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FOR ALUMNI, FRIENDS, FACULTY AND STUDENTS OF THE  
UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH

# Quarterly

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Researching Epstein-Barr and  
Other Oncogenic Viruses of  
International Importance

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# QUARTERLY

The Magazine for Alumni, Friends,  
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School of Medicine and Public Health

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Wisconsin Institutes for Discovery  
Discovery Building

## DECEMBER 2018

Monday, December 17

Introduction to Phase 2 Event  
Health Sciences Learning Center

## JANUARY 2019

Thursday, January 17

Operation Education  
Health Sciences Learning Center

## APRIL 2019

Friday, April 5

Spring WMAA Board Meeting  
WMAA Scholarship Reception  
WMAA Awards Banquet

## MAY 2019

Friday, May 10

UW-Madison Commencement

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For editorial information, call (608) 263-4613

For address corrections and to reach the WMAA, call (608) 263-4915

E-mail us at [quarterly@med.wisc.edu](mailto:quarterly@med.wisc.edu)

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## FOSTERING MEDICAL ADVANCES

The Institute for Clinical and Translational Research's new leaders aim to build on its innovative, successful history.

## Campus Scene (above)

The longtime director of the University of Wisconsin Marching Band—Michael Leckrone, who will retire in spring 2019—and Nicole Vaughn, graduate teaching assistant, bask in the sunshine at a fall football game.

## On the Cover

Eric C. Johannsen, MD (left), and Shannon C. Kenney, MD, collaboratively analyze strains of Epstein-Barr Virus through a multi-headed microscope.

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ROBERT N. GOLDEN, MD



**A**s I write this message, beautiful fall colors are falling upon us. During this dramatic period of foliage transitions, we also are celebrating other types of transitions at *your* school of medicine and public health.

We recently passed the baton of leadership in our Institute for Clinical and Translational Research (ICTR), which has a truly storied history. Much of its history to date was shaped by the remarkable vision and leadership of its founding director, Dr. Marc Drezner. We recently celebrated Marc's retirement and welcomed Dr. Allan Brasier into the dual roles of executive director of ICTR and senior associate dean for clinical and translational research. As you will read on page 10, Dr. Brasier is uniquely qualified to carry on the strong traditions and further expand the statewide and nationwide impact of this jewel in the University of Wisconsin School of Medicine and Public Health's (SMPH) crown.

Another important transition involves the "giving back" from our alumni to our students. We honor, on page 26, a scholarship that Dr. Juliane Lee—a new member of the Wisconsin Medical Alumni

Association (WMAA) Board of Directors—created to help ease the costs of attending medical school for the next generation of physicians at the SMPH.

Our gratitude continues as we reflect on support we recently received from the Wisconsin Legislature. This new funding has supported the transition of our Precision Medicine Molecular Tumor Board from a resource for faculty and patients at the SMPH and UW Carbone Cancer Center into a statewide service. As Drs. Mark Burkard and Dustin Deming describe in their Perspectives column, this state-of-the-art technology is now available for every cancer patient and the physicians who treat them throughout Wisconsin. It is a wonderful, high-tech illustration of the Wisconsin Idea.

Speaking of statewide partnerships, we are delighted to collaborate with Marshfield Clinic, the BloodCenter of Wisconsin and the Medical College of Wisconsin in a regional consortium for the national All of Us Research Program. This innovative National Institutes of Health study will help us push forward the translation of human genomics into meaningful clinical insights and applications.

It is always a challenge to select from our faculty members' many remarkable achievements and recognitions those that we will highlight for you in this magazine. For this issue, however, it was a clear treat to share the news about a faculty member who received one of the top international awards for outstanding achievements in science. Dr. Robert Fettiplace was awarded the Kavli Prize, and we applaud him for this well-deserved honor related to his groundbreaking neuroscience discoveries.

Finally, we celebrate a pair of annual joys: The White Coat Ceremony and the distribution of stethoscopes, which are provided as gifts from SMPH alumni to our newest cohort of medical students. These are two vitally important rites of passage for the incoming class. I am especially grateful for the generosity of the donors who support the Stethoscope Program, and for the important role that the WMAA's leadership and staff play in planning and orchestrating these glorious celebrations for our medical students and their families.

As we embrace the bounty of the fall harvest and prepare to give thanks for our providence, it is timely to reflect on the bounty of success among our faculty, staff and students. Please join me in thanking them as they continue to advance the missions and goals of *your* school of medicine and public health.

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

## KAREN S. PETERSON

**G**reetings medical alumni and friends! With the autumn season upon us and Thanksgiving on the horizon, this is a time when I express my gratitude as I reflect on the past year and look forward to exciting things to come.

First, I deeply thank Dr. Susan Isensee, Class of 1983, for her leadership as president of the Wisconsin Medical Alumni Association (WMAA) over the past two years. Dr. Isensee shares her time and enthusiasm at nearly every WMAA event and at ceremonies for medical students at the University of Wisconsin School of Medicine and Public Health (SMPH). She has done a tremendous job leading our association's efforts to engage alumni and students in myriad ways.

Our staff and I look forward to continuing our work with the new WMAA president, Dr. Daniel Jackson, who began a two-year term in July 2018. I recall working with Dr. Jackson when he was a student leader for his Class of 2003! It is rewarding to see one of our former student leaders stay involved with the WMAA and rise to the position of president! See page 18 to learn about Dr. Jackson's career and other passions.

Reflecting a bit more, the WMAA hosted many well-received events for the Classes of 1958, '63 and '68, and the Half-Century Society on Alumni Weekend. It was a special honor for many of us to meet Dr. Eugene Nordby, Class of 1943, who recently celebrated his 100th birthday! See more details on pages 14 and 24, respectively.

This fall, we welcomed the incoming SMPH medical students by hosting the White Coat Ceremony, Stethoscope Ceremony and Badger Cookout. The collective experiences and achievements of this class are impressive! On behalf of these new students, the WMAA thanks those of you who provided them with stethoscopes. Your meaningful gifts will have lasting value as the students progress along their journeys

to become physicians. And in the spirit of giving, at the Stethoscope Ceremony, each new medical student contributed to the class fund to support future scholarships.

In a similar spirit, many other SMPH classes have launched successful scholarship fund initiatives. In addition, numerous individuals have contributed to SMPH and WMAA funds that they deem important. Cumulative gifts and pledges to any WMAA or SMPH fund qualify the givers for membership in the SMPH's philanthropic organization, the Middleton Society. At this fall's annual recognition dinner, we anticipate welcoming nearly 200 members who joined the Middleton Society in the past year. Thank you so very much! And for those who are interested in joining, the final months of 2018 are an opportune time, because, effective January 1, 2019, the minimum cumulative household commitment for Middleton Society membership will change from \$10,000 to \$25,000. For more information or to join, please contact our development partner, Jill Watson, at [jill.watson@supportuw.org](mailto:jill.watson@supportuw.org) or call (608) 262-4632, or contact me (see contact information below).

I am honored to be part of this wonderful SMPH and WMAA family. And we always love to hear your news! Please feel free to contact me with your ideas, questions, updates or concerns. We encourage you to use our online form—[med.wisc.edu/alumni/share-your-news](http://med.wisc.edu/alumni/share-your-news)—or you can send an e-mail to [kspeters@wisc.edu](mailto:kspeters@wisc.edu) or call (608) 263-4915. If you prefer, you can write to me at the address on the back cover of *Quarterly*. I look forward to hearing from you!

Again, I share my heartfelt thanks to all of you who have supported our school and association with your generous donations of time, money and expertise. Your gifts are the lifeblood of our organization.

