old – about the benefits of joining organ donation lists.

"After his transplant, Dad had a passion for sharing information," notes Way. "He spread the word at conferences and conventions, and even talked about it in drivers' education classes at high schools or wherever driving classes were held."

Her father wanted to make a difference, just as he had done after graduating from the Marquette University School of Engineering and serving as a lieutenant in the US Navy. He then went to work for Middle West Manufacturing Corporation, and became owner and president of the metal fabricating company in 1970.

As the youngest of eight siblings, however, he was aware that his mother and a brother had suffered from a familial ailment – polycystic kidney disease. Ed eventually found that he, too, had inherited the disorder, in which clusters of cysts develop, primarily within the kidneys – causing them to enlarge and eventually lose function.

For a time, Ed managed the disease at home through peritoneal dialysis, but he ultimately needed the kidney transplant.



(left): Virginia and Edward Tronca. (below): The Troncas' daughter, Annlia Way, her husband, Rick, and their children.



Way was impressed with the expert care her father received from the MCW and Froedtert teams. She saw the same compassionate care when her mother, Virginia, was diagnosed with breast cancer at age 88.

Way was struck by the kindness of her mother's surgical oncologist, Amanda Kong, MD, MS '10, associate professor and chief of breast surgery. "Really, everyone was so kind and honest with my mother. She liked people being upfront with her."

For these reasons and more, Way is grateful for her parents' legacy choices. "I'm so glad they gave money to a place where it's well-needed for research and education, and where it will help future patients," she says. ■ – JOHN BURLINGHAM

Thinking Globally to Advance Science

MCW Alumna Advances Career Through Competitive Fellowship

Alumni from the MCW Graduate School of Biomedical Sciences advance science through their work in many settings and sectors, including laboratories, classrooms, clinics, industry and government. Dominique Carter, PhD '16, began her career in industry before entering government service through a competitive fellowship program.

"I became very serious about science policy and emerging technologies in my final year of graduate school at MCW," says Dr. Carter. "To compete for the American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellowship after graduation, however, I needed to be able to prove the depth of my interests beyond the laboratory."

Dr. Carter garnered the inaugural Friends of MCW Scholarship for Underrepresented Scholars in Biomedical Research in 2015 and used it to broaden her experience and complement her bench science training. This included attending the annual Public Policy Institute for Rising Leaders workshop hosted by the American Institute for Medical and Biomedical Engineering (AIMBE).

"The Friends of MCW Scholarship was really pivotal and helped me build the necessary expertise and network in the science policy community," says Dr. Carter. "It was my first introduction to science policy and a tremendous opportunity." She also used the scholarship to attend the annual Women of Color in Science, Technology, Engineering and Math Conference (STEM), where she made important professional connections in government and industry.

Following her graduation from MCW in 2016, Dr. Carter conducted a postdoctoral

fellowship in medical affairs at Exact Sciences, a biotechnology company in Madison, Wis., and prepared her applications to national science policy fellowship programs. She was selected as a 2017-2019 AAAS Science and Technology Policy Fellow and moved to Washington, DC, where she was placed at the National Science

"The Friends of MCW Scholarship was really pivotal and helped me build the necessary expertise and network in the science policy community."

— Dominique Carter, PhD '16

Foundation (NSF) Office of the Director (OD) in the Office of International Science and Engineering (OISE). In September 2019, she completed her NSF fellowship and joined the US Department of Agriculture (USDA) Office of the Chief Scientist as an agricultural systems and technology science advisor.

"Based on my technical background and experience in a lab supported by the National Institutes of Health and several interviews with the Institutes, I was surprised by my placement at the NSF in 2017 – since I thought I would be a fellow at the NIH," notes Dr. Carter. "It was truly a blessing in disguise." She credits her supervisor, deputy office head Samuel Howerton, PhD, for being an incredible mentor and helping her define and make the most of her fellowship.

"While a fellow at the NSF, I worked as a science diplomat helping identify synergies between the NSF and foreign counterparts to foster international science cooperation,"

says Dr. Carter. "For example, I was helping prepare for the visit of a delegation from Nigeria. The following week, the chief science advisor from New Zealand arrived." In preparation for these meetings, Dr. Carter conducted extensive research, including investigating bibliometric data about a country's academic publishing record to identify strengths and priorities.

"A major priority for me was to ascertain what countries are active in research topic areas related to the NSF's 10 Big Ideas initiative focused on emerging areas of research," explains Dr. Carter. These Big Ideas include topics such as "Future of Work at the Human-Technology Frontier" and "Quantum Leap" – the latter of which focuses on better understanding of quantum mechanics and quantum computing. Each Big Idea was slated to receive a \$30 million investment from the NSF in 2019.

"As science and engineering research becomes increasingly international and interdependent, we are amid a major paradigm shift from a primarily Western-dominated scientific economy to a multipolar science ecosystem," notes Dr. Carter. While the US continues to invest more resources in research and development than any other single country, China and the European Union also are major funders of science. Japan, Germany and South Korea have large economies and invest at a higher rate than the US based on Gross Domestic Product.

