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Convenience and Broaden
Experts' Reach

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QUARTERLY

The Magazine for Alumni, Friends,
Faculty and Students of the University of Wisconsin
School of Medicine and Public Health

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MAY 2020

Friday, May 8

UW-Madison Commencement
(Plans underway for a virtual event)

JUNE 2020

Thursday, June 4,
through Saturday,
June 6

Spring Alumni Weekend
Reunions for the Classes of
1955, '60, '65, '70 and '75, and the
Half-Century Society for all alumni
who graduated before 1970
(Events to be virtual or postponed)

SEPTEMBER 2020

Friday, September 25

Middleton Society Dinner

OCTOBER 2020

Friday, October 30,
and Saturday, October 31

WMAA Board of Directors Meeting
Reunions for the Classes of 1980,
'85, '90, '95, 2000, '05, '10 and '15
Homecoming Football Game

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The laboratory collaborates with local, state and national entities to rapidly address public-health threats.

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Magnolia trees on campus are among the first signs of spring each year.

—Photo by Jeff Miller/UW-Madison

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Through UW Health's Care Anywhere program, Katie Locke conducts a video visit for her daughter without having to leave home.

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ROBERT N. GOLDEN, MD



Between the time I composed the first draft of this message and the arrival of page proofs for my review in mid-March, the COVID-19 pandemic exploded here in Madison and across our state and nation. Suffice it to say, this is one of the most serious public health and medical crises that we have experienced in a generation. In that context, as I now reread my original draft message below, the main theme is chillingly relevant. I have decided to leave the original paragraphs that follow intact, hoping that you will find solace in the tone of optimism and celebration.

As we continue to gain national recognition for our school's transformation, interested parties often ask, "What does it mean to be a school of medicine and public health?" Several articles in this issue of *Quarterly* magazine illustrate our vision and highlight programs that successfully meld these fields.

Numerous programs extend the University of Wisconsin School of Medicine and Public Health's (SMPH) reach to the borders of

our state and beyond. For instance, you will read about faculty members who leverage technology with telehealth programs that increase convenience for patients, foster research collaboration and bolster remote learning. Another article describes one of the state's "jewels in the crown," the Wisconsin State Laboratory of Hygiene (WSLH), now formally affiliated with the SMPH. As the state's primary emergency-response laboratory, it provides critical connections among the university, Wisconsin Department of Health Services, U.S. Centers for Disease Control and Prevention (CDC) and other regional, national and international entities aimed at tackling public-health threats. The WSLH is playing a critically important role in our state's response to the COVID-19 pandemic.

Our school serves as a "think tank" for population health efforts throughout Wisconsin. In the Perspectives column, Dr. Sheri Johnson, who became the director of our Population Health Institute in January 2018, shares her observations on health

equity. We are eager to support the progress her ideas and teamwork are certain to bring.

The SMPH's commitment to diversity—including an aim to eliminate health disparities—is a central component of our transformation. Thus, we launched our inaugural Women in Medicine and Science Symposium. Similarly, recognizing that women have been under-represented in these fields, especially in top leadership positions, we applaud three female colleagues from our academic medical center who earned UW-Madison Outstanding Women of Color Awards.

The SMPH's transformation has been shaped by values dating to our founding in 1907. One such mindset is a spirit of giving back to the people and populations we serve. We are proud of the legacy created by Dr. William Little, a 98-year-old alumnus who—for 30 years—has led a clinic that offers free and low-cost patient care. We are especially pleased that three other SMPH alumni are part of the cadre of volunteers who make that clinic possible. Similarly, the humanitarian efforts of a distinguished alumna and faculty member, Dr. Mary Landry, inspire all of us. And we share deep thanks with Dr. Ann Palmenberg, a world-renowned basic virology researcher, who is giving back to the UW Carbone Cancer Center, which saved her life, allowing her to continue her focus on scientific discoveries at UW-Madison.

By the time you read this issue of *Quarterly*, spring will have sprung in Madison and throughout the state. We look forward to the season of rebirth and rejuvenation, and we wish you and yours health and wellness during the months and years ahead.

Robert N. Golden, MD
*Dean, University of Wisconsin
 School of Medicine and Public Health
 Vice Chancellor for Medical Affairs,
 UW-Madison*

Greetings, medical alumni and friends! Along with the staff of your Wisconsin Medical Alumni Association (WMAA), my heart goes out to each of you as you work through many factors related to the COVID-19 pandemic that is sweeping our nation and world. We have all done as much as possible to adapt, and we are grateful to our alumni—graduates of the University of Wisconsin School of Medicine and Public Health (SMPH) working throughout the United States and many who practice abroad—who are on the front lines of patient care and public health in this global situation. Thank you, a million times over, for everything you are doing!

Working remotely, our staff is continuing to plan for future events. This effort includes determining which events will need to happen with the assistance of technology, such as creative “WebEx reunions,” and those that can be postponed to an appropriate time. Like others nationwide, our plans will evolve based on the timing of when public-health officials deem it safe to gather in person. Please watch for e-mails from the WMAA and/or your class representatives. We’ll share details as they become available. We also encourage you to connect with us by searching “@uwmedalum” on Facebook and Instagram to keep in touch with the WMAA and with your fellow alumni. We also will post updates on the WMAA web site (med.wisc.edu/alumni). Please update your contact information via our web site so we are sure to keep you informed. You can do this by going to our web site and looking for the headline, “Let Us Know How to Reach You,” where you’ll find a link to “Update Your Information.” Or you can enter the following

URL into your browser: med.wisc.edu/alumni/update-your-information/

In *Quarterly* magazine, we always enjoy the opportunity to recognize the profound activities of our alumni and the SMPH’s faculty, staff and students. In this issue, we feature inspiring examples of each. For instance, our Alumni Profile shines a spotlight on Dr. William Little, who has been the medical director of a free and low-cost health care clinic in his hometown of Racine, Wisconsin, for 30 years. We applaud the efforts of three additional SMPH alumni who volunteer at the clinic.

In the Know Your Class Representatives section, several alumni share memories of their time at the SMPH, updates about their current lives and other messages for classmates.

On page 18, we include photos from a WMAA-hosted reception that brought together alumni who live and work in Phoenix and others who were in that city for the annual meeting of the Association of American Medical Colleges. I would like to thank our Phoenix co-hosts—Margaret Behrens, MD ’78, Andrea DeMets, MD ’02, Harold Gries, MD ’69, and Rebecca Hawkins, MD ’78 (PG ’81)—who encouraged others to attend.

In the next issue of *Quarterly*, we’ll share photos of the festive, interactive way our fourth-year medical students held Match Day via WebEx due to the requirement to practice social distancing. This spring, we’ll also celebrate remotely with these resilient medical students, who will participate in a “virtual” graduation ceremony before they begin the next chapters of their lives in residencies and other meaningful endeavors.

KAREN S. PETERSON



Last but not least, I send my deepest thanks to everyone who has supported the SMPH and WMAA throughout the year. Your gifts of time, treasure and talent have helped us achieve many goals.

To learn more about upcoming and past activities of the WMAA, please visit our web site (med.wisc.edu/alumni) or check out our Facebook page. You’re also welcome to send us an e-mail at WMAA@wisc.edu or call (608) 263-4915. We always love to hear from you!

Karen S. Peterson
Executive Director,
Wisconsin Medical Alumni Association



Through the e-ICU Program, UW Health critical-care experts monitor intensive-care patients 24/7 from a central location in Madison.

Telehealth

INNOVATIVE PROGRAMS BROADEN EXPERTS' REACH

When Alexander Graham Bell first called his assistant, Thomas Watson, he may have been doing more than proving that the human voice could transmit over a wire. At least one sociologist claims that Bell's first telephone call was for medical assistance, contending that he had spilled battery acid on his shirt and wanted Watson's help.

Whether or not this was the first example of "telehealth," today's universe of technology—which helps caregivers evaluate, diagnose and treat patients remotely—certainly got its start with the lowly analog phone. Fast forward 150 years to the digital world, and health-care professionals have at their fingertips a huge range of possibilities to improve patients' access to care and allow them to take an active role in understanding and managing their health.

At the University of Wisconsin School of Medicine and Public Health (SMPH) and UW Health, faculty and staff are developing and using creative approaches

to care for patients, conduct research, educate future caregivers and share their knowledge—whether their patients, collaborators or trainees are across the street or around the globe. This article provides a sampling of the numerous telehealth-related services available through this academic medical center.

e-ICU Program

In 2008, UW Health was among the first health-care systems in the United States to establish an e-ICU Program. Enrolled hospitals can take advantage of specialty expertise from UW Health's critical-care physicians and nurses who monitor intensive-care patients 24/7 from a central location. Designed as an extra level of support for hospitals with limited access to critical-care expertise, the "virtual" intensive care unit uses a camera and microphone in the patient's room to keep a close eye on vital signs and other factors. The e-ICU staff in Madison obtain clinical data about patients over private data lines and can help quickly flag emerging problems before they become life-threatening situations. In addition to

this real-time monitoring of patients, the e-ICU Program gives participating hospitals trending data that will improve the care of future patients. Nationally, studies have shown that such virtual ICUs can reduce complications and improve patient outcomes.

Primary-Care Video Visits

In fall 2017, UW Health introduced Care Anywhere, a video-visit option for patients who have urgent but relatively minor health problems. By simply downloading the app or logging onto a web site, patients have round-the-clock access to video consultations with physicians or advanced practice providers. Patients can seek care for many conditions, from allergies to coughs to sprains.

The service has proven extremely popular with patients, who value the ease of getting care quickly without leaving home. In the most recent ranking, patients gave Care Anywhere a 4.7-star rating on a 5-star scale.

Another popular feature: The average Care Anywhere visit takes less than seven minutes. Further, out of 407 completed

video visits in December 2019, 178 patients said they would have gone to urgent care if they hadn't used the remote option. Seven indicated they would have gone to the emergency department, and 37 would have traveled to their doctor's office.

Vision-Preserving Care

As a board-certified ophthalmologist, Yao Liu, MD, MS '18, observed the rising national rates of diabetes and knew it would result in more cases of blindness because diabetic retinopathy is the leading cause of blindness in working-age adults in the United States. Early detection and treatment can reduce the risk of blindness from this condition by more than 90 percent, but for a variety of reasons, fewer than 60 percent of diabetic patients get the recommended yearly eye exams.

In 2015, Liu, an assistant professor in the SMPH Department of Ophthalmology and Visual Sciences, received a New Investigator Grant from the Wisconsin Partnership Program to conduct research into why diabetic patients do or do not get screened. Then, working closely with health-care providers at Mile Bluff Medical Center in Mauston, Wisconsin, she and her team piloted a teleophthalmology program. Diabetic patients seen at Mile Bluff for primary care could have retinal images captured by camera there. The images were then sent to UW-Madison for analysis and grading. Patients who had signs of eye damage were referred for in-person evaluation by their local physicians.



Choosing the convenience of UW Health's Care Anywhere Program, Katie Locke conducts a video visit for her daughter without needing to pack up her family and head to the clinic.

In 2019, Liu evaluated data from the first three years of the program. The results far exceeded her expectations: Mile Bluff and its network of local clinics saw a 35 percent increase in the number of eye screenings among diabetic patients.

"Teleophthalmology has tremendous potential to prevent blindness, and it will be critical to meet the growing need for eye care among diabetic patients," Liu says. "The technology continues to improve, and we have a better understanding of the workflow, training and communication issues that need to be addressed for this kind of approach to be successful."

Realizing that approximately 1.5 million Wisconsinites live in rural areas, Liu is

working to expand the reach of the program beyond the Mile Bluff network. Primary care patients at UW Health's East Clinic and Yahara Clinic in Madison now have access, along with Fort Healthcare in Fort Atkinson, Wisconsin. Liu also is developing a toolkit for health-care organizations across the state to adopt teleophthalmology and—through a National Eye Institute grant—she and her team are working to further test and refine the program.

Telestroke Service

The U.S. Food and Drug Administration's approval of tissue plasminogen activator—widely known as tPA, the medication that can break up clots in the brain—revolutionized stroke care in the late 1980s. Its introduction made it possible to intervene, ideally very early in the course of a stroke, to prevent catastrophic damage and disability among ischemic-stroke patients.

Soon afterward, health-care systems began to develop "telestroke" networks around the country. Using video cameras, microphones and computers, a telestroke network gives participating hospitals

—Continued on page 32

In Mauston, Wisconsin, a woman participates in a teleophthalmology visit with experts from UW Health and the UW School of Medicine and Public Health.



Telehealth and the Academic Mission

As telehealth programs expand nationally, several faculty members at the University of Wisconsin School of Medicine and Public Health (SMPH) are researching and using telehealth tools geared toward their specialties. Among them is Kara Hoppe, DO, MS '19, assistant professor, Department of Obstetrics and Gynecology. Her team tested an innovative telehealth approach to managing severe hypertension in postpartum women after hospital discharge.