**Karen S. Peterson**  
*Executive Director,  
Wisconsin Medical Alumni Association*





Makoto Ohashi, PhD (left), and Ahmed Ali, PhD, a staff scientist and post-doctoral fellow, respectively, conduct EBV research in the laboratory of Eric C. Johansen, MD.

# Tumor Virology

## RESEARCHING EPSTEIN-BARR AND OTHER ONCOGENIC VIRUSES OF INTERNATIONAL IMPORTANCE

**V**isualize the nostalgic Memorial Union at the University of Wisconsin-Madison on a typical summer day. Now visualize it teeming with nearly 500 tumor virology researchers from throughout the world—eager to learn from peers, including a collegial group of UW-Madison researchers who are dedicated to investigating cancer-causing viruses. Attendees' excitement and energy were palpable as they shared ideas, chose among nearly 120 oral presentations and reviewed more than 140 scientific posters.

Starting in late July 2018, the five-day International Conference on EBV and KSHV melded the International Association for Research on Epstein-Barr Virus (EBV) and Associated Diseases' biannual conference with the Kaposi's Sarcoma Herpes Virus (KSHV) annual meeting. This event overlapped—for the first time—with the Molecular Biology of DNA Tumor Viruses Conference and was sponsored by several UW-Madison entities, the National Institutes of Health (NIH) and other supporters. A joint reception and scientific talks provided

opportunities for a diverse group of researchers to interact for the greater good.

"I believe this is the largest group of DNA tumor virus researchers that's ever been together in one place," exclaimed Shannon C. Kenney, MD—the Wattawa Bascom Professor in Cancer Research at the UW School of Medicine and Public Health (SMPH) and co-leader of the Virology Program at the UW Carbone Cancer Center (UWCCC)—when she welcomed participants to a keynote talk.

The conference covered several oncogenic viruses, including EBV, KSHV and human papillomavirus (HPV), with topics such as latency and reactivation, gene replication, epidemiology, vaccine development and therapeutic interventions. Speakers represented government agencies and academic medical centers from throughout North America and the world.

As president of the International Association for Research on EBV and Associated Diseases, Kenney co-organized the conference with Eric C. Johannsen, MD, associate professor, SMPH Departments

of Medicine and Oncology, and Janet E. Mertz, PhD, the Elizabeth McCoy Professor of Oncology, Department of Oncology. They designed the conference around themes, rather than type of virus, to foster cross-sectional opportunities.

Johannsen, Kenney and Mertz, along with Bill Sugden, PhD—the James A. Miller Professor of Oncology and American Cancer Society Research Professor, SMPH, and associate director of career development and education, UWCCC—collaborate on EBV research at the McArdle Laboratory for Cancer Research, part of the UWCCC, in the Wisconsin Institutes for Medical Research. Together, they have expertise in all aspects of EBV, including its biochemistry and molecular biology, pathogenesis, and the development of unique mouse models to test hypotheses and novel therapies. Kenney and Johannsen also provide patient care in infectious diseases at UW Health.

One of the most common human viruses and the first human virus discovered to have oncogenic properties, EBV is among eight known human herpesviruses. It's found

worldwide, and most people contract this virus at some point, often with no symptoms or only mild illness. Once infected, people host the latent (inactive) virus for life.

Spread most commonly through bodily fluids, including saliva, EBV is best known for causing infectious mononucleosis, but it can cause severe illnesses in individuals who have a weakened immune system. Several cancers are associated with EBV, including Burkitt's lymphoma, nasopharyngeal carcinoma (NPC), gastric carcinoma, Hodgkin's disease and non-Hodgkin's lymphoma.

"Until recently, researchers had access to only a handful of EBV genomes, but in recent years, knowledge has vastly expanded. There now are hundreds of genomes available to study," Kenney notes. "Because certain virus strains are more prevalent in specific tumors, it's important to analyze variants."

Research on mutations and various strains relies on next-generation sequencing, which maps massive amounts of RNA and DNA to determine the genomes from which the strands originate, explains Johannsen.

"This technology helps us know what is mutated and what genes are active to learn how to tailor treatments," he says.

Paul F. Lambert, PhD '85—the Howard M. Temin Professor and Chair of



*The PPG team (left to right): Nathan Sherer, PhD, Shannon C. Kenney, MD, Paul F. Lambert, PhD '85, Janet E. Mertz, PhD, Eric C. Johannsen, MD, Paul Ahlquist, PhD '81, Daniel Loeb, PhD, and Bill Sugden, PhD.*

Oncology at the SMPH and director of the McArdle Laboratory for Cancer Research—notes that approximately 15 percent of human cancers globally are known to have a viral etiology, and this percentage likely will grow as researchers identify additional human viruses and investigate viral causes for more cancers. Thus, it's an increasingly important global public health concern.

About the conference, Mertz says researchers from various nations—such as Korea, Japan, China and Germany—were drawn to attend because presentations explored virus-related cancers that are prevalent in distinct regions of the world, as well as techniques and characteristics that are similar across the spectrum.

"EBV-associated gastric carcinoma is common in Korea and Japan; and nasopharyngeal carcinoma due to the virus shows a high prevalence in southeast Asia," she explains. "In central Africa—where EBV was discovered—the virus causes a high incidence of Burkitt's lymphoma."

Noting that countries tailor their screening strategies with the goal of diagnosing the most frequent diseases in their populations, Mertz says, "In Korea, for example, it's common for a person's annual physical to include screening for virus-induced stomach cancer. And in China, physicians routinely test for NPC. Also, countries ramp up their research funding and encourage global

collaboration related to the diseases most likely to affect people in their regions."

At McArdle, a large NIH program project grant (PPG), "Molecular Biology and Genetics of Human Tumor Viruses," answers this call. Its principal investigator since 2007, Lambert, notes that UW-Madison, the SMPH and the UWCCC also contribute substantial funding.

The PPG's legacy dates to 1977, when Howard M. Temin, PhD, first received the competitive NIH grant. Having joined the SMPH faculty in 1960, Temin continued important tumor virology work until he died, at age 59, from cancer in 1994.

"Dr. Temin established tumor virus research as a major strength at UW-Madison, with this PPG as the central point of the effort," notes Lambert, adding that Temin was among three internationally recognized researchers to earn the Nobel Prize in Physiology or Medicine in 1975 for their discovery of reverse transcriptase, which challenged the central dogma of genetics, that there is a unidirectional flow of information from DNA to RNA to protein.

He continues, "By discovering reverse transcriptase, Dr. Temin demonstrated that there also is a flow of information from RNA back to DNA. This seminal discovery led to drugs that today help keep HIV-infected patients alive, and it revolutionized our ability to study gene function."



*Howard M. Temin, PhD, earned the Nobel Prize in Physiology or Medicine in 1975 at UW-Madison, along with two researchers at other universities.*



Temin's dedication to rigorous scientific methods has carried through to the current PPG, which earned a competitive five-year renewal in April 2018.

Mertz observes that McArdle teams often attract trainees and faculty members who hail from international locales, likely related to the global nature of the viruses they study.

Several investigators who work on the PPG—now in its 41st year—worked with Temin. Among them are Lambert; Mertz; Sugden; Paul Ahlquist, PhD '81, the Paul J. Kaesberg Professor of Oncology and Molecular Virology, investigator, Howard Hughes Medical Institute and Morgridge Institute for Research, associate director of basic research, UWCCC, and professor, Department of Plant Pathology, UW College of Agricultural and Life Sciences; and Dan Loeb, PhD, professor, Department of Oncology.

"Dr. Temin was instrumental in attracting some of the grant's current investigators to McArdle, including Drs. Mertz, Lambert and Loeb, and me," says Sugden, who was the PPG's principal investigator from 1992 to 2007.