As science funding continues to be driven by global investment, research has shown that scholarship trends also have emphasized international collaboration. Simon Marginson, PhD, professor of higher education at the University of Oxford in England,

found in 2016 that the majority of all scholarly articles in Europe included international co-authors, and also that Chinese and American scientists co-authored more than 40,000 published manuscripts that year.

In her efforts to help the US pursue promising new international science partnerships as science systems evolve, Dr. Carter, at the NSF, focused on catalyzing global partnerships in science and innovation in Europe and Africa. She worked to define the science and technology landscape of emerging economies, specifically examining the available resources and infrastructure in countries to identify potential new areas of science collaboration and countries ripe for international partnership.

Dr. Carter also coordinated interagency strategy meetings between the NSF and the US Agency for International Development to develop a new agreement regarding how the agencies work together to promote international research collaboration. In addition, Dr. Carter organized and moderated a plenary session for the 2018 AAAS Science Diplomacy Conference during which experts discussed how diplomacy should be used to foster a more globally inclusive scientific landscape.

In recognition of her contributions in science policy and diplomacy, OISE Director Rebecca Keiser, PhD, nominated Dr. Carter for the Future Leaders Program of the 15th Annual Science and Technology in Society (STS) Forum held in Kyoto, Japan, in October 2018. Dr. Carter was selected among other outstanding leaders to attend the meeting and join the Future Leaders Network. Dr. Carter aspires to continue progressing in a career focused on international science cooperation. She also intends to expand on her interest in entrepreneurship and emerging technology, as well as her passion for broadening participation in STEM, particularly among young African-American men.

“This fellowship was a truly life-changing opportunity,” says Dr. Carter. “I am excited to use all of my training and experience thus far to impact science globally.” ■

— GREG CALHOUN



Dr. Dominique Carter currently is an agricultural systems and technology science advisor with the US Department of Agriculture (USDA) Office of the Chief Scientist.

First-Year Medical Student Wins Prestigious National Scholarship

MCW medical student Enrique Martinez is among an elite group of eight first-year underrepresented minority medical students who received an inaugural Association of American Medical Colleges/Darrell G. Kirch, MD, Scholarship presented at the 2019 AAMC Annual Meeting.

The annual \$10,000 scholarship honors the exemplary leadership of Darrell G. Kirch, MD, president emeritus of the AAMC, and recognizes his deep commitment to creating a diverse workforce of healthcare professionals. Recipients are eligible to renew for each medical school year.

A native of Mexico, Martinez reunited with his mother in Los Angeles at age 13 after she had left their hometown seven years earlier to find work. “From a young age, I was really interested in diseases, especially seeing my family and friends suffer from a variety of chronic conditions,” Martinez recalls.

Martinez graduated with a degree in biochemistry from the University of California, Davis, but due to his status as an undocumented immigrant, there was no opportunity for him to go into the healthcare field. Instead, he continued advancing up the ranks at the fast food chain where he had been working since high school.

In 2012, when Martinez was 26 years old, the US Department of Homeland Security announced that certain undocumented youth who had come to the US as children would be granted a type of temporary permission to stay in the US, in a program called Deferred Action for Childhood Arrivals (DACA).

With DACA status, Martinez’s dream suddenly became possible. “Before DACA, and even the first few years with it, I was afraid to talk about my dream. I didn’t seek out resources. I didn’t network. I just didn’t know how to navigate the system.”

Instead, Martinez started his healthcare career path as an emergency medical technician and an emergency room tech. He then applied to a postbaccalaureate program at the University of California, San Francisco, knowing there he could get the guidance he needed to help him apply to medical school. It’s also where he first met a DACA medical student. “That had a really positive impact on me,” Martinez shares. “I could finally put a face to my dream.”

Still, medical school wasn’t a guarantee. Only some medical schools accept DACA students, including MCW.



(l-r) Jean Mallet, Dr. Joseph Kerschner and Enrique Martinez attended the scholarship awards breakfast at the Annual Meeting of the Association of American Medical Colleges (AAMC) in November 2019.

“While friends back in California thought Wisconsin would be the least welcoming place for a DACA student, MCW is where I felt most comfortable when I interviewed,” Martinez recalls. “I could sense there were a lot of resources here in terms of student well-being.”