About 10 percent of pregnant women (22 percent in Wisconsin) are affected by disorders related to high blood pressure. Even for women with normal pressures, it is common for blood pressure to drop after delivery but rise after going home from the hospital. Hypertensive disorders of pregnancy are the most common diagnoses associated with postpartum readmissions, and consequences of unrecognized or untreated hypertension can be serious.

Hoppe's team conducted an original feasibility study based on more than 1,400 deliveries at UnityPoint Health-Meriter Hospital in Madison. Nineteen percent of the patients (263) had hypertension—specifically chronic, gestational, pre-eclampsia or eclampsia—during pregnancy. The 55 study participants received a tablet computer, blood-pressure cuff, weight scale and oxygen sensor. Researchers collected their data, and women without symptoms of severe hypertension were treated successfully at home.

Of participants, 16 percent developed severe hypertension after discharge, and 53 percent needed treatment, but none required re-admission to the hospital. In addition, 84 percent of participants said they preferred the telehealth approach rather than having to visit a clinic or hospital.

The team conducted a further non-randomized clinical trial of 428 women to investigate whether home telehealth with

remote blood pressure monitoring versus standard postpartum outpatient care would reduce readmission rates in women with hypertension during pregnancy. Researchers note that the telehealth approach with linked interventions to manage postpartum hypertension was associated with reduced hospital readmissions compared to standard care.

UnityPoint Health-Meriter found the results so persuasive that its Obstetrics and Gynecology Service instituted a blood-pressure telemonitoring service for postpartum women. In 2019, the program served 887 patients.

Hoppe says early research findings extend those of previous studies, but more research is needed to assess the value of the approach in various populations.

As another example of telehealth in academic medicine, Jonathan Kohler, MD, assistant professor, Department of Surgery, heads a range of collaborative learning projects using video. These include Project ECHO (Extension Community Healthcare Outcomes), which is part of an international program to share medical expertise with other practitioners. The SMPH is one of 120 "hubs" in the nationwide program, and the only one delivering content for pediatric emergency care, as well as primary-care management of surgical diseases. Kohler also created a statewide opioid-education initiative, Safer Prescribing of Opioids after Trauma and Surgery, and an interactive seminar on the management of pediatric umbilical hernias through the Surgical Collaborative of Wisconsin.

Kohler and his colleagues offer a teleconference that supports community providers across the health care spectrum as they treat complicated pediatric cases. Sessions include discussions about cases and situations submitted by participants.



Kara Hoppe, DO, MS '19

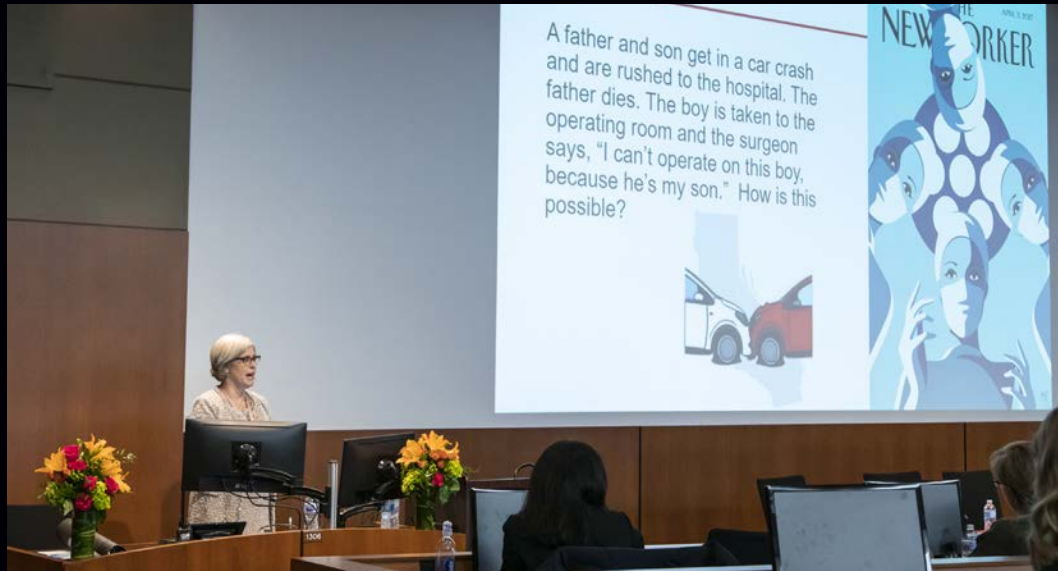
Department of Family Medicine and Community Health (DFMCH) faculty and staff also participate in Project ECHO. In conjunction with the Wisconsin Department of Health Services, the DFMCH offers telementoring for addiction treatment and videoconferences about substance abuse.

Additionally, Alexander Lepak, MD '05 (PG '08, '10), assistant professor, Department of Medicine, developed a tool within the medical-records system to alert physicians when a patient has a positive blood culture for *S. aureus*. Infectious-disease consultation for these patients is associated with a 50 percent decrease in patient morbidity and mortality. Lepak is among three SMPH faculty members who are leading the multidisciplinary UW Health Antimicrobial Stewardship Initiative to improve accessibility to infectious-disease expertise via telehealth to optimize the use of antimicrobials and improve patient outcomes.

Women in Medicine and Science

THOUGHT LEADERS GATHER AT INAUGURAL SYMPOSIUM





Opposite page, top row (left to right): Molly Carnes, MD, Caprice Greenberg, MD, MPH, Azita Hamedani, MD, MPH, Christina Hull, PhD, and Terri Young, MD, MBA, serve on a panel. Bottom row: Christine Seibert, MD, addresses the crowd; attendees filled a hall at the Health Sciences Learning Center. Above, top row: Amber Sheth, M2, fields a question; Greenberg shares a presentation. Bottom row: Small groups converse.

At the inaugural Women in Medicine and Science Symposium, held in November 2019, hundreds of participants gathered at the Health Sciences Learning Center on the University of Wisconsin-Madison campus. Hosted by the UW School of Medicine and Public Health (SMPH), the afternoon event highlighted thought leaders who explored topics in leadership and professional development for women in medicine and science.

Christine Seibert, MD, associate dean for medical student education and services, thanked the event planners, as well as its sponsors, including the SMPH's Office of Faculty Affairs and Development and the school's Building Community initiative. She said the gathering was set in motion and led by Mary Westergaard, MD, associate professor and vice chair of education in the BerbeeWalsh Department of Emergency Medicine.

Keynote talks, a panel discussion and networking reception offered participants many opportunities to learn and converse. In reflecting on the connections made, Seibert noted, "This first-ever event absolutely met its goals for women and their sponsors to be inspired, engage in honest discourse about the challenges for women in medicine, and join together to promote positive change."

Wisconsin State Laboratory of Hygiene

YOUR PUBLIC HEALTH PARTNER

WSLH virologist Kyley Guenther prepares respiratory virus specimens.

by Jan Klawitter

As the 2019 Novel Coronavirus (COVID-19) spreads across the globe, scientists at the Wisconsin State Laboratory of Hygiene (WSLH) at the University of Wisconsin-Madison respond in the tradition set by their predecessors from the lab's founding in 1903—providing accurate testing for Wisconsin physicians to protect the health of the state's residents.

The WSLH was the first public-health laboratory in the United States to be placed in a university rather than a state health department. The intent was to take advantage of the expertise of UW-Madison faculty, primarily in infectious diseases, to serve the needs of the then State Board of Health. In the 117 years since, the WSLH's role has expanded far beyond that—now also including newborn screening, genetics, cytology, and environmental and occupational health—for Wisconsin, as well as the nation

and world. However, the laboratory's core mission to “improve and protect the human condition by providing accurate and precise testing, service, research and education” remains the same.

“The State Laboratory of Hygiene exemplifies the Wisconsin Idea from our beginnings to the present day,” says WSLH Director and UW Civil and Environmental Engineering Professor James Schauer, PhD, MBA, PE. “We are the only state public-health lab that is truly integrated into a university, and that makes us unique.”

The WSLH is a key partner with the UW School of Medicine and Public Health (SMPH). Past WSLH directors have served as chair of the Department of Preventive Medicine (now the Department of Population Health Sciences) and the Department of Pathology and Laboratory Medicine. Today, WSLH scientists hold Center for Health Sciences (CHS) and adjunct

faculty appointments in the Departments of Pediatrics, Pathology and Laboratory Medicine, and Medical Microbiology and Immunology.

“While the relationship between the WSLH and the medical school has a long history, the increased commitment of the SMPH to public health in the 21st century is leading to even stronger collaborations focused on public-health issues, as well as synergies in the development of shared infrastructure and databases necessary for public-health research,” notes Richard Moss, PhD, SMPH senior associate dean for basic research, biotechnology and graduate studies, and the UW-Madison chancellor's representative on the WSLH Board of Directors.

The WSLH plays a vital role as the state's lead laboratory partner, working in concert with the Centers for Disease Control and Prevention (CDC) in Atlanta and the

Wisconsin Department of Health Services (WDHS) to rapidly address various threats.

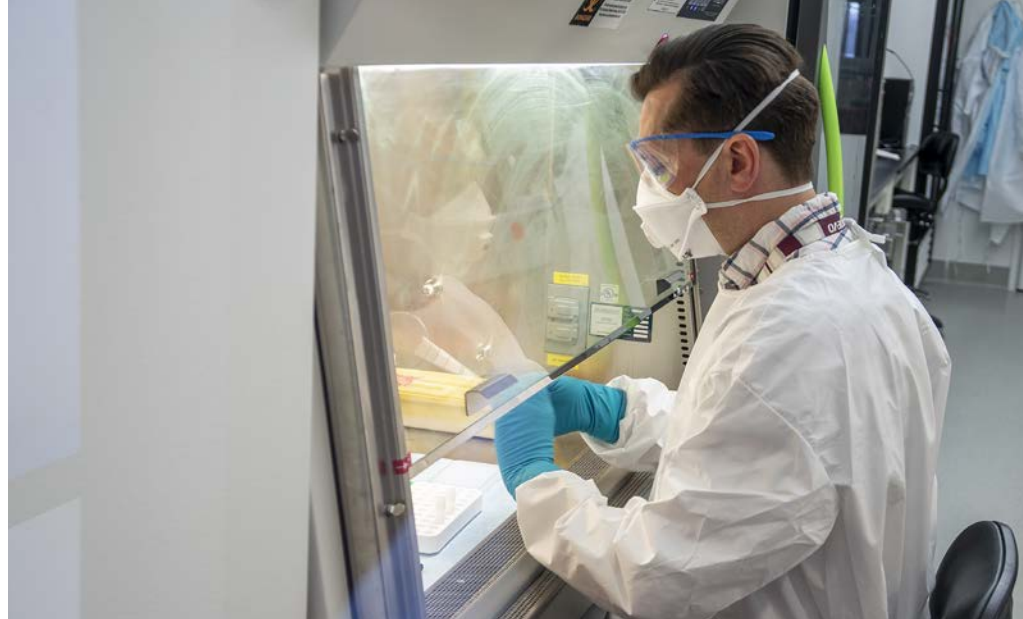
As the state's primary emergency-response laboratory, the WSLH receives CDC funding to perform cutting-edge molecular testing to rapidly and accurately diagnose biological public-health threats, including COVID-19, Zika, Ebola and pandemic influenza viruses. In cases of novel pathogens, the lab performs initial testing with CDC-developed methods, and it works with clinical laboratories around the state to help them develop diagnostic capabilities as commercial test methods become available.

"The WSLH is a linchpin in both state and national laboratory response networks," says Peter Shult, PhD '84, director, WSLH Communicable Disease Division and Emergency Response. "We help link the CDC with the 130+ hospital-based clinical labs around the state in order to face emerging infections, as well as more localized outbreaks. Only by working together at the national, state and local level can we meet all these threats."

The WSLH also is a Level 1 chemical emergency-response laboratory serving as a surge capacity laboratory for the CDC. The WSLH Chemical Emergency Response Unit was the first lab in the United States to provide quantitative diagnostic testing in 2018 as part of the multi-state brodifacoum-laced synthetic cannabinoid outbreak, and it has been actively involved in the 2019-2020 vaping investigation. In addition, the WSLH Forensic Toxicology Unit is receiving CDC funding and is actively involved with the WDHS on opioid-use surveillance.

During emergencies and normal times, WSLH scientists also are:

- conducting routine communicable-disease surveillance testing to inform physicians and public-health staff of pathogens circulating in the state;
- testing approximately 64,000 newborn babies annually for 47 different disorders that could lead to severe health outcomes if left untreated;



WSLH lead virologist Erik Reisdorf processes specimens for COVID-19 testing.