Loeb recalls joining the team following a memorable phone call, which he received while working as a post-doc at the University of California, San Francisco.

"My lab mate answered the phone and said, 'Hey, Dan, it's Howard Temin, and he wants to talk with you,'" Loeb shares. "To my astonishment, he invited me to apply for a research position, but instead of asking me questions, he shared selling points about the work at UW-Madison. I have my notes from that phone call hanging by my desk!"

Mertz began working with Temin after she had conducted research with another Nobel Prize winner, Paul Berg, PhD, at Stanford University in California.

"I published my first paper when I was a graduate student in Dr. Berg's lab. The study showed how to make recombinant DNA using restriction enzymes and ligase, and it opened up the field for others to make recombinant DNA," she says.

Throughout the PPG's four-decades of continuous funding, it has expanded to

include three core areas: administration/statistics, instrumentation and virus production. Lambert has recruited additional faculty members, including Kenney and Nathan Sherer, PhD, associate professor of molecular virology and oncology, who brings his "world-class live cell imaging skills to bear on Hepatitis B (HBV) biology."

The PPG's five projects are conducted by eight team members, as follows:

- **Project 1:** Molecular Genetics of HPV Infection and Oncogenesis, led by Lambert with Ahlquist as a co-investigator
- **Project 2:** Mechanisms of HBV Virus Replication, led by Loeb with Ahlquist and Sherer as co-investigators
- **Project 3:** Characterizing the Amplification Factories of EBV and Kaposi's Sarcoma-Associated Herpesvirus, led by Sugden with Johannsen as a co-investigator
- **Project 4:** Controlling the Latent-Lytic Switch in EBV, led by Mertz with Kenney as a co-investigator
- **Project 5:** EBV Drivers of Oncogenesis and Novel Therapies, led by Kenney with Johannsen and Sugden as co-investigators

In line with the PPG's goals to "understand the life cycles of human tumor viruses, identify their contributions to the

—Continued on page 39



Janet E. Mertz, PhD, and Richard Kraus analyze EBV sequences.



## Presidential Couple

Not only are Shannon C. Kenney, MD, and Robert N. Golden, MD, a dual-career couple at the University of Wisconsin School of Medicine and Public Health (SMPH)—as the Watawga Bascom Professor in Cancer Research and dean of the school, respectively—they also serve as presidents for their professional organizations.

Kenney, as president of the International Association for Research on Epstein-Barr Virus and Associated Diseases, organized and presided over its biannual conference (see main article), along with two other organizations.

"It was a big honor to host this international meeting in Madison," she says.

As president of the American College of Psychiatrists, Golden will preside over its annual meeting in February 2019 in Honolulu. While he would have liked to host the meeting in Madison, he quips that the winter weather might have led to lower attendance compared to Hawaii.

"I'm excited to have the opportunity to contribute to the strategic planning for the future of psychiatry," Golden shares.

Kenney and Golden started calling Madison home in 2006, when they joined the SMPH faculty. Having met at Yale University, they went on to separate medical schools—Kenney to Yale and Golden to Boston University. They matched into residencies at the University of North Carolina at Chapel Hill, which they started soon after their wedding.

Since then, they've raised four children, have two grandchildren and balanced their careers with their highest priority: family life.

"While I miss having our kids around, we are blessed to have grandchildren just down the road in Chicago," shares Kenney.

# White Coat Ceremony

RECOGNIZING ACCOMPLISHMENTS WHILE LOOKING FORWARD



*Clockwise from top left: Christine Seibert, MD, helps Victoriya Ovesepyan, while others help Angela Olvera and Scott Odorico; M2 Jenna Hatab smiles as Shruti Rajan accepts her coat; Joseph Stoeckl, MD '88, and Elizabeth Stoeckl pose; Tracy Downs, MD, reflects KaHoua Yang's joy.*



*Clockwise from top left: Students share gratitude for their mothers' role in helping them succeed; Aaron Kollross shows his pride; Jennifer Glamann, MD '09, Megan Roedel and Gordon Roedel, MD '17, flash the "W" sign; Seibert watches as Sofia Haile steps forward in her white coat.*

**A**t the annual White Coat Ceremony in August 2018, entering medical students at the University of Wisconsin School of Medicine and Public Health (SMPH) got a special welcome when Dean Robert N. Golden, MD, shared fascinating statistics.

"Students in this class come from a wide range of locations, from villages and cities in Iraq, Germany, Albania, Palestine, Vietnam and Zambia to a Wisconsin town where there are more cows than people. We have students who were born in 28 countries, and 16 states other than

Wisconsin. About 75 percent of these class members are from Wisconsin—mainly from the Milwaukee area and Madison—but we also have students who were raised in small towns and medium-size cities across the state," he said.

He added that nearly 40 percent of the class earned undergraduate degrees at UW-Madison, and about 13 percent graduated from other UW-System universities or private colleges in Wisconsin. The balance graduated from outstanding schools across the nation.

These students have visited more than 46 countries, some to study abroad

and adventure, and others for global health work, community outreach and research. Closer to home, many worthwhile organizations have benefited from their commitment, including Big Brothers and Big Sisters, Boys and Girls Club, 4-H, Teach for America and Habitat for Humanity. Four incoming students were Eagle Scouts, seven were AmeriCorps volunteers and four served in the U.S. military. More than 90 percent of the class has been involved in some type of research, Golden noted.

He concluded, "We are proud to have you join our school's family!"



*Left to right: Allan Brasier, MD,  
Elizabeth Burnside, MD, and Robert  
Lemanske, Jr., MD '75 (PG '80)*

# Fostering Medical Advances

INSTITUTE FOR CLINICAL AND TRANSLATIONAL RESEARCH  
SUPPORTS INVESTIGATORS THROUGHOUT CAMPUS

**I**n 2008, Vivek Prabhakaran, MD, PhD, had a vision for his research on post-stroke brain plasticity.

He had joined the University of Wisconsin School of Medicine and Public Health (SMPH) as an assistant professor in the Department of Radiology. But even with his strong education—a medical degree from Stanford University and a residency and fellowship at Johns Hopkins Hospital—he needed much more to pursue his research.

Most of all, he needed time to immerse himself in his investigations. Thus, he applied for and received a National Institutes of Health (NIH) Institutional KL2 award from the UW Institute for Clinical and Translational Research (ICTR). He also received a pilot award from ICTR.

“Both of these grants were important in my career because they provided me with

training in translational research, helped me learn how to successfully run a research program and mentor trainees, and showed me the power of team-based research,” he says.

The NIH KL2 grant allowed Prabhakaran to spend 75 percent of his time for nearly three and a half years investigating the brain networks of stroke survivors, an extension of research he started at Johns Hopkins. And the KL2 Scholars Program introduced him to a formal approach to grant writing, lab operations, mentorship and other skills he needed to become successful in translational medicine.

A vision to support researchers like Prabhakaran—with the goal of turning discoveries into health improvements—was behind the creation of ICTR in 2006. The institute is a collaboration among the



*Vivek Prabhakaran, MD, PhD, uses specialized imaging in his research.*



*Marc Drezner, MD*

UW Schools of Medicine and Public Health, Nursing, Veterinary Medicine and Pharmacy, the UW College of Engineering and the Marshfield Clinic Research Institute.

#### **ICTR's Inception**

After 25 years on the Duke University School of Medicine faculty, Marc Drezner, MD, joined the SMPH in 2000 as a professor of medicine and chief of the Endocrinology, Diabetes and Metabolism Division. In 2005, he became director of the UW General Clinical Research Center (GCRC)—one of approximately 60 NIH-funded centers that supported clinical research at U.S. academic medical centers.