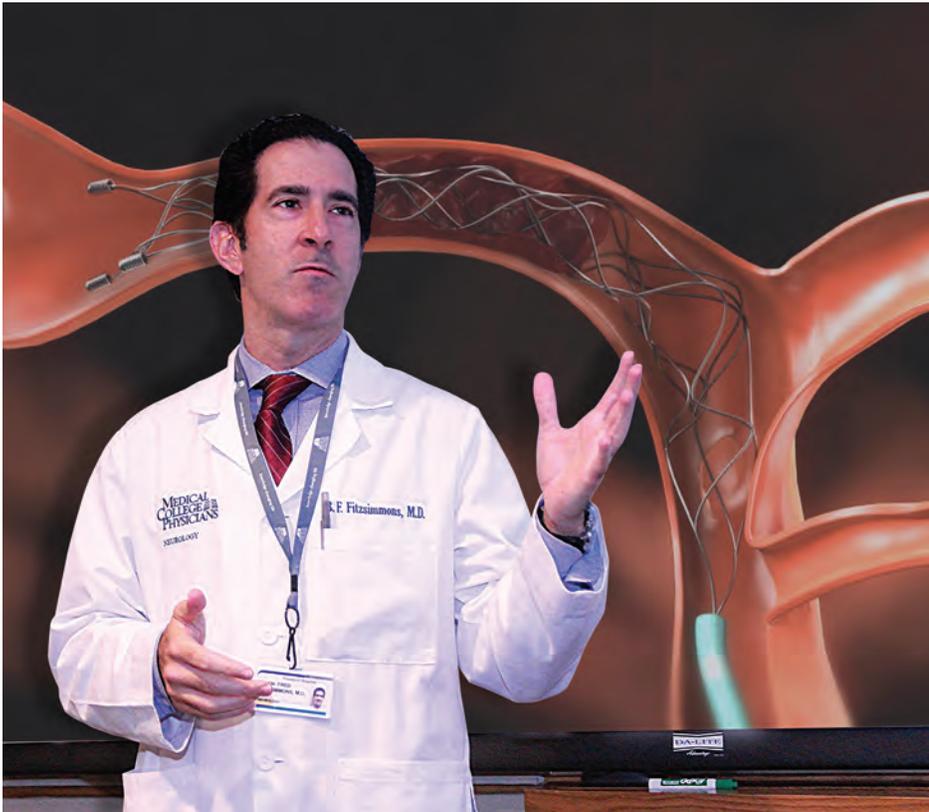
Jean Mallet, program manager in the MCW Office of Student Inclusion and Diversity, has been inspired by Martinez’s work ethic. “Enrique’s journey deserves to be recognized as it has been by the AAMC,” she says. “His story is one that a future student can find inspiration in, and his future patients will benefit from the tenderness of his care and the thoughtfulness of his approach.”

And now that Martinez is in medical school, his dreams just keep getting bigger. “I want to bring diversity to the physician body but also provide a voice to those who don’t have one,” Martinez says. “I want to be involved in continuing pipeline programs for students like me who don’t have the resources or academic role models. I want to let other DACA students know it’s possible to go to medical school and become physicians.”

Martinez gives credit to those who helped him along the way, especially his mother. “She worked so hard to give me a better life than she had. She thought bringing me to the US would give me more opportunities, and that’s exactly what happened.” ■

– KARRI STOCK

HAPPENINGS



The 2020 Imagine More Dinner on June 11 will feature Brian-Fred Fitzsimmons, MD, chair and associate professor in the MCW department of neurology, as the keynote speaker. Dr. Fitzsimmons' research interests include the application and development of novel endovascular techniques for the treatment of acute stroke and cerebral aneurysms.

Imagine More Dinner

The Imagine More Dinner, a nationally recognized philanthropic event, shares the hope that novel research and innovative treatment brings to those facing the challenges of diseases, disorders and injury to the nervous system.

The 8th annual Imagine More Dinner supports research that will benefit the treatment and prevention of addiction, ALS, Alzheimer's disease, concussion, pain, depression, anxiety, epilepsy, migraine, multiple sclerosis, Parkinson's disease, spinal cord injury, stroke and trauma.

The 2020 *Neuro Hero Award* will honor the late George Frederick Kasten, Jr., MCW trustee (1996–2008) and the *Warren P. Knowles Humanitarian Award* winner in 2004, who passed away in December of 2019 from Parkinson's disease. The *Neuro Hero Award* honors an individual or organization with a commitment to health-related issues and whose work reflects/reflected a dedication to public service and education. His wife, Susie, will serve as the evening's honorary event host. See pages 8–9 for Kasten's legacy.

Join us on Thursday, June 11, 2020, at the Pfister Hotel, as we recognize and advance neuroscience research, innovation and care. ■

UPCOMING EVENTS

JUNE

IMAGINE MORE DINNER

DATE: JUNE 11, 2020

LOCATION: THE PFISTER HOTEL, MILWAUKEE

LPGA PRO-AM

DATE: JUNE 29, 2020

LOCATION: MILWAUKEE COUNTRY CLUB

JULY

HEART OF THE MATTER

DATE: JULY 30, 2020

LOCATION: DISCOVERY WORLD, MILWAUKEE

SEPTEMBER

CANCER CRUSH

DATE: SEPTEMBER 26, 2020

LOCATION: MCW-MILWAUKEE CAMPUS

Heart of the Matter Food and Wine Event

Please join us for the 3rd Annual Heart of the Matter Food and Wine event on July 30 at Discovery World in Milwaukee. All proceeds will benefit cardiovascular research, clinical care, education and community outreach programs at Froedtert & MCW. ■

