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40th Anniversary

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LEADERSHIP MESSAGE

Why I Continue to See Patients

A question that is posed to me often is, "Why do you continue to see patients?" As I recently finished my annual clinical service at the Clement J. Zablocki VA Medical Center in Milwaukee, I thought it would be timely to respond to this question now.

First and foremost, I consider myself to be a physician. I enjoy the challenges and privileges of the patient-physician relationship. I attended medical school at The Ohio State University and performed my internship and residency in internal medicine at Duke University Medical Center – where I was chief resident in my final year. I then completed a fellowship in nephrology (the branch of medicine that deals with the physiology and diseases of the kidneys) at Duke. Until I joined MCW in July 2010, I spent three to six months per year taking care of hospitalized patients and those in dialysis units. I also attended in outpatient clinics two half-days per week. I love the challenge of clinical care!

As a nephrologist, I see men and women with hypertension, diabetes and other causes of renal failure. For seven years early in my career, I was chief of an exceptionally busy renal section at the Durham VA Medical Center. As a faculty member, I also was responsible for 100 renal transplant patients and 150 home renal dialysis patients. Those experiences honed my skills as a physician and forged a lifelong commitment to Veterans and patients with renal diseases.

As I moved up through the administrative ranks, I remained connected to patients by teaching rounds, taking nights and weekend call, and working several months per year in the dialysis unit. Now I spend up to a month each summer at the Zablocki VA, where I see patients with chronic renal failure, provide consultations, assist with dialysis and tend to acutely ill patients in the ICU and Emergency Department. I also teach medical students as well as housestaff and fellows who are rotating on that service.

I love caring for patients, especially Veterans – and I find it to be personally rewarding. This also helps me to keep my clinical skills sharp and to maintain my medical license. Most importantly, however, continuing to see patients sends a message to everyone at MCW that I am a faculty member – and that I remain in touch with all of the issues that impact our clinical enterprise.

Please feel free to share your input online or by contacting our editor at MCWmagazine@mcw.edu.

John R. Raymond, Sr., MD
 President
 Chief Executive Officer

"I love caring for patients, especially Veterans...this sends a message to everyone at MCW that I am a faculty member – and that I remain in touch with all of the issues that impact our clinical enterprise."



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ON THE COVER: Keith Oldham, MD, surgeon-in-chief at Children's Hospital of Wisconsin and professor of surgery at MCW, is on call for pediatric surgery and trauma one week each month. In the early morning hours of December 11, 2015, he and the Children's critical care team saved the life of a 17-year-old gunshot victim. **PHOTO CREDIT:** Jay Westhauser.



Applicant to Alum...and Everything in Between



Photo courtesy of Jennifer Haluzak

Medical students from MCW's three campuses enjoyed a Milwaukee Brewers game on August 11. The MCW/Marquette Medical Alumni Association hosted a tailgate-style lunch for the students earlier that day.

On August 11, the casual, yet contagious, energy of the Medical College of Wisconsin's Alumni Center belied the fact that a major milestone had been reached. At this "tailgate-style" luncheon for MCW's first-year medical students, many wore Milwaukee Brewers jerseys or t-shirts because the festivities continued that afternoon with a baseball game at Miller Park. What appeared on the surface as a day of fun for MCW's newest medical students was, in fact, a significant moment for MCW: the lunch and Brewers game marked the first activity bringing together first-year medical students from all three MCW campuses (Central Wisconsin, Green Bay and Milwaukee).

This event, and numerous other student activities throughout the year, are made possible by the MCW/Marquette Medical Alumni Association. Student support for social activities, learning experiences and/or mentorship opportunities has long been a guiding tenet of the Alumni Association. By enriching students' experiences, alumni help nurture pride and loyalty in MCW. In turn, this sense of pride and loyalty fosters an engaged alumni

community. In some cases, the connection to the Alumni Association starts before individuals are even "officially" students.

"The Applicant Host Program provides social functions prior to each applicant's interview day," says Haverly Snyder, second-year medical student and co-president of the Applicant Host Program. "This allows applicants to meet with current students and gain a deeper understanding of what makes MCW special. We constantly receive letters of appreciation for holding these socials. They would not be possible without the assistance of the MCW/Marquette Medical Alumni Association."

Second-year medical student Michael Gehring adds, "As an applicant traveling from out of town, through the Applicant Host Program I was graciously welcomed into the home of two upper-classmen prior to my interview at MCW. Not only did they provide a welcoming place for me to stay, they also helped me to experience the close-knit culture of the school – as I was introduced to several of their peers. It is the generosity of MCW's alumni that makes programs like this possible, and I am sincerely grateful."



ALUMNI ASSOCIATION PRESIDENT'S MESSAGE

MARIE L. NAKATA, MD '89, GME '93

I am sure you'll agree that being an MCW alumnus/alumna is a tremendous honor. There is something to be said, however, about acknowledging those individuals whose contributions to medicine, science and the community reach an extraordinary level of distinction.

During my first evening as president, I stood before more than 300 alumni and guests at Alumni

Weekend's Friday night banquet. A focal point of the evening was bestowing awards on a remarkable cadre of individuals. Since that moment, I have given significant thought to the Alumni Association's awards program. As I look at the list of previous award recipients, I am overwhelmed with pride for our institution and our alumni community.



The Alumni Association presented its first award – *Medical School Alumnus of the Year* – in 1967. Over the course of the program's nearly 50-year history, we have honored more than 140 medical and graduate school alumni, as well as faculty, staff and donors. Each of these individuals has greatly contributed to what the Medical College of Wisconsin is today. Each award recipient exemplifies our storied past and evolution, but also serves as a guiding force for what lies ahead in our future successes.

While plaques adorn the walls of each recipient's home or office, the honor is much more than those commemorative recognition trophies. It's knowing that your alma mater and your peers celebrate your personal accomplishments.

We are proud of what our alumni achieve!

I encourage you to take a moment to consider who within our alumni community have made tremendous contributions to medicine, science and society. Let's honor each of them for their achievements with an Alumni Association award! ■



Alumni Association Awards Call for Nominations

The MCW/Marquette Medical Alumni Association currently is seeking nominations for its annual awards program. Categories include: Medical School Alumna/Alumnus of the Year, Graduate School of Alumna/Alumnus of the Year, Humanitarian, Distinguished Service and Honorary Alumnus/Alumna. Visit www.mcw.edu/alumni to view criteria and submit a nomination; it only takes a few minutes! Deadline for nominations is December 31, 2016. Contact the Office of Alumni Relations (414-955-4781) for additional information.

The Wisconsin Medical Society Foundation and the Alumni Association co-sponsor "Operation: Education," which brings together M1 and M2 students, alumni and community providers. This activity, which is scheduled for January 2017, offers students a casual, relaxed environment to meet physicians from all specialties and types of practice. It also is an opportunity to network, ask questions and discuss various physician career paths.

And, while learning and mentorship opportunities are critical, alumni also understand the necessity of time away from studying and career planning. For example, the Alumni Association sponsored an opportunity for MCW-Green Bay students to attend a local minor league baseball game.

"We shared stories and realized that even though we were all at different locations, in different rotations, we really weren't as alone as it felt," notes second-year medical student Matthew Wheeler, adding that the experience reenergized him and his fellow students. "We all really appreciated that the Alumni Association was thinking about us up in Green Bay!"

As MCW continues to grow, so does the Alumni Association's commitment to students. Green Bay and Central Wisconsin campuses are working with the Association to develop student and

alumni programming.

On March 17, 2017, the Alumni Association will continue its sponsorship of MCW's post-Match Day festivities.

Graduate students, residents and fellows also benefit from the Alumni Association's unwavering support on an annual basis. Now in its 26th year, the Graduate School Research Poster Session gives graduate students and postdoctoral fellows the opportunity to celebrate their scientific progress and accomplishments. The Graduate School, Office of Post-

doctoral Education and the Alumni Association partner in this educational activity.

"Funding and other support provided by the Alumni Association is critical for the professional development of students," remarks doctoral candidate Rebecca Holme. "The impact

made on student life by all of the caring alumni from MCW and Marquette has encouraged me to be an active alumna in the future."

Philanthropy, specifically alumni gifts, enables the Alumni Association to support MCW's student community. Alumni also invest their time in many student-focused projects and programs. MCW's current students appreciate all of this support, which makes them more likely to actively support the next generation of MCW students. ■ – SETH FLYNN

"The impact made on student life by all of the caring alumni from MCW and Marquette has encouraged me to be an active alumna in the future."

– Rebecca Holme, doctoral candidate

STAT REPORT

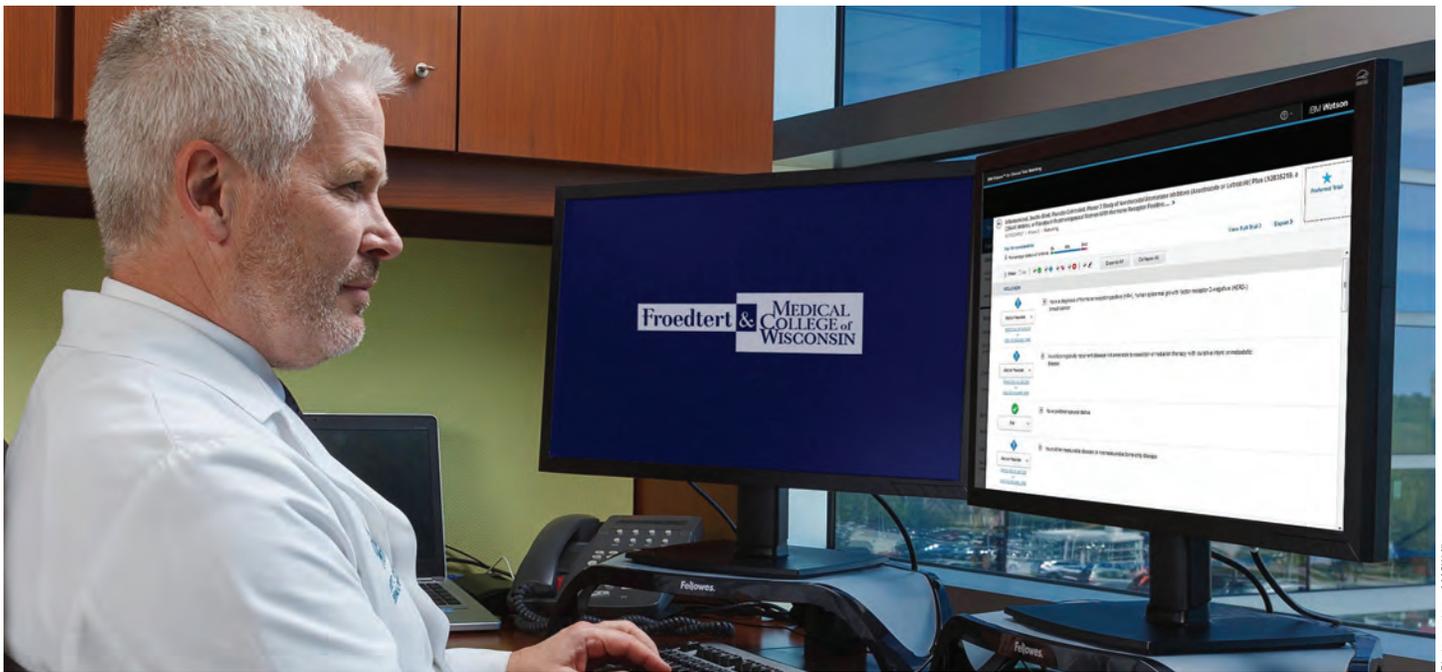


Photo courtesy of MCW files

James Thomas, MD '91, GME '95, PhD '89, is medical director of the Froedtert & MCW Cancer Clinical Trials Office and Translational Research Unit, which soon will bring Watson (IBM's cognitive computer technology) to Wisconsin to quickly match cancer patients with clinical trials. This could not have happened without the generous support of donors to the Froedtert Hospital Foundation.

Watson Aiding Clinical Trials Matching

In June, IBM and the Froedtert & the Medical College of Wisconsin (F&MCW) Cancer Network announced they would be bringing Watson – IBM's cognitive computer technology – to Wisconsin in early 2017 to quickly match cancer patients with thousands of clinical trials available nationwide. F&MCW's Cancer Network will be the first in Wisconsin and among the first cancer programs in the nation to use Watson for clinical trial matching.

