BASIC SCIENCE RESEARCH
EXPLORING THE FUNDAMENTALS OF DISEASE AND HEALTH

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SMOKING CESSION AND BEHAVIORAL HEALTH CARE p. 10
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APRIL 2022

Friday, April 29  WMAA Board of Directors Meeting, Scholarship Reception and Awards Banquet*

MAY 2022

Friday, May 13  MD Recognition Ceremony and UW-Madison Graduation*

JUNE 2022

Thursday, June 2, and Friday, June 3  Spring Alumni Weekend, Reunions for the MD Classes of 1957, ’62, ’67, ’70, ’72 and ’77, and the annual reunion for the Half-Century Society*

SEPTEMBER 2022

Friday, September 30  Middleton Society Event*

OCTOBER 2022

Friday, October 21  WMAA Board of Directors Meeting, WMAA Homecoming and Fall Class Reunion Friday Night Bash*


* Event details are subject to change based on Centers for Disease Control and Prevention guidelines related to COVID-19 in this region.
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When our school began its transformation into the nation’s first integrated school of medicine and public health, some skeptics asked, “Why?” Among our responses was the adage, “An ounce of prevention is worth a pound of cure.” In both medicine and public health, we must continue to develop innovative methods to prevent, diagnose and treat diseases and address health disparities. On page 10, we describe an example of a highly effective unit of the University of Wisconsin School of Medicine and Public Health (SMPH)—the UW Center for Tobacco Research and Intervention, which tackles one of the most destructive addiction epidemics in society. The nationally renowned center develops and employs evidence-based, prevention-focused practices to help people quit smoking and support organizations as they do the same for the populations they serve.

Drawing on a proud history, the SMPH’s basic science departments, described in the cover story, focus on a broad spectrum of fundamental research, including collaborative initiatives aimed at preventing blindness and Alzheimer’s disease, improving outcomes for patients with diabetes, eliminating health disparities and more. Dr. Tim Kamp’s Perspectives column outlines UW-Madison’s awe-inspiring journey in stem cell research, a basic science field for which the SMPH has earned national acclaim.

We applaud the numerous faculty members and alumni who expand the traditions of medicine and public health in their communities. Drs. Michelle Buelow and Benjamin Weston—a married couple of alumni who hold SMPH faculty positions—are making a significant difference in urban medicine and public health in the Milwaukee area. You can read about Dr. Buelow in the Awards section and about Dr. Weston in the Alumni Profile.

Accolades continue as we describe the contributions of several dedicated, effective and powerful SMPH faculty and staff members. Five were honored by the SMPH chapter of the Group on Women in Medicine and Science (GWIMS), part of the GWIMS of the Association of American Medical Colleges, and four received UW-Madison Outstanding Women of Color Awards.

In the Student Life section, you will learn how trainees in the Master of Public Health Program are helping to address health disparities throughout our state. Through their Applied Practice Experience, these graduate students put their didactic learning into practice by planning and implementing projects that make a profound difference in community-based settings such as public health agencies and non-profit organizations.

Our successful melding of medicine and public health will continue to expand through the UW Integrative Health Program’s receipt of a $5.5 million award from The Bernard Osher Foundation. The relationship with the Osher Foundation—and our membership in its collaborative—will advance the use of practices that recognize the complex systems in which we live and the effects of historical, socio-cultural and environmental conditions on our ability to thrive.

Every year, as we bid farewell to winter, we embrace the many joys of spring. Along with the joy in watching gardens bloom and seasonal songbirds return, we revel in the rites of passage for soon-to-graduate SMPH medical students. At the recent Match Day ceremony (see page 8), this remarkable cohort matched into many of the nation’s best residency training programs, including several here in Wisconsin. I hope your spring provides you with a sense of rejuvenation, rebirth and warmth as we welcome sunny days that break through the long-standing clouds of the COVID-19 pandemic.

Robert N. Golden, MD
Dean, University of Wisconsin School of Medicine and Public Health
Vice Chancellor for Medical Affairs, UW-Madison
I am beginning to observe signs of spring in Madison, which fills me with optimism. Admittedly, one of those signs is students shedding their winter coats the first day the thermometer hit 40 degrees F, so perhaps I need to fine-tune my barometer for the changing of seasons. Nonetheless, I am optimistic.

Shortly after my arrival at the Wisconsin Medical Alumni Association (WMAA), I received an invitation to attend the Honor Code Ceremony for the University of Wisconsin School of Medicine and Public Health’s (SMPH) Class of 2024. It was an opportunity for members of the class to review and reaffirm their commitment to the honor code they developed during their first year of medical school. It was also an opportunity for them to read letters they had written to themselves at that time. I couldn’t help but hope they hold on to those letters and revisit them years from now when they are alumni.

As COVID-19 case numbers are dropping in this region and across the United States, more events such as this—the moments that help define and enrich student experiences at the SMPH—become possible. For instance, Match Day (see pages 8 and 9) is an exciting occasion every year, although this year’s ceremony felt extra special because it was the first time in three years that we were able to gather in person, as a community, to celebrate our students and the beginnings of their next chapters. Match Day, and especially graduation, can be bittersweet for faculty and staff as they say farewell to students. For me, however, there is no bitter, just sweet. It is an opportunity to welcome the graduates into the alumni community, and I am eager to roll out the big red carpet for the Class of 2022.

That carpet will no sooner be put away than our staff will roll it out again in June to welcome to Madison the Classes of 1957, ’62, ’67, ’70, ’72 and ’77 for Medical Alumni Weekend, including the Half-Century Society Reunion for medical alumni who graduated more than 50 years ago. These will be our first in-person reunions since 2019, and we will place a strong emphasis on helping alumni reconnect with classmates and friends. Just think—an event where you won’t have to remind someone that they’re “on mute.”

We received more than 1,000 responses to our recent alumni survey. I am grateful to all who took the time to share their thoughtful feedback. The WMAA Board of Directors will use this data to help shape our next strategic plan. One clear theme among the responses is that you want more from your alumni association—more ways to stay engaged—and we plan to deliver!

In closing, I wish to recognize Dr. Kathryn “Katie” Nixdorf (MD ’06, PG ’10). Dr. Nixdorf earned her undergraduate degree from UW-Madison and her medical degree from the SMPH, and she completed a neurology residency at UW Health. She began her relationship with the WMAA as a student leader of the Medical Student Association and served on the WMAA Board of Directors from 2013 until her death on March 3, 2022. She will be remembered for her servant leadership and giving nature.

As we look forward to the new beginnings of the spring season, I encourage you to connect with your Wisconsin Medical Alumni Association. Allow us to roll out that big red carpet for you, whether it is in Madison or virtually. You’re always welcome. Thank you for your support, and “On, Wisconsin!”

Sarah B. Rothschild
Executive Director, Wisconsin Medical Alumni Association
In this 2018 photo, Dudley Lamming, PhD, and (former) graduate student Deyang Yu, PhD '19, perform an assay in the Lamming Laboratory.
Echoing University of Wisconsin-Madison’s pride for its Big 10 status, the UW School of Medicine and Public Health (SMPH) boasts its own “big 10”—basic science departments aimed at learning how best to predict, prevent, diagnose and treat health conditions. The departments are pivotal in educating graduate and post-doctoral trainees and conducting cutting-edge research that is fundamental to understanding living systems, biological processes and social determinants of health in individuals and populations.

The basic science departments are:

- Biomolecular Chemistry
- Biostatistics and Medical Informatics
- Cell and Regenerative Biology
- Medical Genetics
- Medical History and Bioethics
- Medical Microbiology and Immunology
- Medical Physics
- Neuroscience
- Oncology
- Population Health Sciences

“Basic science research often calls upon cross-disciplinary teamwork and advanced computational capabilities that are hallmarks of UW-Madison,” says Anjon “Jon” Audhya, PhD, senior associate dean for basic research, biotechnology and graduate studies. “Collaboration accelerates technology that expands investigations into areas only dreamed of decades ago.”

The Rennebohm Research Professor in the Department of Biomolecular Chemistry, Audhya partners with colleagues in his lab to study the fundamental mechanisms by which proteins, lipids and other macromolecules are transported throughout eukaryotic cells. The group employs approaches in biochemistry, structural and molecular biology, biophysics, genetics, high-resolution imaging and more.

“We seek to define pathomechanisms that underlie human disease, delving into the impact of mutations that lead to cancer, neurodegeneration, asthma and diabetes,” Audhya explains.

Such basic science studies eventually inform translational research and clinical trials—additional priorities for the SMPH and UW Health, which gain strength from professional networks across the nation.

**Foundational Accomplishments**

UW-Madison has a history of notable achievements, from molecules to organ systems. National “firsts” at the university include the discovery of vitamins A and B in 1913 and 1916; synthesis of dicumarol in 1933; creation of the first synthetic gene in 1979; laboratory cultivation of embryonic stem cells in 1998; and reprogramming of human skin cells to create cells indistinguishable from embryonic stem cells in 2007. The following examples merely scratch the surface of basic science activity now taking place at the SMPH.

Many researchers work with human stem cells and regenerative medicine (see Perspectives, page 40). For instance, David Gamm, MD, PhD (PG ’02, ’03), professor, Department of Ophthalmology and Visual Sciences, and the Emnett A. Humble Distinguished Director, McPherson Eye Research Institute, and Raunak Sinha, PhD, assistant professor, Department of Neuroscience, recently have shown for the
first time that a retinal cell type derived from human pluripotent stem cells is capable of the complex process of detecting light and converting that signal to electrical waves (see Research Advances, page 38).

Several groups focus on developing new imaging techniques. Among them is the computational optics laboratory of Kevin Eliceiri, PhD, professor, Department of Medical Physics, SMPH, the Retina Research Foundation Walter H. Helmerich Chair, McPherson Eye Research Institute, and professor, Department of Biomedical Engineering, UW College of Engineering.

“Our projects include developing measures to characterize the progression of wound healing, building instruments to collect richer data than traditional methods, using machine learning to classify biomedical images and developing open-source software,” says Eliceiri, who also is an investigator in the Morgridge Institute for Research and director of the Center for Quantitative Cell Imaging in the UW Office of the Vice Chancellor for Research and Graduate Education. “This entails large, multi-institutional initiatives such as our National Institutes of Health (NIH)-funded P41 Center for Open Bioimage Analysis and NIH U54 Center for Multiparametric Imaging of Tumor Immune Microenvironments.”

Studying biomarkers of neurodegenerative diseases is another basic science priority at the school. For example, Sterling Johnson, PhD, and his team are collaborating with numerous Alzheimer’s Disease Research Centers (ADRC) nationally. A professor in the Department of Medicine, Division of Geriatrics and Gerontology, Johnson is the principal investigator for the Wisconsin Registry for Alzheimer’s Prevention, one of the world’s largest and

Leadership Transition for Basic Research, Biotechnology and Graduate Studies

From 2009 until his December 2021 retirement, Richard L. Moss, PhD (at right), served with distinction as the senior associate dean for basic research, biotechnology and graduate studies at the University of Wisconsin School of Medicine and Public Health (SMPH). He joined the faculty in 1979 and chaired the Department of Physiology from 1988 to 2009—during which time the department’s national ranking climbed into the top 10. Moss also led the creation of the UW Cardiovascular Research Center.

“Professor Moss’ four-decade career at UW-Madison demonstrated remarkable academic productivity and leadership,” notes SMPH Dean Robert N. Golden, MD. “He made far-reaching, long-lasting impacts on our research and educational endeavors.”

Under Moss’ leadership, the SMPH established key programs, fostered private-sector collaborations and advanced missions in ways that reflect the Wisconsin Idea. Colleagues say his energy, creativity and wisdom were key to his success in this role.

Anjon “Jon” Audhya, PhD (at right), succeeded Moss as the senior associate dean for basic research, biotechnology and graduate studies. A professor in the Department of Biomolecular Chemistry, he joined the SMPH faculty in 2008. As the associate dean for basic research since 2019, he championed the growing importance of research core facilities that bring valuable equipment and infrastructure to campus and help scientists effectively perform their work.

In his new role, Audhya serves as the SMPH’s leader for strategic vision and oversight of basic research practices, policies and graduate programs. He provides administrative management of research facilities and guides partnerships with internal and external organizations focused on research and development, entrepreneurship, the biomedical workforce and state laboratories, including the Wisconsin State Laboratory of Hygiene.

“Dr. Audhya’s outstanding leadership skills, coupled with his impressive accomplishments as a scientist and mentor, provide the perfect platform for this senior leadership position,” says Golden. “I am confident that his innovative approaches will continue to advance our missions.”
longest-running longitudinal studies of individuals at risk for Alzheimer’s disease.

Johnson also is the associate director and Biomarker Core leader for the Wisconsin ADRC. This core uses magnetic resonance imaging and positron emission tomography (PET) imaging, fluid biomarkers, cognitive measurement, and genetic and laboratory tests to identify Alzheimer’s disease presymptomatically and determine health, lifestyle and genetic factors that confer risk for and resilience to eventual symptoms.

“These advanced imaging techniques are transforming the way researchers understand Alzheimer’s disease,” says Johnson. “Previously, the disease was diagnosed after a person’s death. But by using tau and amyloid PET scans, investigators can diagnose the disease earlier and identify the rate of cognitive decline—an important step for understanding when symptoms occur and possibly how to prevent the condition.”