Help Science Crush Cancer

Join us on MCW's Milwaukee campus on September 26, 2020, for the 3rd annual Cancer Crush Run/Walk. Proceeds fuel lifesaving cancer research at MCW along with the most effective patient care and support throughout the Froedtert & MCW health network. With your participation and generosity, science will crush cancer. ■

ALUMNI NOTES

1970s



Carlyle Chan*, MD '75, was invited to join the Association of American Medical Colleges' (AAMC) Humanities and Arts Integration Committee.

The Committee is charged with assisting the AAMC in advancing the role of the humanities and arts in medical education and physician development.

1980s



Jeffrey Hunt, MD '84, received the American Academy of Child and Adolescent Psychiatry's 2019 *Cancro Academic Leadership Award*. This distinguished

award recognizes master educators who have made outstanding and sustained contributions to the field of child and adolescent psychiatry education through teaching, mentorship, scholarship and leadership. Dr. Hunt delivered his honors presentation titled *Greatest Hits for Making It Stick: Enhancing Durable Knowledge in Lifelong Learning* at the Academy's annual meeting on October 18, 2019, in Chicago.

The American Academy of Child and Adolescent Psychiatry promotes the healthy development of children, adolescents and families through advocacy, education and research.



Jeffrey C. Whittle*, MD '84, MPH, received the *T. Michael Bolger Award* presented at the 10th annual Milwaukee Regional Research Forum

on October 11, 2019. The Bolger Award recognizes regional, national and international individuals or organizations whose accomplishments resulted in improved patient care and/or treatment and cure of diseases.

T. Michael Bolger, JD, served with distinction and significant accomplishment as president of the Medical College of Wisconsin from 1990–2010. During his time as president, MCW experienced extraordinary growth in faculty, operating revenues and budget, new facilities, new doctoral and master's programs, and joint programs with Clinical and Translational Science Institute (CTSI) entities. Bolger passed away in November 2018. MCW held a memorial service in May 2019 for family, friends and colleagues, and announced that the Health Research Auditorium would be renamed the T. Michael Bolger Auditorium.

Mark L. Harlow, MD '86, GME '91, was named chief medical officer of the new Oyate Health Center located at the Sioux San Hospital Campus in Rapid City, S.D. Dr. Harlow oversees the management of the Center's clinical operations and works as a liaison between administration and staff. He has worked as an orthopedic surgeon for more than 20 years, diagnosing and treating ailments affecting muscles, bones and joints. He also treats sports injuries, degenerative diseases, tumors, infections and birth defects.

The Oyate Health Center is operated by the Great Plains Tribal Chairmen's Health Board on behalf of the Oglala and Cheyenne River Sioux tribes.

1990s

Deborah M. Costakos, MD '98, MS.

See page 11.

Adam Feingold, MD '91,

was named the 2019 *Total Healing Environment Physician of the Year* by Yavapai Regional Medical Center in Prescott, Ariz. The awardee is selected annually by medical center employees and medical staff based on the criteria of excellence in patient care; sensitivity to patients' needs and choices; development of positive relationships with employees and volunteers; demonstration of respect; being a team player; and taking pride in the medical center and local communities. After completing his medical residency in obstetrics and gynecology at William Beaumont Hospital in Royal Oak, Mich., Dr. Feingold returned to his hometown of Phoenix to work for Cigna Healthcare. In 1998, he joined the Yavapai Regional Medical Center.



Cathy Azzarello, MD '92, GME '95,

joined the team of pediatric providers at Upper Great Lakes Family Health Center in Hancock, Mich. She is a board-certified pediatrician and fellowship-trained neonatologist. Dr. Azzarello previously practiced in Neenah, Wis. Her clinical focus is the care of chronic childhood medical conditions. As a neonatologist and pediatrician, she has cared for many children with complex and rare disorders.

* MCW faculty member



Joseph Cheng, MD '94, GME '01,

served as professor and vice chair of neurosurgery at Yale University until 2017, when he became chair of neurosurgery at the University of Cincinnati. He was named the 2011 American Association of Neurological Surgeons Health Policy Scholar and the 2011 AOSpine North American Educator of the Year. In 2013, he received the *Vanderbilt Distinguished Neurosurgical Educator of the Year Award*. Dr. Cheng is actively engaged in research in health-care policy, outcomes science and spinal biomechanics and modeling. He is a respected educator and active leader in a number of professional neurosurgery and spine societies. Dr. Cheng has lectured internationally on neurosurgical care and has published nearly 150 scientific research papers, chapters and reviews, and serves as a reviewer for several scientific journals.