At the F&MCW Cancer Center, approximately 15 percent of patients participate in clinical trials (the national average is less than five percent). The process of finding suitable trials and matching them to patients is data-intensive and time-consuming. Currently, trial matching involves painstaking reviews by clinical coordinators who sort through detailed patient records and conditions to match the requirements (on average, 46) of a given study protocol.

Watson for Clinical Trial Matching, which can read 40,000 documents in 15 seconds, will accelerate the matching process – helping F&MCW Cancer Network doctors ensure that more eligible patients have the option to participate in clinical trials and research studies. Additionally, the technology will support a higher level of personalized care for patients by enabling the Cancer Network to securely connect individual health information with a vast array of clinical trials.

Watson, by matching clinical trials to more patients with a higher degree of precision, will help MCW fulfill its mission to advance the health of the community through scientific discovery. Also, through effective patient recruitment, Watson will help increase clinical trial fulfillment at the F&MCW Cancer Center – which is critical for National Cancer Institute designation. ■

MCW Receives \$6.8 Million Grant from US Army to Research Neck, Spine and Brain Safety in the Military

MCW has received a five-year, \$6.8 million grant from the US Army Medical Research and Materiel Command (USAMRMC) to analyze military helmet-mounted equipment on neck injury potential; assess the immediate and long-term outcomes of cervical spine artificial discs in civilian and military-relevant loading environments; quantify the differences between men and women for spinal injury thresholds and safety criteria; and evaluate advanced measurement technology for the assessment of brain injury in military populations.

The grant was awarded to the MCW department of neurosurgery with Narayan Yoganandan, PhD, professor of neurosurgery, as the principal investigator; and Frank Pintar, PhD, chief of research and professor of neurosurgery, as the co-principal investigator. Additional MCW neurosurgeon co-investigators include Jamie Baisden, MD, FEL '96, associ-

ate professor of neurosurgery; Joseph Cusick, MD, staff physician in the department of neurosurgery; Shekar Kurpad, MD, PhD, professor and interim chair of neurosurgery; and Dennis Maiman, MD '77, GME '82, FEL '84, PhD, professor of neurosurgery.

Nearly one-third of all medical evacuations from Iraq and Afghanistan from 2004-2007 resulted from musculoskeletal, connective-tissue or spinal injuries, according to a study led by a Johns Hopkins University researcher. The number of soldiers medically retired from the Army with at least one musculoskeletal condition increased nearly ten-fold from 2003 to 2009, according to Army statistics.

The outcome of this grant will be to increase the safety of military personnel from head, neck and spinal injuries. It is expected that the outcomes also will be highly applicable to the civilian population. ■

MCW's Cancer Moonshot Brings Community Together to Discuss Cancer Clinical Trials

On Wednesday, June 29, MCW's Cancer Center participated in Vice President Joe Biden's Cancer Moonshot Summit, which convened conversations with communities across the US. This was the first time that individuals and organizations representing the entire cancer community – including researchers, oncologists, care providers, philanthropists, data and tech experts, advocates, patients and survivors – joined together under the national charge to double the rate of progress toward a cure.

More than 200 attendees were represented equally among survivors and parents/family members of survivors and those who lost their lives to cancer; major donors, community members and representatives of more than 20 community organizations; and MCW faculty and staff – approximately 20 of whom served as speakers, hosts, emcees, breakout session facilitators and panel participants. Fourteen breakout ses-



sions were held, resulting in more than 50 actionable, tangible Cancer Moonshot ideas that were shared with the White House and Vice President Biden.

The focus of MCW's Cancer Moonshot Summit was on cancer clinical trials and other types of clinical research, including how to reduce and remove barriers to clinical trials, how to develop funding opportunities and policies to support clinical research, exploration of the newest types of clinical research such as immunotherapy, and an honest conversation about the fear

and mistrust felt by many communities (including how to build a culture of clinical trials within underserved populations).

The work emanating from the Cancer Moonshot Summit can preserve and extend the lives of parents, spouses and children. It also can have a direct impact on individual patients and the entire community by providing earlier detection of cancer, more access to cancer clinical trials and earlier availability of new treatments and options that give cancer survivors a better quality of life. ■



Photo courtesy of Mike Roemer

MCW-Central Wisconsin Welcomes First Class of Students

The latest milestone in the Medical College of Wisconsin’s years-long journey to expand its medical school into several regions around the state was celebrated on July 5, 2016, when the first class of 26 students at MCW-Central Wisconsin began two days of orientation. Two days later, the campus’s inaugural White Coat Ceremony was held at the University of Wisconsin-Marathon County’s Center for Civic Engagement, followed by a welcome picnic at the nearby Rothschild Pavilion.

Of the 26 MCW-Central Wisconsin medical students, 50 percent are female and 50 percent are male – and 21 of them hail from ten Wisconsin counties.

At the Ceremony, each student received the traditional short white lab coat worn by medical-students-in-training, and was “coated” by an individual with an interest or belief in the respective student’s ability and dedication to the practice of medicine.

Lisa Grill Dodson, MD, campus dean of MCW-Central Wisconsin, shared that while all medical students are chosen for their intelligence and academic skills, drive and potential, MCW-Central Wisconsin students have an

additional unique characteristic: they were chosen by the community, “the very people for whom you will care.” She added, “This community believes in you. We collectively believe that you can and will be the physicians who will make healthcare more accessible, more just and equitable, higher quality and more sustainable for the region.”

A small group of area physicians, alumni, MCW faculty and staff, and the students’ loved ones attended the Ceremony.

The program included remarks from John R. Raymond, Sr., MD, president and CEO of MCW (the vision for creating new regional medical school campuses); Joseph E. Kerschner, MD ‘90, FEL ‘98, dean of the School of Medicine and executive vice president (history of the White Coat Ceremony); Michael Curtis, MD ‘89 (student welcome on behalf of the Alumni Association); and Steven Bergin, MD ‘74, GME ‘78 (spon-

“We collectively believe that you can and will be the physicians who will make healthcare more accessible, more just and equitable, higher quality and more sustainable for the region.”

– Lisa Grill Dodson, MD

sorship of the white coats by the Wisconsin Medical Society and the administration of the Physician’s Oath). The chief medical officers of the region’s two major healthcare systems (and important MCW-Central Wisconsin clinical partners) – Aspirus and Ascension Wisconsin – also offered formal welcoming remarks. Charles

MacCarthy, MD, a longtime regional ophthalmologist and community partner, delivered the keynote address on humanism in medicine.

After the White Coat Ceremony, students, parents, friends, community members and MCW faculty/staff attended a picnic and a larger community celebration to introduce the inaugural class.

Also in early July, MCW-Green Bay welcomed its second class of 30 medical students (16 male, 14 female); 25 come from 12 Wisconsin counties. ■

– SARA L. WILKINS



To read more, visit mcw.edu/cwclass

School of Pharmacy Symposium a Success

The new Medical College of Wisconsin School of Pharmacy is invested in being an agent of change in healthcare delivery. The School hosted MCW's inaugural Pharmacy Symposium in June, focusing on emerging and new pharmacy practice models.

Four pharmacists from throughout the US – Daniel Buffington, PharmD, MBA; Diane K. Reist, PharmD, RPh; Gary Matzke, PharmD; and William Lee, MA, RPh – shared their experiences implementing innovative, team-based care models. The speakers highlighted the role pharmacists can play within interdisciplinary care teams to improve patient outcomes, as well as new models of care that include collaborative practice; they also addressed the financial considerations of these models of care.

The symposium attracted a wide audience consisting of pharmacists, pharmacy residents, physicians, administrators, MCW Trustees and community leaders.

The consensus of the speakers was that the future of healthcare lies in team-based practice models, with the pharmacist involved as a

direct patient care provider. "In fact, all of what we look at as advanced or alternate practice models, really require the skills that a pharmacist brings as a specialist over medication management and clinical pharmacology to the practice setting," remarked Dr. Buffington.

The goal of these practice models included improving patient access and reducing overall healthcare costs by preventing unnecessary readmissions and emergency room visits in patients with one or more chronic diseases and in transitional care. "We were really focusing on trying to reduce readmissions, but we actually reduced the length of stay and reduced the cost of care while the patient was still in the hospital," noted Dr. Reist.

In concluding remarks, George MacKinnon III, PhD, MS, RPh, Founding Dean of the School of Pharmacy, stated, "Many of the concepts described in the Symposium, are planned for incorporation into the Pharmacy School doctor of pharmacy (PharmD) curriculum." ■

– MICHELLE SCHAEFER



To read more, visit mcw.edu/Pharmacy-School



Symposium speakers pictured with MCW School of Pharmacy faculty (l-r): Gary Matzke, PharmD; Karen MacKinnon, BPharm, RPh; George MacKinnon III, PhD, MS, RPh; Daniel Buffington, PharmD, MBA; William Lee, MA, RPh; and Michael DeBisschop, PharmD.

NEW LEADERSHIP

» KENNETH B. GORDON, MD

PROFESSOR AND CHAIR OF THE DEPARTMENT OF DERMATOLOGY (effective December 8, 2016)

Since 2011, Dr. Gordon has served as professor of dermatology at Northwestern University, Feinberg School of Medicine and associate director, Center for Clinical Research of Northwestern University Center for Clinical and Translational Science.



» DAVID M. KING, MD

PROFESSOR AND CHAIR OF THE DEPARTMENT OF ORTHOPAEDIC SURGERY

Dr. King previously served as associate professor in the MCW department of orthopaedic surgery; chief of the division of musculoskeletal oncology; and sarcoma program clinical leader.



» JOHN R. KIRBY, PHD

PROFESSOR AND CHAIR OF THE DEPARTMENT OF MICROBIOLOGY AND MOLECULAR GENETICS (effective January 1, 2017)

Since 2014, Dr. Kirby has served as professor of microbiology at the University of Iowa and the University of Iowa Carver College of Medicine. He also is founding director of the Iowa Microbiology Microbiome Initiative.



» CYNTHIA A. LIEN, MD

PROFESSOR AND CHAIR OF THE DEPARTMENT OF ANESTHESIOLOGY (effective November 14, 2016)

Dr. Lien currently serves as professor of anesthesiology at Weill Cornell Medical College and attending anesthesiologist at NewYork-Presbyterian Hospital.





Office of Technology Development: Moving Science From Patents to Patients

Some would call it “the Shark Tank of the Medical College of Wisconsin” (MCW), but those on the inside refer to the process of technology transfer as more of a “Coral Reef” – where the process is transparent and collaborative rather than cutthroat.

Launched in 1984, the Office of Technology Development (OTD), MCW’s technology transfer office, was established to serve, support and educate MCW faculty, post-doctoral fellows, graduate students and staff in the development and transfer of their inventions and technologies into viable products and businesses. The OTD is responsible for protecting and managing the intellectual property assets of MCW. The institution has innovative research and clinical programs that create a robust pipeline of technologies available for licensing in the areas of therapeutics, diagnostics, imaging, medical devices and research tools.

The OTD connects inventors and external stakeholders to bring ideas generated from MCW’s research and clinical practices to fruition – a process the OTD refers to as “advancing discoveries from Patents to Patients®.”

Using a concierge model, OTD staff work alongside inventors throughout the entire commercialization process: from the initial disclosure of the invention through the evaluation of commercial potential, from the protection of the intellectual property to marketing, to negotiation of license agreements, to maintenance of relationships with industry partners.

“Companies are increasingly investing in intangible assets like intellectual property rather than tangible assets like personnel, buildings and equipment,” says Eddie Diehl, PhD, marketing manager for the OTD. “The sale of products, services and other embodiments of intellectual property, and how they fair in the marketplace, is a true measure of innovation. The OTD wants to stimulate the interest of companies or investors to commit resources to further develop and commercialize our technologies.”

Established in 2012, the OTD Technology Evaluation Committee (TEC) comprises external industry, investment and legal experts who evaluate discoveries from MCW inventors with respect to patentability and market possibilities. In this way, both inventors and the OTD receive guidance from impartial, independent experts. These technology evaluations also

are shared with prospective industry partners and investors.