Taking a broad approach to genomic investigations—with the goal of guiding health care decisions to anticipate, diagnose and manage diseases—the faculty and staff of the UW Center for Human Genomics and Precision Medicine study rare diseases; ethical, legal and social implications of health care; novel diagnostics; interventional methods; population health and more.

According to its director, M. Stephen Meyn, MD, PhD, the Jan and Kathryn Ver Hagen Professor of Translational Research and a professor in the Department of Pediatrics, the center is developing a strategy to catalyze basic science discovery in human genomics and related fields, accelerate translation of results into state-of-the-art clinical applications, and democratize delivery of genome-based clinical services. In July 2021, Meyn and colleagues launched the UW Undiagnosed Genetic Disease Program and clinic (see Quarterly, Volume 23, Number 4, 2021).

Another exciting development is the UW Comprehensive Diabetes Center, established in 2020, which brings together nearly 100 world-class researchers from across campus. Founding Director Dawn Belt Davis, MD, PhD—professor, Division of Endocrinology, Diabetes and Metabolism, Department of Medicine, and endocrinology section chief, William S. Middleton Memorial Veterans Hospital—and other leaders have created new research core services and support collaborative, cutting-edge studies on diabetes and its complications.

The Comprehensive Diabetes Center includes the Mouse Phenotyping and Surgery Core, directed by Dudley Lamming, PhD, associate professor, Division of Endocrinology, Diabetes and Metabolism, Department of Medicine, SMPH, and the Advanced Lipidomics and Metabolomics Facility, directed by Judith Simcox, PhD, assistant professor, Department of Biochemistry, UW College of Agricultural and Life Sciences. These units are critical to experiments analyzing whole animal metabolism and to the development of diagnostic and therapeutic tools to combat metabolic diseases, respectively.

“Our goal is to engage with community stakeholders to improve the health of people with diabetes and to support and expand our research capacity to tackle this public health crisis,” explains Davis, who has a lab focused on pancreatic beta cell biology and a practice in endocrinology.

Adding that partners in this effort are motivated by the high levels of obesity

—Continued on page 29
On Friday, March 18, 2022, the Health Sciences Learning Center was abuzz with energy as soon-to-graduate University of Wisconsin School of Medicine and Public Health (SMPH) medical students learned where they matched for their upcoming clinical residencies. After graduation, they will enter a wide variety of specialties and will fan out across 31 states. Almost 40 percent of matching students are going into primary care fields.

Members of the Class of 2022 chose the 1990s television show “Friends” as the theme for the festivities. The show’s focus on camaraderie reflected their experiences as they forged relationships throughout the COVID-19 pandemic, which shaped much of this cohort’s medical school journey.

The hybrid celebration incorporated an in-person component for the first time since 2019. Students and guests viewed videos of skits that parodied iconic moments from the show, while additional loved ones watched online. Some students participated virtually so they could remain with their families.

Jason Stephenson, MD, associate dean of multicultural affairs for health professions learners—chosen by the class as its Match Day speaker—said, “It is such an honor to be part of this important milestone, especially having watched these students learn and grow during their past few years of training! The energy in the room was electric, and it was amazing to witness students sharing these important moments with their families and friends.”

In congratulating the students, Dean Robert N. Golden, MD, noted, “Your relationships with your classmates will remain important into the future. Many of them will be lifelong friends!”

Left to right: Taylor Caldwell shares her excitement about her match; Andrew Huang cheers at the news of his residency location.
Top row (left to right): Wendy Sun revels in her match news; Julia Bast, Christina Dudley and Luke Richard share the “Friends” couch. Second row: Erik Ehlers receives a gift bag from the Wisconsin Medical Alumni Association staff; Hannah Shaw, Andrea Larson, Sarah B. Rothschild and Maureen Brady; Sofia Haile points out her match location. Third row: Jason Stephenson, MD, Karen Krabbenhoft, PhD ’92, and Ann O’Rourke, MD ’02, MPH ’06 (PG ’09), enjoy the milestone day. Bottom row: Shruti Rajan and Karina Teresa Barretto (foreground) are happy to have matched to the same place; son and father, Scott Odorico and Jon Odorico, MD (PG ’96), pose; Becky Colwell displays her match location.
Our Entire Campus Is Tobacco-Free

Nuestro campus entero es libre de tabaco
Helping People in Recovery ... Quit Smoking?

NEW STATE CODE ADDRESSES THE RELATIONSHIP BETWEEN TOBACCO AND OTHER ADDICTIVE SUBSTANCES

Lynda remembers why she smoked. “I didn’t care that it could cause lung cancer, I just liked the feeling,” says the client of Milwaukee-based Meta House, a treatment center that helps women struggling with drug and alcohol addiction to reclaim their lives. “But as your mind clears, as you’re living clean and sober, something tends to click: ‘Let me try this and see how I feel.’”

With Meta House’s help, Lynda quit smoking (last name withheld for confidentiality).

“It’s an amazing feeling to be able to breathe again, to be able to not smell like smoke, to be able to feel good in the morning and wake up and not feel all groggy,” comments Lynda. “The Meta House staff taught us how it would be effective to our recovery.”

It hasn’t always been that way at Meta House, where one staff member says she used to take clients outside to smoke—a decades-long practice among behavioral health facilities that persists across the country today.

“That was a way of coping, I guess,” the staffer recalls.

Smoking remains the leading preventable cause of disease and death in the United States. People with behavioral health issues smoke nearly half the cigarettes across the nation.

Smoking remains the leading preventable cause of disease and death in the United States. People with behavioral health issues smoke nearly half the cigarettes across the nation. Tobacco products kill approximately half those who use them, and people with behavioral health issues are more likely to die prematurely from smoking than from their other addictions or mental illness.

Not So Relaxing

For years, tobacco companies have touted their products as ways to relieve stress and anxiety, when, in fact, research shows smoking worsens mental and physical health: A meta-analysis of 63 research studies involving more than 8 million patients found that people who smoke or formerly smoked are at higher risk of suicidal ideation, suicide plan, suicide attempt and suicide death, according to the online medical journal PLOS One.

But clients like Lynda now speak up to reduce the stigma and encourage others to quit smoking. When Meta House went tobacco-free years ago, it started by reaching out to its own staff.

Christine Ullstrup, MSW, the organization’s vice president of clinical services, sought support from the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI)—which is part of the UW School of Medicine and Public Health (SMPH)—to help train staff on how to quit tobacco use and how to help their clients do the same. Ullstrup says the employees gave a mixed response.

“I remember being gathered in this circle, with people who had their arms crossed and closed body language,” she shares. “Some of them were clapping, but some were
closed to [the idea of quitting tobacco]. And now, some of those who were closed to it are non-smokers.”

That same staff member who used to take clients out to smoke saw her doctor and quit smoking.

“They thought I had smoked so long I couldn’t [quit],” she notes. “But I was there to say that I could do it. Other agencies are going smoke-free now, too, and I think it’s great. I really do.”

**A New Dawn**

Ullstrup is encouraged that the Wisconsin Department of Health Services (DHS) has created a new rule that strengthens standards regarding tobacco treatment and smoke-free facilities. Specifically, subchapter DHS 75.24(7) requires Wisconsin providers who treat substance-use disorders to formulate plans by October 2022 to outline the service’s approach to assess and treat concurrent tobacco-use disorders and have a policy about the facility’s smoke-free environment.

“Meta House totally supports including tobacco diagnosis and treatment in the new DHS 75,” says Ullstrup. “It is imperative that we treat tobacco addictions the same as other addictions and help people live longer, healthier lives. Ethically, we believe there isn’t another choice. We feel more supported in our work by our community partners than when we started this journey.”

Rules like Wisconsin’s DHS 75 vary widely from state to state. According to the Public Health Law Center, as of March 15, 2020, 11 states required tobacco-free grounds for most mental health facilities, and 5 states required tobacco-free grounds for most substance-use recovery facilities. Of the 39% of mental health treatment facilities in the United States that provided cessation counseling, only 39 percent of mental health treatment facilities in the United States provided cessation counseling. And only about a quarter of these facilities offered medications to help people quit tobacco use.

Yet, some states have been successful at changing that trend. For example, in 1999, New Jersey became the first state to require residential treatment centers to assess and treat tobacco dependence, and to maintain smoke-free campuses as a matter of maintaining licensure. A year later, all 30 residential programs surveyed provided some tobacco-dependence treatment and half had tobacco-free grounds. Eighty-five percent of the programs accepted the state’s offer to provide free medications to quit tobacco use, reaching more than 2,326 clients. Seventy-seven percent of all clients smoked, and 65 percent of the people who smoked reported they wanted to stop or cut down tobacco use, according to an article in the *Journal of Substance Abuse Treatment* by researchers led by Jill Williams, MD, director, Division of Addiction Psychiatry, Rutgers University. And yet, many of those gains in New Jersey have atrophied due to lack of enforcement.

Wisconsin regulations formerly prohibited recovery centers from taking a patient solely to help them quit their addiction to nicotine, despite the fact that tobacco use kills more residents than any other addiction and is associated with higher suicide risk.

“In Wisconsin, we were actively blocking people from getting treatment,” Rittenmeyer notes. “What does that say?”

He’s happy the state has changed the policy, and that Journey screens, diagnoses and treats tobacco-use disorder along with other behavioral health issues.

**Level Playing Field**

“Statewide policy is the solution,” Williams said during a webinar hosted by the Public Health Law Center. “If all treatment programs
have the same standard—an equal playing field—you won’t have issues like that. Studies have shown that when regions or states implement these policies, admissions do not go down. So, it’s not true that no one will come to treatment. It raises the level and quality of care, in my opinion, because we should all have tobacco-free grounds.”

The Wisconsin quality assurance team will check to make sure recovery centers are following the DHS 75 updates that took effect in October. A few centers, like Journey, are electing to go above and beyond the new requirements.

“Our patients have a conversation with the clinician about willingness to quit, how nicotine impacts their life, their mental illness or substance-use disorder or both,” Rittenmeyer says, adding that Journey clinicians offer counseling and refer for medications to quit tobacco use.

“A lot of times, it comes down to basic motivational interviewing,” he explains. “Often, they aren’t ready for that or say, ‘I’m not here for that.’ So, as a clinician, you have to be savvy to come back to that, to move them from pre-contemplative to contemplating quitting. If we have consumers in the active quitting stages, it’s about supporting them.”

That can mean treating the core source of adverse childhood events or other pain the patient may be working through, and uncover reasons why they will want to get clean and live healthier.

Rittenmeyer says it also means creating an environment where people trying to quit don’t see others using the products, to avoid getting triggered to crave nicotine. That’s why Journey created a tobacco-free campus in 2018, led in part by psychiatrist Eric Heiligenstein, MD.

To embolden such changes, Heiligenstein worked with leaders to garner buy-in, secured a grant to pay for medications to help people quit tobacco use, formed a committee, ensured the clinicians were ready to treat tobacco-use disorder, and encouraged staff who smoked to quit. He says it’s key to set rules for the campus and to decide who will enforce them.

Journey employees posted signs and notified everyone the policy was coming. Once the policy took effect, they occasionally told people who smoked on the campus to please stop or they’d have to leave. Rittenmeyer says they rarely had to ask people not to smoke or vape, but they did have to monitor the campus for tobacco trash and contraband that could trigger people trying to quit tobacco or stay smoke-free.

“We can feel a slight culture shift,” Ullstrup observes. “Not all is smooth sailing. It is a constant battle in our residential facility, with clients bringing in vaper products. We try to reward good choices and do the best we can to monitor the milieu to support overall health.”

Successful Cessation

Journey and Meta House offer support to help clients quit tobacco use.

“In day treatment, a lot of people have quit smoking. A lot of the staff have quit smoking. I chose to quit because I wanted to and needed to. I was having asthma issues,” shares Angela (last name withheld), who was a client. “It’s awesome because they taught us what the nicotine did.”

One patient at Libertas, a rehabilitation center in Wisconsin, notes that smoking was the key trigger for his other behavioral health challenges, but he didn’t realize it at first.

“This was my sixth time through a 30-day treatment, and I relapsed; they were all smoking facilities,” recalls Ronnie (last name withheld). “Every [treatment facility] ought to be non-smoking because I know how smoking and addictions go hand-in-hand.”

Ronnie says the fact that Libertas offered him help to quit smoking in a smoke-free environment made all the difference for him to change his life for the better.

Wisconsin’s Role

UW-CTRI is offering resources and training to help recovery centers embrace, meet and surpass the requirements of DHS 75. These efforts are supported by funding from the DHS.

It’s an extension of the Wisconsin Nicotine Treatment Integration Project (WiNTiP) founded about 15 years ago by Heiligenstein and David “Mac” Macmaster—who quit smoking and drinking 50 years ago and has dedicated his career since then to helping people with behavioral health issues to quit smoking, and to do so systematically. WiNTiP was a driving force to alter DHS 75 and to offer people like Lynda, Angela and Ronnie the resources they need to successfully quit.

