

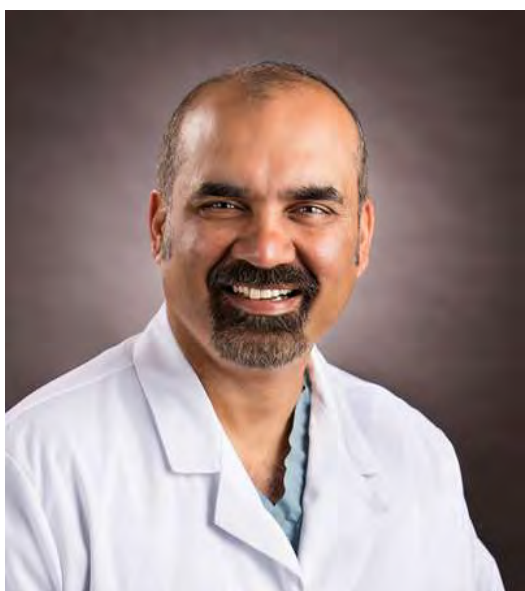


# Wisconsin Institute of Neuroscience

## Philanthropy Report

JULY 2024





Dear friends,

I'm so excited to share with you some of the "WINS" the Wisconsin Institute of NeuroScience has experienced over the past few years thanks to the generosity of philanthropy.

WINS launched publicly in February 2024, but our bold vision to uniquely combine the strengths and expertise of Children's Wisconsin, the Froedtert & the Medical College of Wisconsin health network, the Medical College of Wisconsin, and the Clement J. Zablocki Veterans' Administration Medical Center has been underway for quite some time.

Beginning with my recruitment as Founding Director in January 2022, WINS is bringing national exposure to the excellent treatment, clinical trials, pioneering research, and educational programs available here in our community. With the creation of WINS, Milwaukee is now home to one of the nation's first neuroscience institutes specifically designed to treat people from birth to old age – offering a unique model of "life span" care.

**As a valued friend and partner, I am honored to share with you our first WINS philanthropy report, which covers the leadership of several endowed faculty positions and new investments that are fueling a life-changing cycle of discovery and innovation.**

With all that we have accomplished together, I want to express a special thank you to the donors who contributed to the Sanford J. Larson, MD, PhD, Professor of Neurosurgery – a position that I have had the honor of holding for the past seven years and which I am proud to say will pass to the new Chair of Neurosurgery in July. Your generosity continues to transform our leadership in neurosurgery, while propelling our community towards a healthier tomorrow.

Please continue reading to learn more about our philanthropy "WINS"!

All my best,

**Shekar N. Kurpad, MD, PhD**

Senior Associate Dean of Neuroscience

Professor of Neurosurgery

Founding Director, Wisconsin Institute of NeuroScience (WINS)

## In Gratitude to:

Avalon Action Alliance for the BRAVE Program

Donors to the G. Frederick Kasten, Jr. Endowed Chair in Parkinson's Disease Research

Donors to the Shekar N. Kurpad, MD, PhD, Chair in Neurosurgery

Donors to the Sanford J. Larson, MD, PhD, Professor of Neurosurgery

Billie Kubly for the Dr. and Mrs. Michael C. Kubly Community-Based Suicide Prevention Research Program and the Charles E. Kubly Chair in Psychiatry and Behavioral Medicine

The Quadracci family for the Harry R. & Angeline E. Quadracci Professor in Parkinson's Research

Daniel M. Soref Charitable Trust for the legacy of the Daniel M. Soref Imaging Research Facility

The Wigdale Family for the Elizabeth T. and James B. Wigdale Innovation Fund for Memory Disorders



## Leading the Path to Healing for Neurotrauma



Milwaukee-area first responders and leaders of Avalon Action Alliance and WINS announced our new partnership on April 27, 2023

It is widely known that military veterans and first responders are at a particularly heightened risk of Traumatic Brain Injury (TBI). These invisible wounds of war and service can cause cognitive, physical, and behavioral impairments that have a lasting impact on life function.