“MCW’s TEC is unique in that few academic institutions truly have an evaluation committee. The committees that do exist are primarily internal people, like faculty peers, who focus solely on the science and patents. MCW’s TEC comprises external individuals, such as technology sector experts, intellectual property experts, business leaders, investment professionals, clinicians and scientists,” explains Joseph O. Hill, PhD, managing director of the OTD. The TEC has the diversity of expertise needed to address not just the patent side of technology transfer, but also the potential products, marketplace, the status of development and the commercialization strategy. The TEC serves as a mentoring platform in which it partners with the inventor and the OTD to provide the necessary input, feedback and analysis to help an invention succeed.

Here’s another way in which the “Coral Reef” philosophy comes in: if a decision is made not to immediately pursue an inventor’s technology, that individual is provided with extensive, objective and transparent feedback along with encouragement to return with the missing elements so her/his discovery has a better chance of succeeding.

“The collective expertise of the TEC provides inventors with an objective perspective on many factors that are critical to their technology’s commercial success. By providing input at an early stage of technology development, the process enhances the probability of success for projects that have commercial prospects,”

notes Loren G. Peterson, managing director and CFO, Venture Investors LLC, and member of the TEC.

“Companies are increasingly investing in intangible assets like intellectual property.”

– Eddie Diehl, PhD

Nikki Johnston, PhD, MCW associate professor of otolaryngology and communication sciences, microbiology and molecular genetics, and director of airway, digestive and voice research, has had the opportunity to work with the OTD on a number of inventions since May 2015. One of the primary goals of Dr. Johnston’s research was to develop a new therapeutic treatment for a specific type of acid reflux called Laryngopharyngeal Reflux (LPR). The treatment specifically targets pepsin, which is the major digestive enzyme only found in the stomach. LPR is the backflow of gastric contents into the throat. It affects 10-30 percent of the US population, causing chronic throat irritation such as hoarseness and cough. It has been proposed that prolonged uncon-

FROM LAB TO MARKETPLACE

trolled LPR may even promote throat cancer.

Dr. Johnston submitted her invention disclosure for this therapeutic treatment to the OTD and worked with them to craft an invention disclosure report which was submitted to the TEC. She was then invited to present at a quarterly TEC meeting.

“Everyone (on the OTD Coral Reef) was very friendly and helpful. I appreciated the opportunity to present to experts such as patent attorneys and potential investors, and receive their feedback. It was a group with diverse expertise and I learned a lot in the process. It helped me focus my research to get the data needed to file a patent,” says Dr. Johnston. “Most researchers are not familiar with technology development and commercialization, so it’s invaluable to have such a supportive resource available.”

Her plan is to file a patent for the therapeutic and then connect with a company that has the appropriate expertise and infrastructure to license the treatment and take her work to the next level. Since her initial engagement with the OTD and TEC, Dr. Johnston also has licensed novel human laryngeal cell lines derived from normal laryngeal epithelial biopsy specimens as a tool for the laryngology research community.

“Our processes, including the TEC, are part of a covenant we have with inventors like Dr. Johnston to nurture intellectual creativity. These collaborative efforts help to stimulate research within MCW, identify new discoveries, and transfer the intellectual property to those individuals who are best equipped to develop and take a product to market. This is the ultimate translation of Patents to Patients,” explains

Dr. Hill. ■ — MAUREEN REMMEL

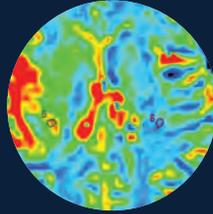


To read more, visit mcw.edu/otd



4 BROAD MARKETS

- Diagnostics
- Drugs and therapeutics
- Medical software
- Medical devices



EVALUATION
7-12 WEEKS

MARKETING IP
6-24 MONTHS

LICENSING IP
6-12 MONTHS

PATENTING
3-5 YEARS

INDUSTRY PARTNER
5-20 YEARS

- Project often includes inventor
- Goal is a new product



PATIENT BENEFIT



Summers in the Laboratory

The question “What did you do on summer vacation?” could generate some very interesting responses if asked of any of the 147 undergraduate students and first-year medical students who participated in MCW’s 2016 Medical Student Summer Research Program or Summer Program for Undergraduate Research (SPUR).

For example, Mawusi Kamassah, a second-year medical student at MCW, spent this past summer working with Srividya Kidambi, MD, MS ’08, associate professor of medicine (endocrinology), coordinating studies that look at the epigenomics of hypertension in identical twins. Through this two-month position, Mawusi was able to see how clinical and basic science faculty work together on studies, how biopsies are performed, the process for recruiting subjects and obtaining their consent for the study, and how samples are phenotyped.

Kendall Craig, a senior chemistry and biology major at Carthage College in Kenosha, spent two months working at MCW with John D. Imig, PhD, professor of pharmacology and toxicology, testing rat urine samples for different analytes – such as proteins – that would indicate kidney function. Her SPUR internship contributed to a larger test of a drug for type-2 diabetes to see if the drug had an effect on treating kidney injury.

These summer-long programs provide student participants an opportunity to gain valuable experience in labs working on cutting-edge biomedical research. They also give students an edge in their future schooling and careers, and can help add clarity to their career paths.

“It has been great to see how basic science and clinical faculty interact, because this is how medicine moves forward,” Mawusi says. “It was also helpful to see how my mentor was able to balance everything personally and professionally as a physician scientist.”

“The SPUR program allowed me to confirm that I do want a career in research, and it allowed me to explore the areas I want to go into,” Kendall remarks. “I was able to



ABOVE: Kendall Craig, 2016 SPUR program participant, discusses protein structures with her program mentor, John Imig, PhD.

MIDDLE: Samantha Paddock, first-year PhD student in physiology and 2015 SPUR program participant, reviews a slide with her program mentor, Michael Flister, PhD.

BELOW: Mawusi Kamassah (r), second-year medical student and 2016 Medical Student Summer Research Program participant, observes her program mentor, Srividya Kidambi, MD, MS, position a blood pressure cuff.

Photos courtesy of Jeff Zmania and MCW files



Photo courtesy of Gary Porter

Michael Boswell, third-year medical student and 2015 Medical Student Summer Research Program participant (plaid tie), discusses his research project with (from left) Amadou Camara, PhD '95; Floyd Rose, third-year medical student; David Stowe, MD '84, GME '87, PhD; and second-year medical students Christopher Navarro and Ariea Davani. The students were mentored by Drs. Stowe and Camara.

learn different techniques that helped prepare me for a career in research and obtain an understanding of what research is like in pharmacology.”

The Medical Student Summer Research Program, coordinated by MCW’s Medical School, offers first-year students the opportunity to spend the summer working on biomedical, clinical or translational research mentored by MCW faculty. Then, in the fall, each participant creates and presents a poster on the research she/he conducted. The SPUR program, offered through MCW’s Graduate School, offers a hands-on summer internship experience for undergraduate students from across the country who are considering health-related careers in the biomedical sciences. Both programs have been in existence for more than 30 years – and each continues to grow.

Applications to the SPUR program have averaged about 370 annually since 2012, and

this year it hosted a record number of students – 36 – a 25% increase from the previous year. The Medical School Summer Research Program had 111 participants this year, and 126 of the students who participated in the program from 2000-2013 were recognized with Honors in Research at Commencement. Many go on to publish research papers as first or second authors, or present as first authors at national meetings.

Michael Boswell, a third-year medical student who participated in the Medical School Summer Research Program in 2015 under the direction of David Stowe, MD '84, GME '87, PhD, professor of anesthesiology and physiology, presented the data he collected in the program at several national meetings. His presentation, *Altering buffer Ca²⁺ and pH stimulates activation of the mitochondrial Ca²⁺/H⁺ exchanger*, won the Foundation for Anesthesia Education and Research International Anesthesia

Research Society’s overall first prize at the Midwest Anesthesia Residents Conference in April 2016.

Samantha Paddock, a first-year PhD student in physiology, participated in the SPUR program in 2015, and her experience led her back to MCW for graduate studies.

“I have always been interested in research, but it wasn’t until the SPUR program that I realized academia was the career route for me,” says Samantha, who was mentored by Michael J. Flister, PhD, assistant professor of physiology. “I was drawn to MCW for graduate work because I already knew how supportive and collaborative the faculty are, and other older graduate students sold me on the interactive PhD programs at MCW.”

The above are great things to accomplish and figure out...and all because of how they spent their summer vacations. ■

– ANTHONY BRAZA

MEDICAL STUDENT SUMMER RESEARCH PROGRAM

19

MCW DEPARTMENTS PARTICIPATED THIS YEAR

111

MEDICAL STUDENTS PARTICIPATED THIS YEAR

126

STUDENTS WHO PARTICIPATED BETWEEN 2000-2013 WERE RECOGNIZED WITH HONORS IN RESEARCH AT COMMENCEMENT

MANY SUMMER RESEARCH TRAINEES GO ON TO PUBLISH AS FIRST OR SECOND AUTHORS OR TO PRESENT AS FIRST AUTHORS AT NATIONAL MEETINGS

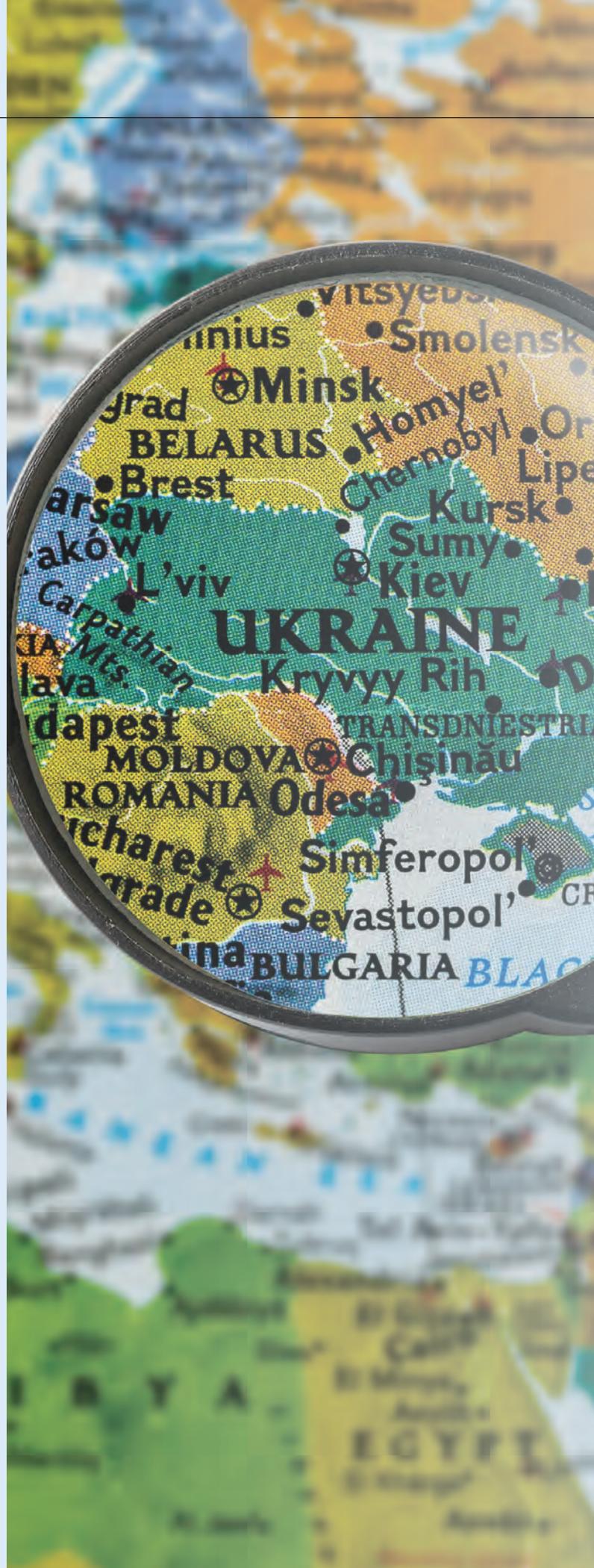


NATO Grant Enables MCW Physicians to Share Their Knowledge in Ukraine

When Oksana Sayko, MD, MPH, associate professor of physical medicine and rehabilitation (PM&R) at the Medical College of Wisconsin, first immigrated to the United States in the mid 1990s from Ukraine, she did not know a single person, had difficulty speaking English and was caring for a young child.