In 2004, recognizing the need for a new research paradigm, the NIH developed the Roadmap for Medical Research, which—as part of its effort to spur clinical and translational research—established the Clinical and Translational Science Awards (CTSA) Program.

In 2006, Robert N. Golden, MD—the new dean of the SMPH at that time—wanted to take the school's incredible research discoveries to the next step, to directly impact patient care. When he learned about the CTSA Program, he immediately knew that he wanted Drezner, based on his distinctive leadership of the GCRC, to guide the SMPH toward the future of CTSA-centric activities.

“As a physician-researcher who moved his laboratory discoveries into clinical

applications, Dr. Drezner had personally achieved the goals of the CTSA Program,” Golden notes. “Coupled with his considerable success as a senior leader in advancing science across the continuum, he was ideally suited for this enormous opportunity, as well as the challenges of making it happen.”

The developmental phase for this new concept began with the creation of ICTR, an effort initially supported—from 2006 through 2008—by a grant from the Wisconsin Partnership Program (WPP) for \$5.25 million. This significant contribution reflected the school's commitment to the aims of ICTR. During the initial year of funding, Drezner and other school leaders directed their efforts toward building the ICTR staff and identifying faculty members who would participate and direct the core activities that were destined for support from a CTSA grant. In addition, they dedicated many hours to planning the content and format of the grant application.

Drezner recalls, “Preparing the application for the first CTSA grant in 2007

was a herculean effort that was rewarded by its funding.”

Fast forward to 2012 and 2018, when Drezner again led the work for successful CTSA grant renewals, but with a much larger, more experienced team to produce the detailed applications.

In addition to the WPP and NIH CTSA grants, funds from across UW-Madison—including support pledged by the UW-Madison chancellor and leaders of UW Hospital and Clinics and the UW Medical Foundation—helped bolster ICTR's success. The WPP continues to support ICTR through its strategic grants program.

Drezner points out another important factor: The timing of the institute's establishment coincided with the SMPH's new vision—based on work by Golden and Philip Farrell, MD, PhD (PG '72), the previous dean—to transform the school into the nation's first integrated school of medicine *and* public health. As the SMPH worked to integrate public health content



*Tricia Denman (right) helps a subject enroll in the All of Us Research Program.*

into all of its programs, ICTR provided key components, including training of young investigators and the establishment of community-academic partnerships. ICTR leaders recognized the important role for these partnerships to inform research design and initiate conversations about translation and dissemination of discoveries into diverse settings.

“These efforts built ICTR’s successful community-engaged research programming that is the largest in the nation and includes an emphasis on collaboration and team science,” says Drezner, who became the first SMPH senior associate dean for clinical and translational research. “ICTR is uniquely designed to include support for research teams that want to conduct innovative investigations in partnership with members of communities that often are underrepresented in research.”

To date, ICTR has conducted research programs in 58 of Wisconsin’s 72 counties, helping the SMPH fulfill its mission to benefit residents statewide.

### **Success and Succession**

When planning for Drezner’s July 2018 retirement, school leaders chose Allan Brasier, MD, as ICTR’s executive director and senior associate dean for clinical and translational research, due to his strong history of collaboration and forward thinking.

Reflecting upon the programs developed by ICTR between 2006 and 2018 and his past experiences, Brasier says, “I have a passion for translational medicine. Without this approach, work in laboratories can get locked there, and we need to continue to break down barriers and move discoveries from the bench to the bedside. Relying on team science is an important way to do this.”

Unlike research of years ago, in which individual investigators spent countless hours working on hypotheses in isolation, team science relies on researchers working in collaborative, often multidisciplinary, teams across a campus, state or nation.

“Papers from effective, interdisciplinary teams are cited more often, and patents are more likely to be licensed,” notes Brasier.

The founding ideal of the CTSA Program is something Brasier took to heart in his previous role as the director of the Institute for Translational Sciences at the University of Texas Medical Branch in Galveston, where he ran its CTSA Program.

“I see the diversity of discipline at UW-Madison as a great opportunity,” he says, referring to leading the university’s multi-school CTSA Program, within the campus’ massive research enterprise.

The foundation of team science is in place for Brasier to cultivate, notes Robert Lemanske, Jr., MD ’75 (PG ’80), professor, Departments of Medicine and Pediatrics, Division of Pediatric Allergy, Immunology and Rheumatology, and associate dean for clinical and translational research.

Drezner recruited Lemanske to become an ICTR co-deputy executive director in 2015 to oversee the Translational Workforce Development and Education Programs, which include the KL2 Scholars Program, as well as graduate programs in clinical investigation

—Continued on page 36

## **ICTR’s Tripartite Mission**

The University of Wisconsin-Madison Institute for Clinical and Translational Research’s (ICTR) work is organized into the following three areas:

### **WORKFORCE DEVELOPMENT**

ICTR workforce development includes a variety of non-credit and for-credit courses, summer research opportunities and presentations on topics related to clinical and translational research, in addition to signature career development programs. Such opportunities encompass the KL2 Scholars Program, which provides junior faculty members with training, mentorship and protected time to develop independent research careers; the TL1 Training Program, which trains health sciences professional and engineering students in the scientific foundations of clinical and translational research; and the Graduate Program in Clinical

Investigation, which confers research degrees based on investigations into patient populations, data and/or patient care delivery methods.

### **COMMUNITY ENGAGEMENT**

The institute supports research that relies on participation from an array of community partners to solve problems in translating knowledge into clinical practice, community health programs and health policy. This includes supporting research intended to improve health and reduce health disparities in Wisconsin.

The ICTR’s infrastructure is designed to build the capacity of investigators and research partners. The Community Academic Partnership Program, led by Maureen Smith, MD, MPH, PhD, and the UW Collaborative Center for Health Equity, led by Dorothy Farrar Edwards, PhD, are leading these efforts. Smith is a professor

in the SMPH Departments of Population Health Sciences and Family Medicine and Community Health, and Farrar Edwards is a professor in the SMPH Department of Medicine and at the UW-Madison School of Education’s Department of Kinesiology.

### **RESEARCH RESOURCES**

ICTR provides a host of resources to help investigators increase productivity, develop novel methods and foster interdisciplinary proposals that reflect collaborations and bolster early-stage, translational research. Specifically, it offers research funding, clinical research tools, data management tools and software, and access to research networks and services such as bioinformatics consultation, protocol development and scientific editing.

# Alumni Weekend

YEARS-AGO GRADUATES RECONNECT WITH PEOPLE AND PLACES



TODD BROWN/MEDIA SOLUTIONS (11)



**D**uring Medical Alumni Weekend, May 31 through June 1, 2018, alumni and guests could choose among many activities, from visiting their old stomping grounds to checking out new facilities around the University of Wisconsin-Madison.

For starters, Thursday evening's Mini Med School highlighted topics related to hearing and sight. UW School of Medicine and Public Health (SMPH) faculty members presented the latest advances related to glaucoma, macular degeneration, hearing loss, hearing aids and more.

Many alumni and their guests participated in Friday morning tours on the Badger Trolley, with stops at the Medical Sciences Center—including its Anatomy Lab—and Bardeen Laboratories, followed by lunch with medical students, a tour of the Health Sciences Learning Center (HSLC) and a Babcock ice-cream social.