Rashmi Chugh, MD '94, MPH, medical officer at DuPage County (Ill.) Health Department, was appointed to the Illinois State Board of Health by Governor J.B. Pritzker. She completed her residency in family medicine at AMITA Health Adventist Hinsdale (Ill.) Hospital and has served as medical officer at the health department since 2003.

Dr. Chugh is a board-certified family medicine physician and earned a master of public health degree in health policy and administration from the University of Illinois at Chicago School of Public Health.

The Illinois State Board of Health ad-

vises the director of the Illinois Department of Public Health in fulfilling needs assessments, achieving statewide health objectives, developing evidence-based policy and assuring access to necessary healthcare services. All members of the state board of health are appointed by the governor.

Judith F. Baumhauer, MD, MS, MPH, FEL '95, was named the 2019 *Women's Leadership Award* recipient by the Orthopaedic Foot & Ankle Foundation, the philanthropic arm of the American Orthopaedic Foot & Ankle Society®. The award recognizes Dr. Baumhauer's work as an orthopaedic educator, mentor, clinician, researcher and humanitarian. She has been actively involved in American Orthopaedic Foot & Ankle Society® since 1993 and was the first woman to serve as its president (from 2011-2012). She also has held a number of other leadership and committee positions with the Society.

Dr. Baumhauer currently serves as professor, foot and ankle fellowship director, associate chair of academic affairs, and PROMIS medical director at the University of Rochester School of Medicine in New York.



Judy E. Kim*, MD, FEL '96, received the prestigious *Suzanne Veronneau-Troutman Award and Prize* from the American Academy of Ophthalmology's

Women in Ophthalmology (WIO) group. The award is presented to an ophthalmologist who has made the most impact in promoting women ophthalmologists during the previous year, and is considered the highest honor bestowed by the WIO. The awardees are considered

exceptional leaders in ophthalmology who also excel in mentoring, research, programmatic development and innovation.

Eric A. Vens, MD '99,

was named chair of the Imaging Institute at Cleveland Clinic Abu Dhabi. He is a board-certified and fellowship-trained abdominal imaging radiologist. Dr. Vens completed residency training at the George Washington University Hospital in Washington, DC, and a fellowship at the Mayo Clinic in Scottsdale, Ariz.

Donald J. Wright, MD, MPH '99,

was nominated to be the US Ambassador Extraordinary and Plenipotentiary to the United Republic of Tanzania. Dr. Wright is a physician and public health expert with a long history of government service. He has been deputy assistant secretary for health and director of the Office of Disease Prevention and Health Promotion at the US Department of Health and Human Services since 2012. Dr. Wright has demonstrated his leadership and knowledge on domestic and international public health issues, including through the development and implementation of the National Action Plan to Reduce Healthcare Associated Infections and Healthy People 2020.

2010s



Katja Kovacic*, MD, FEL '14, was named a "Health Care Hero" by *BizTimes Milwaukee* in the "Advancements in Health Care" category for her work researching,

testing and developing a wearable device to alleviate symptoms of bowel disorders in adolescents.

IN MEMORIAM

1940s

Sister Vivian Votruba, MM, MD '47,

of Maryknoll, N.Y., died on March 22, 2018, at the age of 98. Sister Vivian made her final profession of vows to the Maryknoll Sisters in 1946. Her medical ministry took her all over the world, including Albania, Bolivia, Nigeria and Peru.

Robert E. Kasper, MD '49,

of Naples, Fla., died on July 29, 2015, at the age of 88. He was a track star in high school and played football at the University of Minnesota before entering medicine and practicing radiology in Minneapolis, Minn. Dr. Kasper loved playing golf and traveling the world. Survivors include his wife, Rita, two children and two grandchildren.

1950s

Joseph R. Brigante, MD '51,

of Boonton Township, N.J., died on September 18, 2019, at the age of 96. He operated a private practice in Boonton Township and served as medical director of clinical research at the Schering-Plough Corporation in Kenilworth, N.J. He is survived by three children, 10 grandchildren and four great-grandchildren.

Robert L. Smith, MD '51,

of Minocqua, Wis., died on May 14, 2019, at the age of 95. He practiced radiology in Michigan, Wisconsin and Wyoming. Dr. Smith's interests included antique cars, woodworking and music, and he composed hundreds of pieces for the clarinet. Dr. Smith is survived by his wife, Carolyn, three children and five grandchildren.

Mary Sabo Hoffman, MD '52,

of Dallas, Texas, died on October 4, 2019, at the age of 92. She provided care to children across Dallas as a pediatrician. Dr. Hoffman was very involved in St. Rita Parish as a founding member of the parish. She is survived by five children, six grandchildren and five great-grandchildren.

Thomas J. Gerend, MD '53,

of Las Cruces, N.M., died on October 12, 2019, at the age of 91. He practiced as a pediatrician in Virginia, Minnesota and New Mexico. Dr. Gerend enjoyed the outdoors and took up watercolor painting of churches and landscapes in retirement. Dr. Gerend is survived by three children, five grandchildren and five great-grandchildren.