“The new rule is saying that if you’re providing treatment for any substance use, tobacco use now fits in there,” Macmaster explains. “This is a big chance, a big opportunity that has in the past been denied.”

WiNTiP Project Manager Karen Conner, MPH, of UW-CTRI, notes, “People with substance-use disorders want to quit, and we’ve seen time and again that they can quit with evidence-based help. What’s more, they tell us that nicotine is a trigger for their other addictions—and quitting nicotine helps them quit all substances of abuse.”

Ullstrup adds, “This is the right thing to do. We do a disservice by not doing it. It’s going to be hard, but it’s worth the journey, it’s worth the obstacles because we’re changing lives and the health and wellness of the clients we serve.”

She continues, “I’ve lost too many friends to nicotine addiction. It’s a journey that needs to be made.”

Lynda shares, “There’s a greater chance of me staying clean because I don’t have any mood-altering substances going into my body. Nicotine is a mood-altering substance—it’s just legal!”

To learn more: dhs.wisconsin.gov/rules/dhs75-implementation.htm

If you’re a clinician seeking more information, visit HelpUsQuit.org. To donate to help people quit smoking, please visit ctr.wisc.edu.
Know Your Class Representatives

Each University of Wisconsin School of Medicine and Public Health (SMPH) graduating class has one or more class representatives who play an integral role in working with the Wisconsin Medical Alumni Association (WMAA) to keep in touch with their classmates. Those featured here are planning reunions in spring 2022 to celebrate milestone years.

Theodore “Ted” Fox, MD ’57

What type of practice are you in now, and where?

After medical school, I went into a U.S. Navy internship and spent two years as a general medical officer in Taiwan. Next, I completed a general practice residency at McNeil Memorial Hospital in Berwyn, Illinois. From 1963 until my retirement in 2009, I was a general practitioner in Antigo, Wisconsin, in partnership with Dr. John McKenna, a classmate and friend. For 25 summers, we trained medical students from the UW Medical School (now the SMPH) and the Medical College of Wisconsin in our clinic. We also helped train family practice residents from Wausau. I loved my career.

What’s your fondest memory of medical school?

My fondest memory was getting on the wards and seeing patients. My preceptorship with Dr. Maurice Whalen in Ladysmith, Wisconsin, was excellent. I also had great training at the Maternity Center in Chicago.

What are your hobbies/interests?

In my younger years, my hobbies were hunting and fishing. Now, I enjoy bird watching and spending time with my family.

What are your plans for the reunion?

My wife, Barbara, and I hope to attend the reunion, but at our age, we cannot plan too far ahead. I hope many classmates are able to attend.

Other news?

Barbara and I have been married for more than 65 years and have been blessed with eight children. One son and a son-in-law are physicians, and one of our daughters is a nurse. We also have 16 grandchildren and three great-grandchildren.

Sanford “Sandy” Mallin, MD ’57

What type of practice are you in now, and where?

I am retired after 46 years in private endocrinology practice in Milwaukee. I served as a preceptor and clinical professor of medicine at the SMPH and a clinical professor at the Medical College of Wisconsin. Prior to the pandemic, I volunteered to see endocrine referrals at two free clinics in Milwaukee.

What’s your fondest memory of medical school?

I remember each year as more fun and interesting than the last. Increasing levels of patient contact certainly contributed to this.

What are your hobbies/interests?

My hobbies have included travel, reading, following Badger sports teams, and—in retirement—auditing classes at UW-Milwaukee. Senior citizens can audit for free, without term papers or exams.

What SMPH faculty do you remember the most, and why?

My preceptor, Dr. Maurice Whalen in Ladysmith, Wisconsin, made a lasting impression. He was kind and attentive to patients, staff and medical students.

What are your plans for the reunion?

We have lost many classmates and friends. I hope those who are able will attend our 65-year reunion, possibly our last time to celebrate together. If you need help, bring a spouse, a friend or a child. It will be a great opportunity for us to make another contribution to our Class of 1957 scholarship fund to help the next generation.

Kathryn “Kathy” Piziali Nichol, MD ’62

What type of practice are you in now, and where?

I am retired from 25 years of general pediatrics practice. Twenty-three of those years were at the Dean Clinic in Madison.
John Pederson, MD ’72 (PG ’77)

What type of practice are you in now, and where?

After medical school, I completed an anatomic and clinical pathology residency at the “old” University Hospital at 1300 University Avenue. I worked briefly at Howard Young Medical Center in Woodruff, Wisconsin, and practiced pathology for the rest of my career at St. Francis Hospital (now Mayo Health Care) in La Crosse, including service as the laboratory director for a time.

What’s your fondest memory of medical school?

Medical school was difficult, but we made life-long friends. One of my favorite memories revolves around the many times Warren Procci and I had late-night pizzas at Lombardino’s after studying at Middleton Library. Also, I met my wife of 50 years, Cathy, during a rotation at St. Mary’s Hospital.

What are your hobbies/interests?

We enjoy spending time with our three grandchildren and our grown children in La Crosse and at our cottage in Pepin, Wisconsin. I play bridge and am an avid reader. Cathy and I try to walk 10,000 steps each day. We also enjoy watching movies.

What SMPH faculty do you remember the most, and why?

I had many fine teachers in medical school. Several of us studied physical diagnosis under Dr. William Middleton, who was in his 80s and still sharp in terms of diagnosis. Chuck Garvey and I spent time with Dr. P.T. Bland in Viroqua, Wisconsin.

What are your plans for the reunion?

On Saturday, June 4, following the reunion, we would like to host a class picnic at our home in Beaver Dam if there is interest. Our opportunities to share time together are precious and decreasing.

Charles Frinak, MD ’77

What type of practice are you in now, and where?

I trained in family practice, spent four years in the U.S. Navy and practiced for more than 30 years in Beaver Dam, Wisconsin. I became the medical director at Clearview Long Term Care and Rehabilitation in Juneau, retiring in 2019.

What’s your fondest memory of medical school?

I have so many great memories!

What are your hobbies/interests?

I enjoy spending time with my wife and grandchildren, native lakeshore planting, volunteering, silent sports and homebrewing.

What SMPH faculty do you remember the most, and why?

I remember rounds with Dr. Hugh Moffet at Madison General Hospital and with Dr. William Craig at the William S. Middleton Memorial Veterans Hospital. They were great role models in compassionate patient care and academic excellence.

What are your plans for the reunion?

On Saturday, June 4, following the reunion, we would like to host a class picnic at our home in Beaver Dam if there is interest. Our opportunities to share time together are precious and decreasing.
I practice at Geisinger in Danville, Pennsylvania, and have been working remotely in Holmen, Wisconsin. For 16 years, I have primarily been doing research, including on undiagnosed genetic diseases. I also am the president of the American College of Medical Genetics and Genomics.

At Geisinger, I led one of the first projects to use whole-genome sequencing to diagnose complex pediatric patients suspected of having a genetic condition. In that project, I met a young patient who had severe developmental delay and intractable seizures. In her sequence, we found a variant in the ALG13 gene, which is on the X chromosome and, thus, shouldn’t cause disease in a female. However, through my reading, I found five other girls with the same gene variant and severe clinical features. I wrote an article that defined this for the first time, and the variant is now recognized as causative of developmental and epileptic encephalopathy type 36. This young lady’s mother organized a parent support group and works with researchers to further our understanding of how the variant causes disease in young women.

When I was a medical student at the University of Wisconsin School of Medicine and Public Health (SMPH), medical genetics was not yet a formal specialty. I married Janet Larson (now Williams), a genetic counseling trainee at the school. I next completed a pediatrics residency at the University of Utah. In my subsequent pediatrics practice, due to things I learned from my wife, when I encountered patients with genetic conditions, I investigated potential causes. When I joined Gundersen Health System in La Crosse, Wisconsin, my colleagues recognized my interest and referred patients. Fifteen years after graduation, I completed a genetics fellowship at the SMPH.

This field is young—we know little but are rapidly learning about the genome. Each patient represents an opportunity to help improve their life while increasing our knowledge.

MARC S. WILLIAMS, MD ’81
**KERRY B. JEDELE, MD ’85**

As the sole clinical geneticist at Gundersen Health System in La Crosse, Wisconsin, I see a wide scope of pediatric and adult patients whose cases involve every system of the body. I find it exciting to see such a variety of genetic and congenital conditions.

A patient who stands out in my memory was a child found to have Down syndrome after birth. I met his family shortly after he was born. I feel it is so important to stress to families what a wonderful child they have, how he will be very much like his siblings, and how full a life we can expect for him. Seven years later, the mother wrote an article for a Gundersen publication about how she remembered the positive things I said, and how much it helped their family.

I first learned to love genetics while taking an undergraduate course at University of Wisconsin-Madison. I later learned that my father had taken the same course 30 years prior and enjoyed it as much as I had!

A course by Dr. Renata Laxova at the UW School of Medicine and Public Health reinforced how much I loved genetics.

Following medical school, I completed a pediatric residency and medical genetics fellowship at Mayo Clinic in Rochester, Minnesota.

I am a member of the American College of Medical Genetics and Genomics and the American Academy of Pediatrics. In addition, I serve on several genetics-related committees for the state of Wisconsin.

From my perspective, medical genetics is the best field there is! We get to expand our knowledge every day to allow us to diagnose conditions so rare that only a few physicians have even heard of them. We have the privilege of giving answers to patients and families, many of whom have struggled for years with unexplained problems. And we are on the cutting edge of medical advances that will revolutionize medical practice in all fields.

**ROBERT D. STEINER, MD ’87**

My practice is split between Marshfield (Wisconsin) Medical Center and American Family Children’s Hospital in Madison.

Although clinical practice is a small part of my career, I enjoy it. In Marshfield, I support three genetic counselors and a nurse practitioner who see diverse patients from babies with Trisomy 21 to adults with hereditary cancer syndromes. In Madison, I see children who have or are suspected of having metabolic bone diseases like osteogenesis imperfecta or rickets.

I’ve enjoyed helping to diagnose and manage the care of children with XLH (X-linked hypophosphatemic rickets) using a new treatment. For one young girl before the medication was available, we began to paint a picture of what the future might hold—multiple surgeries, bowed legs and short stature. After she started receiving new medication, her legs straightened, she grew normally, and she could participate in dance and gymnastics. This girl and her family are always upbeat and thankful for her care, frequently sending us videos of her sporting events.

During my pediatrics residency at Cincinnati Children’s Hospital, I worked with a medical geneticist, Dr. Peter Dignan, and I marveled at the sensitive care he provided for patients. I later completed genetics training at Seattle Children’s Hospital. My main clinical interest has always been the diagnosis and treatment of metabolic diseases.

I’m the longest serving member of the American College of Medical Genetics and Genomics’ Board of Directors; I’m also editor-in-chief of the college’s journal, Genetics in Medicine. Further, I am a clinical professor, UW School of Medicine and Public Health; medical consultant, Wisconsin Newborn Screening Program; chief medical officer, PreventionGenetics; teacher; and researcher.

I learn something every day because this field is advancing rapidly, and each patient is different. Gene therapy is becoming commonplace and sometimes can cure what used to be uniformly fatal disorders.
Sharon Haase, clinical professor, Department of Medicine, UW School of Medicine and Public Health (SMPH), retired on December 1, 2021, after more than 33 years as a comprehensive internist in Beaver Dam, Wisconsin. In 1988, she started a solo practice. From 1989 to 2021, she served as a preceptor for fourth-year SMPH medical students. In 1992, she formally affiliated with the SMPH. Haase served many leadership roles in her community and at the Beaver Dam Hospital, where pictures of her are incorporated onto the Walls of History. While chief of staff, the hospital was honored as a top-ranked hospital. She served for a decade on the hospital board, culminating in the building of a new community hospital, where she continues to serve on the hospital foundation board. Haase received many clinical, teaching and service awards for her roles as a dedicated physician, mentor and professional colleague. Among the honors, she earned a citation award from the Wisconsin State Legislature, and in 2015, she was awarded the rare distinction of mastership in the American College of Physicians (ACP). She was the first woman elected as governor of the Wisconsin chapter of the ACP. Outside of medicine, Haase founded and directs the “E-CLuB for Kidz” program and continues to serve on community boards.

Philip D. Mercado was appointed to the California Arts Council (CAC) by Governor Gavin Newsom. The CAC is a state agency that aims to strengthen arts, culture and creative expression as the tools to cultivate a better California for all. With a budget of over $35 million, the CAC administers grants and programs, develops public and private partnerships, and offers technical resources and research to the arts. Mercado is the regional chief of general surgery for the Southern California Permanente Medical Group, for which he oversees the delivery of general surgical care for 4.5 million Kaiser Permanente members. He also is a clinical instructor in the Harbor/University of California, Los Angeles (UCLA) Department of Surgery and is a member of numerous national surgical organizations. Mercado and his husband, entertainment executive Todd Quinn, are major supporters of the arts and dedicated public servants. They are founding members of Contemporary Friends, an art acquisition group at The Los Angeles County Museum of Art, and Friends of Photography in the UCLA Department of Art. Since 2012, Mercado has served on the board of advisors at The Hammer Museum. He also serves as a Los Angeles city commissioner and as a member of the National Finance Team for the Democratic National Committee. Lastly, Mercado is a parent ambassador for the Harvard Westlake Admissions Department and vice chair of its annual giving program. He, his husband and their three children live in Hollywood.