In April 2023, WINS received **\$12.5 million from the Avalon Action Alliance** – a national non-profit organization focused on the mental wellness of veterans, first responders, and their families – to launch BRAVE (Building Resilience through Action in Veterans and First Responders). BRAVE is the Midwest's first program specifically designed to treat TBI in military veterans and first responders.

BRAVE opened its doors at the Froedtert & MCW Greenfield Highlands Health Center in early 2024. Under the leadership of Medical Director Gregory Burke, MD, and Program Director Jenna Haberkon, the intensive three-week outpatient program provides a holistic approach to TBI treatment. Participants meet with a multidisciplinary team of psychiatrists, therapists, speech-language pathologists, neurologists, social workers, case managers, and veteran outreach coordinators to develop a customized treatment plan. Of particular importance, BRAVE accepts veterans and first responders with TBI with or without a formal diagnosis and regardless of their discharge status, financial situation, or health insurance coverage. As of May 2024, the BRAVE team has received 80 prescreen applications, completed 20 3-day evaluations and has begun the intensive 3-week outpatient program. To date, our team is booking evaluations into August and intensive outpatient treatment into September.

Along with his leadership role in BRAVE, **Michael McCrea, PhD, ABPP**, the **Shekar N. Kurpad, MD, PhD, Chair in Neurosurgery** is partnering with Timothy Meier, PhD, professor with tenure in the department of neurosurgery, for a collaborative study with Abbott Laboratories. This study is focused on conducting field deployable, point-of-care testing of blood-based biomarkers after acute mild traumatic brain injury in civilian neurotrauma patients, military service members, and athletes. Their project received a \$6.5 million Focused Program Award (FPA) from the U.S. Department



**Michael McCrea, PhD, ABPP**  
*Shekar N. Kurpad, MD, PhD, Chair in Neurosurgery*

of Defense and Congressionally Directed Medical Research Program (CDMRP) TBI and Psychological Health Research Program (TBIPHRP). In addition, Dr. McCrea's team played a major role in a recent study with Abbott Laboratories through the TRACK-TBI network that paved the way for the recent FDA approval for use of the first whole blood test to help clinicians assess mild TBI. The test, which will be available commercially by July 2024, provides lab-quality results within 15 minutes.

Developments such as these excite Dr. McCrea about the future of BRAVE and treating TBI. "We are inspired," he says, "by the impact that our research can ultimately have on clinical care to improve treatment, recovery, and outcome after TBI. Our ability to translate our research from bench to bedside toward improving life function for those individuals affected by TBI is incredibly powerful and rewarding for our team." He is tremendously grateful to the Avalon Action Alliance and the many donors who have supported BRAVE and the Kurpad Chair. These investments enable his team to "conduct groundbreaking research that distinguishes our Brain Injury Research Program and WINS as an international leader in translational research...We simply could not conduct the depth and breadth of this work without the generous support of our donors."

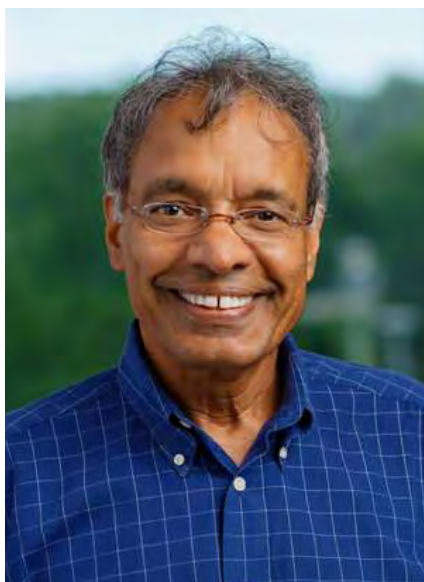
## Pushing the Boundaries of Parkinson's Discoveries

Parkinson's disease (PD) results from a lack of dopamine production in the brain. This chronic and progressive condition affects muscle and movement coordination and often causes motor symptoms such as tremors, stiffness, slow movement, and problems with balance/posture. Recently, WINS was recognized as a Parkinson's Foundation Comprehensive Care Center, which acknowledges our excellence in care, clinical research, professional training, community education, and outreach.