- screening clients of family-planning clinics for cervical cancer, and conducting histologic examination of biopsy material for follow-up;
- performing cytogenetics and molecular and biochemical genetics testing for patients throughout the state;
- testing water, air, soil, fish and sludge for environmental contaminants, including emerging contaminants like PFAS;
- keeping workers safe and healthy through occupational-health testing, on-site consultations and data analysis;
- performing alcohol and drug testing on suspected impaired drivers and in coroner- and medical examiner-led death investigations; and
- conducting research, teaching classes at UW-Madison, and training graduate students and working professionals in Wisconsin, the nation and the world.

"The WSLH is a leading innovator among public-health laboratories in the development and validation of novel diagnostic assays, in newborn screening, and in collaborations with the UW Center for Human Genomics and Precision Medicine in genomic applications in medicine," explains Moss. "The collaboration between the WSLH and the SMPH is advancing clinical care. For example, newborn screening for spinal muscular atrophy, an initiative led by Dr. Mei Baker—who is jointly appointed in

the laboratory and the SMPH Department of Pediatrics—identified a newborn with the disease. Early detection resulted in the application of a new gene-based therapy that is most effective before symptoms of the disease are evident."

Jonathan Temte, MD '87, PhD, a professor in the SMPH Department of Family Medicine and Community Health, and the school's associate dean for public health and community engagement, has had a long working relationship with the WSLH through his research about immunization practices and viral-disease surveillance in primary care.

"I have been blessed to work with many mentors, partners and close colleagues within the Communicable Disease Division over the past 25 years. In my work with the CDC, I have been constantly reminded of the high regard people in that agency and other similar organizations hold for the WSLH, across the nation and around the globe," says Temte.

Reflecting on the WSLH's role in the state and beyond Wisconsin's borders, Schauer notes, "Through our wide-ranging activities, the WSLH is touching the lives of most Wisconsinites in some way every day. We are proud of our past and even more excited for our future opportunities and collaborations."



There's more online!
See www.slh.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 celebrating milestone years since they earned their medical degrees.

Eugene Weston, MD '55

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

I completed my surgery residency at UW Hospital and Clinics (now called UW Health) and served as chief resident. I then served for 10 years in the U.S. Air Force. Following my military service, I was a surgeon in Colorado, where I was an associate professor at the University of Colorado in Denver. I also practiced in Wisconsin and California. I retired in 1990, and I live in Broomfield, Colorado.

What's your fondest memory of medical school?

I will always remember my great classmates. The same year we graduated, I married Marge Weston, who was a nurse (she passed away in 2016).

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

Drs. William Middleton, William Young and Joseph Gale were particularly memorable.

What are your hobbies/interests?

I am a private pilot, with more than 3,000 hours of flight experience in six planes. In addition, I have enjoyed traveling throughout the United States and Europe, and I have been to Australia and China.

Charles Ihle, MD '65 (PG '70)

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

I completed an internship at St. Mary's Hospital in San Francisco and an orthopedic residency at UW Hospital and Clinics. Following active duty at a U.S. Naval Hospital in Taiwan, I established a private practice—the Ihle Orthopedic Clinic—in Eau Claire, Wisconsin, where I practiced until 1998. Next, I practiced at Midelfort Clinic, part of the Mayo Clinic Health System in Eau Claire until I retired in 2014.



What's your fondest memory of medical school?

My fondest memory from my medical school years is participating for four years on the Wisconsin Rugby Club Team; two other classmates also played on the team. Additionally, during my residency years, I spent time in England and Switzerland, with Dr. Andrew McBeath. Back then, orthopedic physicians did all types of work. He was interested in joint-replacement surgery and was among the first in Wisconsin to perform a hip replacement. I also performed that procedure during my career.

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

Dr. Otto Mortenson was my first-year gross anatomy professor and served as my mentor throughout medical school.

What are your hobbies/interests?

My wife, Rebecca Ihle, and I built a cottage on a lake north of Eau Claire, Wisconsin. Since I retired, we have made it our year-round home and enjoy the peace of northern Wisconsin. We enjoy traveling, bicycling and boating, including kayaking.

Other news

I joined the WMAA in 1975, became a member of its Board of Directors in 2004 and serve on the Board Advisory Council.

Sandra Osborn, MD '70

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

Following medical school, I completed my first two years of a pediatric residency at the University of Iowa, and completed my third year at UW Hospital and Clinics (now called UW Health). I entered pediatric practice at the East Madison Clinic, which eventually merged with Dean Clinic. I continued practicing there and at St. Mary's Hospital in Madison. I am now retired.



What's your fondest memory of medical school?

I will always remember our anatomy class, and I treasure my lifelong friendship with my classmates Dr. Paul Wertsch and his wife, (the late) Dr. Kay Heggstad.

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

Dr. James Pettersen was a wonderful instructor who wanted everyone to succeed.

What are your hobbies/interests?

My husband, Marshall Finner, and I stay busy with our family, including our combined five adult kids and many grandchildren. We live in Verona, Wisconsin. I also enjoy doing projects, such as cross-stitch, and playing handbells.

Other news?

I served as the class mentor for the SMPH Class of 2006. I was able to go to all of their classes for one year, but I did not have to take the tests. I served for several years on the WMAA Board of Directors and am now on the board's Advisory Council. I also am a member of the Mini Med School Board of Directors and enjoy attending the many interesting programs in that series.

Connie Smith Barr, MD '75

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

I practice internal medicine. After medical school, I did an internal medicine residency and chief residency, followed by a medical-psychiatric liaison fellowship at Massachusetts General Hospital in Boston. Since then, I have worked in the Boston suburbs for Dedham Medical Associates, an independent multispecialty group that is part of Atrius Health.

What are your hobbies/interests?

My family keeps me busy. I married a widower who had three teenagers, and we had two children together. I have

loved raising our children and enjoy our 11 grandchildren. Our whole family is in New England. I have been involved in the Needham (Massachusetts) School District, in steadily changing roles. I'm serving my fifth term on the school committee, which some regions call a school board. I also have enjoyed participating in local nonprofits and have served on the Harvard Pilgrim Health Care Board for 14 years. About five years ago, I was asked to perform in a local Dancing with the Stars event, and I have done ballroom dancing ever since. Hopefully this hobby and twice-weekly Zumba are helping keep my brain healthy and my balance intact.

Half-Century Society— Roger Rathert, MD '66

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

I completed a rotating internship and pediatric residency with the U.S. Army, and I served in Belgium at the Supreme Headquarters Allied Powers Europe for three years. After discharge in 1977, I joined a small group practice in Neenah, Wisconsin, where I worked for 21 years. I served as a member of the practice's board of directors for nine years and director of physician recruiting for 12 years, during which time we grew to more than 120 physicians. I left the group to join a physician recruiting firm, specializing in searches for physician executives, including department chairs, medical directors, and in one instance, a medical-school dean.



What's your fondest memory of medical school?

I have many fond memories of medical school and my classmates. Our Class of 1966 was not shown our grades until after graduation, a result of the savage competition that occurred in previous

classes. I think that resulted in a special sense of mutual support and camaraderie among us.

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

I especially remember Drs. Charles Lobeck and Mark Hanson, both pediatricians, and both of whom steered me to my career choice. They were outstanding practitioners and friendly, outgoing and approachable teachers and gentlemen.

What are your hobbies/interests?

My hobbies include cooking, music appreciation, photography and alpine skiing. My wife and I spend at least three months each year in Colorado, where we are able to ski for more than 60 days each season in the mountains.

Other news?

Next year, my classmates and I will celebrate our 55-year reunion, so I plan to contact each of them and encourage them to watch for details about our future reunion.

CLASS REPRESENTATIVES HONORING MILESTONES

1955: Eugene Weston, MD

1960: Representative needed

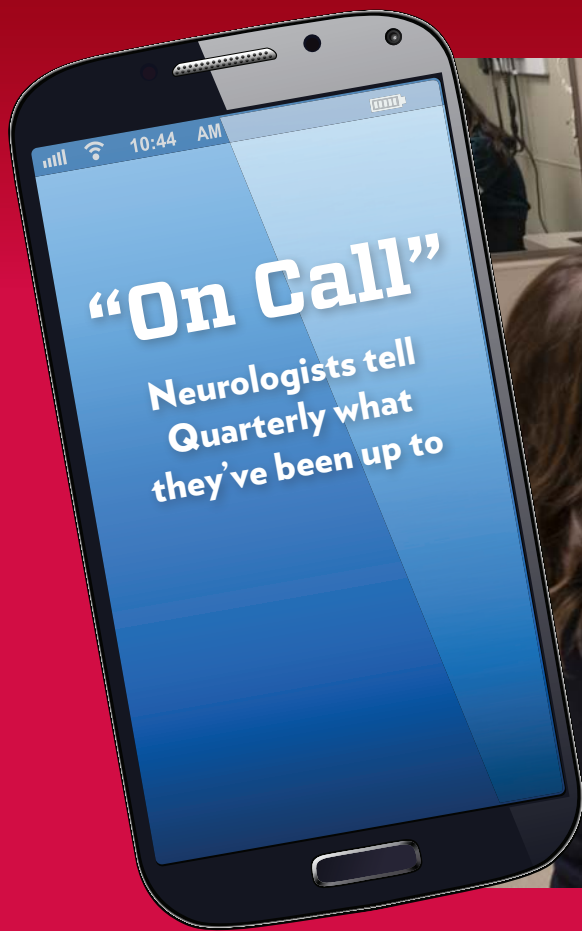
1965: Charles Ihle, MD

1970: Sandra Osborn, MD

1975: Connie Barr, MD

Half-Century Society: Roger Rathert, MD '66

This society is for any alumni who graduated 50 or more years ago.



A UW Health provider examines a patient in the Pediatric Headache Clinic.

ELIZABETH FELTON, MD '09, PHD '07

I am a neurologist at UW Health, where I specialize in epilepsy. I direct the Ketogenic Diet Program and co-direct the Women's Epilepsy Clinic.

I also have interests in neurostimulation and patients' transition from pediatric to adult care. In the Adult Epilepsy Dietary Therapy Clinic, I care for patients who have tried many medications and treatments, including surgery, with incomplete control of seizures. Several have experienced significant seizure reduction and quality-of-life improvements on a ketogenic diet. Some have

been able to return to work after being on disability, and others have regained driver's licenses. Several have had their longest seizure-free period in years.

As a medical student, I had a strong interest in neurology. During the doctorate portion of my dual-MD/PhD program, I interacted with neurologists, neurosurgeons and neurology patients. I became interested in the ketogenic diet for epilepsy while working with Dr. Carl Stafstrom. He has since moved to Johns Hopkins Hospital in Baltimore, Maryland, where I completed a neurology residency and an epilepsy

fellowship. I subspecialized in epilepsy because I enjoy both the acute and chronic management of patients with seizures, and I enjoy working with adults and children.

In 2015, I joined UW Health and the UW School of Medicine and Public Health, the latter as an assistant professor in the Department of Neurology. For my first few years here, I was in the Centennial Scholars Program. One of its goals is for scholars to serve as role models for trainees from under-represented minority backgrounds. I am committed to this goal because I have benefited from several programs



targeted at the success of minorities in science, engineering and medicine. I would not be in this position today were it not for those programs, so I feel it is my duty to give back.

I recently joined the Professional Advisory Board of the Epilepsy Foundation of Wisconsin. I'm also a member of several state and federal societies in neurology.

DAVID MCKEE, MD '87

Toward the end of my third year in medical school, I was fairly certain that I would choose neurology, as I found the field very interesting. I was initially attracted by the fascinating functions and disorders of the brain.

By the time I finished my residency at Oregon Health Sciences University, I had come to find neuromuscular diseases to be satisfying. I completed a fellowship in neuromuscular diseases at the Montreal Neurological Institute and began clinical practice shortly after that.

In 1992, I opened my own practice, Northland Neurology and Myology, in Duluth, Minnesota, and see patients at several locations in northeastern Minnesota. Over time, my practice has evolved from general neurology to about 90 percent neuromuscular diseases, in which the call is light.

In keeping with my impressions during residency, my most rewarding cases have involved patients who present with severe deficits caused by immune-mediated nerve and muscle disorders. Generally,

these patients ultimately respond well to treatment.

I encourage future neurologists—and others—to give serious consideration to establishing an independent practice. Setting up a practice is not difficult; joining an existing practice is even easier. And I find it invaluable to maintain control of decisions about where and how I practice and to whom I refer patients.

I currently spend about 10 percent of my time as the medical director/chief medical officer of Integrity Health Network, an independent



practice association that helps physicians build independent practices and navigate the complexities of insurance, government regulations and contracts. I'd be glad to reach out to anyone interested in pursuing private practice.

JULIAN MOTZKIN, MD '16, PHD '14

Currently, I am a fourth-year neurology resident at the University of California, San Francisco (UCSF). I also am a post-doctoral researcher in Dr. Allan Basbaum's laboratory, where I study the neural circuits that contribute to pain.