O’Rell “Ron” Williams was among 14 members of the greater UW-Madison community honored by Madison365 in its annual list of most influential Black leaders for 2021. He is a physician and vice president of medical affairs at Ascension St. Joseph on Milwaukee’s north side. A former Milwaukee firefighter, he uses his skills, courage and compassion to improve the health of the community. When the COVID-19 pandemic hit, Williams became increasingly concerned about the disproportionate number of minority patients battling the virus. He quickly jumped in by using his voice and his role in the community to dispel disinformation and educate the community that COVID-19 was serious.

Angela Gibson’s research on human skin resulted in a futuristic bandage, which she helped develop with Xudong Wang, PhD, professor of materials science and engineering at UW-Madison. The novel bandage uses the body’s natural movement to generate an electric field. Their work showed the bandage healed a wound more than four times faster than a traditional
dressing. They hope to move to clinical trials in the next few years after testing on large animals for safety and effectiveness. Gibson is an assistant professor of surgery at the UW School of Medicine and Public Health, and she is a burn acute care surgeon at UW Health.

**Class of 2013**

**Travelle F.F. Ellis** was a 2020 recipient of the 40 under 40 Leaders in Health Award by the National Minority Quality Forum. Award recipients represent the next generation of thought leaders in reducing health disparities. She is the director of health equity at the Madison-based Exact Sciences, where she works to be a responsible partner in reducing the incidence and mortality rates of those suffering from colorectal and other forms cancer. For the past 18 years, Ellis has improved lives through patient-centered equity solutions and strategic programming for vulnerable communities. She earned her MD and PhD (biomedical engineering) degrees through the UW School of Medicine and Public Health’s Medical Scientist Training Program. Her area of research focused on using biomimetic platforms to facilitate delivery of bioactive healing factors in a controlled, sustained manner. Her published research appears in biomaterial journals and stem cell book chapters, and she gives presentations throughout the nation. While at UW-Madison, Ellis was integral in improving the climate for minority students on the campus and across the country. She is a lifetime member of the Student National Medical Association, for which she served as national president from 2009 to 2010. She continues to mentor undergraduate and medical students. Within the Houston, Texas, community, she is civically engaged with the Junior League and Jack and Jill of America, and in Columbus, Ohio, she serves as a 2020 fellow of the African American Leadership Academy. She is married and has four children.
Goodbye Dear Friends

GAIL S. ALLEN, MD ’91 (PG ’98)

Gail S. Allen, MD ’91 (PG ’98), died on December 30, 2021. She was a clinical associate professor in the University of Wisconsin School of Medicine and Public Health’s (SMPH) Department of Pediatrics and former chief of its Division of General Pediatrics and Adolescent Medicine.

A native Madisonian, Allen began her UW-Madison studies in industrial engineering, where she won a letter in varsity rowing and met her future husband, Jeff Hoerning, an engineering student. They married in 1988 and started a family. She worked in engineering for several years before returning to the SMPH, where she earned her medical degree.

Allen and her colleague Elizabeth Neary, MD ’91 (PG ’98), fashioned an innovative shared residency in the Department of Pediatrics. They alternated duties over six years rather than three to reduce stress on their families and gain work-life balance unheard of at the time.

In 1998, Allen joined the Department of Pediatrics, practicing at two clinics and eventually taking on a leadership role in the Division of General Pediatrics and Adolescent Medicine. She focused on patients with the greatest need. Her work with the UW Health Quality Improvement Project sought to identify, track and create strategies for children with asthma. She also helped initiate models of care to connect needy families with health and social resources.

Ellen R. Wald, MD, SMPH professor and chair of the Department of Pediatrics, says, “Dr. Allen was an incredibly gifted and passionate pediatrician who was dedicated to her patients, trainees, colleagues and community. She left the world a much better place than she found it. We are grateful to have had her in our lives.”

ROBERT J. JAEGGER, MD ’71

Robert J. Jaeger, MD ’71, age 78, passed away February 20, 2022, in Stevens’s Point, Wisconsin—the place he called home since 1976.

Born in Milwaukee, Wisconsin, Jaeger earned his medical degree from the University of Wisconsin Medical School (now the UW School of Medicine and Public Health, or SMPH) in 1971. He served in the U.S. Army reserves, after which he completed an obstetrics and gynecology residency at Milwaukee County Hospital. Jaeger and his family moved to Stevens Point, where he practiced medicine at Rice Clinic and St. Michael’s Hospital until his retirement in 2006.

Jaeger served as president of the Wisconsin Medical Alumni Association (WMAA) Board of Directors from 1998 to 2000, and as a board member from 2004 to 2014 and an advisory council member for the following two years. From 2004 to 2017, he was a member of the WMAA Awards Committee, which he chaired for part of that time. In 2010, Jaeger received the WMAA Service Award in honor of his lengthy dedication to the association.

Throughout his career, Jaeger also devoted time to the at-large medical community, including serving as president of the Wisconsin Medical Society. He received many awards from state and national medical organizations.

Those who knew Jaeger say he held strong family values. As an obstetrics and gynecology physician, he was proud that he was able to help couples start and/or grow their families, and to touch so many lives.

According to John Kryger, MD ’92 (PG ’97), WMAA past president from 2008 to 2010, “Dr. Jaeger conducted himself as a consummate professional—always perfectly organized and prepared for every meeting. His intellect and warm demeanor were welcoming. As a physician, leader and friend, he is one of the best I have known.”
DAVID C. RIESE, MD ’68

David C. Riese, MD ’68—a past president of the Wisconsin Medical Alumni Association (WMAA)—passed away on January 1, 2022, at age 81, in Monroe, Wisconsin, his lifelong home.

Riese earned his medical degree from the University of Wisconsin Medical School (now the UW School of Medicine and Public Health, or SMPH) in 1968. He next completed an internship in Cedar Rapids, Iowa, and an anesthesiology residency at UW Hospital and Clinics (now UW Health) in Madison.

As a board-certified anesthesiologist, he joined the Monroe Clinic, where he practiced for 25 years until his retirement in 1995. Riese served as the president of the Monroe Clinic’s medical staff in 1975 and 1993, and as chief of anesthesia from 1975 to 1986.

He also was the president of the Wisconsin Society of Anesthesiologists in 1983. Riese served as president of the WMAA Board of Directors from 1996 to 1998.

Dean Emeritus Philip Farrell, MD, PhD (PG ’72), says, “Dr. Riese and his wife, Sharon, were great friends and advisors. His WMAA leadership was invaluable for the school, especially during the HealthStar fundraising campaign to build new school facilities.”

Benjamin “Ben” F. Rusy Jr., MD ’56

Benjamin F. Rusy Jr., MD ’56, died on December 27, 2021, at age 94, in Middleton, Wisconsin. He was born in Sturgeon Bay, Wisconsin.

A U.S. Navy veteran of World War II, Rusy earned his medical degree from the University of Wisconsin Medical School (now the UW School of Medicine and Public Health, or SMPH) in 1956. He completed an anesthesiology residency and postdoctoral research fellowship at Temple University Medical School, Philadelphia, and was a professor of anesthesiology and director of anesthesia research there. He also was an adjunct professor of biomedical engineering at Drexel Institute of Technology, Philadelphia.

In 1976, Rusy joined the SMPH Department of Anesthesiology as the director of anesthesia research. His studies exploring the effects of anesthetics on cardiac function were supported by the National Institutes of Health for years. He served as department chair from 1988 until he retired in 1997.

Rusy and his wife, Anita, have four daughters. Deborah Rusy, MD ’92, MBA, FASA (PG ’97), and Lynn Rusy, MD ’87 (PG ’92), earned medical degrees from the SMPH and completed anesthesiology postgraduate training at UW Health. Kimberly R. Renfert, RN, MSN, and Kara L. Rusy, RN, MSN, DNP, earned nursing degrees from the UW School of Nursing.

Douglas Coursin, MD (PG ’78, ’81), emeritus professor of anesthesiology, and Kirk Hogan, MD ’76, JD, professor of anesthesiology, say Ben Rusy will be remembered as a consummate, unassuming role model who they strive to emulate.

Recalling her father’s enthusiasm about his career and encouragement to follow her dream to become a physician, Deborah Rusy, professor and inaugural director of global health anesthesia programs, Department of Anesthesiology, says, “I will always remember my dad as loving, kind-hearted, gentle, soft-spoken and supportive.”
Leading Throughout the Pandemic

BENJAMIN WESTON, MD ’11, MPH ’10, FAEMS, DRAWS UPON TRAINING AND EXPERIENCE IN MEDICINE AND PUBLIC HEALTH
A determined medical student approached Patrick Remington, MD ’81, MPH, now a professor emeritus of population health sciences at the University of Wisconsin School of Medicine and Public Health (SMPH), with an idea he was passionate about. The student wanted to start an organization to incorporate public health practices within Wisconsin schools. Remington liked the vision, but he advised not to start the organization given the demands of medical school.

The student approached two other SMPH senior leaders, who told him the same thing. Undeterred yet respectful, he formed a planning group and pursued his vision.

That student was Benjamin Weston, MD ’11, MPH ’10, FAEMS, and the resulting organization was the Healthy Classrooms Foundation, now a thriving nonprofit still run by SMPH students. The drive that led him to establish the foundation hasn’t abated, and today, it undergirds a wide range of professional responsibilities that bridge clinical care and public health.

A native of the Milwaukee, Wisconsin, area, Weston earned medical and master of public health degrees at the SMPH, where—as a first-year medical student—he met his wife, Michelle Buelow, MD ’11, MPH, who shares his passion for urban medicine and public health (see next page).

Weston next completed an emergency medicine residency at Hennepin County Medical Center in Minneapolis, and an emergency medical services fellowship at the Medical College of Wisconsin (MCW), Milwaukee. Now an associate professor of emergency medicine at the MCW, Weston has a broad and diverse portfolio, including scientific publications outlining his research; article and abstract reviews for professional journals; a weekly shift in the emergency department at Froedtert Memorial Lutheran Hospital; formal and informal teaching of medical students, residents and fellows; and more.

But his public health roles are the main reasons for his high profile in the community. As director of medical services since 2019 for the Milwaukee County Office of Emergency Management, he oversees emergency medical services for 14 fire departments. In August 2021, Milwaukee County Executive David Crowley named Weston the inaugural chief health policy advisor for the county, based in part on Weston’s leadership as the medical director of the Unified COVID-19 Emergency Operations Center that coordinated and managed the county’s pandemic response.

Before COVID-19 arrived in the state, Weston’s roles in emergency management focused largely on guiding and improving pre-hospital care: training and evaluating paramedics; enhancing ambulance safety; and strengthening patient care, such as shortening door-to-balloon time for heart-attack patients. He also was the director of mass-gathering and event medicine, in which he provided coordinated clinical care for big athletic contests and for unexpected events such as mass shootings.

“I think Dr. Weston is the quintessential student of medicine and public health,” says Remington. “The skills needed to be an outstanding clinician are not the same skills that are needed to be an outstanding public health professional: communications, systems thinking, policy advocacy. It’s really a rare person who exhibits skills in both areas, and I think he is an example of someone who is able to work with both ‘upstream’ and ‘downstream’ determinants of health.”

The emergence and spread of COVID-19 have put Weston’s range of skills to the test. Between March 2020 and July 2021, he was the principal speaker at more than 160 press conferences with public officials. Highly active on social media, he posts regularly on Twitter (@BenWWeston), combating rampant misinformation, urging patience as cases ebbed and then surged again, and stressing the importance of relying on data to make decisions about vaccination and other mitigation practices. In one recent tweet, for example, Weston described the structure of the coronavirus with a simple graphic to illustrate how the vaccines work and why they cannot induce infection. His mantra is to provide “clear, direct, honest communication” with the public to build and maintain trust as an advocate for public health in an atmosphere where outspoken community members often disparaged the value of science.

Remington thinks there may be another reason for Weston’s success.

“Dr. Weston is incredibly humble,” he says. “His ability to listen and learn from people is truly remarkable.”

While serving as the public face of Milwaukee County’s pandemic response, Weston used techniques that had proven to improve the care he and his teams provided in the emergency department. He led the creation of the county’s online COVID-19 dashboard early in the pandemic to track cases, hospitalizations, deaths and other data to inform the public and shape decision-making. The dashboard was one of the first in the nation to report race and ethnicity data and, in doing so, highlight COVID-19’s disparate impacts on communities of color.

When information on those disparities is captured through a focus on equity, the collected data reflect what health care practitioners see in the clinical setting daily.

“The emergency department is still the hospital’s ‘front door,’” he says. “In those encounters in the ED, you can see the social determinants of health in individual patients.”

His work on COVID-19 contributed to his long list of awards, as he received the Wisconsin Policy Forum’s Pandemic Hero Award in late 2021. Weston continues to keep up a bruising pace as COVID-19 news and guidance frequently change and the public has grown weary of the pandemic. He is tired of the pandemic, too, but what keeps him going is the work that remains.