William J. Buggy, MD, GME '54,

of Milwaukee, died on August 16, 2019, at the age of 95. He practiced obstetrics and gynecology in Milwaukee for nearly 40 years and delivered nearly 10,000 babies. Dr. Buggy loved to play golf and tennis. Survivors include eight children, 15 grandchildren and two great-grandchildren.

Frank J. Krhovsky, MD '54,

of Grand Rapids, Mich., died on August 7, 2019, at the age of 93. He earned a Silver Star and Purple Heart during his service in the 511th Parachute Infantry Regiment of the 11th Airborne Division during World War II. He worked as an anesthesiologist for more than 40 years and enjoyed golf, hunting and sport shooting. Dr. Krhovsky is survived by his wife, Adele, two children, six grandchildren and three great-grandchildren.

Hugh P. Rafferty, MD '54, GME '57,

of Milwaukee, died on October 27, 2019, at the age of 90. He practiced obstetrics and gynecology in Kenosha, Wis., and delivered more than 5,000 babies. In

retirement, Dr. Rafferty enjoyed golfing and learning about history – with a special interest in Irish music, literature and film. Survivors include five children, nine grandchildren and three great-grandchildren.

John J. Czajka, MD '56, GME '61,

of Wauwatosa, Wis., died on August 14, 2019, at the age of 89. He practiced as a pediatrician in Milwaukee (where he founded a free medical and dental clinic) and in neighboring Hales Corners and Franklin, Wis. Dr. Czajka enjoyed sports and playing sheephead. He is survived by his wife, Shirley, six children, 10 grandchildren and two great-grandchildren.

1960s

William R. Kendall, MD, GME '62,

of Massillon, Ohio, died on July 27, 2019, at the age of 91. He worked as an anesthesiologist for more than 50 years. He is survived by his wife, Grace, three children and four grandchildren.

Stuart W. Fine, MD, GME '68,

of Milwaukee, died on November 1, 2019, at the age of 81. He practiced urology in Milwaukee and was regularly voted as one of the best providers in his specialty by *Milwaukee Magazine*. He helped found what is now the Aurora Walker's Point Community Clinic in Milwaukee and volunteered his time there to care for patients. Dr. Fine is survived by his wife, Roberta, three children and six grandchildren.

1970s

Robert L. Coon, PhD '72,

of Delafield, Wis., died on October 11, 2019, at the age of 81. He conducted medical research for 25 years at MCW

and the Clement J. Zablocki VA Medical Center in Milwaukee. Dr. Coon authored or co-authored nearly 70 peer-reviewed scientific articles that have been cited more than 700 times in scientific publications. He enjoyed fishing, water skiing, boating and rooting for the Green Bay Packers and Milwaukee Brewers. He is survived by his wife, Carolyn, three children and 10 grandchildren.

James D. Furnary, MD, GME '72,

of Fremont, Calif., died on September 27, 2019, at the age of 87. He practiced ophthalmology in Fremont for nearly 25 years. He enjoyed playing piano, cooking and gardening. Survivors include his wife, Marjorie, four children and seven grandchildren.

Jose S. Agpoon, MD, FEL '73,

of Wauwatosa, Wis., died on October 5, 2019, at the age of 79. He immigrated to the US from the Philippines and ran a private internal medicine practice in Waukesha, Wis., for more than 40 years with his wife, Dr. Perla Agpoon. He enjoyed cooking, learning, art and exploring the outdoors. Survivors include his wife, three children and seven grandchildren.

Krystyna D. Rytel, MD, GME '78,

of Elm Grove, Wis., died on August 28, 2019, at the age of 85. She emigrated from Poland to the US and practiced psychiatry in Milwaukee. She loved theater and volunteered for many years at the Sunset Playhouse in Elm Grove. Dr. Rytel is survived by her husband, Dr. Michael Rytel, two children and five grandchildren.

1980s

William E. Schmuggerow III, MD, GME '81,

of Staunton, Va., died on April 19, 2018, at the age of 66. In addition to working

as a dedicated physician, Dr. Schmuggerow was a devoted scholar of Civil War history. He is survived by his wife, Barbara.

Melvin J. Soo Hoo, MD, GME '86,

of Franklin, Wis., died on November 1, 2019, at the age of 62. He practiced psychiatry in Milwaukee for 30 years. Dr. Soo Hoo is survived by his wife, Teresa, four children and grandchild.

2000s

Dennis J. Straubinger, DO, MPH '00,

of Cape Girardeau, Mo., died on February 27, 2019, at the age of 67. He treated patients in Iowa and Illinois before transitioning to focus on occupational medicine at Saint Francis Medical Center in Cape Girardeau. Dr. Straubinger is survived by his wife, Rosemary, and two children.