At three diverse clinical sites—UCSF Parnassus, San Francisco General Hospital and the San Francisco Veterans Administration Hospital—I care for patients who have a variety of neurologic conditions, from peripheral neuropathy and migraines to more complex conditions characterized by

disruption of thought and loss of self. Such a practice demands rapid adjustment, from quick thinking and emergent interventions to careful consideration of extensive diagnostic workups.

My most memorable patients are those at the ends of this spectrum. I think fondly of patients who have achieved complete neurologic recovery as a result of quick recognition and decisive treatment for potentially disabling strokes. I reflect with profound gratitude on the difficult moments during which I have been able to support families as they made end-of-life

decisions for loved ones. My work feels most important in the moments I am able to be present with patients and families as they come to understand the significance of an illness.

When I complete my residency, I will begin a one-year pain medicine fellowship in the UCSF Department of Anesthesia. This will help me gain skills using multimodal approaches, including behavioral therapies, medications and procedures.

When I applied to medical school, I was already fascinated by the relationship between brain and behavior. I considered



several specialties before deciding to pursue neurology.

This is a challenging, exciting field that is evolving rapidly. In my short time in practice, I have witnessed the emergence of new tests, therapies and devices that are fundamentally changing patients' lives. For those drawn to the intersection between mind and body, this is an excellent specialty.

Class Notes

We want to hear from you!
med.wisc.edu/shareyournews

Class of 1978

Rebecca Hawkins

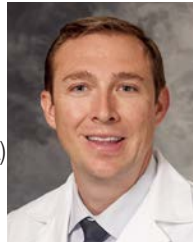
runs a charity for homeless veterans in the Phoenix, Arizona, area. She works with an organization called Community Bridges, which locates veterans on the street, gets them into the Veterans Administration health-care system and helps them apply for housing vouchers. When a formerly homeless veteran gets the key to an apartment, Hawkins brings everything that person needs to supply the bedroom, kitchen and bathroom, including cleaning and hygiene supplies. Veterans receive basic furniture from another source. Hawkins says this is a fun and rewarding endeavor full of gratitude from the veterans. As of early 2020, the organization has served 215 veterans, at a cost of just under \$30,000 in tax-deductible donations.



from across the health-care spectrum and is looking for additional interested people.

Aaron Struck

won the INFORMS Analytics Society Innovative Applications in Analytics Award (IAAA) for research in how to better predict seizures in patients with critical illness. He, along with colleagues from Harvard, Duke and Massachusetts General Hospital, conducted the research study, “Transparent Machine Learning Models for Predicting Seizures in ICU Patients from cEEG Signals.” This work is the first serious effort to develop such models for seizures in patients in the intensive-care unit, and it could have a substantial impact on the practice of critical-care medicine. Struck is an assistant professor of neurology at the UW School of Medicine and Public Health and a neurologist at UW Health.



Class of 2019

Claire Brickson, Gina Phillips, Ian Holmen, Julie Friedman, Renee Sullender (medical student who will graduate in May 2020), Steph Lakritz and Matt Guerrieri (pictured in photo below, left to right) found time to gather in Denver in late 2019 despite their hectic first-year resident schedules.



Class of 2013

Jasmine Zapata

was honored at the 12th annual University of Wisconsin-Madison Outstanding Women of Color Awards on March 5, 2020. (See article on page 19). She is an assistant professor (CHS) in the Department of Pediatrics' Division of Neonatology and Newborn Nursery at the UW School of Medicine and Public Health; she practices at the American Family Children's Hospital. Also, she is a Pediatrics and Centennial Scholar and a member of the UW Institute for Clinical and Translational Research.



Class of 2009

Chirantan Mukhopadhyay

co-founded and co-chairs the Wisconsin Health Professionals for Climate Action, in association with the Medical Consortium on Climate and Health. The group's mission is to leverage the trusted voices of health professionals to help guide creation of equitable policies aimed at reducing greenhouse emissions and securing a healthier climate. It has members



New Date for Vote about WMAA's Corporate Status

Due to the COVID-19 pandemic, the Wisconsin Medical Alumni Association (WMAA) is rescheduling the vote about its potential change from a 501c3 organization to a new model. Details can be found in *Quarterly* magazine, Volume 21, Number 4, 2019, page 23.

The vote will be done on Friday, October 30, 2020, from 3:30-4 pm, at the Health Sciences Learning Center, 750 Highland Avenue, University of Wisconsin-Madison. All WMAA members are welcome to attend the meeting and vote.



The November 2019 Medical Student Research Forum filled the Health Sciences Learning Center atrium. It's common for students to participate in research between their first and second years of medical school with University of Wisconsin School of Medicine and Public Health faculty mentors. This annual event showcases accomplishments from those experiences and additional research endeavors.

IN MEMORIAM

J. Aaron Herschfus, MD '44
Sharon, Massachusetts
December 19, 2019

Sheldon N. Lipshutz, MD '53
Reseda, California
October 3, 2019

Kenneth A. Crow, MD '64
Albany, Oregon
November 15, 2019

Alex S. Tucker, MD '75
Mequon, Wisconsin
March 21, 2020

Herbert Giller, MD '47
Milwaukee, Wisconsin
October 7, 2019

Richard L. Holder, MD '55
Black River Falls, Wisconsin
October 14, 2019

Gordon A. Tuffli, MD '64
Madison, Wisconsin
January 22, 2020

Mark J. Scherer, MD '84
Kaukauna, Wisconsin
December 6, 2019

William G. Richards, MD '52
Oshkosh, Wisconsin
November 20, 2019

Edward B. Miner, MD '57
La Crosse, Wisconsin
November 22, 2019

David A. Larson, MD '66
Minneapolis, Minnesota
November 11, 2019

David D. McCarthy, MD '85
Onalaska, Wisconsin
March 7, 2020

Frank A. Reynolds, MD '60
Spokane, Washington
February 9, 2019

Robert J. Hartzman, MD '71
Washington, DC
October 31, 2019

Rodolfo M. Pina, MD '02
Casa Grande, Arizona
November 3, 2019

Reunion in the Valley of the Sun

SMPH ALUMNI UNITE IN PHOENIX



Top row (left to right): Gary Peterson, MD '78, Stuart Alt, MD '78, John Vander Heyden, MD '75, Tena Melcher, Gary Carlson, MD '79; Scott Mead, MD '03 (PG '05), M2 Paul Rowley. Bottom row: Leroy Rhein, MD '59, Carolyn Norris; Harold Gries, MD '69, Andrea De Mets, MD '02, Margaret Behrens, MD '78, Rebecca Hawkins, MD '78 (PG '81).

Arizona's capital served as a sunny gathering place for University of Wisconsin School of Medicine and Public Health (SMPH) alumni who live in that metropolitan area and those who were in town to attend the American Association of Medical Colleges' (AAMC) meeting in November 2019.

Coinciding with this meeting, the Wisconsin Medical Alumni Association (WMAA) hosted a reception to bring proud

Badgers together. SMPH medical students who attended the reception and AAMC meeting eagerly mingled with alumni, and faculty members gave updates about the school.

Karen Peterson, WMAA executive director, and Jill Watson, associate vice president for development for the SMPH, shared gratitude for the support of their co-hosts—Margaret Behrens, MD '78, Andrea DeMets, MD '02,

Harold Gries, MD '69, and Rebecca Hawkins, MD '78 (PG '81), who live and work in the Phoenix area.

Gries shared that he enjoyed circulating among attendees, some of whom he knew and others he met that evening.

"I have been a strong supporter of the WMAA since I graduated from medical school more than 50 years ago. That's why it was a pleasure to answer the call of being an honorary co-host," he said.

Outstanding Women of Color

BIDAR-SIELAFF, GREEN-HARRIS AND ZAPATA HONORED



Left to right: Shiva Bidar-Sielaff, Gina Green-Harris and Jasmine Zapata, MD '13, MPH '17 (PG '16, '18), gather at the award ceremony.

Three women from UW Health and the University of Wisconsin School of Medicine and Public Health (SMPH) are among seven at UW-Madison to earn 2020 Outstanding Women of Color Awards in March. Honorees from the academic medical center are:

- Shiva Bidar-Sielaff;
- Gina Green-Harris; and
- Jasmine Zapata, MD '13, MPH '17 (PG '16, '18).

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 indignity in U.S. society; and/or community building to create an inclusive and respectful environment for all.

Shiva Bidar-Sielaff

The UW Health chief diversity officer and a Madison alder, Bidar-Sielaff has made myriad contributions to social justice, activism and advocacy on behalf of under-represented groups. At UW Health, she educates professionals about how to create environments that are accessible, welcoming and culturally relevant for communities of color and LGBTQ+ folk.

Bidar-Sielaff was born in Iran and has lived in Spain and Belgium. She is fluent in English, Spanish, French and Farsi. Having worked at UW Health for more than 20 years, she is known for her skill helping people from all cultures. Her approach calls upon a deep understanding of complex business, employment and financial environments.

Aiming to champion health-care access issues for people with limited English proficiency, she is a founding member of the National Council on Interpreting in Health Care and has led work on the National Code of Ethics and Standards of Practice for Health Care Providers. She co-chairs a local coalition of employers committed to diversity and inclusionary practices. She also volunteers for several organizations that represent Latinx populations.

Gina Green-Harris

Holding many interconnected positions, Green-Harris is the director of the SMPH Center for Community Engagement and Health Partnerships, and the Life Course Initiative for Healthy Families in partnership with UW-Milwaukee, as well as the Wisconsin Alzheimer's Institute's (WAI) Regional Milwaukee Office. At

—Continued on page 33

Longevity through Service

WILLIAM J. LITTLE, JR., MD '44, DESCRIBES A WIN-WIN SCENARIO

by Kris Whitman

Although his last name is “Little,” there’s nothing small about this alum’s efforts to care for those in need.

Indeed, William J. Little, Jr., MD '44, has made a huge impact throughout his career—beginning with military service and private medical practice, and continuing past his 98th birthday at a clinic that provides free and low-cost patient care in his hometown. He credits “having a cause and devotion to medicine”—demonstrated through three decades of volunteer practice for the Health Care Network (HCN) in Racine, Wisconsin—with keeping him alive this long.

“Feeling like I occasionally have accomplished something good makes it worthwhile,” says Little. “Medicine is fascinating, and the changes I have seen really hold my interest. I still subscribe to medical journals and try to keep up to date.”

He recalls graduating from high school six months early in January 1939, with Latin and other medical-school prerequisites under his belt. At University of Wisconsin-Madison, his undergraduate pre-medical curriculum consisted of nearly all science courses and was completed in two and a half years. Little does not recommend rushing through college as he did.

About his time at the UW Medical School, now called the UW School of Medicine and Public Health (SMPH), during World War II, Little says, “Our training was sped up to about three years, with essentially no vacations and very little time for socializing.”

One of his favorite professors, Dean William S. Middleton, MD, entered service in WW II before Little completed medical school.

“He was a stimulating and effective teacher of internal medicine. I recall that he told us, ‘Always remember that the citizens of Wisconsin are supporting your medical education, so you owe them your service after you leave,’” says Little, who contributes to the SMPH as a Middleton Society member in addition to his community service.

After earning his medical degree at age 22, Little completed a rotating internship at Presbyterian Hospital (now Rush University Medical Center) in Chicago and an internal-medicine residency at Wayne County General Hospital in Detroit—where he met Dorothy

Kraudelt, a nurse who later became his wife, with whom he raised four children. Little then completed a cardiovascular fellowship at the University of Michigan and returned to Wisconsin, where he worked at the state tuberculosis (TB) sanatorium.

Next, Little served for two years in the U.S. Army during the Korean War. He was stationed at the TB hospital near Valley Forge, where he treated troops who contracted the disease in Korea. In 1954, Little started a private internal medicine practice in Racine, in addition to working for TB sanatoria in Racine and Kenosha counties.



William J. Little, Jr., MD '44, at age 98; inset photo shows his undergraduate graduation from UW-Madison in 1942, with Adams Hall in the background.

"I was happy when a pulmonologist came to Kenosha in the 1970s because, for several years, I had been the only pulmonologist in this corner of the state outside of Milwaukee," notes Little, who became the medical director of respiratory care departments and pulmonary-function laboratories at the two Racine hospitals.

Board certified in internal medicine and pulmonology, Little notes that he practiced much general internal medicine. He also was president of the Wisconsin Thoracic Society for two years in the 1980s.

A few years before his 1989 retirement, Little started providing pro bono pulmonary care for patients who came to his practice through the non-profit Health Care Network.

Established in 1987 in space donated by First Presbyterian Church, and initially called the Racine County Community Clinic, the HCN provides free and low-cost health care to Racine County residents who are uninsured and have limited incomes. Many are seen in physicians' practices throughout the county, and others are seen at an on-site clinic staffed by volunteer physicians, most of whom are retired.