“We don’t yet have enough folks vaccinated; we still have a strained health care system; and we continue to see significant inequity in health care access and health outcomes in our community,” he notes. “I am excited for what more we can do in the future, well beyond the pandemic, to improve the health of our community.”
Max Fox Award

BUELOW HONORED FOR DEDICATION TO MEDICAL EDUCATION

by Kris Whitman

Michelle Buelow, MD ’11, MPH—a physician at the Sixteenth Street Community Health Centers in Milwaukee, Wisconsin, and an associate director of the Training in Urban Medicine and Public Health (TRIUMPH) Program at the University of Wisconsin School of Medicine and Public Health (SMPH)—received the 2020 Max Fox Preceptor Award from the school and Wisconsin Medical Alumni Association (WMAA).

The annual award goes to a Wisconsin physician whose outstanding service as a preceptor has played an important role in the education of SMPH medical students. Due to the COVID-19 pandemic, the SMPH and WMAA held a virtual ceremony on February 28, 2022, to honor Buelow, also an affiliate faculty member, Department of Family Medicine and Community Health, and a public health faculty associate, Department of Population Health Sciences at the school.

Established in 1969, the award is named for its first recipient, Max Fox, MD. Fox taught for 46 years and served as a preceptor for more than two decades, influencing the careers of more than 4,000 physicians.

Paul Hunter, MD ’89, director, Ambulatory Acting Internship, said the program expanded upon the school’s former Fourth-Year Preceptorship, which then-Dean Charles Bardeen created in 1926 to teach medical students how to apply their medical knowledge in community-based clinics.

“This opportunity prepares students for clinical practice,” explained Hunter, associate professor of family medicine and community health and associate director of the Wisconsin Academy for Rural Medicine. “Today, 50 physicians from 35 communities across the Badger State teach in the program.”

Buelow earned a master of public health degree from Emory University and her medical degree and certificate in global health from the SMPH, where she was in the first TRIUMPH cohort. She completed the United Family Medicine Residency Program at Allina Health, St. Paul, Minnesota.

She practices family medicine at a Federally Qualified Health Center while speaking English and Spanish; supports TRIUMPH’s longitudinal curricula; and oversees placements of TRIUMPH students at the Sixteenth Street Community Health Centers for their Ambulatory Acting Internships and TRIUMPH public health projects.

Buelow commented, “I am full of gratitude to be surrounded by colleagues and students who inspire me to do this work every day. It is a privilege to work with people who are mission-driven and truly dedicated to community engagement and health equity. Knowing that we are all in this together is energizing and gives me hope for the future!”

Pamela Wilson, MD—vice president of medical affairs at the Sixteenth Street Community Health Centers, a colleague who was Buelow’s preceptor when she was a medical student—said, “The passion I saw in her as a medical student still shines as brightly today. She loves the population of patients we serve at our health center. And she works very hard to ensure that each medical student learns the significance of the work we do. She understands that no matter what field of medicine the students go into, they need to understand how they can make a difference, not only in the lives of the patients, but also in the community.”

Wilson said Buelow has been instrumental in putting in place the necessary infrastructure, including recruiting additional preceptors and support staff, to create meaningful experiences for students who rotate at the health center.

TRIUMPH Director Kjersti Knox, MD ’11—who earned her medical degree in TRIUMPH alongside Buelow—said, “She has an incredible talent for making others feel seen and heard and to know that they have something important to offer our patients and our community. . . . When mentoring students, she draws on that dynamic between support and challenge to help people grow.”

Noting that a primary goal of the school is to increase the number of physicians who practice in underserved urban and rural settings, SMPH Dean Robert N. Golden, MD, said, “We thank Dr. Buelow and the other incredible preceptors at the Sixteenth Street Community Health Centers, the Milwaukee community and throughout Wisconsin for helping us achieve this goal.”

Buelow’s husband, Benjamin Weston, MPH ’10, MD ’11, FAEMS—who practices medicine and public health in the Milwaukee area (see page 22)—added, “One of the things I think is unique about Michelle is that each of the many roles she plays positively influences the others. She’s not a doctor at the expense of being an educator, nor either of those at the expense of her family. Instead, she is able to channel the empathy, the mentorship, the expertise, the knowledge and the caring that she has in each of those roles into the other roles.”
Group on Women in Medicine and Science Honors Five Stars

The University of Wisconsin School of Medicine and Public Health’s (SMPH) chapter of the Group on Women in Medicine and Science (GWIMS) honored five faculty members with inaugural awards at the group’s second symposium in late November 2021.

Part of the Association of American Medical Colleges, the school’s GWIMS held its inaugural, in-person symposium in November 2019, followed by virtual gatherings since then due to the COVID-19 pandemic. The group’s goal is to bring together and recognize thought leaders who explore topics in leadership and professional development for women in medicine and science.

The local GWIMS leader, Mary Westergaard, MD, associate professor and vice chair of education in the BerbeeWalsh Department of Emergency Medicine, notes that three types of awards were shared at the late 2021 virtual symposium. The honorees are:

**Impact Awards:**
- Sara Damewood, MD
- Shannon Kenney, MD
- Jasmine Zapata, MD ’13, MPH ’17 (PG ’16, ’18)

**Advancing Women in Medicine and Science Award:**
- Megan Moreno, MD, MSEd, MPH (PG ’00)

**Excellence in Mentorship Award:**
- Christie Bartels, MD, MS ’09 (PG ’04, ’07)

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- Sara Damewood, MD
- Shannon Kenney, MD
- Jasmine Zapata, MD ’13, MPH ’17 (PG ’16, ’18)

**Advancing Women in Medicine and Science Award:**
- Megan Moreno, MD, MSEd, MPH (PG ’00)

**Excellence in Mentorship Award:**
- Christie Bartels, MD, MS ’09 (PG ’04, ’07)

—Continued on page 26
Damewood, a pioneer in the field of emergency ultrasound, is the inaugural director of the Division of Emergency Ultrasound within the BerbeeWalsh Department of Emergency Medicine (DEM), where she is an associate professor. Through her advances in archiving and reviewing clinical ultrasound images, critically ill and injured patients in the emergency department receive diagnostic ultrasound performed at the bedside by their physicians, when every second matters. She earned her medical degree at The Ohio State University College of Medicine and completed a residency and a year as chief resident at Albany Medical College in New York. She also completed an ultrasound fellowship at The Johns Hopkins University before joining the SMPH faculty in 2012.

In 2014, Damewood developed an advanced emergency medicine ultrasound fellowship program, elevating the quality and content of emergency ultrasound education in the DEM. She was instrumental in the rollout of ultrasound for UW Med Flight providers. She also is involved in ultrasound projects related to assessment of aspiration pneumonia, 3D-printing models, sepsis, simulation and prehospital care.

Damewood has served as co-chair of the American College of Emergency Physicians’ Ultrasound Section Simulation Subcommittee. She also has served as chair of the Society of Clinical Ultrasound Fellowships’ Program Development Committee. She is the inaugural chair of the Emergency Ultrasound Fellowship Accreditation Council, leading a team of leaders in the new national advanced emergency ultrasound fellowship accreditation process, in partnership with the American Board of Emergency Medicine.

Kenney is widely recognized for her ground-breaking research on the Epstein-Barr virus (EBV), focusing on its regulation and role in causing human cancers, including lymphomas and gastric and nasopharyngeal carcinomas. An internationally renowned physician-scientist, she is a professor in the Departments of Oncology and Medicine.

Having earned her medical degree from Yale University, Kenney completed a residency in medicine/pediatrics at the University of North Carolina (UNC) Hospital, and fellowships in research and infectious diseases at the National Institutes of Health (NIH) and UNC-Chapel Hill.

Kenney has been continuously funded by the NIH since 1987 and currently holds four NIH grants. She serves as the senior co-leader of the Human Cancer Virology Program in the UW Carbone Cancer Center.

Her pioneering work has uncovered the molecular regulation of EBV and applied those insights to the development of potential new therapies against EBV-induced tumors. Kenney is widely recognized for transforming her findings into novel lytic-induction therapies that selectively kill EBV-positive tumor cells by reactivating cell-destroying viral replication.

Kenney’s honors and awards include election as president of the International Association for Research on Epstein-Barr Virus and Associated Diseases; membership in the American Society of Clinical Investigators and the Association of American Physicians; and receipt of the Woodward Prize from the American Clinical and Climatological Association. She serves on the editorial board of the Journal of Virology and is a frequent invited speaker at national and international symposia.

Zapata, an assistant professor in the Department of Pediatrics, is recognized locally, nationally and internationally for her passionate commitment to combating racial inequities in maternal and child health. With infectious energy and extensive training in pediatrics, preventive medicine and public health, she collaborates with many community leaders to address the root causes of health disparities that plague communities of color.

After earning her medical degree from the SMPH, Zapata completed a pediatrics residency followed by a preventive medicine residency while earning a master of public health degree at the SMPH. She joined the Department of Pediatrics in 2018 with an affiliate appointment in the Department of Population Health Sciences. Zapata is a newborn hospitalist, based at Unity Point Health–Meriter in Madison, where she specializes in care for healthy infants.

Outside of her clinical work, research and advocacy, Zapata has published multiple youth-empowerment books and serves as the chief medical officer and state epidemiologist for community health at the Wisconsin Department of Health Services. A wife and mother of three, she embodies the Wisconsin Idea, stepping beyond campus boundaries to improve the lives of mothers and children across the state.

Moreno co-authored the 2019 book, Women Rock Science, a title that aptly describes her. A highly accomplished researcher and mentor to many women scientists, she is known nationally and internationally for her seminal findings regarding the use of social media by teenagers. The vice chair of academic affairs and a professor of general pediatrics and adolescent medicine in the Department of Pediatrics, Moreno earned her medical degree from George Washington University before completing a residency at UW Health and a fellowship at Seattle Children’s Hospital.

Over the past decade, Moreno and her team have published the largest known body of work regarding the impact of social media on teenagers, including 170 peer-reviewed articles of original research. Much of her work can be found in high-impact publications, including Pediatrics, JAMA Pediatrics and the Journal of Adolescent Health.

Moreno also developed the Facebook Influence Model, a simple method for examining the content of risk-related social media posts and their association with individual behaviors. She was awarded NIH funding for her project, Using Media to Explore Mechanisms of Behavior Change Among College Students. Another of Moreno’s NIH-funded research projects uses Facebook and Instagram to identify problem alcohol use by college students while

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Our women from the University of Wisconsin School of Medicine and Public Health (SMPH) and UW Health are among six at UW-Madison to earn 2022 Outstanding Women of Color Awards in March. The four honorees are:

- Danielle Yancey
- Carola A. Peterson-Gaines
- Sheryl L. Henderson, MD, PhD
- Cat N. Burkat, MD, FACS

The annual tradition honors women of color among faculty, staff and students who are deeply rooted in the UW-Madison and Madison communities through their work in one or more of the following areas: social justice, activism and advocacy on behalf of disadvantaged, marginalized populations; community service; scholarly research, writing, speaking and/or teaching on race, ethnicity and indigeneity in U.S. society; and/or community building to create an inclusive and respectful environment for all.

Yancey directs the Native American Center for Health Professions (NACHP) at the SMPH. She has had a long, distinguished career in the UW System and continues to master the ability to serve others with a purpose in her heart. She has been a role model for indigenous students at UW-Madison and other institutions of higher education, resulting in increasing numbers of American Indian students in the health professions.

In her work for the NACHP, Yancey ushered in the Indians into Medicine Grant renewal to provide opportunities and resources to recruit American Indian students into health care fields, which will help improve health care quality and access in Indian Country. The NACHP partners with tribal communities across the state to provide experiences and opportunities in health care through mentoring, training and youth outreach.

Yancey earned her master of science degree in urban and regional planning from UW-Madison, and in 2017, she joined the university's academic staff.

Peterson-Gaines is a community research associate at the SMPH. As a community liaison for Quartz Insurance, she advocates for equity in health care for citizens who receive Medicaid and Badger Care in Wisconsin. These clients often have had negative interactions with health care systems, and she is a tireless problem-solver for them.

People in the community routinely ask for Peterson-Gaines’ guidance. They reach her through her membership in Mount Zion Church and as the head of its Health Committee; through her sorority, the Deltas; and through her education work at local community sites. Well-known and respected for her outstanding work during the COVID-19 pandemic, she has helped marginalized people gain access to health care.

—Continued on next page
Group on Women in Medicine and Science Honors Five Stars  Continued from page 26

applying validated online interventions for consumption of alcohol.

Further, she is known for mentoring women from high school through senior faculty positions. Dozens of women have benefited from her remarkable enthusiasm, passion and undying support for clinical research that positively impacts quality of life for countless patients.

Bartels, head of the Division of Rheumatology and an associate professor in the Department of Medicine, is widely respected as an outstanding mentor who has positively affected the career path of more than 70 mentees over the past decade. Her support, guidance and extraordinary listening skills are hailed by many junior faculty members.

One colleague, a woman of color and first-generation immigrant, credits Bartels' patience and devotion for giving her hope when hers was waning, and noted that, as a mentor, Bartels' confidence in her and limitless support kept her going. She says Bartels' approach should be a case study for future mentor training specifically aimed at assisting diverse mentees.