Special Remembrances

Sheldon Burchman, MD '55,

of Mequon, Wis., died on September 24, 2019, at the age of 91. He served on the MCW faculty from 1989–2003 in the department of anesthesiology, and was named an emeritus associate professor in 2003. Dr. Burchman is survived by a child and grandchild.

Douglas J. Bower, MD,

of Elm Grove, Wis., died on February 16, 2020, at the age of 66. Dr. Bower began at MCW in 1992 as an assistant professor in family and community medicine. He was promoted to associate professor in 2000 and professor in 2017.

In late 2019, he retired from MCW but remained part-time and continued to teach residents in Menomonee Falls and

serve on the MCW admissions committee. Dr. Bower was an extraordinary physician and teacher. He received numerous awards including the *Humanism in Medicine Award* from the Arnold P. Gold Foundation, *Family Medicine Educator of the Year Award* from the Wisconsin Academy of Family Practice and membership in the MCW Society of Teaching Scholars. Survivors include his wife, Josie Cusma, two children and two grandchildren.

The MCW department of family and community medicine has established a memorial fund to honor Dr. Bower's work with students, called the Douglas J. Bower, MD Memorial Fund for Family Medicine Education. Gifts can be made online at:

mcwsupport.mcw.edu/bowermemorial.

Mary E. Shimoyama, PhD,

of Hales Corners, Wis., died on February 19, 2020, at the age of 67. Dr. Shimoyama had been involved with MCW's Rat Genome Database since joining MCW in 2000. She earned her PhD in biomedical informatics from the University of Wisconsin-Milwaukee in 2011 and joined MCW as assistant professor of surgery. In 2016, she was promoted to associate professor in the Marquette University and MCW joint department of biomedical engineering. Dr. Shimoyama was the principal investigator for the Rat Genome Database and recently led efforts to garner a competitive renewal. Beyond her work in genome research and bioinformatics, Dr. Shimoyama was the co-director of the bioinformatics graduate program. She was always eager to engage undergraduate and graduate students in informatics research. Dr. Shimoyama is survived by four children and two grandchildren.

“My Life, My Story” Beneficial to Veterans

According to Medscape, the demanding schedules of physicians give them a chance to personally spend only about 13–24 minutes with each patient. While this limited time may be sufficient to evaluate and develop a treatment plan, it is too brief for providers to learn about a patient’s life history.

The “My Life, My Story” (MLMS) program seeks to change this dynamic by enabling providers to understand influences on their patients’ health beyond this brief encounter. MLMS, which began at the William S. Middleton Memorial Veterans Hospital in Madison, Wis., drew national acclaim and has expanded to more



“I vividly remember the power and authenticity of those words, and I felt that I could truly hear the veteran’s voice. I knew then that I would be part of this program in the future.”

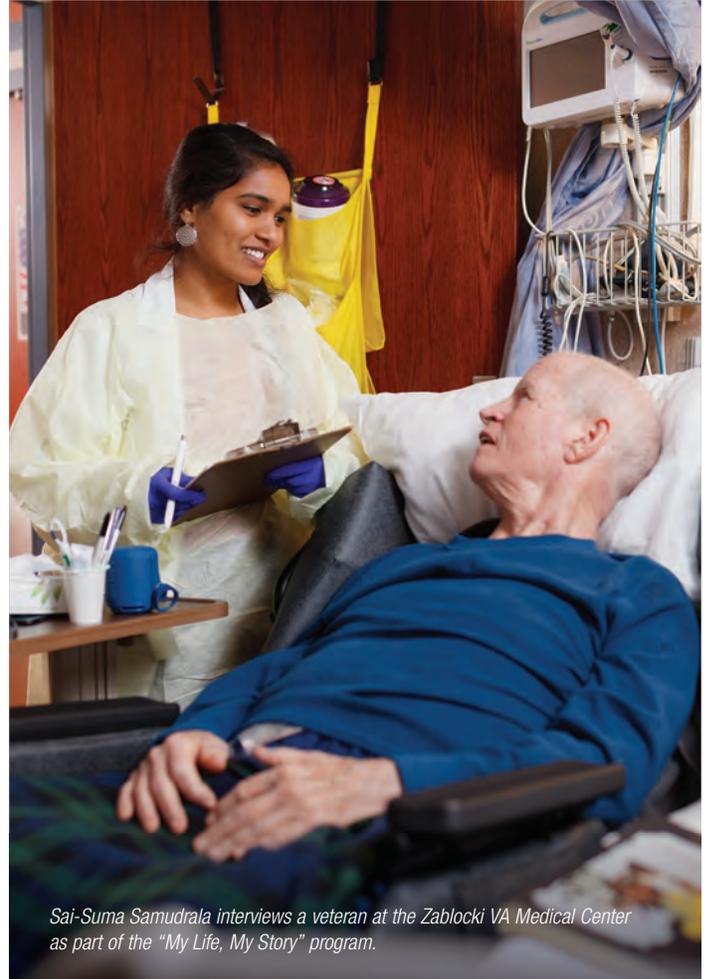
– Sai-Suma K. Samudrala, MCW MD/PhD student

than 50 VA hospitals across the US. As part of MLMS, volunteers get to know the veterans and then highlight their experiences via short stories.