Little was among those who helped establish the on-site clinic in the downtown office of a retiring obstetrics and gynecology physician who offered her space for free in 1990 to test the concept. In 1992, with evidence of success, the agency moved to an independent site where Little became the medical director, a position he still holds.

Myriad donors—including businesses and hospitals—support the program financially. The clinic cares for patients with many types of conditions, often related to obesity, diabetes and hypertension. Hospitals provide free or reduced-cost lab tests, and radiology and rehabilitation services for patients.

"When we started the clinic, we thought it would be needed for only a couple of years because President Clinton's administration was talking about establishing a single-payer universal system. But the need has continued for 30 years," states Little, who has served on the HCN Board of Directors and as president, and has recruited volunteers.

"I used to work there two full days each week, but I have scaled back to about a half-day each week, mostly in internal medicine," says Little. "I don't know how much longer I can continue working, but they seem to like my services. I think that's what has helped to keep me alive this long."

Describing his motivation to get involved, he recalls, "Retirement was a difficult adjustment, from having a lot of responsibility to none. I did not want to spend all of my time playing golf."

Little found opportunities to continue functioning in medicine. He served on various boards, including the City of Racine Board of Health and Geriatric Assessment Center; and for 10 years, he was the medical director of a nursing home that had been on the verge of losing accreditation but was rescued.

He says, "Many retirees have enjoyed volunteering at the HCN's on-site clinic, and some have done so until death or disability. I'm the only physician from our original group."

Three additional SMPH alumni are among the current on-site clinic volunteers; they are:

- Nicholas Akgulian, MD '90, who volunteers once a month in addition to maintaining a medical practice, where he accepts HCN patients, and participating in mission trips;
- Richard Odders, MD '73, who volunteers twice per week, following retirement; and
- Charles Leadholm, MD '75, who volunteers two days per month since retiring from a Racine emergency-medicine practice.

Little says, "For more than 10 years, Dr. Leadholm has driven from his Madison home to Racine to volunteer two full days each month at the clinic. This is noteworthy!"

In 2007, the American Medical Association Foundation presented the Jack B. McConnell Excellence in Medicine Award to Little in recognition of his work at the HCN; he donated the cash award to the clinic.

Alison Sergio is the HCN executive director, a position held for decades by Barb Tylenda. Over time, the clinic expanded in size and added dental services. Bilingual staff provide translation for patients, when needed.

According to the HCN web site, "Over the past 31 years of service to Racine County,



William J. Little, Jr., MD '44, sees a patient at the Health Care Network's on-site clinic.

the organization has scheduled 217,000 appointments and assisted patients in obtaining close to 93,000 prescriptions, valued at more than \$48 million in care. This is only made possible through the generosity of our talented volunteers, giving donors, and dedicated staff."

Through major fundraising, the HCN moved in October 2019 to a larger building in downtown Racine that can accommodate new services, such as support groups.

The *Racine Journal-Times* quoted Sergio as saying, "We are so thankful for the support the entire community has given us for the last 30 years. The Racine community is full of people who are dedicated to improving the health of their neighbors."

Tylenda says Little's character and non-judgmental manner are particularly notable.

"His caring, respectful approach to all patients is admirable. He listens well and provides them with the utmost care."

Such dedication keeps Little moving, literally.

"I have severe pain every day, including from a hip replacement that still gives me problems after 11 years. But I forget about my pain when I'm at the clinic," he notes.

Now widowed, Little is grateful for the support of his grown children, two of whom live in Racine and can help when needed. His children also are following in Little's legacy of service: one is a nurse who volunteers at the on-site clinic, and another is a pathologist who donates services to the HCN's patients.

Little also plays twice-weekly games of duplicate bridge—a challenging game that keeps his mind sharp—with members of a local club. He enjoys the camaraderie.

“The Script” Provides a Creative Outlet

MEDICAL STUDENTS SHARE THEIR THOUGHTS IN POETRY

These poems were published in the inaugural issue of “The Script,” a collection of writing created by the new Medical Writing Interest Group at the University of Wisconsin School of Medicine and Public Health (SMPH). Leigh Berman and Mayra Betancourt Ponce, both second-year medical students, are the co-founders of the interest group. Christine Seibert, MD, associate dean for medical student education and services, is the group’s faculty advisor. The Script is produced by student editors, with graphic design by Laura Ancona Designs.

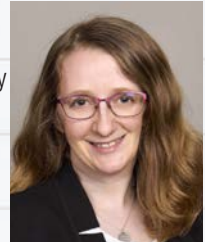
About the Authors

Ariel Niforatos is a first-year medical student and is working toward a dual MD/MPH (master of public health) degree. She is from Albuquerque, New Mexico, and is a member of the Medical Writing Interest Group. Niforatos wrote this



poem the week before she and her classmates first entered the anatomy lab. “During one of our classes, the lecturer showed us a PowerPoint presentation about the body donors, including their pictures and some details about their lives. Because I had never seen a cadaver before, I was unsure of what to expect. This presentation made me realize the humanity and generosity of the people who had donated their bodies for our education. When I went into the anatomy lab for the first time, I was struck by the similarity between the metal tanks in which donors are kept and coffins; the irony that the donors were ‘buried,’ so to speak, as well as exposed to the medical students was the main inspiration for my poem.” Niforatos is interested in working as a physician advocate in health policy regarding social-justice issues such as human trafficking, sexual violence and Native American rights.

Shoshana Rudin, a fourth-year SMPH medical student, has matched into an emergency-medicine residency at the University of Michigan. The Madison, Wisconsin, native says she uses creative writing as an outlet to make sense of complex experiences and emotions. This particular piece was inspired by one of the first patient deaths she encountered on clinical rotations. Rudin submitted the piece to The Script because she thinks “it’s so important to make a space to share our thoughts about medical school and the emotions that come up as we navigate the different stages of our training.” She supports the Medical Writing Interest Group’s leaders as they build that space.



SEEKING SUBMISSIONS TO HEALER'S JOURNEY

Healer’s Journey, a section of *Quarterly* magazine, showcases creative work by members of the University of Wisconsin School of Medicine and Public Health (SMPH) family. We seek prose, poetry and photographs that are moving, humorous or unusual and that reflect personal experiences in our world of healing.

Guidelines are as follows: Manuscripts, subject to editing, can be no longer than 1,000 words. Photos must be high resolution. Subject matter should relate to any aspect of working or studying at the SMPH or, generally, in the medical field.

Send submissions via e-mail to quarterly@med.wisc.edu or by mail to:

Managing editor, *Quarterly* magazine
Wisconsin Medical Alumni Association
750 Highland Ave.
Madison, WI 53705

Inside Tank 3

I awake

cold

wrapped in linen cloths
floating in a liquid
that purifies and cleanses
so reminiscent of
my entry into this world
so many years ago.

Have I returned
have I been given the chance
that humans have only speculated
to begin anew
to fix mistakes
to live a second life?

I wonder.

I can feel the smooth metal
embracing me
enmeshing me
burying me aboveground.

The silence is only broken at intervals
when I ascend out of this artificial womb
and fleeting rebirth washes over me
an awakening completely unlike my first
because

with each layer that you remove,
a realization hits me.

With each layer that is taken away,
with every piece of me that is unearthed
I see

I see
who I am
who I was
who I could have been.

As the deepest parts of me are
removed
cleansed
touched
examined

I finally understand
digging deeper and deeper into myself
until I glimpse
my soul.

I can feel life all around me
in those moments
the simultaneous majesty and frailty
that every life possesses.

Once again I am submerged.

I close my eyes.

Content.

I wonder if life
would taste as sweet
if we knew it would never end.

Even after death
I contemplate my own mortality.

—*Ariel Niforatos*

We Left the ICU

We left the ICU at 5 pm,
time of death 1558 hours. Left the
cool grey hallways with the gentle
recessed lighting and rode the elevator
down. The family limping out in twos and threes
wrapped like vines and branches into
a great tangled tree trying to hold itself
up without roots. And we passed them, smudged
white coats so heavy on our necks, hands
in our pockets. Slipped
from the bulging silence into the bustle, we
two silent skinny figures jostled into
the crowd,
emerged
through the glass doors into the blinding
light, sweat beading up around us and the aftermath
of morning rain turning into steam. The sky so
blue, sun blinding us to the buildings we left,
reaching from the west, heavy with heat and breathing
in our faces at the bus stop, him
leaning on the fingerprint-smearred glass and me
clutching my name badge between sweating fingers
and our minds half clinging to the sound
of no one breathing and half
throbbing with life.

—*Shoshana Rudin*

Schnapp Named Chair of the Department of Medicine

Lynn M. Schnapp, MD, a pulmonologist and leading researcher on lung injury and repair, has been named chair of the Department of Medicine at the University of Wisconsin School of Medicine and Public Health (SMPH).



Previously, she was a professor at the Medical University of South Carolina, where she led the Division of Pulmonary, Critical Care, Allergy and Sleep Medicine. Prior to that, she was a faculty member at the University of Washington in Seattle.

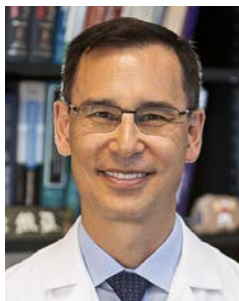
Schnapp earned her medical degree and completed internal medicine residency training at the University of Pennsylvania School of Medicine, followed by fellowship training in pulmonary and critical care medicine at the University of California, San Francisco.

Her research investigates how scar tissue forms during lung injury and diseases that damage lung function, such as idiopathic pulmonary fibrosis. Schnapp has been recognized for her skill in mentoring the next generation of physicians and researchers, and increasing the representation of women and minorities in medicine. She has received mentoring awards from the National Institutes of Health and the American Thoracic Society.

The Department of Medicine has more than 400 full-time faculty members and 300 research and administrative staff members. The largest department at the SMPH, its research grant portfolio totaled more than \$109 million in 2019.

Faculty Develop Device to Better Locate Tumors During Surgery

Three University of Wisconsin-Madison faculty members developed an innovative marker and localization tool that is being used by 15 hospital systems so far, including UW Health. The U.S. Food and Drug Administration approved the system, which uses wireless technology to help surgeons locate and remove breast tumors. It was developed by Elucet Medical, founded by



Lee Wilke, MD (top), professor, UW School of Medicine and Public Health (SMPH) Department of Surgery, and director of the UW Health Breast Center; Fred Lee, Jr., MD (middle), professor, SMPH Department of Radiology; and Daniel van der Weide, PhD (bottom), professor, UW School of Engineering.

Traditionally, when physicians biopsy a breast lesion, they leave behind a small metal clip to mark it. If the lesion is to be surgically removed, a hook wire is inserted to localize the clip. Instead, this technology allows for placing a “SmartClip” that emits a high-frequency signal. Surgeons can use a hand-held tool to find the clip and lesion, allowing them to choose the safest, least disfiguring path to the tumor.

Byars-Winston Leads National Effort to Enhance STEMM Mentoring

Angela Byars-Winston, PhD, professor of medicine, University of Wisconsin School of Medicine and Public Health (SMPH), led



the national committee that developed a report by the National Academies of Sciences, Engineering and Medicine, which recommends that U.S. colleges and universities take a more intentional, inclusive and evidence-based approach to mentoring students in science, technology, engineering, mathematics and medicine (STEMM). The report was released with an online guide.

Effective mentoring relationships have an overall positive effect on academic achievement, retention and degree attainment, as well as on career success and satisfaction, the report says.

However, as Byars-Winston explains, “There is a gap between what we know about effective mentoring and how it is practiced in our nation’s colleges and universities. A growing body of evidence exists about how to create and sustain successful, inclusive mentoring relationships. We hope that our report can catalyze institutions’ use of that evidence to create affirming environments and more effectively foster the talents of all of their students.”

Byars-Winston is the director of research and evaluation in the UW Center for Women’s Health Research, associate director of the Collaborative Center for Health Equity, and an investigator with the Wisconsin Center for Education Research’s Center for the Improvement of Mentored Experiences in Research. Her field of study includes cultural influences on academic and career development among under-represented groups in STEMM fields.

Brown Named New Director of County Health Rankings and Roadmaps

The University of Wisconsin Population Health Institute named Lawrence Brown, PhD, as the new director of County Health Rankings and Roadmaps.



Brown is an expert on health equity and the impact of historical trauma on community health. Previously, he was an associate professor in the School of Community Health and Policy at Morgan State University and worked to advance racial and health equity in the Baltimore community.

The County Health Rankings and Roadmaps is a partnership between the Robert Wood Johnson Foundation and the UW Population Health Institute. Over the past decade, the effort has provided data, guidance, evidence and stories demonstrating how location matters to health and health equity.

Brown earned his master's degree in public administration from the University of Houston and his doctorate in health outcomes and policy research from the University of Tennessee Health Science Center. He was a postdoctoral research fellow at Morgan State University School of Community Health and Policy. The Open Society Institute-Baltimore honored Brown with a Bold Thinker Award for his contributions to public discourse about racial segregation.