Bartels earned her medical degree from Creighton University in Omaha; completed her internal medicine residency and rheumatology fellowship at UW Health; and completed a master of population health degree at the SMPH. She has been at the forefront of preventing cardiovascular diseases and reducing disparities for patients with lupus and rheumatoid arthritis.

As a former co-director of the K Grant Writing Group in the SMPH's Institute for Clinical and Translational Research, Bartels helped 18 faculty members secure career-development funding.

A fellow of the American College of Rheumatology (ACR) and a member of the American College of Physicians, Bartels has received the Puestow Research Award from the Department of Medicine, a Community Impact Leadership Award from the Arthritis Foundation and two UW Health Patient Experience Awards. She serves on two editorial boards and several ACR committees, including co-leading the ACR lupus quality measures group. She also has been repeatedly recognized as a top rheumatologist in Madison.

Outstanding Women of Color  Continued from page 27

care resources such as vaccination clinics in parks, schools and other locations.


Henderson, an associate professor in the SMPH Department of Pediatrics, is the medical director of the department's Pediatric, Adolescent and Young Adult Program and its HIV Comprehensive Care Clinic. She also is the Madison area's medical director for the Wisconsin Primary HIV Support Network.

Having earned her medical and doctoral degrees from The Johns Hopkins University School of Medicine, Henderson completed a pediatrics residency at The Johns Hopkins Hospital and completed a pediatric infectious disease fellowship at Emory University. She is board certified in pediatrics and pediatric infectious diseases.

She has been a mentor for African American teens and medical students. Her expertise as a mentor has led to invitations to speak to local church groups, community organizations and UW-Madison units on how to effectively reach African American teens. Henderson continues to mentor SMPH students who come from populations that are underrepresented in medicine. She is a member of the Department of Pediatrics Anti-Racism Taskforce and has helped the department's Black, Indigenous and Other People of Color Mentoring and Development Committee support pediatric trainees.

Henderson's call to advocacy and service is rooted in her upbringing, where she learned from her father the joy and reward that came from providing obstetric care for those who were in desperate need but were not served by society. From her mother, she learned that groups of citizens could effectuate real change that would benefit those who are vulnerable.

Burkat, professor, SMPH Department of Ophthalmology and Visual Sciences (DOVS), is a board-certified ophthalmologist and oculofacial plastic and reconstructive surgeon, and co-chair of Global Ophthalmology Initiatives for DOVS. She specializes in treatment of droopy eyelids, eyelid and tear duct abnormalities, tumors and thyroid eye disease, and she performs cosmetic injections and surgery.

She established two nonprofit foundations to treat people in Central America, Vietnam, Philippines, Thailand, Africa and India. She has mentored numerous college and medical students and written more than 85 book chapters. Her passion includes working with underrepresented students who are interested in medicine by creating unique learning opportunities. Burkat has instituted volunteer vision screening for schools and a program to give underrepresented high school students hands-on exposure to ophthalmologic surgery.

She earned her medical degree at the University of Rochester in New York, and she completed an ophthalmology residency at Strong Memorial Hospital in Rochester, and an ophthalmic facial plastic and reconstructive surgery and facial cosmetic surgery fellowship at UW Health. She joined the SMPH faculty in 2005.
and diabetes sweeping the United States, Lamming says, “In Wisconsin, more than 475,000 residents have diabetes, and an estimated 1.4 million people over age 20 have pre-diabetes. Also, underrepresented minorities are greatly impacted by this disease.”

The SMPH is deeply committed to research that eliminates health disparities, and it has successfully involved underserved communities in the effort to prevent differences in access to health care.

“To eliminate disparities, we need to uncover the mechanisms for why they occur,” explains Amy J.H. Kind, MD ’01 (PG ’07), PhD ’11, the SMPH’s inaugural associate dean for social health sciences and programs and the founding director of the Center for Health Disparities Research (CHDR). “We must embrace next-generation methods that link cells to society and neurons to neighborhoods. This opens the door for new clinical interventions and social policies with the potential to make a big difference.”

CHDR recently received a $28.5 million National Institutes on Aging R01 grant to examine social determinants of health across a lifetime for people affiliated with 22 Alzheimer’s Disease Research Centers in the United States. UW-Madison is the lead site.

An international leader in health disparities research and a professor in the Department of Medicine, Kind oversees initiatives that identify factors leading to health differences that are closely linked with social, economic and/or environmental disadvantage. In 2018, she led development of The Neighborhood Atlas, a broadly used disadvantage. In 2018, she led development of a tool that links cells to society and neurons to neighborhoods. This opens the door for new clinical interventions and social policies with the potential to make a big difference.”

Over the past five years, the SMPH has created several graduate training programs, including MS and PhD programs in biomedical data science and an MS degree in clinical and health informatics. In 2019-2020, the school launched the online Master of Science in Applied Biotechnology Program. Designed to meet the needs of employed adults, the program enrolls 25 to 30 students per year who wish to expand their careers into biotechnology leadership.

“We are looking toward the future with innovative ways to train scientific leaders. We foster the most inclusive environment for trainees and faculty members from different backgrounds, who offer diverse perspectives,” says Keck. “Our graduates are prepared to make massive contributions to basic science and translational research.”

Funding Sources

For these examples and other endeavors, the SMPH receives funding from several sources, including federal and non-federal grants; UW Health and other medical centers; the state and UW-Madison; gifts; endowments from the Wisconsin Partnership Program and other sources; and the Wisconsin Alumni Research Foundation.

Audhya observes that over the past decade, U.S. federal research dollars have decreased substantially (adjusting for inflation), and funding for basic science has become tighter than that for other types of investigations. Faculty members spend more time than ever writing research proposals and drafting administrative reports to fulfill federal agencies’ regulatory requirements.

School leaders note that it is vital to continue developing strategies to sustain the school’s competitiveness for extramural funds. For instance, the formation of cross-disciplinary research teams can enhance competitiveness for grants.

Audhya states that the generosity of private donors plays an increasingly important role in ensuring that basic science research can continue to address health and wellness for individuals and populations.

Future Outlook

“The coming years are sure to see noteworthy discoveries in fundamental research areas such as aging, cancer biology, neurobiology, tissue regeneration, antibiotics and antifungals, and viruses such as SARS-CoV-2,” says Audhya.

As it has been throughout history, the SMPH is committed to assuring that its research upholds the Wisconsin Idea: the principle that work conducted on campus should improve people’s lives beyond the classroom. The philosophy spans the teaching, research, outreach and public service missions throughout UW-Madison.
$5.5 million award will improve access to the UW Integrative Health Program

Greta Kuphal, MD ’06 (PG ’09, ’11) (left), and David Rakel, MD
Equitable access to integrative health services has been the dream of David Rakel, MD, since his early days in private practice in Diggs, Idaho.

Now the chair of the Department of Family Medicine and Community Health (DFMCH) at the University of Wisconsin School of Medicine and Public Health (SMPH), Rakel listened to his patients in that small rural practice and developed a lifelong passion for exploring the mind-body connection. He left Idaho to pursue an integrative medicine fellowship at the University of Arizona and later established the UW Integrative Health Program in 2001, but he has never forgotten the lessons he learned in the Pacific Northwest.

“That’s where my patients taught me about the importance of going deeper into the context of one’s life to uncover the path toward health,” remembers Rakel.

Fast forward 28 years, and Rakel’s dream of expanding integrative health is closer to reality thanks to a $5.5 million award from The Bernard Osher Foundation. Based in San Francisco, the foundation was established in 1977 to improve quality of life through higher education and the arts by supporting post-secondary scholarships, lifelong learning institutes and integrative health centers in the United States and Sweden.

This permanent, endowed funding for the UW Integrative Health Program, housed within the DFMCH, will help solidify the department’s commitment to salutogenic science, a concept Rakel has elevated since he accepted the role as chair in July 2021.

Salutogenesis—the origins of health—recognizes the complex system in which we live and the effect of historical, social-cultural and environmental conditions on our ability to thrive. As the department’s focus moves toward the creation of a collaborative research network for salutogenic science, the generous funding aligns the SMPH with an elite group of Osher Integrative Health Programs, including centers at the University of California, San Francisco; Harvard Medical School and Brigham and Women’s Hospital in Massachusetts; Karolinska Institute in Sweden; Northwestern University in Illinois; Vanderbilt University in Tennessee; University of Miami Miller School of Medicine in Florida; University of Washington; and University of Cincinnati.

The ability to collaborate with these top institutions in clinical, educational and research endeavors to advance the field of integrative health is an important component for success, according to Greta Kuphal, MD ’06 (PG ’09, ’11), clinical associate professor, DFMCH, and medical director, UW Integrative Health Program.

“This gift from the Osher Foundation will allow us increased capacity to be present for a larger portion of our community. We want to expand our group medical visit program, which is centered around the ‘whole health’ model of care—an approach that starts with asking patients about what really matters most to them, and why it is important to maintain their health,” shares Kuphal. “We can then explore a variety of paths to help them work toward their goals.”

She continues, “This shifts the model of care from a ‘find it, fix it’ mentality to one that fosters health and healing—truly implementing the principles of salutogenic science.”

Kuphal and Rakel first crossed paths when she started her family medicine residency in the DFMCH. At that time, she was a new mom struggling to find a balance with work and family.

“Through my residency, I was inspired by the exposure I had to Drs. David Rakel and Adam Rindfleisch (PG ’03, ’05), who were the leaders in our Integrative Health Program at that time. They brought an approach to medicine that not only expanded the tools in the proverbial black bag, but also endorsed a humanistic approach to working with patients,” recalls Kuphal.

She went on to complete the UW Academic Integrative Health Fellowship and credits that experience with helping her find a place in medicine that kindled elements that were growing within her as a mother.

“There is value in being truly present with patients, in listening deeply and being curious about their lives, what is important to them, what goals they have for their health and why,” says Kuphal.

As for Rakel, he’s proud the Osher funding will help expand the program he founded 21 years ago that boasts milestones like a collaboration with the Veteran’s Health Administration to develop and implement the Whole Health Initiative, emphasizing self-care, prevention and the evidence-informed use of conventional and complementary care. Other projects over the years have included research designed to bring awareness to the healing process, group medical visits for people dealing with chronic pain, a library of physician/patient educational resources, training programs like the Academic Integrative Health Fellowship, and tools for clinician self-care.

“Establishing an Osher Integrative Health Center at UW-Madison gives us the resources to look outside of traditional health care and do better for our patients,” says Rakel. “We have plans to bring integrative health to our communities and eliminate transportation and cost barriers that prevent people from gaining access to important services, including group medical visits.”

The UW Integrative Health Program has a number of integrative health physicians working with more than 30 allied health professionals to provide a range of services in UW Health primary care clinics, plus the UW Health Research Park Clinic and East Madison Hospital. In addition to physician consults, the program offers mindfulness classes, wellness-focused group medical visits, acupuncture, massage therapy, healing touch and a variety of land- and pool-based fitness programs.

Rakel and Kuphal agree that the ability to engage with community members, learn from them and bring these or other needed services directly to them is a top priority as part of the Osher collaborative.

“Wisdom will come from the communities we partner with,” concludes Kuphal. “What we learn from them will allow our work to be truly meaningful to the health of those we serve.”

by Laura Cruz
Community Connections
MASTER OF PUBLIC HEALTH STUDENTS ARE CHAMPIONS OF CHANGE

by Beth Pinkerton

For students who are pursuing a master of public health (MPH) degree at the University of Wisconsin School of Medicine and Public Health (SMPH), the Applied Practice Experience (APEX) is an opportunity to define their future careers and to put didactic learning into practice in a community-based setting. This concept is the heart of UW-Madison’s guiding principle—the Wisconsin Idea.

Overall, the MPH Program, led by Ajay K. Sethi, PhD, MHS, associate professor of population health sciences, provides a practice-oriented approach for those who want to strengthen their general knowledge and skills in public health. MPH students complete their 240-hour, six credit APEX in community settings such as public health agencies, clinics and non-profit organizations during the eight-week summer session or throughout the academic year.

Community Engagement Coordinator Tarakee Jackson coaches students throughout the APEX program beginning with a spring semester seminar. She connects students with community partners and works with them to define the focus of their project and create an APEX Learning Agreement.

“Always tell students that the APEX is the precursor for their careers, this is going to help identify what they want to do after graduation, so they should take to heart what type of project they want to do,” she explains.

In addition to working with students to integrate public health core competencies into their APEX, Jackson also centers seminar discussions around the need to have cultural humility and competency when working with the community.

“In public health, it is critical to identify what your values and ethics are, because in your work, you’re trying to build the trust of a community, and often that community has been hurt, misled or misrepresented in the past,” she says. “For instance, if you’re a white female, and you’re trying to gain the trust of an all-Latino community, you need to know how to engage with staff within that population and community organization.”

When students feel uncertain about how to approach the work because they don’t share the same lived experience with the community, Jackson is there to encourage and coach them as they navigate their way.

She says, “At times, you’re going to have to let the community teach you, and then you fall back on knowledge you have gained in courses. And, I’m also here when students hit those stress points that every student hits.”

Jackson says the reward is seeing APEX projects—such as the following examples—create remarkable outcomes for the students and communities they serve, with students bringing fresh perspectives and unique skills to organizations that are often short-staffed.