I first heard of MLMS during my senior year at UW-Madison when the program’s director read a veteran’s story during a guest lecture in my “Literature and Medicine” class. I vividly remember the power and authenticity of those words, and I felt that I could truly hear the veteran’s voice. I knew then that I would be part of this program in the future.

To obtain the veteran’s story, a volunteer (often a medical student or trainee) interviews the individual while taking notes or recording the conversation. There is no designated format for the interview; the veteran may speak about whatever is meaningful in her/his life. The volunteer then crafts these words into a brief story told from the veteran’s point of view. After receiving the veteran’s approval, the story is uploaded to the veteran’s electronic health record, enabling providers to access the story in a manner similar to reading a patient’s note prior to the clinical visit.

Survey data from the Madison VA found that this process was well received and beneficial to veterans, trainees and providers. Many veterans enjoyed the experience of reflecting on their lives and felt that the stories have helped providers give them better care. Providers felt that reading the stories was a good use of their clinical time and helped them provide improved treatment. As for the trainees, many said that the story-taking, writing and reading process improved their comfort in speaking with patients and enabled them to become more empathetic and compassionate. Many veterans have permitted MLMS to use their stories in publications and at events.



Sai-Suma Samudrala interviews a veteran at the Zablocki VA Medical Center as part of the “My Life, My Story” program.

Excerpt from a veteran’s story:

“I enlisted in the Marines in 1967. I did my basic in San Diego. Marine boot camp was just like you see in the movies, only harder. We started out as individuals and ended up together. ‘You cover my back, I’ll cover yours’ – that’s how it works. My training was for infantry. I arrived in Vietnam late in 1967. My first assignment was Da Nang Air Force Base, and I was temporarily reassigned to MP duties. For two months I was in charge of patrolling the base. When I had the opportunity to get back into the infantry, I jumped on it.”

When I began at MCW, I joined with Allison Cohen (M4) and Justin Laridaen (M2), along with a core team at the VA to bring MLMS to the Zablocki VA Medical Center. We’re currently working with the in-patient psychiatry clerkship and VA volunteer services to solidify the steps of the program, and we hope to make this a part of rotations for interested medical students. ■

– SAI-SUMA K. SAMUDRALA

Cecilia J. Hillard, PhD '83



Dr. Hillard is founding director of the Neuroscience Research Center, associate dean for research and professor of pharmacology and toxicology.

What Drives You?

I am driven by discovery of new knowledge, particularly as it relates to how the brain works. I love the entire process of research: learning about previous discoveries, designing studies, analyzing data and placing our findings in the context of what is known. It is hard to imagine a better job than being a research scientist at this time in history.

What Has Been the Highlight of Your Career?

I was recently awarded the *Lifetime Achievement Award* by the International Cannabinoid Research Society. The best part was that two of my former trainees, who are both leaders in the cannabinoid field, presented me with the award.

What Do You Still Hope to Accomplish Over Your Career?

There is still so much that we do not understand about the cannabinoids and the systems with which they interact. I would love to contribute directly to the development of a cannabinoid-based drug that benefits human health.

What Would You Like Your MCW Legacy to Be?

As educators, our longest legacy is in the influence we have on those we teach. I hope that my mentees gain a life-long love for learning and discovery.

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

I recently heard this piece of advice from a man who has lived to be over 100 years of age. When asked about the secret to his longevity, he said: "When it rains, I let it." To me, the advice is that we cannot avoid setbacks and disappointments; the real difference between success and failure is how we deal with our rainy days.

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

Since arriving at MCW in 1985, Cecilia (Cece) J. Hillard, PhD '83, has made a significant impact on basic science research and education. She is recognized worldwide as an authority on the effects of cannabinoid use on the brain, and her research on cannabinoids, nicotine and other drugs of abuse has helped define the field. She recently received the *Lifetime Achievement Award* from the International Cannabinoid Research Society for her contributions.

Dr. Hillard is passionate about advancing the educational experience of graduate and medical students, and generously shares her time and expertise. She helped design MCW's neurosciences and pharmacology curricula and served as founding director of the neurosciences PhD program from 1996–2010.

In 2010, Dr. Hillard was named founding director of MCW's Neuroscience Research Center, where more than 100 faculty members investigate neurological diseases such as ALS, Parkinson's, Alzheimer's, addiction, depression and multiple sclerosis, as well as injuries to the brain and spinal cord.

Dr. Hillard frequently has been named an Outstanding Medical Student Teacher and was inducted into the MCW Society of Teaching Scholars and the Society for Research Excellence. She received MCW's *Distinguished Service Award* in 2011 and the Alumni Association's *Graduate School Alumna of the Year Award* in 2017. ■

– ANTHONY BRAZA



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