On Friday evening, the Dean's Reception at the Best Western Premier Park Hotel featured updates by Elizabeth Petty, MD '86 (PG '89), senior associate dean for academic affairs, and Shobhina Chheda, MD, associate dean for medical

education. They noted that the school's MD/MPH Program, Wisconsin Academy for Rural Medicine and Training in Urban Medicine and Public Health Programs have grown substantially in the past few years. They also described several enhancements being made at the HSLC (watch for a future article), and shared celebratory words related to the success of the school's 2018 graduates, who matched into many competitive residencies throughout the nation. More than 30 percent of the graduates remain in Wisconsin; 42 percent entered primary care; 14 percent entered





*Opposite page, clockwise from top left: Alumni and guests visit Bascom Hill; (left to right) Ronald Bergom, MD '63, Katherine Galos, MD '63, Geoffrey Moyer, MD '63; Mark Fenlon, MD '84, Phillip Johnson, MD '68, Karen Peterson; Claude Burdick, MD '58; John Wegmann, MD '68, M2 Jacob Ohman. Above: Galos, M2 Jayne-Norah Ntambi; Edward Bersu (tour guide); Allen Babbitz, MD '68, Gloria Sarto, MD '58; Eugene Nordby, MD '43, Patrick McBride, MD '80, MPH, Matt Connolly, MD '17; Nordby, M2 Catherine Jensen; James Wax, MD '58, Galos, Lyle Wendling, MD '68, Micaela Sullivan-Fowler (academic librarian), Randall Gall, MD '68.*

surgical specialties, and 10 percent chose emergency medicine.

WMAA President Susan Isensee, MD '83 (PG '86), noted that Daniel Jackson, MD '03 (PG '10), would begin his presidency on July 1 (see page 18), and she introduced president-elect, Mark Fenlon, MD '88, a family practitioner in Almond, Wisconsin. Further, Isensee recognized milestone reunions for the Classes of 1958, '63 and '68 and the Half-Century Society—those who graduated 50 or more years ago. Among them was Eugene Nordby, MD '43, who recently turned 100 (see page 24).

Fenlon and Isensee presented the school's Brown Derby Awards, named to honor the tradition of William S. Middleton, MD, who used these hats to encourage scholarship and, at the end of each semester, recognize superior academic performance. The Brown Derby has become the WMAA's symbol for outstanding performance in the annual giving campaign. Certificates were awarded to the Class of 2017 for having the largest number of donors, with 83 classmates contributing to the school in the past year; Class of 1980 for contributing

the largest amount; and Class of 1943 for the highest percent participation.

"Many of you are members of the SMPH Middleton Society, our philanthropic organization made up of our most loyal supporters. I thank you for your very generous support to our school! And many of you are well on your way to becoming a member of the Middleton Society," Isensee noted, adding that the society's new giving thresholds will increase after December 31, 2018 (see back cover). "I hope you will consider joining this prestigious group of loyal supporters."

# ALUMNI WEEKEND Reunions

## Half-Century Society



*Left to right: Richard Van Dreel, MD '62, Kathryn Nichol, MD '62, Eugene Nordby, MD '43, Charles Ihle, MD '65, Roger Rathert, MD '66.*

## Class of 1958



*Front row (left to right): Gloria Sarto, Harry Wong, David Westring, Eugene Zavrl, James Wax.  
Back row: Claude Burdick, Dennis Barber, John Gray, Alvin Brekken, Lowell Froker, Robert Schmidt.*

TODD BROWN/MEDIA SOLUTIONS (4)

Class of  
**1963**



*Front row (left to right): Louis Bernhardt, Tim Donovan, Gene Wegner, Katherine Galos, Geoffrey Moyer.  
Back row: Ralph Froelich, Conrad Andringa, Jim Murphy, Ronald Bergom, James Beck.*

Class of  
**1968**



*Front row (left to right): Michael Levin, John Reichert, Mary Cowles, Kae Walker, William Scheftner, David Riese, Paul Wagner.  
Middle row: Robert Horswill, Perry Schoenecker, George Kindschi, Thomas Lange, Michael Smullen, Stephen Stein, Allen Babbitz, Lyle Wendling,  
David Enerson, Jan Erlandson. Back row: Donald Beeckler, David de Harter, J. Craig Nelson, Robert Graebner, Barry Rumack, Phillip Johnson,  
Randall Gall, John Wegmann.*

# WMAA Welcomes New President

DANIEL JACKSON, MD '03 (PG '10)



by Kris Whitman

**T**he Wisconsin Medical Alumni Association's (WMAA) new president, Daniel Jackson, MD '03 (PG '10), is a dedicated Badger who knew, at a young age, that he wanted to attend the University of Wisconsin School of Medicine and Public Health (SMPH).

Having observed the careers of his mom and dad—a nurse manager and high school science teacher, respectively, “I grew up in health care and science,” explains Jackson, an associate professor in the SMPH Department of Pediatrics with an affiliate appointment in the Department of Medicine.

During high school in Beaver Dam, Wisconsin, Jackson enrolled in the SMPH Medical Scholars Program. That opportunity, which has evolved into different student offerings, provided conditional admission to the medical school for highly qualified high school seniors. It encouraged participants to become part of the medical school community as undergraduates at UW-Madison, where Jackson earned a biochemistry degree.

His early years on campus coincided with the Badger football team's Rose Bowl winning streak in the 1990s, cementing Jackson's “U-Rah-Rah” for life.

And his second year of medical school brought another life-defining change: He met a medical student, Amanda (Tucker) Jackson, MD '04, from Mequon, Wisconsin, who later joined him in marriage. After he earned his medical degree, Daniel Jackson spent a year conducting research while Amanda Jackson completed her final year at the SMPH.

Next, they matched together into residencies—pediatrics for him and emergency medicine for her—at the University of California-Davis.

While they enjoyed living for three years in the Golden State, where Amanda Jackson had earned a bachelor's degree, they returned to Wisconsin for Daniel Jackson to complete an allergy, immunology and rheumatology fellowship at UW Health.

In 2010, he joined the SMPH faculty. His wife also established her career in Madison, and they have two children, ages 6 and 11.

Daniel Jackson notes, “I chose my specialty in part because I had worked with incredible physician-researchers during medical school, many of whom are now my colleagues.”

Among this group are Robert Lemanske, Jr., MD '75 (PG '80), professor of medicine and pediatrics, who was Daniel Jackson's primary mentor during medical school and his fellowship; William Busse, MD '66, and Nizar Jarjour, MD, professors of medicine; James Gern, MD, professor of medicine and pediatrics; and Mark Moss, MD (PG '00), associate professor of medicine.

“Our work has been an example of ‘team science,’ starting well before that concept was popular,” says Daniel Jackson. “We've done substantial work—including large cohort studies and clinical trials—related to mechanisms underlying asthma inception, disease exacerbations and personalized care for children with asthma, with a long-term focus on asthma prevention.”

As a co-principal investigator for the Childhood Origins of Asthma study, his lab identified the synergy between early-life allergic sensitization and respiratory pathogens in asthma inception. He also has designed and conducted trials funded by the National Heart, Lung and Blood Institute, National Institute of Allergy and Infectious Diseases and other federal agencies.

Daniel Jackson publishes widely and is proud to have earned the Klosterfrau International Award for Research of Airway Diseases in Childhood in 2013.

“I enjoy all three aspects of my job: conducting research; taking care of patients at the American Family Children's Hospital; and teaching and mentoring medical students, residents and fellows,” he notes.

With a strong devotion to his medical school alma mater, he joined the WMAA Board of Directors in 2009, at the end of his fellowship. But his connections with the association began many years earlier.

“While I attended the SMPH, I participated in medical student government and

extracurricular activities—such as MEDiC, Doctors Ought to Care and specialty interest groups,” he recalls. “The WMAA's support of those types of organizations and events offered memorable opportunities to interact with classmates and alumni, which I found particularly valuable.”