“People in my new community saw our family struggling and reached out to us to lend a helping hand,” recalls Dr. Sayko. “When I asked why they were willing to help a stranger, they told me that the opportunity to truly help doesn’t come along very often in life. This has stuck with me ever since, and made me want to do the same for others.” Dr. Sayko recently was presented with that opportunity.

In November 2014, some 5,000 miles away from her Wisconsin home, the Russian military crossed the border into Ukraine, setting off years of fighting between the two sovereign nations. Additionally, the subsequent annexation of the Crimea region, along with demonstrations by pro-Russian groups within Ukraine, escalated into an armed conflict between the Ukrainian government and separatist forces. To date, Ukraine has experienced thousands





of fatalities and more than 9,000 wounded.

"The casualties were astounding. I couldn't just sit and watch. I knew I needed to use my skills as a physician to help," says Dr. Sayko.

Her first call was to her PM&R colleague, professor David Del Toro, MD, GME '92, to enlist his help for a medical mission. Although Dr. Del Toro had no connection to Ukraine, he did not hesitate to join. "She came to me and I immediately signed up to help," Dr. Del Toro remarks. "I didn't see this as a responsibility for those connected to the conflict. Rather, I saw it as my duty as a health professional to help where I am needed the most."

Drs. Sayko and Del Toro quickly assembled a team to travel to Ukraine's capital city, Kiev ("Kyiv" in Ukrainian), in summer 2015. This initial mission was purely clinical – aimed at helping as many of the wounded as possible. Although the team provided a vital and much needed service for many injured patients, Dr. Sayko knew that they were not doing enough. "I recognized that there was a better way that we could be serving the Ukrainian people, more than just treating on an individual level. To enact change in a big-picture capacity, we needed to alter our approach," Dr. Sayko shares.

To that end, after returning to Milwaukee, Drs. Sayko and Del Toro solicited help from MCW's Office of Global Health to devise a more productive plan for a return mission in 2016.

"The new approach we came up with boiled down to the old proverb: 'You give a poor man a fish and you feed him for a day. You teach him to fish and you give him an occupation that will feed him for a lifetime,'" says Dr. Del Toro. "We wanted to teach the teachers, in a sense, and provide sustainable medical care for those in need."

Specifically, the team devised a plan to host an intensive six-day workshop focused on teaching healthcare instructors all of the skills needed to adequately care for wounded patients. To accomplish this successfully, the team would need necessary funding and con-

nections to local teaching hospitals. Knowing about strong US support in this difficult Ukraine political and economic situation, Dr. Sayko contacted the US embassy there; she was connected to the North Atlantic Treaty Organization (NATO) Trust Fund and NATO Support and Procurement Agency, and submitted a grant proposal. NATO Trust Funds are voluntary, nationally led and funded projects established under the framework of NATO to focus on security and defense-related projects. On the other end, contact was made with the local teaching hospital in Kiev.

NATO sponsored the funds for their trip due to overwhelming need and the mission's viability. The team also included Paul Sanford, MD (MCW); occupational therapists, Alexandra Graber and Cecilia Devine; physical therapists, Tina Soeckmann and Kim Dechant; and two interpreters.

The workshop's curriculum encompassed the principles of basic rehabilitation practices. Core rehabilitation skills were taught, such as early rehabilitation, approach to patient evaluation, mobility practices, application of assisted devices, splinting, casting and the utilization of adaptive equipment in the hospital.

The medical community in Ukraine embraced the opportunity to learn from Dr. Sayko's team. Altogether, more than 100 "students" – comprising professors at local medical education institutions and physical therapists – graduated from the course with certificates in rehabilitation medicine.

"We created a situation where we could help more of the wounded by teaching best practices in rehabilitation medicine," says Dr. Del Toro. "This was our overall intent, and we are well on our way toward that end."

On the trip home, planning began for yet another return trip for Dr. Sayko and her team, which they hope will be financed through the NATO Trust Fund. Regardless of the grant outcome, Dr. Sayko and the team will be back in Ukraine soon to lend a helping hand. ■

– ALEX KROUSE

"The casualties were astounding. I couldn't just sit and watch. I knew I needed to use my skills as a physician to help."

– Dr. Oksana Sayko



Giving an Old Drug New Potential

In the typical progression of biomedical science, basic research into the fundamental principles of biology and other fields leads to potential treatments that must be tested in clinical trials for safety and effectiveness. Once shown to be effective, these therapies enter the marketplace and then are further studied by public and population health researchers. While this process may be the tidy theoretical model, sometimes ideas flow against the tide.

"Epidemiology studies have shown that diabetic patients taking metformin have less incidence of pancreatic cancer," says Balaraman Kalyanaraman, PhD, chair and professor of biophysics and the Harry R. & Angeline E. Quadracci Professor in Parkinson's Research at the Medical College of Wisconsin (MCW). Findings by epidemiologists, who focus on patterns of health and disease in popula-

tions, suggested that there may be a way to modify and repurpose metformin, which regularly is prescribed to reduce glucose production in the liver and help control blood sugar levels in patients with type 2 diabetes.

Metformin has had a strong safety record in treating type 2 diabetes for more than 50 years, and Dr. Kalyanaraman was eager to apply what statistical analysis had uncovered in large populations to new studies in cellular and rodent models of pancreatic cancer.

The Kalyanaraman lab hypothesized that off-the-shelf metformin needed some modifications to unleash its potential as a future therapy for pancreatic cancer. The researchers then developed new versions that would be more positively charged, so that the compounds would accumulate more in the negatively charged mitochondria – thus improving the drug's ability to decrease the proliferation

and growth of cancer cells. The results were published in the August 2016 issue of *Cancer Research*. MCW research scientist Gang Cheng, PhD, working under the supervision of Dr. Kalyanaraman, is the first author of the manuscript.

The work described in the article received financial support from the MCW Cancer Center, the National Institutes of Health's National Cancer Institute, Aix-Marseille University in Provence, France and the French National Center for Scientific Research. The MCW Cancer Center pilot grant was instrumental in obtaining the reported data.

Also crucial were his scientific collaborations, both at MCW and across the world. Michael Dwinell, PhD, MCW professor of microbiology and molecular genetics and principal investigator, contributed expertise on reducing tumor growth and metastasis in pancreatic cancer, while Bryon Johnson, PhD, MCW professor of pediatrics, added expertise in cancer immunology. Former MCW postdoctoral fellows Micaël Hardy, PhD [and his colleague Olivier Ouari, PhD], from Aix-Marseille University, and Marcos Lopez, PhD, from the Cardiovascular Foundation of Colombia, assisted with synthetic chemistry. Other MCW contributors included Christy Barrios, PhD; Kathleen Boyle, PhD; Donna McAllister; James Weber; and Jacek Zielonka, PhD.

The investigators now plan to move forward by seeking a patent and opportunities for clinical trials. Their evidence also suggests possible uses for the new compound beyond pancreatic cancer.

"The more we learn about mechanisms of action, the clearer it becomes that we can use this approach on other cancers," Dr. Kalyanaraman adds. ■

— GREG CALHOUN



Photo courtesy of Gary Porter

The results of Dr. Kalyanaraman's work to modify a well-established diabetes drug (metformin) for use in pancreatic cancer were published in the August 2016 issue of *Cancer Research*.



Gray Matter “Matters” to Sharon Kailas



Photo courtesy of Jay Westhauser

Sharon Kailas wants to make a difference. In some fashion, and in some manner, she wants to help others. And when she was diagnosed with Parkinson’s disease in 2012, that strong desire didn’t go away. All it did was take a slight detour.

Instead of helping children with special needs, as she had done for 33 years, Sharon pivoted and decided to help others, like herself, who had been diagnosed with neurological disorders.

“I want my legacy to be that I contributed to helping MCW faculty find a cure for neurological disorders,” says Sharon, the 56-year-old director of pupil services for the West Bend, Wis., School District. “We all have the potential to make a difference in our own way. This is how I now choose to do it.”

To help accomplish this, Sharon decided in 2015 to join the MCW Neuroscience Research Board, a group of ambassadors and fundraisers for the MCW Neuroscience Research Center. She saw it as an opportunity to be an advocate for herself and others while



Please visit www.graymatter-matters.com for more information. Proceeds from your purchase of clothing and accessories support neuroscience research at the Medical College of Wisconsin.

offering a unique perspective to the faculty members on the Board.

“Working with special education students for much of my career, I understand how people can have different perceptions of life, and how things can change and take you in a different direction, and I felt like this was a good opportunity to share those views with the other Board members,” Sharon says. “I also am the only female patient on the Board, which enables me to offer another unique perspective.

“I joined so I could advocate for myself and other patients, and help researchers remember we are all people with lives and dreams,” Sharon adds.

Around the same time she joined the Board, Sharon also began planning a company, Gray Matter Matters, LLC, to help raise awareness and funds to

support MCW neurological disease research. The company sells brain-themed accessories like ties and scarves, and recently launched its website.

“I believe there are cures out there for Parkinson’s and other neurological disorders, and want to provide whatever I can to make them a reality,” Sharon notes.

Her efforts are a family affair. Her daughters – Sammy (26) and Gabby (23) – help with the website and social media, and her husband, Chris, fills in where needed and makes sure they continue to have fun and enjoy life.

“I think it is important to accept your life as it is, and accept that things happen for a reason,” Sharon says. “Things came together that pointed me in this direction, and I’m not sure yet why they did, but we will figure that out in the future.”

The Neuroscience Research Center was created in 2011 to enhance basic and translational neuroscience at MCW. More than 40 faculty members in 13 departments are involved in neuroscience research. ■ – ANTHONY BRAZA



Level 1 Designation Reflects Pediatric Surgery Excellence

By Greg Calhoun | Sara L. Wilkins

It was nearly midnight on the evening of December 10, 2015, when his pager sounded, alerting Keith Oldham, MD, to get to the Children's Hospital of Wisconsin (Children's) Emergency Department as soon as possible. Dr. Oldham, surgeon-in-chief and the Marie Z. Uihlein Chair in Pediatric Surgery at Children's and professor of surgery (pediatric surgery) at the Medical College of Wisconsin, expected to be faced with the heartbreaking task of declaring the death of a young patient; instead, to his surprise and delight, he discovered the teenager, a gunshot victim, had rallied and was fighting hard to stay alive.

The young man had been shot at close range as the target of a robbery, with extensive damage to his lower right torso and upper thigh. He had lost a considerable amount of blood with ongoing CPR on arrival and was minutes away from succumbing to his injuries. The Children's trauma response team already was in action, but it was clear that an emergency operation was needed. More than 90 units of blood were administered and a second team of anesthesiologists, led by Eric Walbergh, MD, was called in. The patient underwent two laparotomies (a surgical incision into the abdominal cavity for diagnosis or in preparation for surgery) and eventual amputation of his right leg mid-thigh. Following hours of grueling surgery, the teen was wheeled to the Intensive

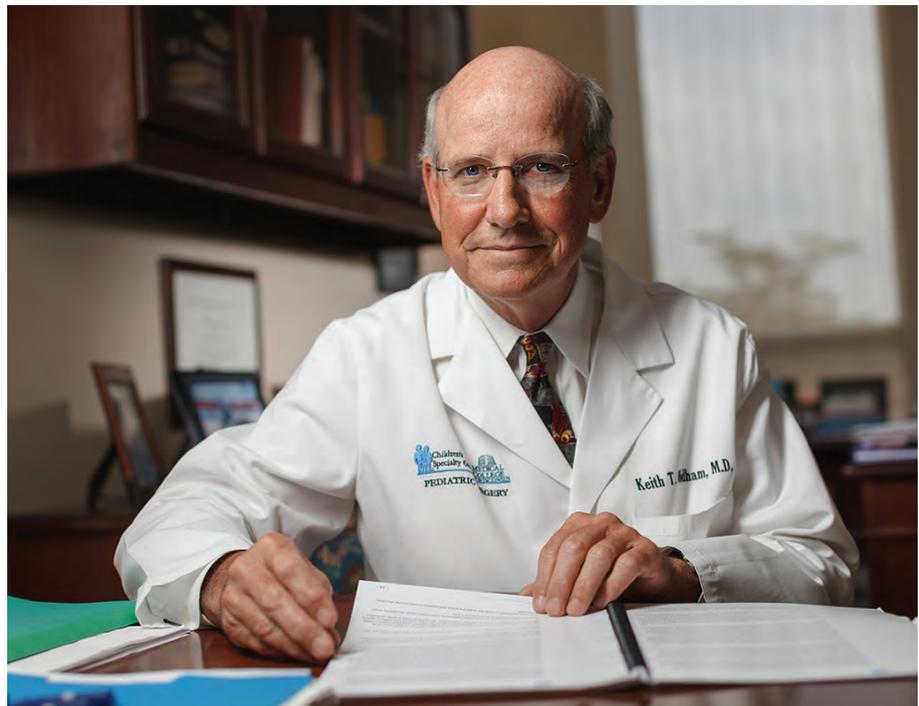


Photo courtesy of Jay Westhauser

Care Unit – where he would remain through the end of January before being transferred to a private room. On February 12, 2016 – 21 surgeries and more than 200 visitors later – he finally was able to return home.