"I'm fired up about taking rankings, maps, stories and data to the people so that the Wisconsin Idea—that research can solve real-life problems—can transform America's forgotten and neglected places into thriving and healthy neighborhoods," Brown notes.

Patz Elected to National Academy of Medicine

Jonathan Patz, MD, MPH, professor and director of the Global Health Institute at the University of Wisconsin-Madison, has



been elected a member of the National Academy of Medicine in recognition of his pioneering research showing the risks global climate change poses for human health.

A professor in the Department of Population Health Sciences at the UW School of Medicine and Public Health and the John P. Holton Chair of Health and the Environment in the Nelson Institute for Environmental Studies, Patz helped pioneer the study of climate and health. He organized the first American Public Health Association discussions and resolutions on climate change, setting the stage for more than two decades of work establishing this field and communicating its importance to policymakers and the public.

For 14 years, Patz served as a lead author for the United Nations Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize with Al Gore. Patz also co-chaired the health-expert panel of the first National Assessment on Climate Change mandated by the U.S. Congress. He has testified on climate change and health in both houses of Congress and in state legislatures, and has served on a committee of the Presidential Council of Advisors on Science and Technology.

Carlsson Appointed to Federal Alzheimer's Disease Advisory Council

Cynthia Carlsson, MD (PG '98, '00, '03), MS '05, has been appointed to a four-year term on the U.S. Department of Health and



Human Services (HHS) Advisory Council on Alzheimer's Research, Care and Services.

A professor of geriatrics and gerontology in the Department of Medicine at the University of Wisconsin School of Medicine and Public Health (SMPH), she is the director of the Wisconsin Alzheimer's Institute, leader of the Clinical Core and co-leader of the Biomarker Core in the Wisconsin Alzheimer's Disease Research Center. She also is the Louis A. Holland, Sr., Endowed Professor in Alzheimer's Disease at the SMPH.

Carlsson is one of 12 non-federal members on the national council, which makes recommendations to HHS for priority actions to expand, coordinate and condense programs to improve the health outcomes of people with Alzheimer's disease and related dementias, and to reduce the financial burden on those with the disease, their families and society. The council includes representatives from several federal agencies.

At the SMPH, Carlsson's research focuses on the effects of vascular risk factors and treatments on cognition and biomarkers for Alzheimer's disease in persons at risk for dementia. She is a member of the National Institutes of Health/ National Institute on Aging (NIH/NIA) Alzheimer's Disease Centers Clinical Core Steering Committee and Clinical Task Force. She also chairs several NIH/NIA research review committees.

Looking Back and Paying it Forward

FOR WOMEN'S HEALTH
AND WELLNESS

MARY LANDRY, MD '92
(PG '96)



PHOTO COURTESY BRAVA MAGAZINE, BY HILLARY SCHAVE

by Jacquelyn Askins

Mary Landry, MD '92 (PG '96), can't remember exactly when she knew she wanted to be a physician, but an entry in her senior high school yearbook provided an early prediction.

"I had no memory of this, but at a reunion, a classmate pointed out that for my career goal, I said I wanted to be an obstetrics and gynecology physician working for the University of Wisconsin. I was blown away to see that level of certainty," says Landry, who is now a clinical professor in the UW School of Medicine and Public Health's (SMPH) Department of Obstetrics and Gynecology (OB/GYN), and the manager of the Women's Health Clinic at UW-Madison's student health center, University Health Services (UHS).

Less than a year into her medical training, however, the path to that future looked less certain. Advisors and mentors encouraged the Monona, Wisconsin, native—who had done undergraduate work at UW-Madison—to explore other places for medical school. Heeding their advice, Landry left the state to continue her training.

However, she recalls, "After six months, I hated it because the conversations around me focused on money and not on patient care. I wanted no part of that attitude."

Landry's brother—Steven Schlack, MD '91 (PG '94, '96), then a medical student at the UW School of Medicine and Public Health—encouraged her to transfer to the SMPH, where she ultimately earned her medical degree. Staying in Madison offered the best career opportunities for Landry—whose husband, Peter Landry, was a second-grade teacher—and she was grateful to match into an OB/GYN residency at UW Health.

Next, Landry practiced for 10 years at Associated Physicians, a multispecialty group in Madison, and in 2005, she transitioned into her current roles at UW-Madison. Her career always has centered on two driving principles: improving disparities in women's reproductive health and preparing the next

generation of physicians to provide the best possible care.

Breaking Down Barriers

Landry believes access to contraceptives is one of the most crucial issues in women's health today.

"I can observe how life-changing an unplanned pregnancy can be, so I have focused a spotlight on enhancing access by offering telehealth services," Landry says.

At the UHS in 2018, she created a telehealth birth-control program that allows UW-Madison students to get prescriptions or renewals for many types of contraceptives by filling out a health-history questionnaire and talking on the phone with a provider. Prescriptions can be filled wherever it is convenient for patients.

"In the same amount of time we used to spend, we can care for twice the number of patients. It's respectful of resources, specifically the time of patients and staff. And our patients love it," notes Landry.

While she hopes the telehealth model can improve contraceptive care in rural Wisconsin, she is starting a case-control study of telehealth patients' one-year follow-up to see whether they comply with recommended screenings for cervical cancer, sexually transmitted infections and blood pressure.

"I want to know if we are giving up anything in terms of women's preventive health care by not making patients step through our doors," Landry comments. "We want to know if we need to tweak the telehealth process to better provide preventive health care."

Recognizing the Impact of Mentors

Landry credits mentors for sharing lessons that have shaped her approach as an educator and physician. For instance, from Jenny Hackforth-Jones, MD (PG '86), she learned how to prioritize her own well-being.

"I won't say that I was her 'A student' in that regard," Landry reflects. "But at a time when wellness and work-life balance weren't something we had labels for, she modeled those things."

To further her own work-life balance and allow for more time with her three children, Landry left her private practice when she joined the UW-Madison faculty. The transition meant trading the opportunity to deliver babies for something she found equally meaningful: training medical students.

"UHS had not had a women's health training program for medical students," Landry says. "I appreciate that [former UHS executive director] Dr. Sarah Van Orman let me think outside the box and wear many hats."

Teaching medical students gives Landry a platform to pass along other life lessons, including how to make a patient feel like the most important person in the world.

"Dr. Mary Stoffel modeled what I consider idyllic, engaged, compassionate care," Landry shares. "I want to instill that in others in medical training, and I want to show them how to care for the whole person."

Establishing Share the Health

Some of the most meaningful moments of Landry's career have been at the intersection of mentoring and health disparities. For instance, in 2013, when OB/GYN resident Katherine O'Rourke, MD (PG '16), asked her where uninsured women in Dane County could go for gynecologic care that could help prevent cancer, Landry realized there was no such place.

"Mentoring helps me see the world in different ways, to have humility," she says. "I credit Dr. O'Rourke for motivating me to hold up the mirror on Madison and Dane County."

—Continued on page 33



The Landry family on a vacation in Utah



Cancer Survivor Gives Back to Ease the Way for Others

ANN PALMENBERG, PHD

by Beth Fultz, PhD

Science has been part of life for Ann Palmenberg, PhD, from the very beginning. Her father, an Army engineer who designed optics for tracking missiles, talked trajectories to her as a youngster and explained the usefulness of physics. Her great uncle, a chemist, installed the laboratory for his water-testing business in the basement of her family's suburban New York home. Palmenberg and her brother observed him at work and later did their own experiments in the lab. Her innate curiosity, fueled by this early exposure and fortunate educational opportunities, helped launch her on a lifelong path of scientific pursuit.

Along her journey, Palmenberg earned a bachelor's degree in chemistry at St. Lawrence University in her home state and a doctorate in biochemistry at University of Wisconsin-Madison. She then spent four years as a National Institutes of Health postdoctoral fellow in Zurich and returned to UW-Madison as a biophysics researcher. She joined the UW-Madison faculty in 1987.

Now a professor in the Department of Biochemistry in the UW-Madison College of Agricultural and Life Sciences, she has for more than 40 years studied what she calls "the language of life," observed most readily in viruses. From 1994 to 2012, she served as director of the UW Institute for Molecular Virology, one of the nation's leading virology research centers. By 2012, Palmenberg found herself at the top of her field, in demand as a presenter and financially secure as a result of patents based on her work.

Then cancer happened. Her first sign of a problem was a viral infection she contracted while traveling in Europe. Although she recovered, she soon began to experience back pain, and six weeks later, she collapsed and was hospitalized. Two weeks of tests

at the UW Carbone Cancer Center led to a heavy diagnosis: Stage 4 aggressive T-cell lymphoma. Paralyzed by then, Palmenberg and her oncologist, Julie Chang, MD (PG '03, '05), an associate professor of medicine at the UW School of Medicine and Public Health (SMPH), knew her aggressive disease demanded aggressive treatment.

"Dr. Chang hammered me with every drug in the arsenal to keep me alive," says Palmenberg, who underwent five months of intensive chemotherapy.

Once the cancer subsided, she spent a year learning to walk again. Happily, the ordeal proved worth it.

"Despite some collateral damage from the disease and the treatment, I'm now cancer free," says Palmenberg. "UW Carbone saved my life and made it possible for me to return to work in my lab."

That work involves taking viruses apart and putting them back together, as Palmenberg describes it.

"Viruses are simple organisms. Studying them is akin to learning about internal combustion by studying a lawn mower rather than an automobile," she explains. "Viruses also are very good at finding and exploiting vulnerabilities in other cells. By studying them, we can identify points where we can try to intervene—with drug treatments, for example—or with preventive measures like vaccines."

Palmenberg was an early adopter of computer modeling to make laboratory work more efficient.

"We still have to do the experiments and gather the data," she says. "But the computer allows us to plan that work more strategically. It helps us predict which experiments will be most likely to produce useful results."

Currently she is studying Rhinovirus C, identified in 2009 during surveillance of Severe Acute Respiratory Syndrome (SARS)

in China. Rhino C is a common cold virus that binds with cells that display a certain protein on their surface. Palmenberg is collaborating with James Gern, MD, an SMPH professor of medicine and pediatrics, and a pediatric allergy, asthma and immunology specialist at American Family Children's Hospital. They've observed that in certain childhood asthma patients, Rhino C provokes an exaggerated immune response that can lead to hospitalization with severe respiratory symptoms. Palmenberg is optimistic the work will result in a vaccine against Rhino C.

"Virtually everything we know about the foundations of life—the genetic code, the structure of RNA and DNA—has been learned through viruses," she says.

Because her work has yielded lucrative patents administered by the Wisconsin Alumni Research Foundation, she has made it a priority to "reinvest in the place that has allowed me to make discoveries."

Women's athletics and graduate student education have benefited from Palmenberg's generosity. After her cancer experience, she added UW Carbone to her list.

"I'm grateful for the medical care I received, and I also was impressed with all the support services available to patients and families," she says. "Cancer treatment is exhausting and stressful. People come here from all over the region, even the country, so they may not have a local support system. The non-medical patient and family services make a big difference, so that's where I decided to focus my financial support."

As a scientist with the same insatiable curiosity she has had since childhood, Palmenberg is eager to keep learning and discovering. As a cancer survivor, she is grateful she's able to continue working and committed to supporting programs that will make the cancer experience a bit less arduous for others.



Exploring Medical Innovations

MEDICAL AND ENGINEERING STUDENTS FORM PARTNERSHIP

2019-20 TECH officers: front row (left to right): Katrina Ruedinger, Nicholas Zacharias; back row: Serra Crawford, Than Huynh, Ian Wolf. All are first-year medical students.

by *Serra Crawford, first-year medical student*

If you ask a doctor to suggest ways to improve the health-care system, you may be listening for a while. Physicians and other health-care providers are in prime positions to recognize areas where current practices fall short. Although they frequently see opportunities to make enhancements, these ideas often aren't cultivated to fruition because the providers may lack the time, knowledge or training needed to move from an insight to a meaningful change.

The Technology, Entrepreneurs Changing Healthcare (TECH) Student Interest Group at the University of Wisconsin School of Medicine and Public Health (SMPH) is looking to bridge that gap by providing medical students with early firsthand opportunities to experience the medical innovation process. In spring 2020, a new collaboration between the SMPH and the Department of Biomedical Engineering (BME) in the UW School of Engineering is set to do just that.

Students are increasingly engaging at the intersection of medicine and technology, and many are seeking avenues to participate in innovation on campus, at UW Health and in the community. TECH recognizes that a physician-innovator mentality is taking hold in medical schools.

Joshua Medow, MD (PG '00, '06), PhD '19, an associate professor in the SMPH Department of Neuroscience and a physician-innovator, told medical students at a recent TECH meeting that they have a unique perspective when interacting with innovation. They know just enough information to speak the language of medicine, but not so much that they have performed a task or procedure the same way a hundred or more times. Therefore, it is easy for them to look at medicine through a lens of inquiry.