He continues, “It's common for physicians to wait until later in their careers—perhaps when their children are grown—to join the WMAA. But I know how much the alumni association does to help students, and I wanted to be part of that right away.”

Daniel Jackson's goals in joining the association's board and becoming its president relate to encouraging more early-career graduates to get involved in ways that work for them. He also embraces another important WMAA mission: reducing medical student indebtedness.

“Tuition was rising steeply when I was in medical school, and my classmates and I worked with the WMAA to look at that issue. Since then, the association has focused on encouraging donors to create scholarships to reduce that burden for students,” he says.

As outlined in its strategic plan, which Daniel Jackson helped create, the WMAA is building a culture of philanthropy among medical students, including having each new student donate a dollar to the class fund at the WMAA stethoscope distribution event.

“As the president, I plan to continue to support these missions, while also reaching out to recent graduates and alumni with whom we have lost touch,” he says, adding that the ultimate goal is to help the SMPH fulfill its important missions.

Beyond their workplaces, Daniel and Amanda Jackson give back to the community in many ways.

“With two kids who are involved in various activities, plus our dual careers, schedules can be challenging,” he admits, adding that despite periodic time crunches, their family loves to travel, boat on Lake Mendota and play golf together.

Above all, Daniel Jackson exclaims, “Badger game days are a highlight for our whole family. We love to attend football games at Camp Randall together!”



*A UW Health neurologist examines a patient.*

## JUDY CARLSON, MD '82

Following medical school, I did a neurology residency at the Medical College of Wisconsin in Milwaukee. For nearly 20 years, I was in private practice and on staff at hospitals in the Milwaukee area. Thereafter, I joined the Milwaukee-based Wheaton Franciscan Healthcare (now Ascension), where I practiced for almost 10 years.

For the past six years, I've provided on-site neurology services for QuadMed clinics. I also do locum tenens assignments statewide, which have included Mayo Clinic,

Gundersen Health System, Mercyhealth and Aurora Health Care. I volunteer at the Lake Area Free Clinic in Oconomowoc, Wisconsin. It's been a unique and rewarding experience to practice neurology in rural, urban, academic and community settings throughout Wisconsin.

My typical patient cases include epilepsy, headache, dementia, cerebrovascular and neuromuscular conditions, and movement disorders. I credit my medical school instructors for helping me choose my specialty, which I would choose again. I shadowed a

neurologist during a family practice externship in Richland Center, Wisconsin, and the die was cast during clinicals at Mt. Sinai—with Drs. David Dahl and Tom Marra—when I encountered cases of crescendo transient ischemic attacks, a positive Tensilon test, acute cluster headaches and intracranial hypertension.

A memorable case involved a middle-age woman who had become reclusive and dependent on her husband, couldn't hold her train of thought, was distant and distracted, and had a suspected psychiatric condition. An EEG



revealed partial complex status epilepticus. She immediately improved with medication, which transformed her life.

I believe imaging, genetic analysis and disease-modifying therapies are among the most exciting enhancements to diagnose and treat neurological conditions. I encourage students to explore this field.

## KELLY FLEMMING, MD '94

I am a cerebrovascular neurologist at Mayo Clinic in Rochester, Minnesota. I see patients who experience ischemic stroke, brain hemorrhage, aneurysms and vascular malformations.

During my first year of medical school, the neuroanatomy course taught by Dr. John Harting was most amazing. I found neuroanatomical and deductive; it just made sense to me. During my third year of medical school, the opportunity to see patients with a variety of neurologic diseases solidified my interest. Since my time in Madison,

I have taught neuroanatomy to various levels of students and residents, and I also conduct research.

Following medical school, I completed a neurology residency and a cerebrovascular clinical and research fellowship at Mayo Clinic.

As a resident—when endovascular stroke intervention was in its infancy—I saw a 26-year-old woman who came into the emergency room “locked in”—not able to move anything except her eyes in a vertical fashion. She was taken to the

catheterization lab and given intra-arterial thrombolysis, and she walked out of the hospital three days later.

I belong to the American Heart and Stroke Association and the American Academy of Neurology. My research interest is in studying cavernous malformations, which are vascular malformations of the brain. I am a scientific advisor for the Angioma Alliance and attend its annual scientific conference, where basic, translational and clinical researchers work together with the goal of curing this disease.



Neurology includes an amazingly diverse field of subspecialties that hinge on the desire to localize lesions and find the causes. If you love deductive reasoning and anatomy, as well as caring for patients whose minds and bodies are affected by disease, neurology may interest you.

## MARY GOODSETT, MD '85

At Gundersen Health System in La Crosse, Wisconsin, I see general neurology patients and subspecialize in multiple sclerosis (MS) and other autoimmune diseases of the brain. After medical school, I completed a neurology residency at the University of Utah in Salt Lake City, along with my husband and SMPH classmate, Dr. Dave McCarthy.

Treating MS patients is incredibly rewarding. When I first entered practice, MS was difficult to diagnose, and we had no treatments for it other than supportive care. It was hard to watch as otherwise

healthy young women developed recurrent attacks of impairment and subsequent neurologic disability that often led to life in a wheelchair. Our understanding of MS has increased dramatically, and several drugs can now alter its course, sometimes putting patients into remission.

Gundersen is the SMPH's Western Academic Campus, and I have enjoyed the related teaching opportunities and connection with UW-Madison. I coordinate the Neurology Clerkship for Gundersen's Internal Medicine and Transitional Medicine neurology

rotations, and for SMPH medical students.

I entered medical school with an interest in neurology but was overwhelmed by the second-year neuroanatomy course. After the first year of an internal medicine residency, I realized the required, clinically relevant amount of neuroanatomy was do-able. I decided to return to this original interest. I believe the new SMPH curriculum focuses on this knowledge level.

I was drawn to neurology by the reasoning involved and the importance of physical exams in diagnoses. I am continually impressed by my



patients' courage as they face potentially frightening diseases. Even though many neurologic diseases cannot be cured, we have many ways to improve patients' lives.

The brain remains the “final frontier,” and we are rapidly solving its mysteries. This is an exciting time to be a neurologist!

# Class Notes *compiled by Andrea Larson*

**We want to hear from you!**  
[med.wisc.edu/shareyournews](http://med.wisc.edu/shareyournews)

## Class of 1980

**Felix Yip** has been reappointed to the Medical Board of California, on which he has served since 2013. Yip has been a board-certified urologist in private practice since 1987 and a clinical professor of urology at the Keck School of Medicine at the University of Southern California since 2011; he became the chief of staff at Garfield Medical Center in 2018. At the latter, he was chief of surgery in 1995, 1996, 2006 and 2007 and from 2010 through 2014. He was a clinical assistant professor of surgery at the University of California, Los Angeles School of Medicine from 1991 to 1996. Yip is a member of the University of California, Los Angeles School of Dentistry Board of Counselors. He earned a Master of Business Administration degree in health care management from the University of California, Irvine.

## Class of 1982

**Donald B. Kohn** has been named a member of the scientific advisory board at Allogene Therapeutics, Inc. He will provide strategic and scientific counsel to Allogene's management and research and development team to help advance allogeneic cell therapies directed at blood cancers and solid tumors. Allogene is a biotechnology company with a mission to catalyze the next revolution of cell therapy through the advancement of allogeneic CAR T-cell therapies. Kohn is a professor of microbiology, immunology and molecular genetics and of pediatrics at the University of California, Los Angeles, where he is the director of its Human Gene and

Stem Cell Therapy Program. He also is a member of the Broad Stem Cell Research Center and the Jonsson Comprehensive Cancer Center. Previously, he served as president of the American Society of Gene and Cell Therapy and the Clinical Immunology Society. Kohn received an Elizabeth Glaser Scientist Award from the Pediatric AIDS Foundation, a Distinguished Clinical Scientist Award from the Doris Duke Charitable Foundation and the Lifetime Achievement Award from the Pediatric Blood and Marrow Transplant Consortium.