Advocating for Special Olympics
Vanessa Dingman, an MPH student, is interested in health policy that supports individuals with disabilities. She had worked at the Wisconsin Department of Health on quality initiatives for children’s Medicaid waiver programs and was curious about how a public health perspective could be used to leverage change.

As Special Olympics Wisconsin staff were fully focused on adapting programs due to the pandemic, Dingman filled an urgent need for the organization, which hopes to increase state funding—something that hasn’t changed in 30 years. She worked closely with the executive director, the lobbying firm and the Athlete Leadership Council to create a two-year advocacy plan—following the legislative session—that included steps the organization could take each quarter. She also developed a training program for athletes who are interested in becoming advocates.

Dingman came away with a better sense of how legislators may consider an issue and how the legislative process works, as well as the different ways government agencies can provide benefits to communities.

She reflects, “When I shifted to public health, I got a sense of community and coming together to support one another. Medicaid funds have some limitations and serve a specific purpose, while public health builds upon assets available in a community.”

Volunteering at the Special Olympics Wisconsin Summer Games was a highlight.

“A big principle of public health is community engagement, and I really wanted to meet our athletes. It was so great to talk with them and get a sense of what they were doing in an asset-based environment, where they were playing games and winning, and where the focus was on how awesome they are as athletes,” recalls Dingman.

Improving Screenings for Southeast Asian Women
Baila Khan wanted to explore how preventive practice could improve health equity. She felt called to work with the Milwaukee Consortium for Hmong Health...
because of its work with immigrant and refugee populations—something she could relate to as a Muslim woman and the daughter of parents who immigrated from Pakistan.

Khan conducted a data analysis of the consortium’s Breast and Cervical Cancer Programs to measure the effectiveness of outreach and education efforts by community health workers, with the goal of increasing the number of Southeast Asian women being screened.

“It’s been shown through multiple studies that targeted practice works to enhance health equity and engage these communities in approaching topics that are hard to explain,” Khan says. “Many people in these populations struggle to read or write their own language when coming from refugee camps. It’s even more difficult when they are expected to do this in English.”

Screening rates were compared across ethnicity and insurance type, but the consortium also wanted to understand women’s attitudes about screenings.

“Breast and cervical cancer screenings are likely to be very stigmatized or not talked about,” Khan explains. “I know that’s true in my culture, and I’ve learned from Hmong, Burmese and Lao individuals that these topics are stigmatized in their cultures, too.”

Working with Maichou Lor, PhD, RN, assistant professor, UW School of Nursing—who earned her degrees at UW-Madison and was the first Hmong-American nurse to earn a doctoral degree in the United States—as her preceptor was a highlight for Khan, who notes, “She was my first mentor who was a woman of color. I think we made a great duo.”

Given the limited number of studies focused on this area, Khan believes her report, which is under review, will be published and widely disseminated.

Promoting Weight Inclusivity

As a future family medicine physician, Aimée Wattiaux advocates for a weight-inclusive philosophy that respects body diversity and recognizes the harm of focusing on a person’s body mass index (BMI). On the rare occasion that weight is relevant to the visit, she says it should be part of a larger conversation.

“I never want the focus to be just on changing the person’s weight,” says Wattiaux, who will earn her medical degree from the SMPH in spring 2022 and enter a residency in the school’s Department of Family Medicine and Community Health.

“If I’m following someone’s weight, and I see that it suddenly goes up or down, it’s a cue to ask a patient about what’s going on. Are you extremely stressed? Are you food-insecure? Is there something we should focus on? It’s a cue to look at other aspects of a person’s health.”

Wattiaux partnered with the UW Health Dietary Internship Program to create a series of 17 micro-learning opportunities for dietitian weekly huddles, and she adapted them for a broader health care audience. She also created “Weight-Inclusive Care: A Toolkit.” Topics include weight stigma, personal weight bias, and how to set the tone for conversations about weight.

Further, she partnered with the Providers and Teens Communicating for Health (PATCH) Program to host teen focus groups to learn about their personal experiences with discussions around weight—something that provided validation for the weight-neutral approach. Many teens expressed embarrassment about being weighed in public or in front of their parents.

Recalling how one teen’s story illustrated the need for a change, Wattiaux shares, “The participant was an athlete and very active, but her BMI was elevated. She told me, ‘I’m healthy. I’m super active, so it feels weird to look at my growth chart and have people say it’s on the higher end.’ And then she said something poignant: ‘I wish we could talk about health, exercise and nutrition without it always coming back to being about weight.’ And I said, ‘Me, too!’”

Sharing Perspectives

Self-proclaimed “data geek” Kayla Carlin provided qualitative data analysis to support the “Pick Up the Mic” podcast created to give Black students and community leaders a voice and opportunity to share their perspectives and experiences related to racial disparities in education.

The podcast was the vision of Corey Whitmore, the Lussier Community Education Center WMFM-LP 95.5 FM station manager and Media 22 owner, who felt it was time for a different kind of conversation as Wisconsin was ranked the state with the biggest achievement gap in the country.

Whitmore had the lived experience of being a Black student attending many schools

Continued on page 37
Mathew Named Associate Dean for Informatics and Information Technology

Jomol Mathew, PhD, has been named the inaugural associate dean for informatics and information technology at the University of Wisconsin School of Medicine and Public Health (SMPH).

She will work to foster a data ecosystem that enables the school and researchers to better collect, share and analyze data from across the health system and university in pursuit of breakthroughs in precision medicine and clinical research. An advanced data environment will allow investigators and the school to better compete for grants and as a clinical trial site, Mathew says.

“Data and informatics are driving forces for modern science and precision medicine,” she explains. “I want to remove barriers and implement a purpose-driven framework in which our data, algorithms, tools and services are housed together for reproducible research.”

Mathew joined the SMPH in April 2020 as the chief of biomedical informatics and an associate professor of population health sciences. She came to Madison from the University of Massachusetts Medical School.

Her group is currently developing the UW Data Commons, a repository that will contain electronic health records, genomic data and information on socioeconomic and environmental factors in a secure and confidential format.

SMPH Dean Robert N. Golden, MD, says, “Dr. Mathew’s remarkable expertise and leadership skills will strengthen our partnerships and the pace of discovery across campus and our academic health system.”

Sperandio is New Chair of Medical Microbiology and Immunology

Vanessa Sperandio, PhD, an expert in the cellular interactions between mammals and microbes, will become chair of the University of Wisconsin School of Medicine and Public Health’s (SMPH) Department of Medical Microbiology and Immunology as of June 1, 2022.

She most recently was a professor of microbiology and biochemistry, University of Texas Southwestern Medical Center.

Research in the SMPH department focuses on microbial pathogens, the immune responses they spark, and the prevention and treatment of infectious diseases. In collaboration with the Department of Bacteriology in the UW College of Agricultural and Life Sciences, the department offers the top-ranked microbiology doctoral program in the nation.

“I am thrilled to lead this important department,” Sperandio says. “Rarely in history has the study of infectious disease and immunity been more crucial.”

Sperandio completed her doctorate in molecular genetics at the State University of Campinas (Brazil). She has authored more than 120 peer-reviewed research articles and has been named a Kavli Frontiers of Science Fellow by the National Academy of Sciences. A fellow of the American Academy of Microbiology, she will serve as chair elect of that academy starting in July 2022.

Dean Robert N. Golden, MD, notes, “Under Dr. Sperandio’s leadership, the department will continue to expand its ground-breaking microbiology and immunology research, as it continues to train the next generation of scientists and health care professionals.”

Byars-Winston Serving on National Institute’s Advisory Council

Department of Medicine

Professor Angela Byars-Winston, PhD, has joined the Advisory Council for the National Institute of General Medical Sciences (NIGMS) within the National Institutes of Health (NIH).

The council performs second-level peer review of research and training grant applications, and advises on policy and program development. The NIGMS, which supports basic research into biological processes, has the largest training grant portfolio within the NIH.

Her research at the University of Wisconsin School of Medicine and Public Health focuses on cultural influences on academic and career development, especially for women and individuals from underrepresented racial and ethnic groups in the sciences, engineering, mathematics and medicine. She was the principal investigator (PI) on an NIH grant to study research-training interventions for mentors of ethnically diverse mentees. Byars-Winston now is PI in the second phase of the National Research Mentoring Network leading the Culturally Aware Mentorship Initiative.

“My expertise in social science theories gives me a unique perspective on how grants might become most effective in talent development and retention of students and faculty,” she shares.

Byars-Winston serves as director of research and evaluation in the UW Center for Women’s Health Research, associate director of the Collaborative Center for Health Equity, and faculty lead in the Center for the Improvement of Mentored Experiences in Research. Her NIGMS term will run through December 2024.
A research team led by Daniel Cobian, DPT ’10, PhD (PG ’16), CSCS (left), and Bryan Heiderscheit, PT, PhD, FAPTA (right), of the Department of Orthopedics and Rehabilitation at the University of Wisconsin School of Medicine and Public Health (SMPH), is working with the National Football League (NFL) to study how on-field head impacts can inform injury-reduction efforts at the professional and collegiate levels.

Custom-fit, instrumented mouthguards will be used to quantify the head impacts sustained by UW football players during on-field activities. Mouthguard sensors can accurately measure direction and magnitude of impact. Information obtained from this study may help improve player safety through altered training strategies and design of protective equipment.

“Reducing the risk of sport-related concussions is a priority for athletes, coaches and health care providers,” says Cobian. “The more we learn, the better we can protect student-athletes and maintain a desirable balance between the benefits of sport participation and risk of injury.”

The instrumented mouthguard program is part of the NFL’s $60 million commitment to promote health and safety initiatives. It strengthens the ongoing partnership between the NFL and the SMPH.

The University of Alabama, University of North Carolina-Chapel Hill and University of Washington are also participating.
The annual John J. Frey III, MD, Writing Awards honor outstanding contributions of creative writing. The contest is open to the community of faculty, staff, residents and fellows of the Department of Family Medicine and Community Health (DFMCH) at the University of Wisconsin School of Medicine and Public Health (SMPH). The department has a main campus in Madison and a statewide network of clinics and residency training sites in Wausau, La Crosse, Waukesha, Eau Claire and Milwaukee. Frey was a long-time chair of the DFMCH.

These entries are among the winners of the 2021 writing awards.

**Resurrection**
by Caitlin J. Regner, MD ’16 (PG ’19)

She regrets the idle passage of time,
Years lost with fruits unknown,
Time spent with a singular focus:
Liquid escape, feigned pleasure, alone.

Then, suddenly, she is called back
To her son, eyes empty and glassed.
Desperately, she presses and gives him air.
Too late—he has breathed his last.

Where can she go from here?
The way forward, so dim and bleak.
After years of self-centered denial
She admits her defeat: “I am weak.”

The change is painful and slow,
Stripping layers of hurt and of shame,
But the memory of him whom she cannot
bring back
Keeps the fire in her heart aflame.

She notes each day brings more meaning.
Resurfaced, she now sees the light.
Caring for her children’s own children,
The wrong once done is made right.

As she sits with me this day,
Sharing her past and her pain
I realize I have witnessed a miracle
A life lost, brought back again.

**About the author:**
Regner is an assistant clinical professor in the DFMCH. She earned her medical degree and completed her family medicine residency at the SMPH. Fluent in Spanish, Regner sees patients at the Access Community Health Centers–Erdman Clinic in Madison, where she treats a broad range of medical conditions, while calling on her special training in prenatal, newborn and pediatric care; ultrasonography; and substance-use disorders. Passionate about teaching medical students and residents, she researches residency teaching methods, as well as prenatal patient needs and resiliency.
Not Me
by Magnolia Larson, DO

How are you doing?
The words flow sometimes without even thinking:
eat more fruits and vegetables
always wear your seat belt
These vaccines protect you from getting sick
do your best in school so you can have choices when you graduate
may have exposure to drugs and alcohol, but if you do, please don’t drive
we want you to make good choices to be safe.

They look down, smile and say, “Ok, that’s not me.”
The parents laugh and say, “They’re a good kid, we don’t have to worry, that’s not us.”

But I was not prepared for the tears that came without thinking,
this startling sadness
this great wave of emotion in a sea of emptiness.

After months of the apathy that looms to bury me
After months of the compassion fatigue that threatens to harden me.
When I asked her, “how are you doing?”
When I asked if she was ready to return to the team after the accident.
The accident that took her best friend away, my son’s friend away, in the twilight hours of an endless teenage summer night.

She always ate her fruits and veggies.
She always wore her seatbelt except that night.
She wasn’t the driver racing home for curfew. She got her vaccine and wore her mask.

I could not predict the shaky voice and slumped shoulders that we have been taught to restrain,
to stay calm in the face of chaos and tragedy to offer hope and faith that things will be okay.

I could not stop the flood of grief yet immeasurable relief
That this time it was not me.