The current director of the MCW Neuroscience Research Center (NRC), [Cecilia Hillard, PhD, the G. Frederick Kasten, Jr. Endowed Chair in Parkinson's Disease Research](#), is a neuropharmacologist who studies the effects of drugs on the brain and works to discover new or repurpose existing drugs to treat brain disorders and diseases including Parkinson's. Dr. Hillard has been a long-standing champion of the [Imagine More Dinner](#), which raises essential funds for the NRC to advance discoveries on Parkinson's and other diseases, disorders, and injuries to the nervous system. In 2023, the 10th annual event raised nearly \$1 million to accelerate life-changing neurological discoveries.



**Cecilia J. Hillard, PhD**  
*G. Frederick Kasten, Jr. Endowed  
Chair in Parkinson's Disease  
Research*



**Balaraman Kalyanaraman, PhD**  
*Harry R. & Angeline E. Quadracci  
Professor in Parkinson's  
Research*

Another Parkinson's investigator, [Balaraman Kalyanaraman, PhD, the Harry R. & Angeline E. Quadracci Professor in Parkinson's Research](#) in the department of biophysics, strives to understand the interplay between oxidants (aka free radicals, highly reactive species generated within cells that can damage the infrastructure of the brain, heart, and other tissues) and antioxidants (naturally occurring molecules that defend against free radicals and protect organs from further damage). Because free radicals are implicated in the initiation and progression of various diseases like Parkinson's and other neurological conditions, understanding the reactive mechanisms and delicate balance between them and antioxidants is pivotal for maintaining optimal health and mitigating disease risks. Recently, Dr. Kalyanaraman was honored at Aix-Marseille University in France with a Doctor Honoris Causa title in recognition of the collaboration between our institutions.



Both Drs. Hillard and Kalyanaraman are part of an NRC team that is investigating how to lessen the effect of gut bacteria on levodopa, the primary and most effective drug used to treat Parkinson’s disease. Levodopa is metabolized in the brain to create dopamine. However, levodopa also can be converted to dopamine in the gut, which allows only a fraction of the administered drug to reach the brain, significantly decreasing its therapeutic effectiveness. In addition, dopamine created outside the brain can cause adverse effects if it does reach the brain. Through their collaborative research, Drs. Hillard, Kalyanaraman, and their research team are working to identify the specific bacteria that break down levodopa and uncover ways to prevent that breakdown from occurring. Currently, they are using pharmacological approaches to block levodopa metabolism in animals and then measuring dopamine levels to gauge efficacy. Their research team ultimately hopes to use a probiotic-type treatment to reduce the loss of levodopa to gut bacteria. Concurrently, their goal is to reverse the effects of levodopa to produce dyskinesias (abnormal movements), which are very disabling, and a common reason people stop using the drug. Their research on mitochondria-targeted drugs mitigating gut metabolism of levodopa was recently published in *Communications Biology* and highlighted in *Parkinson’s News Today*. Further, the team’s work was recently funded by the National Institutes of Health (NIH) (PI: Dr. Jimmy B. Feix, professor of biophysics).

Drs. Hillard and Kalyanaraman are profoundly appreciative of how their respective endowed chairs have transformed their laboratories, enabling them to explore novel, high-risk, high-reward research. Donors’ investments in basic science discoveries, especially in such a complex biological system as the brain and nervous system, are the only way innovative treatments and cures will come forward to, as Dr. Hillard phrased it, “move the needle in some of the worst diseases we face.” Dr. Kalyanaraman is likewise inspired to improve care at a patient’s bedside by translating our understanding of the molecular mechanisms underlying neurodegenerative diseases into novel drug targets or the identification of new biomarkers that can predict disease onset and severity.