## Class of 1984

**William G. Buchta** was installed, in May 2018, as president of the American College of Occupational and Environmental Medicine, the nation's largest medical society dedicated to promoting the health of workers through preventive medicine, clinical care, research and education. Buchta is the vice president and chief medical officer of Logistics Health, Inc., in La Crosse, Wisconsin. He previously was affiliated with Mayo Clinic in Rochester, Minnesota, for nearly 15 years, most recently as assistant professor of preventive medicine at the Mayo Clinic College of Medicine.



## Class of 1987

**Robert D. Steiner** begins in fall 2018 as editor-in-chief of the American College of Medical Genetics' peer-reviewed journal, *Genetics in Medicine*. He most recently

served as chief medical officer at Acer Therapeutics, which has locations in Massachusetts and Oregon. Prior to joining Acer, Steiner was the executive director of the Marshfield Clinic Research Institute, chief science officer of Marshfield Clinic and executive associate director of the Institute for Clinical and Translational Research at the SMPH.

## Class of 2001

### Michelle

**Dorsey**, chief of radiology at the Phoenix VA Health System, is the first Department of Veterans Affairs physician to earn a White House Leadership Fellowship. The prestigious White House Leadership Development Program—sponsored by the Executive Office of the President and supported by the President's Management Council and Performance Improvement Council—harnesses the top talent from across the U.S. government to support implementation of key priorities and address mission-critical challenges, such as the Cross-Agency Priority Goals in the president's management agenda. Fellows work on projects that require the coordination of multiple federal agencies to succeed. The goal is to build a cadre of enterprisewide government leaders with strong inter-agency experience and exposure to a broad cross-section of government. In October 2018, Dorsey relocated to Washington, DC, where she will work for 12 months in the White House Office of Management and Budget; there, she will provide leadership for the Customer Experience Cross-Agency Priority Goal. Fellows also work in areas such as Medicare and veterans' health care, as well





as airport security, emergency and disaster relief, federal student aid, national parks and passport services.

## Class of 2008

**Elizabeth Bonson** has become the national medical director of IME Services at Dane Street. It is a leading Utilization Review



Accreditation Commission-accredited provider of independent medical examination and peer-review services to the auto, disability, group health and workers' compensation markets in Boston. She will provide medical oversight and leadership to Dane Street's national workers' compensation and casualty programs across the company's eight national operations centers. Bonson brings more than 10 years of experience in occupational health services. Previously, she was the associate medical director at the Washington State Department of Labor and Industries, which provides insurance coverage for most employers and workers in that state.

## Class of 2009

**Angela Gibson** has been named medical director of Wound Healing Services for UW Health in Madison. In this role, she will collaborate



with team members to lead the provision of comprehensive burn and wound care encompassing inpatient, outpatient and procedural services across UW Health and in collaboration with the UnityPoint Health-Meriter campus. This will include the development of a Wound Services Steering Committee inclusive of primary, emergency and surgical specialty care providers and staff to ensure optimal coordination and continuity of care for patients.

Rural Medicine at Gundersen Hospital, an experience that inspired her to return to the Coulee Region of Wisconsin. She also traveled to Botswana through a University of Pennsylvania and the American Academy of Dermatology program and plans a return to volunteering in international medicine with an outreach trip to Cambodia in 2019. She and her husband, Charles Koch, welcomed their first child—and future Badger—Charlotte to the world in August 2017. As shown in this photo, Charlotte enjoyed a past issue of *Quarterly* magazine.



## Class of 2012

**Abigail Taub** recently accepted a position on the Wisconsin Medical Alumni Association Board. She is a dermatologist at Gundersen Health System in La Crosse, Wisconsin. While in medical school, Taub took part in the Wisconsin Academy for

### SEEKING SUBMISSIONS FOR HEALER'S JOURNEY

Healer's Journey, a section of *Quarterly* magazine, showcases creative work by members of the UW 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 in the medical field generally. Send submissions by e-mail to [quarterly@med.wisc.edu](mailto:quarterly@med.wisc.edu) or via mail to:

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

### IN MEMORIAM

Charles D. Edwards, MD '50  
Washington, North Carolina  
September 15, 2018

Sherwyn M. Woods, MD '57  
La Quinta, California  
October 15, 2018

Ronald J. Szymanski, MD '56  
Everett, Washington  
August 3, 2017

John W. Chandler, Jr., MD '65  
Madison, Wisconsin  
May 26, 2018

Robert W. Pointer, MD '57  
Lac du Flambeau, Wisconsin  
August 25, 2018

**Former Faculty Member:**  
Warner V. Slack, MD (PG '61)  
Auburndale, Massachusetts  
June 23, 2018

# 100 Years Strong

EUGENE NORDBY, MD '43



*Left to right: SMPH Class of 1943; Eugene Nordby, MD '43, during his early practice years; Nordby in mid-career in orthopedic surgery.*

by Beth Fultz, PhD

**A**braham Lincoln once observed that, "It's not the years in your life that count. It's the life in your years." At age 100, Eugene Nordby, MD '43, has had the rare good fortune to enjoy both long life and years filled with meaningful achievement. His distinguished career as an orthopedic surgeon, his 72-year marriage and his passion for preserving his Norwegian heritage form the outlines of an admirable life.

Having grown up in Baldwin, Wisconsin, where he became that town's first Eagle Scout, Nordby earned a bachelor's degree from Luther College in Decorah, Iowa. There, in 1938, he met the love of his life, Olive Marie Jensen, who had recently started her career as an art teacher at Luther College.

Medical school drew Nordby to Madison in 1939, and his sweetheart and her mother moved to Madison the following year. A 1941 wedding commenced Eugene and Olive Nordby's partnership of more than seven decades.

With his medical degree in hand in 1943, the couple stayed in Madison for Eugene Nordby to pursue his internship and orthopedic surgery training at Madison General Hospital.

As was the case for many physicians in those days, his early career took a detour during World War II. Eugene Nordby served as a military surgeon, first in Okinawa, Japan, and then in South Korea during the post-war withdrawal of forces and regional stabilization.

Returning from military service in 1947, he began practicing with H. Lewis Greene, MD, a mentor at Madison General, and three years later, Eugene Nordby became board-certified in orthopedic surgery. While at Madison General, he served for several years as chief of the medical staff, and he was the first physician elected to the hospital's board of directors.

Eugene Nordby also partnered with Greene in a private orthopedic practice that served much of southern Wisconsin. The two traveled from one community to another, performing surgeries in local hospitals that

had no orthopedic surgeons. Subsequently, he was part of a six-member group practice in Madison, known as Bone and Joint Surgery Associates. Although Eugene Nordby retired in 1981, the practice continued until 2014.

Describing him as a doer is an understatement. Throughout his career, he has been a founder, leader and active member in orthopedic organizations at the state and national levels. He held leadership roles in the Wisconsin Medical Society and the American Academy of Orthopedic Surgeons. He served on the board of WPS (Wisconsin Physician Services) Insurance for 55 years, including 30 as its board chair. During his tenure, WPS Insurance grew from a small organization affiliated with Blue Cross/Blue Shield and the Wisconsin Medical Society to an independent, non-profit corporation that continues to have a strong presence in the state's health insurance marketplace.