Given the severity of his injuries, Cortez Nelson was fortunate to survive. He received an exemplary standard of care at Children's, reflecting the hospital's prestigious recent verification as a Level 1 Children's Surgery Center by the American College of Surgeons (ACS), the highest level of distinction for hospitals that perform surgeries – ranging from

standard procedures to the most complex – in newborns, children and teens. It undoubtedly saved his life.

Research has shown there are fewer complications, better survival and shorter hospital stays when children undergo surgery in hospitals with expert resources for pediatric patients. The ACS Children's Surgery Verification Quality Improvement Program provides the nation's first and only multispecialty standards for children's surgical care, and is helping families compare the services of hospitals that perform children's surgeries.



Cortez Nelson shares a moment with his "ICU angels" eight months after life-saving surgery. (l-r), Melissa Guess, RN, Lauren Galante, RN, and Eva Walder, RN

Photo courtesy of Gary Porter

ACS Level I Designation

- » Performs complex and noncomplex surgical procedures in newborns and children of all ages, including those with the most severe health conditions and birth defects
- » Staffed 24/7 with credentialed pediatric specialists
- » Includes a transport system
- » Has a Level IV neonatal intensive care unit (NICU), the highest level of critical care for newborns

Children's is one of six centers nationwide that agreed to be part of the ACS's verification pilot program, which included an on-site review by experts from across the country. The Level I status achieved by Children's and its Surgicenter requires 24/7 staffing by pediatric specialists, including surgeons, anesthesiologists (optimal anesthesia and airway management in infants and children require specific training and skills), diagnostic and interventional radiologists, emergency medicine physicians and critical care specialists; a Level

IV neonatal intensive care unit (the highest level of critical care available for newborns); a transport service; and research and data collection for benchmarking outcomes.

Perhaps not so coincidentally, Dr. Oldham led the Task Force for Children's Surgical Care that developed the new standards between 2012-2015, supported by the ACS and the Children's Hospital Association. "In over 30 years of practice as a physician, I had seen situations where care was sometimes not what you would seek for your own child," he says. The

MORE THAN

5

MILLION INFANTS & CHILDREN
UNDERGO SURGERY EACH YEAR

PEDIATRIC SURGEONS
REQUIRE A MINIMUM OF

7

YEARS' SPECIALIZED TRAINING

CLOSE TO

50

PERCENT OF ALL PEDIATRIC
SURGERIES TAKE PLACE IN
ADULT-FOCUSED
GENERAL HOSPITALS THAT
OFTEN LACK PEDIATRIC STAFF
AND RESOURCES

Source: American College of Surgeons



During his three-month stay at Children's Hospital of Wisconsin, Cortez Nelson had more than 200 visitors.

members of the Task Force – who represented key disciplines and perspectives – recognized how the verification of resources for trauma centers had improved trauma care, and they wanted to pursue a similar course for children's surgery. Their work culminated in the ACS's publication in 2015 of *Optimal Resources for Children's Surgical Care*.

Results from the pilot program were announced in May 2016. "The focus of the effort was to develop optimal resource standards that result in improved outcomes," remarks Dr. Oldham. "While children's surgical care is often excellent at hospitals across the country, the quality and resulting outcomes can be inconsistent." The results underscored that families in Wisconsin are fortunate to have access to one of the best children's hospitals in the country.

Dr. Oldham notes that the goal of the verification process is to see that every child in the US receives appropriate care at a hospital that is equipped to support medical, emotional and social needs of the child and family. "This process is meant to help families make the best decisions for their children and help ensure that complex procedures are being done at hospitals properly equipped and staffed to manage this level of care for children."

Dr. Oldham, whose specialty is general and thoracic surgery in infants and children, joined MCW in 1998 from Duke University Medical Center, where he served seven years as chief of pediatric surgery. His MCW team now includes 10 pediatric surgeons, six physician assistants, a variety of nursing staff (employed by Children's), four PhD scientists whose primary research includes endothelial cell biology and microvascular tissue injury, and a host of students, trainees and others.

The confluence of Dr. Oldham, the Children's trauma team, the pediatric critical care team, the pediatric anesthesiologists, the Froedtert Hospital vascular surgery team and numerous other healthcare providers in the early morning hours of December 11,

2015, undoubtedly saved the life of 17-year-old Cortez Nelson. A junior at Milwaukee Vincent High School, the 6'5" teen had just returned home from playing in his first basketball game of the season and was accompanying a friend on a short walk to a nearby convenience store. Two men jumped out at them from behind a building, brandishing weapons, and demanded their wallets and cell phones. Cortez was forced to the ground and although having surrendered his possessions, was shot. He got up and ran, but his leg gave out. His friend kept Cortez awake, got him back on the ground, and called out for help. After the police arrived he was transported to Children's; on the way there, Cortez says he saw an angel looking out for him. "I heard a voice tell me that it wasn't my time to go yet," he shares.

His mother, Shalonda Walker, was resting at home when the mother of a friend banged on her door. "Cortez got shot," she yelled. It was 10:45 pm on December 10. Shalonda rushed to hospital with her sister; after word got out about the shooting, Cortez's friends camped out overnight in the hospital parking lot. "They told me he had nine holes in his intestines and one in his stomach, as well as heart and kidney damage," Shalonda recalls. "And they took off his leg in order to save his life."

For Cortez, the recuperation was a major challenge. "It was overwhelming to go from a star athlete to a handicapped amputee in like three seconds," he says. But the unwavering support of his friends – some of whom never stopped visiting him – and the outstanding care from the Children's nurses and physicians gave him the strength to persevere. Cortez is particularly grateful to his three ICU nurses, Eva Walder, RN, Lauren Galante, RN, and Melissa Guess, RN, whom he calls "my angels."

During his hospital stay, Cortez dropped half his weight – arriving home at a mere 99 pounds. His "Christmas present" in ICU, he shares, was "a sip of water."

Cortez still faces additional surgery on his leg to allow the prosthesis to fit



Cortez Nelson makes a point of visiting his ICU nurses on each follow-up visit at Children's Hospital of Wisconsin. In August, he was accompanied by (l-r) his mother, Shalonda Walker, sister, Aaliyah Rhodes, and aunt, Genetta Springfield, while Eva Walder, RN, looks on.

more comfortably, but he's completed both occupational and physical therapy. "I'm adjusting to the new normal," he remarks. "My journey would have been so much harder without the great people at Children's. They treated me like family."

His mother continues to gush over the care Cortez received. "I am so grateful to the doctors for bringing back my baby. The fact that they never gave up on him gave me a lot of comfort," she adds. "They explained everything to me. And he had such wonderful caring nurses. Even the

valet at the hospital was nice!"

Doctors, nurses, caregivers – even angels! Giving a life back to a critically injured pediatric patient takes the hard work of a talented and dedicated team, supported by the right tools and resources.

"Verification by the ACS as a Level 1 Children's Surgery Center validates that we have the people and resources necessary to provide the best care for young patients such as Cortez – and to generate the best of outcomes," according to Dr. Oldham. ■



To read more, visit mcw.edu/cortez

Distinguished Pediatric Cardiac Surgeon Joins MCW

Viktor Hraska, MD, PhD, among the world's most distinguished experts in pediatric cardiac surgery, joined MCW in July 2016 as professor of surgery and division chief of congenital heart surgery. He also is medical director for cardiothoracic surgery at Children's Hospital of Wisconsin and The S. Bert Litwin Chair of Cardiothoracic Surgery at Children's. Further, he serves as surgical director of the Herma Heart Center and as a member of Children's Specialty Group, a joint venture between MCW and Children's.



Dr. Viktor Hraska

Dr. Hraska is an accomplished pediatric cardiovascular surgeon with vast clinical, teaching and research expertise. He trained in Europe and at Boston Children's Hospital – completing residencies in anesthesia, cardiology, surgery and vascular surgery, and fellowships in cardiac surgery and pediatric cardiac surgery. Dr. Hraska regularly lectures worldwide on pediatric cardiac surgery topics and has published extensively.

The Children's Herma Heart Center team, which includes surgeons Michael Mitchell, MD, and Ronald Woods, MD, along with MCW faculty in disciplines such as anesthesia, critical care and cardiology, has led groundbreaking work that has produced some of the best outcomes in the world for pediatric heart surgery.

Dr. Hraska joins 10 other surgeons in providing a six-year integrated cardiothoracic surgery training program. MCW is one of the first in the country to offer an integrated program that provides a more streamlined approach than traditional surgery curricula.

Pediatric Surgical Team Saves Baby Born Without Trachea

In spring 2016, a male infant was born in Wisconsin without a trachea. The condition, known as tracheal agenesis, is a rare birth defect (approximately 150 reported cases since 1900). Kathleen Dominguez, MD, FEL '14, pediatric surgeon at the Marshfield Clinic, conducted the initial surgery needed to stabilize the baby so that he could be transported to Children's Hospital of Wisconsin. Upon arrival, a team including neonatology, pediatric cardiothoracic surgery, pediatric surgery, pediatric otolaryngology and additional provider staff provided the surgical and clinical care needed to overcome the missing trachea.

Over the next three months, surgeons connected a section of the infant's esophagus to the lungs, creating an alternative airway leading to an opening at

the base of the throat. Because the wall of the esophagus is floppy compared to the trachea's rigid structure, a rigid ringed sleeve made of ski jacket material was placed over and sewn to the esophagus to prevent the reconstructed airway from collapsing. The boy is now home and breathing without a ventilator and eventually will have his stomach reconnected to the remaining esophagus.

The baby is the oldest US survivor of tracheal agenesis; four people in Japan have survived for years after similar surgeries. "The teamwork, talent and wide-ranging expertise from our academic medical center were critical in this case," says John Densmore, MD, MCW associate professor of pediatric surgery.



Life's twists lead to Milwaukee, Oncology, Brewers Baseball and a

Big-League Gift

Two unlikely turns in life led to happy surprises and life-altering detours for Paul A. Jacobs, MD. As a devoted Dodgers baseball fan growing up on the schoolyard ball diamonds of Brooklyn, he couldn't have imagined he would switch his allegiance and work for a major league franchise in Milwaukee. As an orthopaedic physician, he didn't consider pursuing orthopaedic oncology until after he was asked to join the volunteer faculty at the Marquette University School of Medicine, predecessor to the Medical College of Wisconsin.

One turn guided him to a path of sports medicine. The other led to a specialty in oncology, more than 40 years of volunteer faculty status at Marquette and MCW, and in 2008, a monetary gift to create the Paul A. Jacobs, MD, Endowed Chair in Orthopaedic Surgery at MCW. Newly named to that endowed chair is David M. King, MD, who succeeded Jeffrey P. Schwab, MD, GME '78, as chair of the department. Dr. Schwab continues his 39 years of service to MCW but left his chair role after 19 years.

"When I first joined the staff of the Medical School, the chair of the orthopaedic surgery department told me I would teach bone pathology, which was a total

shock to me, but as a result I became the orthopaedic oncologist for this area," says Dr. Jacobs, who adds that orthopaedic surgeons in Milwaukee's tri-county area numbered just 15 in 1961. "We had to do everything because there was no one else to do it. Orthopaedic oncology became a significant part of my practice, which, by coincidence, happens to be Dr. King's specialty."

Dr. Jacobs earned his MD from State University of New York Downstate Medical Center, where he met his wife, Betty, a nurse, and completed residencies at Detroit's Henry Ford Hospital and New York City's Hospital for Joint Diseases (HJD). In 1961, hoping to raise a family away from what he calls "the New York City rat race," Dr. Jacobs accepted a partnership with two other HJD alumni to form Milwaukee Orthopaedic Group, the first group in Wisconsin to have three to five orthopaedic surgeons practicing together.