About the author: Larson is an associate professor in the DFMCH.
She practices at the department’s Verona Clinic and the UW Health Pediatric Fitness Clinic at Research Park Clinic. Having grown up in rural Minnesota, Larson received her bachelor’s degree in psychology at Carleton College in Northfield, Minnesota. Next, in the Chicago area, she worked as a live-in counselor for teenage girls and as a medical assistant in a pediatric medical clinic. After earning her doctor of osteopathy degree at Kansas City University of Medicine and Biosciences College of Osteopathic Medicine, she completed a research family medicine residency in Kansas City, Missouri, with her final year as the chief resident. Larson later practiced full-spectrum family medicine in rural Minnesota before she joined the SMPH faculty.
A study by a University of Wisconsin School of Medicine and Public Health research team reveals that a protein long known to play a role in brain-cell communication is also capable of obliterating cells if left unchecked, because it can twist and puncture cell membranes. Yet, in the brain, a suite of controls makes sure the protein, complexin, helps neurons communicate by aiding in the release of neurotransmitters.

The findings, published in *Nature Structural and Molecular Biology*, have helped reveal how neurons pass information to one another. Inside a neuron, a tiny packet of neurotransmitters fuses with the cell’s outer membrane, releasing the transmitters so they can signal to neighboring cells.

“We argue that this is the most interesting membrane fusion event in our bodies, because it’s the one that underlies this conversation,” says Edwin Chapman, PhD, professor of neuroscience and an investigator of the Howard Hughes Medical Institute. “Yet, to this day, nobody knows just how the proteins involved in this process really work.”

The researchers discovered the surprising power of complexin when it was added to a tiny simulation of cell membranes. The membranes bent and broke apart. The scientists traced this ability to a tiny portion of the protein, which closely resembles other peptides that kill bacteria by poking holes in them.

The team also discovered some of the ways neurons might keep complexin in check. The number of complexin proteins that cooperate at any one time appears to be limited. Only in high numbers does complexin ravage cells.

The next step, says Chapman, is to continue testing other proteins that help transport neurotransmitters.

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Lab-Derived Cone Receptors Respond to Light

Researchers from the University of Wisconsin School of Medicine and Public Health (SMPH) have shown that a retinal cell type derived from human pluripotent stem cells can detect light and convert that signal to electrical waves.

These lab-produced organoid cone photoreceptors are similar to cones in the eye responsible for high-definition vision.

It’s the first time that cone photoreceptors derived from stem cells exhibited the ability to respond to light. The results, published in *Cell Stem Cell*, suggest that retinal organoids could eventually serve as replacement sources for human photoreceptors.

“For diseases like macular degeneration where cones in the center of the retina die, there are no treatments,” says the study author, Raunak Sinha, PhD, assistant professor of neuroscience. “But with stem cell technology, you can make these stem cells grow into three-dimensional mini-retinas containing cones.”

In this study—a collaboration between the SMPH Departments of Neuroscience and Ophthalmology and Visual Sciences and the McPherson Eye Research Institute—Sinha and co-author David Gamm, MD, PhD (PG ’02, ’03), professor of ophthalmology and visual sciences, looked at cone photoreceptors from retinal organoids that matured in the lab. They demonstrated robust, color-specific light responses in the cones.

Sinha says the immediate next step is to figure out how to improve the cones’ sensitivity and determine which components are missing in the organoids. The team hopes that, eventually, these findings may help patients with blinding disorders.

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Key Protein in Brain May Shred Cells if Unchecked

A study by a University of Wisconsin School of Medicine and Public Health research team reveals that a protein long known to play a role in brain-cell communication is also capable of obliterating cells if left unchecked, because it can twist and puncture cell membranes. Yet, in the brain, a suite of controls makes sure the protein, complexin, helps neurons communicate by aiding in the release of neurotransmitters.

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The next step, says Chapman, is to continue testing other proteins that help transport neurotransmitters.
A large study published recently in *Radiology* found that the latest changes to national lung cancer screening guidelines did little to close the gap between white people and people of color regarding eligibility for computerized tomography (CT) scans.

In March 2021, the U.S. Preventive Services Task Force increased the number of people eligible for lung cancer screening by recommending annual screening between ages 50 and 80 for adults who smoke or quit smoking within the past 15 years. People would be eligible if they smoked at least a pack of cigarettes per day for 20 years.

Study author Anand Narayan, MD, PhD, vice chair of equity and associate professor, Department of Radiology, University of Wisconsin School of Medicine and Public Health, says the guidelines increased overall eligibility from 11 to 14 percent, but disparities between groups did not improve. Under the new guidelines, just nine percent of Black Americans, five percent of Hispanics/Latinx Americans, and five percent of Asian Americans and Pacific Islanders were eligible. This compares with 15 percent of white participants. About 21 percent of Native Americans were eligible.

“Basing eligibility on age and pack per year thresholds ignores the higher risks faced by racial and ethnic minority groups,” Narayan notes. “The guidelines need to reflect the fact that some groups face a much higher likelihood of developing lung cancer.”

He says better guidelines would incorporate underlying lung cancer risk, potentially including factors like social determinants of health, family history and chronic diseases. American Lung Association figures show that Black Americans with lung cancer were 18 percent less likely to be diagnosed early and 21 percent less likely to survive five years compared to white Americans. Similar disparities affect other ethnic minorities.

Narayan and colleagues conducted the study when he was at Massachusetts General Hospital.

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**Study of Brain Region May Benefit Epilepsy Patients**

Damage to a brain region that regulates hyperactivity can contribute to both memory problems and seizures in temporal lobe epilepsy, according to research at the University of Wisconsin School of Medicine and Public Health.

The study, published in the *Journal of Neuroscience*, may lead to earlier diagnosis of epilepsy and possibly new ways to treat it. Antoine Madar, PhD ’18, conducted the research during doctoral work in the laboratory of Matt Jones, PhD, associate professor of neuroscience.

Temporal lobe epilepsy is marked by seizures in the brain’s centers for learning and memory. One part of the lobe, the dentate gyrus, is believed to work as a gate, regulating the activity of brain cells that help to discriminate between similar memories.

But epilepsy rewires the dentate gyrus; some cells die, and new neurons and connections arise in the wrong places. The rewiring is one factor allowing seizures to develop, but the effect on memory is not clear.

In the study, epilepsy patients took image-recognition tests, which revealed the patients’ difficulty discriminating between similar memories. In testing, epileptic mice typically confused new situations with their memory much as the humans did. Subsequent analysis showed that, in normal mice, the dentate gyrus transformed similar input patterns into easily distinguishable output patterns, like similar but different memories. In epileptic mice, a subset of neurons failed to separate patterns.

The team theorizes that these deficits simultaneously cause susceptibility to seizures. If so, the findings could lead to better care for patients, particularly if the research helps investigators differentiate between damaged brain cells and normally functioning ones.

The study received support from Lily’s Fund for Epilepsy Research.
Stem Cells and Regenerative Medicine

A LONG BUT PROMISING ROAD

When I joined the University of Wisconsin School of Medicine and Public Health (SMPH) faculty in 1996, my efforts focused on researching and treating abnormal heart rhythms and heart failure. In 1998, I read a paper in Science, in which Dr. James Thomson described the first successful derivation of human embryonic stem cells (hESCs) here at UW-Madison. These cells are pluripotent (can form any cell type) and self-renewing (can grow indefinitely in culture).

After meeting Dr. Thomson, I turned my cardiovascular research in a new direction as it became clear that hESCs could provide a uniquely powerful tool—human heart cells—for my laboratory. Other UW-Madison investigators began studying hESCs with the help of Dr. Thomson, and researchers around the world became interested in hESCs. The press heralded the clinical promise that if hESCs could form any cell type in the body, then they could provide replacement cells or tissues for a wide array of degenerative diseases. In turn, patients with debilitating diseases jumped at this research. However, the timelines to realize potential cures had been wildly optimistic. Researchers emphasized that the first impact of this discovery would be studies exploring human biology, but that clinical applications would be at least a decade away.

Much has changed since that 1998 discovery. One of the most important advances empowered by hESC research has been the discovery of methods to reprogram adult human cells back into human induced pluripotent stem cells (hiPSCs), independently published by Dr. Thomson and Dr. Shinya Yamanaka in 2007. This opened powerful avenues for patient-specific applications.

The development of methods to differentiate hESCs and hiPSCs, collectively known as human pluripotent stem cells (hPSCs), to specific cell types represents another area of important advances. Many UW-Madison investigators developed methods to more efficiently direct differentiation of hPSCs to cell lineages, including cardiomyocytes, neurons, blood cells, pancreatic islet cells and more.

Through ever-improving methods to generate more-refined cell types from hPSCs, the differentiated cells have been put to work. For example, cardiomyocytes from hiPSCs from a patient with an inherited arrhythmia syndrome can be used to understand the underlying mechanisms causing abnormal heart rhythms. Likewise, a genetically diverse panel of hPSC-derived cardiomyocytes can be used to screen for drugs that may improve contraction of the heart or predict potential toxicity. Ongoing studies using different cell types derived from hiPSCs are addressing a broad range of diseases and biological questions.

Investigators quickly recognized that to fully harness the promise of hPSCs, multidisciplinary efforts were needed. The WiCell Institute, funded by the Wisconsin Alumni Research Foundation, was the first organization to provide UW-Madison investigators access to hESC lines for research. WiCell hosted the National Institutes of Health-funded National Stem Cell Bank and has emerged as a leading source of hPSC cell lines for investigators around the world. WiCell also provides qualified reagents and the necessary testing.

In 2007, UW-Madison launched the UW Stem Cell and Regenerative Medicine Center (SCRMC), which now includes more than 100 investigators spanning six colleges/schools and 42 departments. The SCRMC brings together investigators across a broad range of disciplines to foster collaborative research, training and clinical translation. Waismann Biomanufacturing also has contributed to advancing translational applications with hPSCs by providing access to necessary clinical-grade manufacturing processes. Most recently, UW Health’s Program for Advanced Cellular Therapies has been engaged in bringing cell-based therapies to patients. Concurrently, more than a dozen start-up companies have emerged from UW-Madison research in this area.

Although UW-Madison got an early start in this field, the global undertaking includes rapidly expanding investments by funding agencies, universities and companies. Today, the worldwide regenerative medicine market is estimated at more than $30 billion.

And what about those cures imagined long ago? It turns out that cell products relative to small molecules are more challenging to manufacture and characterize, leading to longer timelines. Such challenges have been recognized by the National Science Foundation, which created the Engineering Research Center for Cell Manufacturing Technologies, in which UW-Madison investigators are major participants. It is exciting to see initial clinical trials underway using hPSC products for patients with type I diabetes, Parkinson’s disease, macular degeneration and heart failure.

Research will continue to surprise us with new opportunities to advance regenerative medicine approaches such as gene-editing technology. The promise remains great, but the journey is far from over.

Timothy J. Kamp, MD, PhD
Professor, Departments of Medicine, and Cell and Regenerative Biology, and the Herman and Ailene Tuchman Chair in Cardiology, UW School of Medicine and Public Health; Director, UW Stem Cell and Regenerative Medicine Center
... OR DO I?

If you think you can identify the person in the photograph at right, send your guess to quarterly@med.wisc.edu. We’ll draw one of the correct responses and announce the winner in the next issue of Quarterly.

For the last issue (see below), Jean M. Loftus, MD ’88, FACS, won the prize drawing and will receive a gift from the Wisconsin Medical Alumni Association!

HINT ABOUT PHOTO ABOVE:
This alumnus also served as an administrator at the UW School of Medicine and Public Health.

ABOUT LAST ISSUE’S PHOTO:
In the last issue of Quarterly, 13 people correctly identified the photo of Kathryn S. “Kathe” Budzak, MD ’69, who served on the Wisconsin Medical Alumni Association (WMAA) Board of Directors for several years, including a term as president, and continues to share her wisdom on its Board Advisory Council and Quarterly Editorial Board.

University of Wisconsin School of Medicine and Public Health (SMPH) classmates Barry H. Usow, MD ’69 (PG ’74), and Mary B. Metcalf, MD ’69, wrote about their “famous” class, which has ample Badger pride.

About Budzak’s longtime dedication as their co-class representative—a role she shares with John “Jack” Woodford, MD ’69—Metcalf noted, “Kathe has kept up with more of our classmates than anyone, and she has kept us informed. She really has taken care of our class!”

She said Kathe and Archie Budzak always welcome alumni to Madison.

Metcalf also recalled, “Kathe and I were among a small group of women who entered medical school here in the fall of 1965. We were always very supportive of each other. Kathe has been my friend ever since the first weeks of medical school. I was so impressed that she started medical school with two young daughters.”

Those daughters—Ann E. Budzak Garza, MD ’86, and Lynn M. Budzak, MD ’90 (PG ’93)—also identified their mom. Both earned medical degrees at the SMPH and became physicians.

Remembering Kathe Budzak as being helpful during her own medical school days, Jean M. Loftus, MD ’88, FACS, said, “She was always approachable and practical in everything she did.”

Before she retired, Kathe Budzak was an urgent care physician at Dean Medical Center in Madison.

David A. Sorber, MD (PG ’82), who worked with Kathe Budzak at Dean Medical Center—where he continues to work—said, “I know she has always been active with the [SMPH] alumni and has provided a link for much of that time between us at Dean and the university.”
Please send us information about your honors, appointments, career advancements, publications, volunteer work and other activities of interest. We’ll include your news in the Alumni Notebook section of Quarterly magazine as space allows. Please include names, dates and locations. Photographs are encouraged.

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