Medical students who develop an inquisitive nature and entrepreneurial skill set early in their careers will be well equipped to make valuable changes in a technology- and product-driven health care environment. Like physicians, however, medical students may overflow with interest, talent and diverse

perspectives, yet lack the time and resources to start projects on their own.

As the incoming TECH leaders of 2020, we want to provide students with an approachable way to get familiar with the product design process, learn to work with an interdisciplinary team of subject-matter experts, and understand basic go-to-market strategies.

Of the five current TECH leaders, four have engineering backgrounds, and three are BME alumni. Their memories of the valuable engineering design experiences they had as undergraduates sparked an idea that resulted in an exciting TECH partnership with the BME's Design Curriculum. The partnership launched in February 2020 when SMPH students were paired with undergraduate engineering design teams. This gave medical students the opportunity to collaborate on established medical innovation projects.

The BME Design Curriculum focuses on finding feasible solutions for real-world problems. Each semester, physicians, faculty, community members and health care companies propose projects for BME undergraduate students to work on from their sophomore year through their senior year. The students then form teams and select the projects that fit their interests and skills.

These projects are diverse and span many health-care fields; they include developing prototypes for medical devices, creating software applications for new imaging modalities, and modifying diagnostic tools (see bmedesign.engr.wisc.edu). While these projects are assigned every semester, projects often continue for several semesters to reach completion. Past projects have resulted in publications, patents and further development to take products to market.

In the spring 2020 semester, we have 27 interested medical students and 10 BME design projects. Examples include:

- a non-invasive method to determine cholesterol levels by visualizing eye vessels;
- a modified needle that reduces the risk of air embolisms during percutaneous lung biopsies; and

- an automatic device to place intravenous lines.

As design team members and consultants, medical students provide valuable medical context and help facilitate student-physician communications. In return, they gain a firsthand introduction to the engineering design process. We expect many benefits for medical and engineering students who participate in this collaboration.

Medical students can:

- engage with medical innovation;
- get involved in publications and patents; and
- be exposed to campus resources that may help them generate and develop ideas as future residents and physicians.

Engineering students can:

- practice merging design principles with medical physiology and procedures;
- connect with medical students; and
- understand the value of active collaboration among engineers and providers.

Medical students participating in this collaboration are eager to engage with engineers and innovation projects.

Nick Arp, a first-year SMPH student mentioned, "As a medical student with no prior experience in engineering, the new TECH partnership with BME will be a great experience to introduce me to the field of BME and the process of medical device design. The collaborative and interdisciplinary nature of the partnership will be a unique learning experience for all of us. In particular, the two-way street of communication will be crucial for all involved to understand medicine and engineering."

We are excited and hopeful for the inaugural round of the SMPH-TECH and BME Design Program's partnership. Pending its success, we hope to create this type of partnership with other health professions and entrepreneurial bodies on campus and in Madison.

Telehealth from page 6

immediate access to stroke specialists. These experts can communicate with patients, family members and caregivers to assess patient status, and determine and carry out treatment plans. Imaging scans and relevant medical data can be shared within the narrow time window for effective stroke treatment, ideally before permanent damage occurs.

In summer 2009, UW Health established Wisconsin's first telestroke network. Watertown Regional Medical Center was the first to sign on to the UW Health offering, and many others have joined since then.

Patients who present with stroke symptoms to a network hospital can be quickly assessed via videoconferencing by UW Health stroke neurologists, who work with the on-site treatment team. In addition to expanding access to highly specialized stroke care, the network offers the prospect of prompt assessment and treatment for patients with this condition, when time is of the essence. Patients who can be effectively treated at their local hospital save the time and expense of traveling to Madison via ambulance or helicopter. When patients need to be transferred to Madison, the UW Health stroke team is already aware of their medical situation, another time-saving benefit.

The telestroke network conducts about 10 consults per week from its member hospitals, and more than 1,000 patients have been treated since its inception. Medical director Natalie Wheeler, MD, JD, notes that the value extends to the educational setting, as well.

"Telestroke experience is part of the training we provide to stroke fellows. We also work with emergency medicine residents when they rotate in hospitals that are part of the network. We are working on ways to incorporate even more telestroke exposure into our residency training," says Wheeler, an assistant professor in the SMPH Department of Neurology.



Yao Liu, MD, MS '18, with a camera she uses in teleophthalmology research and care

Today and Tomorrow

Tom Brazelton, MD, MPH, a professor in the SMPH Department of Pediatrics and medical director of the UW Health Telehealth Program, explains, "We provide video consults in several subspecialty fields to our patients at UW Health at The American Center and the UW Health Rehabilitation Hospital on Madison's east side. This allows access to our subspecialty physicians in infectious disease, endocrinology, diabetes, wound care, psychiatry and other specialties that cannot be in-house at those locations."

In addition to these examples, UW Health offers telehealth services in several other fields, including pathology, cardiology, radiology and critical-care transport with support from SMPH faculty and staff.

Brazelton says the touchstones require transparency and connectedness to assure quality care coordination and communication among providers and with patients and their families.

"Some parents practically run mini-ICUs at home for their kids following surgery, and digital technology gives us a huge

opportunity to improve care coordination. We can use an app to do daily assessments of these kids, with the goal of reducing complications and reducing the number of times their parents have to bring them to the clinic," he says. "Similarly, our pediatric pulmonologists are interested in using digital technology to monitor their complex care patients at home."

Brazelton asserts, "However, at no time should the standard of care be compromised. That said, we are looking closely at all of the health-care system's activities that could, and perhaps should, be done in the digital space because it is the most patient-centric thing we can do as providers—to meet patients on *their* terms, at times and places convenient for *them*."

Thus, nearly 150 years after the human voice first traveled over a wire, telehealth's possibilities seem almost endless. Bell's first call to Watson has led to a creative burst of options that continues to generate new ways of thinking, caring for patients, training caregivers and expanding research.

Landry from page 27

With this in mind, Landry and O'Rourke co-founded Share the Health, a referral-based nonprofit clinic that aims to improve the health of underserved women in need of gynecologic specialty care in Dane County. Run by volunteers—including physicians, residents, medical students, undergraduates and community friends—the clinic provides procedures directed at preventing and diagnosing gynecologic cancer, and it serves as an excellent learning opportunity for volunteer medical trainees who work there.

"In addition to caring for patients in need, our mission is to foster an environment that supports young physicians so they learn to address health disparities," Landry says.

For her work with Share the Health and other significant contributions to the

education of SMPH medical students, Landry received the 2019 Ralph Hawley Distinguished Service Award from the Wisconsin Medical Alumni Association.

In presenting the award, SMPH Emeritus Professor Patrick McBride, MD '80, MPH, called Landry a shining example of service to the community and university, and said, "Her service to the medical school is profound, including student mentoring, more than a decade of service on the Admissions Committee and many other vital university roles. She is an extraordinary alumna who gives back to her school and community."

Looking to the Future

Noting that she hopes to leave her mark by instilling students and patients with

lifelong values, Landry asserts, "My most important role is setting an expectation of what health care can and should be, and empowering patients to accept nothing less."

And by involving trainees in innovative models like telehealth, she hopes they will bring similar ideas to future employers.

Landry is starting to think about ways to share her gratitude with her alma mater.

"UW-Madison has offered me my entire professional development, and opportunities to give back are limitless," she concludes. "My legacy will be determined by the lives I have had the privilege to impact and what they pass forward. My support of the next generation of SMPH physicians goes beyond my years in practice."

Outstanding Women of Color Awards from page 19

UW-Madison, she serves as the SMPH's diversity inclusion ambassador. In all roles, Green-Harris focuses on grass-roots community engagement models and is a strong advocate and leader for the health care needs of vulnerable individuals from underserved communities.

Under Green-Harris's leadership, the Community Advisory Board counsels UW-Madison faculty and staff by providing valuable insight for the WAI Regional Milwaukee Office on research and barriers to participation. By providing a sounding board for how UW-Madison investigators approach health equity and community engagement, her work has improved understanding of why disparities exist and how to narrow gaps.

Green-Harris is a nationally recognized expert on the topic of Alzheimer's dementia disparities for African Americans and the essential need for culturally appropriate ways to provide outreach and engagement, in addition to the importance of including African Americans in research. She collaborates with investigators from

throughout the United States who are working with the National Institutes of Health and other state and federal agencies.

Jasmine Zapata, MD '13, MPH '17 (PG '16, '18)

An assistant professor (CHS) in the SMPH Department of Pediatrics with an affiliation with the UW Institute for Clinical and Translational Research, Zapata is passionate about developing innovative strategies to combat racial inequities in maternal and child health in Madison and beyond.

She cares for healthy infants in Meriter Hospital's Newborn Nursery, attends high-risk deliveries and oversees the transfer of infants to the neonatal intensive care units at Meriter and the American Family Children's Hospital. Zapata recognized early in her career that she wanted to do more than care for premature babies—she also wanted to prevent the risks of being born critically ill.

Shortly after joining the SMPH faculty, Zapata was named a Centennial Scholar and began conducting research on strategies to improve maternal and child health inequities.

Calling upon her extensive training in pediatrics, preventive medicine and public health, her research focuses on the interplay of biological, environmental and social factors that contribute to the inequity in survival rates between African-American and white babies born in Wisconsin.

Her relationships with community organizations and public-health officials throughout the nation help her collaborate widely on maternal and child health.

Zapata lectures on racial inequities to learners of all levels. She is the faculty director for The Ladder, a partnership between the SMPH and Boys and Girls Club of Dane County that offers long-term mentorship for scholars from diverse backgrounds to promote careers in health care. She also helped develop a financial literacy program for school-age students, and wrote "Beyond Beautiful," a socioeconomic empowerment book for girls of all backgrounds.

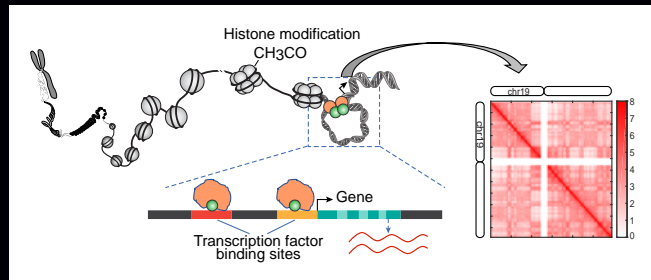


There's more online!
See <https://news.wisc.edu/outstanding-women-of-color-honored-3/>

New Tool Predicts Organization of Chromosomes

University of Wisconsin-Madison researchers developed a tool that can accurately predict the three-dimensional interactions between regions of human chromosomes.

The computational tool is a boon for researchers studying how gene activity is regulated in cells by a piece of DNA located far away from the gene, but close in three-dimensional space. The fine-tuned gene regulation facilitated by the three-dimensional architecture of chromosomes helps explain how cells achieve key functions, and how they



go haywire, as happens in diseases such as cancer.

The experimental technique to measure three-dimensional interactions of chromosomes, Hi-C, is expensive and has limited high-quality data. But the new tool can predict these interactions using more easily measurable and commonly available data. It could help

biologists study different developmental and disease processes that are affected by this type of gene regulation.

Sushmita Roy, PhD, and graduate student Shilu Zhang led the work, which was published in *Nature Communications*. They have made the tool freely available and continue to improve the

predictive power of the tool, which they named HiC-Reg.

“We can cheaply predict the output of Hi-C experiments, which can help us prioritize other genomic regions to follow up with more fine-tuned experiments,” says Roy, professor, Wisconsin Institute for Discovery and Department of Biostatistics and Medical Informatics, UW School of Medicine and Public Health. “This can be useful to interpret regulatory variation in the genome.”

The work was supported by the National Institutes of Health Big Data to Knowledge Program and an NHGRI R01 grant.

Study Finds Where You Live Affects Brain Health

Living in disadvantaged neighborhoods may impact the brain, according to researchers at the University of Wisconsin School of Medicine and Public Health (SMPH).

The study, “Neighborhood Disadvantage is Associated with Cerebral and Hippocampal Volume,” was published in the *Journal of the American Medical Association Neurology*. It was led by Barbara Bendlin, PhD, and Amy Kind, MD '01 (PG '06, '07), PhD '11, associate professors in the Department of Medicine, and Jack Hunt, a dual MD/PhD

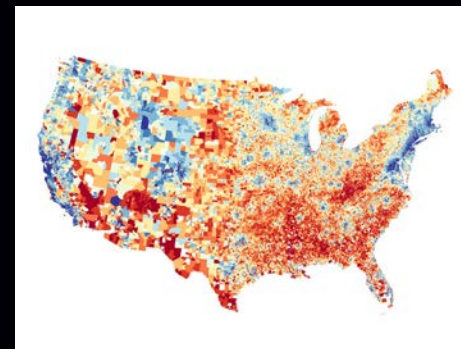
student in the Medical Scientist Training Program.