## Protecting More Memories

Memory disorders – from Alzheimer’s disease to dementia to mild cognitive impairment and more – affect millions of people in the U.S. As difficult as these conditions are for patients, they also inflict a tremendous emotional and mental strain upon caregivers. The family of the late Libby and Jim Wigdale can attest to the strain of watching their parents struggle with memory loss.



**Malgorzata Franczak, MD**  
Professor of Neurology

Julie Wigdale Kennedy, Libby and Jim’s daughter, and her siblings learned about the need for new research and clinical trials while their parents were receiving care at Froedtert Hospital and MCW under the guidance of Malgorzata Franczak, MD, professor of neurology. As a result, they decided in 2022 to honor their parents’ memory and lifelong commitments to Milwaukee and MCW by making a generous gift to establish the [Elizabeth T. and James B. Wigdale Innovation Fund for Memory Disorders](#). “Philanthropy drives the promise of a better tomorrow for many families like ours,” Julie said, “a tomorrow in which memories are not forgotten and families can unite to fight this terrible disease.” The family, she added, was thrilled to support Dr. Franczak’s pioneering research efforts. “We are fortunate to have this fantastic team in our community.”

MCW’s Memory Disorders Program seeks to improve the early detection of neurodegenerative disorders, identify risk factors and potential causes for dementia, and discover new treatments and interventions. The Wigdale Innovation Fund has helped Dr. Franczak’s team acquire a neuroimaging assistance system called BIOPAC, which enhances imaging evaluations, build a robust neurodegenerative disorders databank, and launch a new initiative to engage Milwaukee’s Black/African American community. The fund also advanced several research projects, particularly an exciting collaborative effort that has discovered a link between the gut microbiome – all microorganisms living in our digestive tracts – and the early onset of mild cognitive impairments. “Memory disorders affect every family, and the research necessary to combat them is urgently needed,” Dr. Franczak says. “This gift is vital to our efforts.”



## A Legacy in Imaging Innovation

The promise of advanced imaging for understanding Alzheimer's and other neurodegenerative disorders inspired the [Daniel M. Soref Charitable Trust](#) to name the Daniel M. Soref Imaging Research Facility in 2014. Today, the Soref Imaging Research Facility is recognized as a national leader in imaging, having secured grants from the National Institutes of Health, Department of Defense, and more.

Since 2014, the Soref Charitable Trust's legacy has bolstered the adoption of cutting-edge technologies and established an imaging pilot program, which collects essential preliminary data to accelerate translational research in neurodegenerative disease, oncology, orthopaedics, spine, neurotrauma, neurocognition, and more. Over the past decade, the Soref Charitable Trust has funded 123 early-stage research studies that have refined our imaging capabilities and positioned our team to make meaningful progress in understanding the intricate mechanisms of neurological disease.

In the past year, the Soref Imaging Research Facility was renovated to add patient care to its mission of imaging innovation. With these capital upgrades, patients enjoy easy access to the building, and modern and welcoming amenities while receiving imaging services and participating in clinical trials in a comfortable, warm environment. "In tandem with the Soref Charitable Trust, our modern facility and compassionate staff fulfill our research and clinical mission daily across diverse imaging services," says Kevin Koch, PhD, Director of the Soref Imaging Research Facility.



## Rewriting the Script for Suicide Prevention and Mental Health

The burden of suicide in Milwaukee, and throughout the country remains high. Suicide is the tenth leading cause of death in the United States and ranks second among individuals aged 10 to 34. The emotional devastation suffered by loved ones of those who take their own lives compounds the tragedy. Billie Kubly and her late husband, Michael, a 1963 graduate from the Marquette University School of Medicine, the MCW predecessor institution, dealt with that traumatic roller coaster after their youngest son, Charlie, died by suicide at age 28. She and Michael courageously transformed their personal pain into a mission to help others by reducing the stigma associated with seeking mental health treatment.