"I can commute from the suburbs to my office in 11 minutes," notes Dr. Jacobs. "In New York that's an hour and a half."

He began teaching MCW residents and enjoyed it so much that he and Betty hosted annual teaching sessions at their home for senior residents prior to their Orthopaedic Board exams.

In 1971, Dr. Jacobs and his partners were paid a visit by owner Bud Selig and other officials of the fledgling major league baseball club, the Milwaukee Brewers, and Dr. Jacobs went on to spend 25 years as a team physician for the club.

"The players could never imagine that after being at County Stadium until 10 or 11 o'clock at night, I was in the operating room at 7 o'clock the next morning," recalls Dr. Jacobs. "I had a lot of energy as a young man, but it's an old story – if you like what you do, you never have to work,

and I really never considered it work."

To help his work-life balance, Dr. Jacobs regularly brought his four daughters to games, sitting behind the Brewers dugout. "In order for me to be on call, the team installed a telephone jack under my seat. Every game I would go with my little telephone, plug it in and sit there with my daughters – so there were side benefits."

He recalls performing surgery on a pitching prospect dropped by another team, and six months later, clearing the player to be signed by the Brewers. "The first game he pitched was a nine-inning shutout," Dr. Jacobs shares. "When I get a phone call from the GM, congratulating me on the win, that's something you don't forget, as well as all the players whose careers were saved or lengthened."

Many a time was spent chatting with Selig about the old Dodgers days in Brooklyn, but Dr. Jacobs affirms that "I'm absolutely a Brewers fan."

He's also been a big fan of Milwaukee, the lifestyle here, and MCW. "We've been very fortunate to be here, and we wanted to contribute something to the community," he says, having retired from his practice in 2005 but keeping close ties to MCW and creating the endowment for orthopaedic surgery. "The future of orthopaedics is in the hands of the young men and women we're teaching today, so an endowment with an emphasis on teaching was a good application of that money."

Dr. Jacobs notes that some people thought his role as a Brewers physician was his only career job, "but it was just a small portion of what I did. It's a thrill seeing one of your athletes go out and conquer something, but it's a greater thrill to see one of your cancer patients come back five years later." ■

– JOHN BURLINGHAM
Photo courtesy of Jeff Zmania

THE PAUL A. JACOBS, MD, ENDOWED CHAIR IN ORTHOPAEDIC SURGERY

was created with initial gifts over five years and an option to complete the endowed fund, either from Dr. Jacobs' estate or another five years of pledge payments – the latter of which was chosen. Find out how an endowed fund can support research or education at MCW by contacting Angela Nelson, senior director of development and alumni giving, at (414) 955-4708 or annelson@mcw.edu.

“The future of orthopaedics is in the hands of the young men and women we’re teaching today, so an endowment with an emphasis on teaching was a good application of that money.”

—Dr. Paul Jacobs



Dr. Paul Jacobs (r) says that orthopaedic oncology became a significant part of his practice, which, by coincidence, happens to be the specialty of Dr. David King (l), new Paul A. Jacobs, MD, Endowed Chair in Orthopaedic Surgery at MCW.



1. Members of the Medical College of Wisconsin department of ophthalmology faculty review initial architectural plans for the Eye Institute in 1970.
2. Representatives of the numerous organizations who had a part in planning or funding the Eye Institute participate in groundbreaking ceremonies on September 21, 1974.
3. Jules and Doris Stein tour the future home of the Eye Institute with chair Richard O. Schultz, MD, during an early phase of construction in 1974.
4. In addition to clinic and research space, the Eye Institute became home to four operating rooms to handle all surgical eye care.
5. The Eye Institute brought then state-of-the-art diagnostic equipment to clinical exam rooms.
6. The Eye Institute officially opened in December 1976 at the northeast corner of County General Hospital.



To read more, visit mcw.edu/eyes



When Richard O. Schultz, MD, arrived at the Marquette University School of Medicine, predecessor to MCW, as the chair of the newly established department of ophthalmology, he needed to bring together the vision care team – not just figuratively, but literally. “In the late 1960s, we were spread out over something like 10 locations, including wings in both County Hospital buildings and the Cramer Building downtown,” recalls Dr. Schultz.

fits of its counterparts,” says Dr. Schultz. In those first few years, the mix of full- and part-time faculty cared for more than 20,000 patients (performing surgery in the Eye Institute on about 20 percent of them), conducted research to improve outcomes in cornea transplants and retina surgery, and trained MCW’s 100th ophthalmology resident – setting the stage for decades of productivity to come.

Continual renovations – including two National Institutes of Health construction grants – have transformed the interior of the Eye Institute over the past 40 years, but the mission of improving, restoring and preserving sight remains the same. Today, MCW Eye Institute faculty provide state-of-the-art clinical and surgical care (more than 80,000 patient visits and 3,600 surgical cases each year). Researchers actively take a multidisciplinary approach to improving the fundamental understanding, diagnosis and management of eye diseases; in fact, the eighth-floor RD and Linda Peters Foundation Vision Science Laboratories of

MCW Eye Institute:

40 Years of Improving, Restoring & Preserving Sight

The department needed a single home, and Dr. Schultz found a group to support his vision: Research to Prevent Blindness (RPB), a nonprofit created in 1960 by Jules Stein. RPB had conducted the first comprehensive assessment of vision research in the US; one conclusion was the need to support the development of comprehensive eye centers around the country that would bring together all aspects of vision care under one roof.

Through Dr. Schultz’s influence, Milwaukee became a promising location for one of those centers, and in 1970, RPB began fundraising initiatives to support the building of an MCW Eye Institute.

After years of letters, phone calls and pitches to the community, along with the eventual financial support of Milwaukee County to supplement \$1.5 million in private donations, construction of the \$4.4 million, eight-story building began in September 1974. In late 1976, the Eye Institute opened as one of the first dedicated eye care centers in the country.

“By combining educational programs, patient care and cutting-edge research under the same roof, we hoped to create an environment in which each facet reaped the bene-

fits of its counterparts,” says Dr. Schultz. In those first few years, the mix of full- and part-time faculty cared for more than 20,000 patients (performing surgery in the Eye Institute on about 20 percent of them), conducted research to improve outcomes in cornea transplants and retina surgery, and trained MCW’s 100th ophthalmology resident – setting the stage for decades of productivity to come.

In some ways, the recently renamed department of ophthalmology & visual sciences has come full circle in the past 40 years. “We are always looking to better serve the community, which now means providing care beyond the confines of the Eye Institute,” says Dale Heuer, MD, Dr. Schultz’s successor as department chair (only the second in 50 years). Today, Eye Institute physicians also see patients at multiple Froedtert & MCW health network locations and Children’s Hospital of Wisconsin clinics. Indeed, MCW’s ophthalmology program has expanded beyond the imposing concrete façade of the 40-year-old building, but the purpose of the Eye Institute remains as critical as ever: to stand tall as the unifying center of academic vision care in southeastern Wisconsin. ■

– KARRI STOCK



Serving Her Patients and Her Country

“From my earliest recollections, I have wanted to be a family physician,” says Col. Jennifer Junnila Walker, MD '93, GME '96, MPH. That dream took her to Seattle University, where she accepted a four-year Reserve Officers' Training Corps (ROTC) scholarship to help pay for her education.

“My family was supportive but didn't have the financial means to send me to college,” Dr. Walker explains. “In addition to the scholarship, ROTC also helped me to remain very focused on my goals as I studied and trained to meet the program's academic and physical requirements.”

When it came time to apply to medical schools, the Medical College of Wisconsin rose to the top because of its focus on primary care.

“Being a family physician has allowed me to take my practice wherever the Army demands and make the most of whatever resources are available,” Dr. Walker notes. “And it is not unique to me – military physicians across the world do this every day.”

In addition to using her skills to treat patients, Dr. Walker found that the military supported and encouraged physicians interested in career development in other disciplines, such as teaching and medical leadership. She completed a fellowship focused on faculty development at Madigan Army Medical Center in Fort Lewis, Wash., in 2005. Through a joint program with the University of Washington in Seattle, Dr. Walker simultaneously earned a master's degree in public health.

“These advanced degrees enhanced my abilities as a provider, educator and administrator,” Dr. Walker adds. “The fellowship helped me develop leadership skills in military medical education while the public health curriculum improved my ability to prevent disease and care for populations.”



— Dr. Jennifer Junnila Walker

Dr. Walker would not have to wait very long to use her new knowledge in these areas, as her next assignment took her to the Army Medical Department Center and School at Fort Sam Houston in San Antonio, Texas, in December 2005. She began as a faculty instructor in the Interservice Physician Assistant Program and later became the program's academic director – responsible for coordinating 32 military and civilian instructors delivering more than 5,000 hours of instruction annually to 200 students. Dr. Walker brought this experience to future assignments in Colorado, Iraq and Hawaii before being named chief of clinical operations for the United State Pacific Command's Office of the Command Surgeon in August 2013.

“As the senior clinical advisor for the command post covering more than half of the earth's surface and every military branch, it was my job to make sure that every service member received the

same standards of care,” Dr. Walker shares. After her time in the US Pacific Command, Dr. Walker served as director of graduate medical education at Womack Army Medical Center in Fort Bragg, N.C., before retiring from military service in September 2016 after more than 20 years of active duty.

Now, Dr. Walker is bringing the clinical and teaching management approach she has refined around the world to the Hawaii Island Family Health Center in Hilo, Hawaii, where she serves as medical director, as well as to the Hawaii Island Family Medicine Residency at Hilo Medical Center, where she is a full-time faculty member.

“There is such a need for primary care here on Hawaii Island,” Dr. Walker says. “I feel like I can help the family medicine residency program advance its mission of meeting the primary care needs of the State of Hawaii.” ■

— GREG CALHOUN



For more, visit mcw.edu/junnilawalker



Thinking “Outside the Clinic”

Community-academic partnership brings eye screening from the clinic to a south-side Milwaukee community center

For patients, a diagnosis of diabetic retinopathy can begin with a trip to the doctor due to distorted vision. Retina specialists such as Judy E. Kim, MD, GME '96, professor of ophthalmology at the Medical College of Wisconsin (MCW) and the MCW Eye Institute, know that the disease has been gradually changing small blood vessels in the eye long before these symptoms occur.

“Left untreated, bleeding and possible retinal detachment from abnormal blood vessel growth and fluid leakage from damaged vessels can lead to permanent blindness,” Dr. Kim says.

Experts recommend regular comprehensive eye exams to catch diseases such as diabetic retinopathy as early as possible to prevent or delay further damage and vision loss. A lack of awareness of the link between diabetes and eye health can be a barrier to seeking screening services, as can challenges accessing appropriate medical services due to concerns such as insurance coverage (or lack thereof), language and transportation.

“We all understood the obstacles to bringing our community members to the clinic to conduct screenings,” says Militza Bonet-Vasquez, health research coordinator for the United Community Center in Milwaukee, Wis., which provides a wide range of social services to the families – a majority of which are Latino – living on the city’s south side. “So our idea instead was to bring the screenings into the community.”

The partnership added Marquette University’s Sheik Iqbal Ahamed, PhD, to securely transfer health information among institutions. With the community, medical



Photo courtesy of Greg Calhoun
Carroll University student volunteers Martha Hernandez (l) and Natali Jankovic demonstrate the Optos camera used to take retinal images that are screened for diabetic retinopathy.

and data infrastructure knowledge and experience in place, the partners received a \$200,000 award in January 2014 from the Advancing a Healthier Wisconsin Endowment at MCW.

The team moved forward, installing a retinal imaging camera in the United Community Center that was borrowed from Optos, a medical device manufacturer in Scotland. Project staff were trained to operate the camera, as were volunteers. Then, it was time to invite community members to participate.

“While we knew the need was there, we were thrilled to see the acceptance and interest the community had in the technology,” Bonet-

Vasquez notes. More than 400 individuals were screened, and four were identified as being in critical need of intervention to prevent future blindness due to diabetic retinopathy.

“The results demonstrate the feasibility of a distance-based approach to preventing vision loss through early detection that will allow for a timely treatment,” Dr. Kim adds.