Using magnetic resonance imaging, the researchers looked at hippocampal and total brain volumes of 951 cognitively normal individuals. Results show that participants from the most disadvantaged neighborhoods had 4 percent smaller hippocampal areas compared to participants in more advantaged neighborhoods. The findings suggest that 4 percent is the equivalent of four to seven extra years of brain aging.

“This research is among the first to demonstrate that the relative disadvantage of

our neighborhoods is linked to brain structures involved in memory function,” says Hunt, first author of the study and a researcher in the Bendlin lab at the Wisconsin Alzheimer’s Disease Research Center (ADRC).

The investigators found the relationship of neighborhood disadvantage and brain structure was not due to differences in racial identity or years of education in participants from the most disadvantaged areas. Cardiovascular risk factors like high blood pressure and diabetes mediated the association for total brain tissue



but not hippocampal volume, suggesting neighborhood disadvantage may be associated with multiple, distinct pathways that affect brain health.

Study participants also were enrolled in the ADRC Clinical Core and Wisconsin Registry for Alzheimer’s Prevention study.

Interventions Progress for Healthy Aging

The lab of Dudley Lamming, PhD, is breaking ground in understanding a key protein that regulates metabolism and aging, and in identifying a drug that may be able to safely extend healthy lifespan.

Mechanistic Target of Rapamycin (mTOR) is a protein that, in 2003, was discovered to regulate the lifespan of worms. Subsequent work showed that rapamycin, an inhibitor of mTOR used in humans to prevent rejection after organ transplantation, extends the lifespan of yeast, worms, flies and mice through blocking the activity of mTOR

complex 1 (mTORC1). It also prevents or delays the onset of Alzheimer's disease in mice if given before systems arise. But rapamycin's strong immunosuppressive properties and negative side effects on metabolism, a result of "off-target" inhibition of a second mTOR containing complex, limit its potential use in humans.

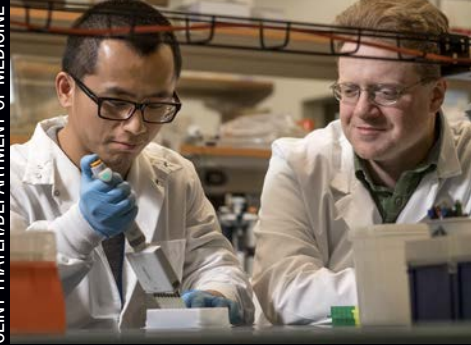
An assistant professor in the Division of Endocrinology, Diabetes and Metabolism in the Department of Medicine at the University of Wisconsin School of Medicine and Public Health, Lamming hypothesized that new compounds that inhibit mTORC1 would promote

healthy aging with fewer of rapamycin's drawbacks.

In a paper published in *Nature Communications*, Lamming and collaborators identified an analog of rapamycin, DL001, that is 40 times more selective for mTORC1 than rapamycin. They showed in vivo that DL001 effectively inhibits mTORC1 without traditional side effects associated with rapamycin.

Lamming's team also seeks to better understand the role of mTORC2 in age-related metabolic processes. A paper published in *Aging Cell* describes using genetic mouse models to discover

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that inhibiting hypothalamic mTORC2 increased inactivity, obesity and frailty; impaired glucose regulation; and decreased lifespan.

By continuing to investigate the molecular pathways of aging, Lamming hopes to get closer to identifying future therapies for age-related diseases.

Stem Cells Could Help Fight Dangerous Infections

Scientists at the University of Wisconsin School of Medicine and Public Health (SMPH) developed an efficient way to grow neutrophils, the white blood cells that defend against bacterial infections but often are depleted during cancer treatment. Chemotherapy can leave cancer patients with a very low number of neutrophil granulocytes, resulting in potentially deadly febrile neutropenia and heightened risk of infection. This often is treated by transfusions.

"The complicated logistics of granulocyte collection, the

need for pre-treating donors with drugs (G-CSF or steroids), difficulties in collecting a sufficient number of good quality granulocytes and the limited storage time of around 24 hours all hamper the utility of granulocyte transfusion for correcting neutropenia and may contribute to the inconclusive results observed in clinical trials," says Igor Slukvin, MD, PhD, professor of pathology and laboratory medicine.

In 2009, his lab pioneered transforming stem cells into multiple types of white blood cells. Now, he and collaborators—including Anna Huttenlocher, MD,

professor of pediatrics and medical microbiology and immunology, have developed a method to prompt induced pluripotent stem cells (iPSC) to differentiate into granulocyte progenitors. These progenitors can continuously produce valuable neutrophils for weeks.

Published in *Stem Cell Reports*, the technique replaces the expensive, relatively inefficient, time-intensive process. Instead, researchers introduce modified messenger RNA that sparks production of an ETV2 transcription factor that guides stem cells down the blood developmental path. It produces neutrophils as

quickly as 14 days, compared to as much as 30 days in prior protocols, and can generate a vast number of neutrophils.

"We found that neutrophils generated using this approach are functionally similar to peripheral blood neutrophils. They can phagocytize and kill bacteria," Huttenlocher says, adding that the work may lead to novel immunotherapies.

A Health Equity Mindset

Why should Wisconsin, where most people identify as white, include racial equity as a priority? What is the role of University of Wisconsin-Madison in advancing knowledge, practice, policy and system change that can reduce unfair gaps in health between socially defined groups? Who decides what is fair or unfair? Aren't these topics blurring the line between scholarship and advocacy?

Upon arrival as the UW Population Health Institute's (PHI) new director in 2018, these questions greeted me. Many stakeholders were eager to seek answers together, while others seemed concerned that any missteps would tarnish the well-earned reputation of the institute and university. This is the reality of working to advance equity. As Geoffrey Canada from the Harlem Children's Zone noted, "It's not rocket science we're doing here, it's harder than rocket science." (I intend no disrespect to rocket scientists!)

What Does the Evidence Tell Us?

Gaps in health between socially defined groups are well documented. The PHI's triannual report card consistently demonstrates that the health of American Indian and African American people in Wisconsin is worse than that of white people. The Wisconsin Collaborative for Health Care Quality found that racial/ethnic disparities in health care quality and outcomes exist.

Interestingly, the drivers of poor health across places in Wisconsin are strikingly similar. More than 60 percent of its counties are considered rural, and Wisconsin's rural residents tend to be white. Yet, compared to Wisconsinites overall, residents of the state's rural areas and the large, urban Milwaukee County share common challenges. Those who live in rural or large metropolitan areas tend to have higher rates of smoking and obesity; experience higher rates of unemployment; and are less likely to have health insurance.

Despite these obstacles to health, the zeitgeist accentuates perceptions of a

rural-urban divide. Efforts to pit groups against each other to maintain power for a select few are not new. But we can leverage evidence to build alliances, and consider "how systems of racial inequity" affect not only the health of people of color, but of white people, as well (Malat, 2017). A 2019 article by Dr. David Kindig, emeritus professor, population health sciences, about absolute numbers and relative rates of infant mortality among African Americans and white people in Wisconsin reflects this approach. He argues that two types of systematic oppression—racism and classism—produce poor birth outcomes for urban African American mothers, and for rural white mothers. However, inherited blinders may interfere with our ability to find common cause.

What Remains Unclear?

A growing body of research connects historical U.S. policies to today's differences in health between groups. Yet, this remains unclear, even to those who work in population health and health care. My own lack of knowledge about broken treaties and policies such as the 1819 Civilization Fund Act serves as an example. Beginning in the early 19th century, the U.S. Congress passed a series of laws that were intended to assimilate American Indians by requiring that children be sent away to boarding schools. The systematic removal of American Indian children from their families and communities lasted in various and increasingly devastating and abusive forms into the 20th century.

Evidence links toxic and cumulative stress with poor physical, behavioral and mental health. Yet, health consequences related to policy-driven experiences of Indigenous people and African Americans—including dehumanization and restricted opportunity to amass economic wealth—are not easily communicated. The dominant narrative attributes worse health outcomes for people of color to bad behaviors and poor choices, while a more empathetic lens is emerging for

white populations. Despair, as a legitimate driver of poor health, is reserved for some, but not for all (Case and Deaton, 2018; Genusso, et al, 2019). Racism makes it difficult to understand how the decisions we make as a society confer advantages to some groups more than others.

Why Does Equity Matter?

How might systems of racial inequity impact everyone? First, we must acknowledge that our ideas about "race" are socially constructed and artificially elevate the value of some groups over others. Then, we can interrogate whether our policy choices serve overall population health. If evidence-based policies are rejected or implemented unevenly, primarily due to beliefs about which groups are "deserving," the harm to all in need cannot be contained (Malat, 2017).

What's Next for the PHI?

What do we risk if we shy away from generating, testing and disseminating ideas that may reduce unfair gaps in health? We believe the stakes are high. Because we know that too many people are dying prematurely and the burden of poor health is unevenly distributed, we will:

- build a framework and metrics that uncover drivers of health and equity;
- create reports, tools and resources; and
- engage diverse stakeholders to create and advance a transformative narrative.

We must be willing to test ideas, acknowledge mistakes and start again. Sound familiar? Kind of like rocket science?



Sheri Johnson, PhD
Director, UW Population Health Institute

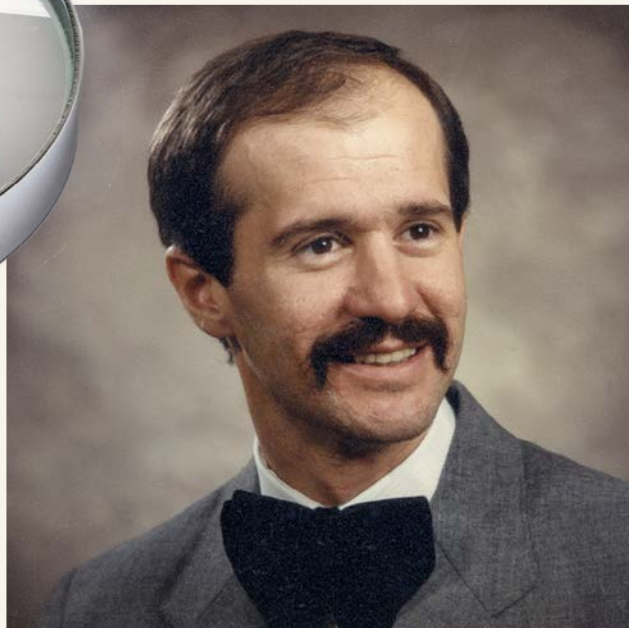


I Know YOU

... 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), Linda Hegstrand, MD '86, PhD, won the prize drawing and will receive a gift from the Wisconsin Medical Alumni Association!



HINT ABOUT PHOTO ABOVE:

He usually wears red when visiting campus.



ABOUT LAST ISSUE'S PHOTO:

In the past issue of *Quarterly*, 63 people correctly guessed the identity of Enid Gilbert-Barness, MD, emeritus professor of pathology and pediatrics, University of Wisconsin School of Medicine and Public Health (SMPH), and

former director of surgical pathology at the school.

Born in Sydney, Australia, Gilbert-Barness earned her medical degree at the University of Sydney and completed her residencies in pathology and pediatrics in London, Boston and at the Children's Hospital of Philadelphia. She was a research fellow at the University of Pennsylvania and the Children's Hospital in Washington, DC. Prior to coming to the SMPH (then UW Medical School) in 1970, she was on the University of West Virginia's faculty. At the SMPH, she was named Best Teacher of the Year by second-year medical students seven times and awarded the school's Distinguished Teaching Award in 1984. She was married to Lewis Barness, MD.

Photo contest entries echo that Gilbert-Barness was much loved and gave engaging lectures and labs.

Larry Grant, MD '89, was among those who responded to the contest. He recalled that his class honored Gilbert-Barness' heritage by singing "Waltzing Matilda" at the end of her lecture series.

Doug Oik, MD '83, described how Gilbert-Barness took extra time to show first-year medical students a heart with the specific defects of Tetralogy of Fallot.

Linda Hegstrand, MD '86, PhD, Ron Louie, MD, Eberhard Mack, MD, and Philip M. Farrell, MD (PG '72), PhD, fondly recalled co-authoring publications with Gilbert-Barness.

William Goell, MD '84, said he worked in the Department of Surgical Pathology during the summers between his years of medical school, and noted that the lab was geographically diverse, with Gilbert-Barness from Australia and other faculty members from Iran and Ireland.

We Want to Hear From You

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 the *Quarterly* as space allows. Please include names, dates and locations. Photographs are encouraged.

Have you moved? Please send us your new address.

CONTACT INFORMATION:

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Madison, WI 53705



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The WMAA congratulates the
classes of '55, '60, '65, '70 and '75
on their milestone years!



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