The Kublys made several gifts to MCW in support of mental health services, including a 2005 donation to establish the **Charles E. Kubly Chair in Psychiatry and Behavioral Medicine, which is currently held by Jon Lehrmann, MD.** As the chair of the MCW department of psychiatry and behavioral health, Dr. Lehrmann is determined to build teams of mental health professionals, improve care, expand access, and train future mental health professionals, to decrease suffering and pain. In 2023, his department collaborated with Internal medicine and Froedtert to open the Complexity Intervention Unit at Froedtert Hospital. This state-of-the-art medical-psychiatry unit is the only such unit in Wisconsin. In addition, they established the Internal Medicine-Psychiatry Combined Residency Program



**Jon A. Lehrmann, MD**  
*Charles E. Kubly Chair in Psychiatry  
and Behavioral Medicine*



**Sara Kohlbeck, MD, PhD**  
*Dr. and Mrs. Michael C. Kubly  
Community-Based Suicide  
Prevention Research Professor*

and the Child Psychiatry Fellowship Rural Training Track. A student who had attended MCW-Green Bay filled the latter position, and when she graduates, she intends to practice in northeastern Wisconsin. Lastly, the department's Wisconsin Child Psychiatry Consultation Program provided its 10,000th consultation in 2023, and now has enrolled pediatric primary care providers in all 72 counties. In recognition of his achievements, Dr. Lehrmann received the 2023 Association for Academic Psychiatry's Lifetime Achievement Award. He is truly grateful for Billie's leadership, sharing that in mental health "a generous and caring donor can especially make a difference – which is often lifesaving."

In September 2022, Billie established the Dr. and Mrs. Michael C. Kubly Community-Based Suicide Prevention Research Professorship to address the ongoing suicide crisis in the region and around the state. **Sara Kohlbeck,**

**MD, PhD, was recently named the inaugural Dr. and Mrs. Michael C. Kubly Community-Based Suicide Prevention Research Professor.** As someone who has experienced mental health challenges throughout her life, including thoughts of suicide, Dr. Kohlbeck writes, "I know that recovery is possible. Conducting research that can help support people in their recovery is incredibly meaningful to me."

Billie's generosity has helped Dr. Kohlbeck expand community partnerships that have accelerated suicide-related research among Black youth in Milwaukee, veterans, and farmers, as well as advanced her team's work to support suicide loss survivors. She plans to launch a pilot art therapy program for suicide loss survivors in the summer of 2024. Additionally, the generosity of the Kubly family has enabled Dr. Kohlbeck to work with medical and graduate-level trainees who are interested in suicide prevention. Dr. Kohlbeck also serves as the director of the division of suicide research and healing in MCW's Comprehensive Injury Center (CIC), where she works with Director Terri deRoon-Cassini, MS, PhD, to advance the science around suicide prevention from a public health and health equity perspective. Dr. Kohlbeck is "incredibly honored and grateful" to serve as the inaugural Kubly Professor and "knowing that the Kubly family and WINS have faith in our work is so meaningful and inspires me to grow and expand this work in service to our community."

## In Gratitude

Neurological disorders and injuries touch so many lives, affecting how we think, move, act, or even breathe. The Wisconsin Institute of NeuroScience – through the collective expertise of MCW, Children’s Wisconsin, the Froedtert & the Medical College of Wisconsin health network, and the Clement J. Zablocki VA Medical Center – is dedicated to exploring the intricacies and unraveling the mysteries of the brain, spine, and peripheral nervous system. **Our goal is to harness this knowledge to reimagine and reshape the future of neuroscience to improve the lives of adult and pediatric patients.**

The exciting and wide-ranging advances described in this report attest to the pervasive dedication and innovative thinking of the scientists and clinicians within WINS. **These achievements also attest to the commitment and generosity of the many donors who believe in and support our life-changing work. Much of this work would not be possible without your support.** We are fortunate and truly grateful that you are accompanying us on this journey of discovery.



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