The Clinical and Translational Science Institute of Southeastern Wisconsin awarded a \$50,000 pilot grant to Dr. Kim and the team in May 2016 to further support their work.

While flipping the script on where and how people are screened for diabetic retinopathy, and demonstrating how distance-based medicine can improve health in communities, Bonet-Vasquez, Dr. Kim and their partners have helped Milwaukeeans take steps to preserve their eyesight and see clearly the possibility of a healthier future. ■

– GREG CALHOUN

“The results demonstrate the feasibility of a distance-based approach to preventing vision loss.”

– Dr. Judy Kim

The MCW School of Medicine’s Advancing a Healthier Wisconsin Endowment works to catalyze health improvement in Wisconsin and has invested about \$200 million in approximately 360 research, education and community health initiatives.



To read more, visit mcw.edu/judykim

HAPPENINGS



Taking first place in the 29th Annual LPGA Pro-Am Golf Tournament on August 22 to benefit MCW's Digestive Disease Center are (l-r): Steve "The Homer" True, Tim O'Malley, Sara Brown-Radley (LPGA), Scott Naze, Danah Bordner (LPGA), and Kevin Frisinger. Event co-chairs were Carey and Scott Drees and Nicole and Bryan Waltersdorf.

18th Annual CVC Golf Challenge

The 18th Annual CVC Golf Challenge took place on Monday, August 1, 2016. Ninety-two golfers came to play a scramble format on that beautiful summer day. The event began with a barbeque lunch, followed by a shotgun start at noon. After 18 holes, players returned for an elegant dinner and program, with remarks from president and CEO of the Medical College of Wisconsin, John Raymond, Sr., MD; director of the Cardiovascular Research

Center, Ivor Benjamin, MD; and Daniel Bell, a grateful patient who recently received a heart transplant at Froedtert Hospital. After an exciting silent and live auction, the event raised approximately \$92,000, the highest proceeds during its 18-year history! In total, the CVC Golf Challenge has raised \$1.4 million. A special thank you to Lexus Brookfield/Lexus North Shore and AO Smith Foundation for their continued support of this event.



Have a Heart Ride

The 8th Annual Have a Heart Motorcycle Ride was held on June 8, 2016. Approximately 120 riders participated on a 80-degree sunny day to show their support to raise money for cardiovascular research. Riders experienced a 70-mile scenic ride through the hills and coun-

tryside of southeast Wisconsin. This year, almost \$20,000 was raised; a total of \$93,500 in proceeds has been raised during this event's eight-year history. Thanks to our sponsors, Suburban Motors Harley-Davidson, Suburban Milwaukee HOG Chapter and Gruber Law.

Imagine More Dinner Benefits Research

On June 15, a record 400 guests gathered for the 4th Annual *Imagine More Dinner* at Discovery World in Milwaukee to raise funds and awareness for neuroscience research. The program highlighted research at MCW on the acute and chronic effects of traumatic brain injury, specifically in the area of sports impact concussions, under the direction of Michael McCrea, PhD, director of brain injury research at MCW and professor of neurosurgery and neurology. More than \$230,000 was raised at the event.

We hope to see you at the next *Imagine More Dinner* on June 15, 2017

2016 Healthcare Dinner Scheduled for November 17

The 2016 Healthcare Dinner, hosted by the Medical College of Wisconsin Digestive Disease Control Board, will be held on Thursday, November 17, at the Pfister Hotel in downtown Milwaukee. Registration and reception begin at 5:00 pm, followed by dinner at 6:00 pm and

the program and presentation at 7:00 pm.

The program will include a special guest speaker, and Sarah and Jeff Joerres will receive the *Warren P. Knowles Award*. For more information, contact Kelly Baylor at kbaylor@mcw.edu or 414-955-4701.

Women in Science Lecture Series

This year marks the 10th anniversary of the Women in Science Lecture Series. Women in Science is an opportunity to meet outstanding female scientists and physicians and learn more about their cutting-edge research and new treatments for disease. For more information about the Women in Science Lecture Series, please visit www.mcw.edu/womeninscience.

UPCOMING EVENTS

FEBRUARY

» 2017 STEVE CULLEN HEATHY HEART CLUB RUN/ WALK

DATE: FEBRUARY 11, 2017

» NINTH ANNUAL STRIKES FOR HOPE BOWLING FUNDRAISER - SUSSEX BOWL

SINCE 2009, BROTHERS BRIAN ELLENBECKER AND DAVID ELLENBECKER HAVE RAISED MORE THAN \$125,000 FOR CANCER RESEARCH AT THE MCW CANCER CENTER

DATE: FEBRUARY 25, 2017

MARCH

» DESERT CLASSIC WEEKEND

GOLF ON FRIDAY AND BREWERS SPRING TRAINING BASEBALL ON SATURDAY

DATE: (MARCH 10 AND MARCH 11, 2017)

LOCATION: PHOENIX AREA

MAY

» ALUMNI WEEKEND

HOSTED BY MCW/MARQUETTE MEDICAL ALUMNI ASSOCIATION

DATE: MAY 5-6, 2017

LOCATION: PFISTER HOTEL, MEDICAL COLLEGE OF WISCONSIN AND OTHER MILWAUKEE AREA LOCATIONS

REUNION EVENTS FOR CLASSES OF '57, '62, '72, '77, '82, '87, '92, '97, '02 AND '07

For more information on these events, contact Peggy LeBrun, director, volunteer and event fundraising, at (414) 955-4503 or plebrun@mcw.edu.

STAY CONNECTED WITH MCW

We'd love to hear from you! We'll post your event comments and photos. Or, let us know what's coming up. Send your materials to MCWmagazine@mcw.edu.

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ALUMNI NOTES

1960s



Eugene M. Bozymski, MD '60, GME '66,

became emeritus professor of medicine at the University of North Carolina School of

Medicine. He will continue to work at the Durham VA Medical Center and serve as adjunct professor of medicine at Duke University School of Medicine.

1970s



Clarence P. Chou, MD '77, FEL '83,

received the Wisconsin Medical Society's Presidential Citation. Dr. Chou serves as an associ-

ate clinical professor of psychiatry and behavioral medicine at MCW, and as a staff psychiatrist with the Milwaukee County Behavioral Health Division. Dr. Chou served the Wisconsin Medical Society as president in 2007 and 2008. He also served as a member of the Society's Board of Directors for 11 years, including as chair and vice chair. Dr. Chou previously served as president of the Medical Society of Milwaukee County.



Steven Leven, MD '79, GME '82, FEL '84,

is professor of medicine, division of pulmonary and critical care medicine at the University of

California Irvine School of Medicine (UCISOM). He also is medical director of the medical intensive care unit and medical director of respiratory therapy at the University of California Irvine Medical Center. Dr. Leven was voted Subspecialist Attending of the Year by internal medicine residents at UCISOM in June 2016, for the fifth time.

1980s

Stephen D. Boren, MD, GME '80, MBA,

wrote a book chapter about Milwaukee Braves pitcher Max Surkont, which was published by the Society for American Baseball Research, Inc., in the book *From the Braves to the Brewers: Great Games and Exciting History at Milwaukee's County Stadium*. Dr. Boren described how Surkont struck out eight pitchers in a row in a game against the Cincinnati Reds on May 25, 1953 – a feat that stood as a modern consecutive strikeout record until 1970.



Michael Ostrov, MD, GME '81, was promoted to chief medical officer for WPS Health Insurance and Arise Health Plan, based in Madison, Wis. He

joined WPS in February 2015 and previously served as medical director, network and quality. In April 2016,

the Wisconsin Medical Society named Dr. Ostrov as its 2016 *Physician Citizen of the Year* for his work in the areas of advance care planning and end-of-life care in Wisconsin.



Laurel M. Bear*, MD '84, GME '87,

was recognized by the Steve and Shari Sadek Family Camp Interlaken JCC (Eagle River, Wis.)

for 25 years of service, including as medical director and a member of the Camp Committee, which she chaired from 1998-2001. In addition to scheduling physicians for the eight weeks of camp, Dr. Bear has prepared personalized care plans based on each camper's records, and has been instrumental in improving the health center facilities.



Mark L. Harlow, MD '86, GME '91,

received the South Dakota State Medical Association 2016 *Community Service*

Award, which is given "in recognition of exemplary involvement in community affairs." He was selected for his years of service to the Pine Ridge Indian Hospital and as a director of the Cornerstone homeless mission, and for his work as the chair of Special Olympics South Dakota.

* MCW faculty member

1990s

Bryce A. Kerlin, MD '96, was promoted to professor of pediatrics at The Ohio State University College of Medicine in Columbus. He is a pediatric hematologist-oncologist at Nationwide Children's Hospital in Columbus, and also serves as the director for The Joan Fellowship in Pediatric Hemostasis-Thrombosis. In addition, Dr. Kerlin is a principal investigator in the Center for Clinical and Translational Research at the Nationwide Children's Research Institute; his laboratory's research includes the study of kidney diseases and their effects on blood flow.

Kyja Stygar, MD '97, joined the faculty for the new Mayo Clinic Family Medicine Residency Program in Eau Claire, Wis. The program is recruiting its first class of residents for 2017. Dr. Stygar practiced family medicine in Mayo Clinic Health System – Red Cedar clinic in Menomonie, Wis., for 16 years and is thrilled to have a formal role in graduate medical education.

2000s

Babu S. Doddapaneni, MD, GME '01, will see patients in a new cardiology department at Franciscan St. Elizabeth Health – Crawfordsville (Ind.) hospital. He is a member of Franciscan Physician Network Indiana Heart Physicians, a group based in Indianapolis that serves communities throughout the region. Dr. Doddapaneni focuses on nuclear cardiology, diagnostic catheterization and echocardiography.

Parameswaran Hari*, MD, FEL '04, MS '06, was appointed associate division chief for hematology and oncology in the department of medicine at MCW.

Nicole Lohr*, MD '06, PhD '04, FEL '12, was appointed chief of the division of cardiology at the Clement J. Zablocki VA Medical Center in Milwaukee. She will oversee the VA's ongoing investment in cardiology and has extensive clinical, research and administrative experience contributing to the innovative care of cardiology patients.

Alison J. Kriegel*, PhD '08, was awarded a five-year \$1.9 million grant from the National Institutes of Health's National Heart, Lung, and Blood Institute to investigate the underlying principles of chronic kidney disease and its correlation to cardiovascular diseases. Dr. Kriegel serves as assistant professor of physiology at MCW.

2010s

Paul Stellmacher*, MD '12, is assistant professor of medicine, divisions of hematology and oncology and general internal medicine, at MCW. He specializes in hospice and palliative medicine as well as hospitalist medicine.

Johnathan Ebben, PhD '16, and his fellow members of the biotechnology startup company, NanoRed Therapeutics, were among 10 winners of the Center for Advancing Innovation's Nanotechnology Startup Challenge in Cancer. Participating teams proposed ideas for utilizing one of eight inventions identified for use in the challenge. Winners were selected by a panel of expert judges. NanoRed Therapeutics is working on a new therapy for childhood rhabdomyosarcoma, in which tumors grow in muscle and connective tissue. Dr. Ebben is a current medical student at MCW in the Medical Scientist Training Program.



MCW MAGAZINE wants news of your accomplishments and activities. Send updates to: Medical College of Wisconsin Office of Alumni Relations 8701 Watertown Plank Road, Milwaukee, WI 53226, fax at (414) 955-6699 or email alumni@mcw.edu.

IN MEMORIAM

1940s

Frank G. Schiro, MD '43, of Sacramento, Calif., died on September 13, 2015, at the age of 96. As a family physician, he took the greatest professional satisfaction in delivering babies, delivering more than 1,000 Sacramento children during his career. Survivors include three children, five grandchildren and three great-grandchildren.

Vincent Scoglietti, MD '43, of Middletown, Del., died on May 29, 2015, at the age of 95. Dr. Scoglietti served his country proudly in Europe during World War II, and returned to practice internal medicine in the Penn Hills (Penn.) area, serving on the staffs of St. Francis and Pittsburgh Hospitals. He is survived by six children, 14 grandchildren and 12 great-grandchildren.

John T. Hotter, MD '46, of Elm Grove, Wis., died on July 10, 2016, at the age of 92. He is survived by two daughters and four grandchildren.

Benjamin F. Storer*, MD '47, of Lima, Ohio, died on August 15, 2016, at the age of 97. After serving in the US Army Air Corps until 1950, he worked as a psychiatrist at the Allen Correctional Institution (Lima), and retired in 1990. Dr. Storer is survived by five children, eight grandchildren and nine great-grandchildren.

1950s

William Gallen, MD, GME '55, of Milwaukee, died on May 20, 2016, at the age of 91. As one of the first

board-certified pediatric cardiologists in the US, Dr. Gallen brought the field of pediatric cardiology to Wisconsin through his work at Children's Hospital of Wisconsin. Throughout more than 40 years of service, including 25 years as chief of cardiology, he treated children by the tens of thousands and was involved in introducing important procedures to Wisconsin pediatric cardiologists, such as the pediatric angiogram, cardiac catheterization and balloon atrial septostomy. Dr. Gallen is survived by his wife, Patricia, and six children.

James A. Losito, MD '55, died on September 6, 2015.

James R. Sevenich, MD '55, of Stevens Point, Wis., died on March 12, 2016, at the age of 86. He spent the majority of his career in private practice and delivered more than 4,000 babies. Dr. Sevenich was the Minnesota Intercollegiate Athletics Conference diving champion in 1948 and 1950, and then became an active swimming and diving competitor in the Wisconsin Master's Program during retirement. He is survived by his wife, Bernice, six children, 16 grandchildren and two great-grandchildren.

James T. Schulz, MD '56, of Madison, Wis., died on July 16, 2016, at the age of 86. He was one of the founding partners of East Madison Clinic (currently Dean Clinic). Dr. Schulz is survived by four children, seven grandchildren and one great-grandson.

John A. McRae, MD '57, of Laguna Woods, Calif., died on December 9, 2015, at the age of 82.

James O'Brien, MD '58, of Janesville, Wis., died on March 9, 2016, at the age of 82. He practiced obstetrics and gynecology for more than 35 years and was named a Fellow by the American College of Obstetricians and Gynecologists. Dr. O'Brien was an avid traveler and student of Civil War history. Survivors include his wife, Helen, three sons and eight grandchildren.

Michael W. Bottum, MD '59, of Milwaukee, died on June 27, 2016, at the age of 86. He is survived by his wife, JoAnne, seven children and 16 grandchildren.

1960s

James J. Brophy*, MD '60, of La Jolla, Calif., died on December 23, 2015, at the age of 85.

James A. Clemence, MD '60, of Milwaukee, died on June 26, 2016, at the age of 81. He practiced in Hales Corners, Wis., for nearly 50 years. Survivors include four children and 14 grandchildren.

Richard J. "Fuzzer" Mathews, Jr., MD '62, of Shorewood, Wis., died on August 29, 2016, at the age of 80. He was a beloved OB/GYN at St. Mary's Hospital (Milwaukee) for more than 35 years. He is survived by five children and 12 grandchildren.

*MCW is grateful to these alumni for their Legacy Society memberships.

Gordon L. Datka, MD '63, GME '66, of Franklin, Wis., died on June 21, 2016, at the age of 78. He is survived by his wife, Linda, six children, 10 grandchildren and a great-grandson.

Karl A. Lustig, MD, GME '64, of Spearfish, S.D., died on June 5, 2015, at the age of 78. He practiced in several states before joining Spearfish Regional Hospital as a regional radiologist in 1992. Dr. Lustig was an outdoorsman who enjoyed fishing and pheasant hunting. He is survived by his wife, Susan, seven children and eight grandchildren.

Loren J. Yount, MD, GME '64, of Pinehurst, N.C., died on May 16, 2016, at the age of 84. Outside of his work as a surgeon in Milwaukee, he was dedicated to the Florentine Opera and the Cancer Society of Milwaukee. Survivors include a daughter and two grandchildren.

Michael P. Mehr, MD, GME '65, of Wisconsin Rapids, Wis., died on June 29, 2016, at the age of 82. He practiced internal medicine in Waukesha, Wis., Marshfield, Wis., and Wisconsin Rapids. Dr. Mehr served on a number of professional organizations, including the Wisconsin Medical Society and the American Society of Internal Medicine, and was an avid golfer. He is survived by his wife, Patricia, eight children and 15 grandchildren.

James M. Kenney, MD '67, of Old Orchard Beach, Maine, died on July 19, 2016, at the age of 75. After more than 15 years of active service, he retired as an Air Force surgeon in 2002 at the rank of Colonel. Survivors

include his wife, Virginia, three children and four grandchildren.

Alexander Nichols Gunn II, MD, GME '69, of Sacramento, Calif., died on March 11, 2016, at the age of 79. He was a healthcare executive for insurance provider Health Net and served throughout his career in a number of surgical and health management positions in Boston, Gloucester, Mass., and California. Dr. Gunn, a supporter of the arts, travelled the world singing with the Yale Alumni Chorus. He is survived by his wife, Rhonda, three children and a granddaughter.

1970s

Yen-Jen Fuh, MD, GME '70, of Madison, Wis., died on February 17, 2016, at the age of 78.

Bhrihu R. Hajra, MD, FEL '70, of Temple, Texas, died on September 25, 2014, at the age of 80. He was a retired cardiologist who practiced for 28 years at Scott & White Memorial Hospital in Temple. Survivors include his wife, Panu, two sons and a grandchild.

1980s

Marc H. Anderson, MD, GME '85, of Ledgeview, Wis., died on August 20, 2016, at the age of 62. He practiced orthopaedic surgery in Green Bay and northeast Wisconsin for 30 years. In addition to being a surgeon, Dr. Anderson competed in marathons and triathlons, including two Ironman competitions. He is survived by his wife, Marian, four children and two grandchildren.

1990s

John F. Gilligan, MD, GME '95, of West Linn, Ore., died on May 4, 2015, at the age of 62.

2000s

Gregory D. Harrington III, DO, MPH '08, of Battle Creek, Mich., died on September 25, 2015, at the age of 55. He served as director of infectious diseases in Select Specialty Hospital in Battle Creek, Bronson Battle Creek Hospital, and Oaklawn Hospital (Marshall, Mich.), and worked for several years as medical director for the Calhoun County Public Health Department. He is survived by his wife, Jane, and three sons.

2010s

Nathan T. Rasmussen, MD, GME '11, of Madison, Wis., died on May 22, 2016, at the age of 36. During his career, he practiced urology in Fairbanks, Alaska, Milwaukee and Eau Claire, Wis.

Paul H. Barker, MD '16, of Phoenix, Ariz., died on August 10, 2016, at the age of 30. He was a captain in the US Air Force and was in his first year of residency at Kessler Air Force Base in Biloxi, Miss.

Tom P. Aufderheide, MD, GME '86, MS '13



Photo courtesy of Jay Westhauser

Dr. Aufderheide is an internationally recognized researcher in the field of emergency cardiac care and resuscitation. He has acted as principal investigator on automated external defibrillation (AED) research studies that have doubled survival rates for out-of-hospital cardiac arrest. Continuously supported by the NIH more than 20 years, his research has greatly impacted care of cardiac emergencies.

His research has further influenced guidelines for international CPR education, training and clinical practice. He has played a key role in creating coursework for the American Heart Association, CPR and AED training. In 2009, he was elected to the prestigious Institute of Medicine of the National Academy of Sciences.

Dr. Aufderheide also serves as medical director of the Translational Research Units of the Clinical and Translational Science Institute of Southeast Wisconsin. ■ —SAMANTHA CAVALLO

The Tom Aufderheide, MD, MS Endowed Lecture Fund has been established to honor his significant contributions and continuously support and advance education in the field of cardiac arrest resuscitation research and emergency cardiac care research in MCW's department of emergency medicine. For more information, please contact Angela Nelson, senior director of development and alumni giving, at (414) 955-4708 or annelson@mcw.edu.

Dr. Aufderheide is professor of emergency medicine, associate chair of research affairs and director of the NIH-funded Resuscitation Research Center in the department of emergency medicine at MCW.

What Drives You?

As an emergency physician and clinician scientist, I strive to improve emergency medicine clinical practice through collaborative translational research. Ultimately, I am driven by the opportunity to increase survival and quality of life for patients with emergent cardiac conditions.

What Has Been the Highlight of Your Career?

One of the first highlights of my career was conceiving, pioneering and establishing out-of-hospital 12-lead electrocardiography as a standard of care for rapid identification and treatment of the ischemic patient. This approach has reduced mortality from acute myocardial infarction by 38% worldwide. A second highlight was the discovery of the detrimental hemodynamic effects of hyperventilation and incomplete chest recoil during CPR as well as the importance of electronic monitoring of CPR performance. Third was the discovery of improved hemodynamics during CPR through intra-thoracic pressure regulation. These discoveries have changed international clinical practice and resulted in a 52% improvement in functionally favorable survival from cardiac arrest.

What Do You Still Hope to Accomplish Over Your Career?

I am participating in the discovery of several simple techniques that profoundly reduce ischemia reperfusion injury in an animal model of prolonged cardiac arrest, thereby significantly improving neurologically intact survival. I hope to translate the application of these potentially life-saving techniques to humans.

What Would You Like Your MCW Legacy to Be?

My MCW legacy will be the successful discovery of new interventions that improve emergency cardiac care clinical practice, patient survival and quality of life through multi-disciplinary translational research.

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

Time is the best test of a good idea.

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.



A MOMENT IN HISTORY

MCW Physician Treats First Patient to Survive Rabies Without a Vaccine

“Could this be rabies?” That question was asked of infectious disease specialist Rodney Willoughby, MD, MCW professor of pediatrics, by the transport-physician-on-duty at Children’s Hospital of Wisconsin (Children’s) on October 17, 2004, regarding 15-year-old Jeanna Giese. She was suffering from fatigue, vomiting and difficulties with speech and coordination, and her patient history had revealed a bat bite suffered four weeks prior to her symptoms. She was transferred from St. Agnes Hospital in Fond du Lac, Wis., and admitted to Children’s the very next day.

While rabies is rare in Wisconsin (four cases in the last 50 years), Dr. Willoughby still sent samples of saliva, serum, spinal fluid, skin and hair to the Centers for Disease Control and Prevention (CDC) in Atlanta to rule out rabies as he investigated other potential conditions.

He spent every moment he could find researching rabies, as the medical field then considered the disease to be 100 percent fatal in humans who had not been at least partially vaccinated before the rabies virus entered the brain.

On the day after Giese was admitted to Children’s, within an hour of the CDC confirming that she had rabies, Dr. Willoughby met with her full physician team to discuss their options, including a new approach he had devised. After Giese’s parents consented, she was placed in a medically-induced coma.

“We sedated her aggressively long enough for her immune system to start fighting the virus,” Dr. Willoughby adds. In addition to using anesthetic drugs that wouldn’t suppress the immune system, the treatment plan included several antiviral drugs and other medications. After a week, tests showed that Giese had developed antibodies against rabies and that she had improved brain activity.

“While it was tremendously exciting, we did not know how complete her recovery would be,” Dr. Willoughby notes. After Giese first awoke without sensation, she experienced a rapid recovery unusual for patients with brain disorders.

“As soon as I could, I started physical, occupational and speech therapy,” she recalls (since getting married, she is now known as Giese-Frassetto). Her rehabilitation process would continue for two years at Saint Agnes Hospital after she returned home to Fond du Lac.



“While it was tremendously exciting, we did not know how complete her recovery would be.”

– Dr. Rodney Willoughby

“Jeanna worked very hard at rehabilitation in order to become the first in her family to finish college, and now she is married with twins,” Dr. Willoughby notes (Giese-Frassetto gave birth to fraternal twins in March 2016).

While Giese was the first documented patient to survive rabies without being vaccinated, she is not the last. Dr. Willoughby reports that 11 individuals have survived rabies after treatment with the “Milwaukee protocol,” the treatment plan developed and refined over time from the steps which saved Giese’s life back in 2004.

“I think it is awesome that it has worked for others and that Dr. Willoughby’s team continues to make progress on improving the treatment,” Giese-Frassetto says. ■

– GREG CALHOUN

PHOTO:

In 2004, rabies survivor Jeanna Giese, then 15 years old, met with Dr. Willoughby to discuss her rehabilitation.

Photo courtesy of Rick Wood of the Milwaukee Journal Sentinel



To read more, visit mcw.edu/giese



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