In 1987, Eugene Nordby founded and became the first president and executive director of the International Intradiscal



*Left to right: Eugene Nordby, MD '43, and his son, Jon Nordby, PhD, at their cabin in northern Wisconsin; Olive and Eugene Nordby.*

Therapy Society. The organization held its annual meetings in Russia, Europe and throughout the United States. Eugene Nordby's humorous talks all over the world led some to call him the "Bob Hope" of orthopedics and made him a popular speaker.

Along with his busy orthopedic practice and many professional leadership roles, he has valued family life and made time for many personal interests. He and his wife had one son, Jon Nordby, PhD, now a retired forensic scientist, professor of forensics at Pacific Lutheran University, and author of academic and popular publications on applying forensic science to solving crimes.

While Eugene Nordby was becoming one of the leading orthopedic surgeons of his day, Olive Nordby pursued a career as an artist and philanthropist. Her award-winning woodcuts have hung in galleries throughout the Midwest and been captured in a large-format retrospective book. Her artwork continues to adorn the Northwoods home the couple shared for decades. Olive

Nordby died in 2014, just two days shy of her 99th birthday.

Together, the Nordbys became leaders in the Norwegian-American community and played an active role in the Norwegian Genealogical Society and many other organizations. The grandson of four Norwegian grandparents, Eugene Nordby was a leader for decades at the Vesterheim Museum and Heritage Center in Decorah, Iowa, established to showcase and preserve the history and culture of Norway. He served for years as chair of the center's board and remains an honorary trustee of the museum. During his time as chair, he made frequent trips to Norway, always accompanied by his wife, to negotiate the purchase of artifacts for the museum and build relationships that would allow the museum to grow and sustain itself. During those travels, he met often with King Olav V, then monarch of Norway, who was honorary chair of the museum. The two became friends, and in the 1970s, the king recognized Eugene Nordby's cultural preservation efforts by conferring Norwegian knighthood on his American friend.

These days, Eugene Nordby spends four months a year at his home in northern Wisconsin, often joined by his son. Fishing is a favorite pursuit.

"We don't catch much, but that's alright," he laughs.

He enjoys preparing Norwegian treats such as krumkake and baking in general. Chocolate chip cookies, a universal favorite, are among his specialties.

The remainder of the year he spends in Madison at his home in a retirement community.

At age 100, he maintains many of the professional and personal relationships he has built over the years. With organizational help from his son, two gatherings marked his centennial birthday, one in the Northwoods and one in Madison, each including 100 or more guests.

Asked what he views as the key to his longevity, Eugene Nordby responds, "A good life partner, and a glass of red wine every day!"

# Life Lessons Worth Paying Forward

JULIANE H. LEE, MD '94, MS



*The late Kiuck Lee, PhD (left), and the late OkSoon Lee, MD*



*Juliane Lee, MD '94, MS*

by Masarah Van Eyck

Some forms of support reveal themselves only years later. That's a fact that pediatric anesthesiologist Juliane H. Lee, MD '94, MS, learned firsthand.

"I remember hearing that 30 percent of my class would switch their fields at some point in their careers," Lee recalls about her medical training at the University of Wisconsin School of Medicine and Public Health (SMPH).

"At the time, I thought, 'That will never be me!'" she laughs. "But, sure enough, I switched!"

The insight proved particularly reassuring when—after completing two categorical

years of her surgery residency at University of Toledo Medical Center and a research fellowship at Memorial Sloan-Kettering Cancer Center in New York—Lee decided to change the course of her career. Going on to earn a master's degree in physiology, biophysics and molecular medicine from Weill Graduate School of Medical Sciences at Cornell University in New York, she then completed a residency in anesthesiology followed by a fellowship in pediatric anesthesiology at the University of Illinois-Chicago Medical Center.

Today, as an assistant professor of anesthesiology at the Medical College of Wisconsin, Lee provides anesthesia at the

Children's Hospital of Wisconsin and pain management services at the Jane B. Pettit Pain Management and Headache Center in Milwaukee. She continues to pursue new avenues with the goal of providing exceptional care for her patients. For example, in addition to western therapies such as medications and cognitive behavioral therapy, she offers medical acupuncture, a therapy that "can provide a tremendous benefit to pediatric patients and is particularly attractive in the midst of the opioid crisis," she says.

The take-away lesson from those wise words heard many years ago?

"You realize it's OK to switch tracks and to pursue less traditional training, even later in life, if it will allow you to contribute in the best way that you are able," says the Wisconsin native who recently accepted an invitation to join the Wisconsin Medical Alumni Association Board of Directors.

"My parents taught me that we all have to help each other in the ways we are able, and to the best of our abilities."

She credits her decision to establish an endowed scholarship for SMPH students to that same drive to help others. Named in memory of her parents, Kiuck Lee, PhD, and OkSoon Lee, MD, and in honor of Stuart Knechtle, MD, a liver transplant surgeon and former member of the SMPH faculty, Lee says the scholarship is simply her way of "paying it forward."

"I have worked very long and very hard, but I also have been very fortunate," she shares.

To that end, Lee points first to her parents, whose value of education and service to others proved foundational to her and her four sisters, all of whom became physicians.

"Clearly we did emulate her," Lee says of her mother, a pediatrician who cared for underserved children through Milwaukee's Department of Health and, later, worked with developmentally delayed adults. "My father also participated in our care tremendously when we were growing up."

She notes that, in addition to her father's 40-year career as a physics professor at Marquette University in Milwaukee, "He also was very much 'Mr. Mom' at home."

With just seven years between the eldest and youngest daughters, that included lots of midnight feedings and changings.

Reflecting on her medical school activities and exams, Lee laughs as she recalls, "My parents were so supportive and loving during my time at Madison that my classmates used to ask if they'd adopt them!"

Another key element on her list of good fortune, Lee says—and for reasons which would not entirely reveal themselves until years later—is the support of Knechtle,

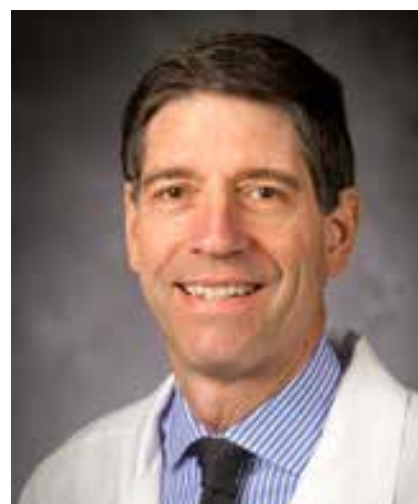
whom she first encountered while a student on her surgery rotation. Then a transplant surgeon at UW Hospital, Knechtle served on the SMPH faculty for nearly two decades before he moved his career to Duke University School of Medicine.

"He went above and beyond for everyone," Lee remembers of Knechtle, who was a key part of the team that performed UW Hospital's first live liver transplant. "He treated all of his patients as VIPs."

And 10 years after Lee graduated from medical school, her family experienced Knechtle's extraordinary care firsthand—first when Lee approached him to perform a transplant for her mother and, later, having gained the family's immense trust, to perform general surgery for her father. To this day, Lee is filled with gratitude when she remembers the ways he helped her parents navigate their medical issues toward the end of their lives.

"Finding someone you trust to take care of your own mother or father, like we trusted Dr. Knechtle, is something I don't take for granted. I remember this each time parents entrust their child's care to me. He is superior on so many different levels, as a person and as a surgeon. He personifies everything that my mom and dad believed in."

In fact, that gratitude for her own good fortune is at the heart of Lee's recent philanthropic gesture.



*Stuart Knechtle, MD*



*Three of the five sisters in the Lee family (left to right): Grace Lee, MD, Juliane Lee, MD '94, MS, and Catherine Lee, MD; all five became physicians.*

"To be able to create a scholarship and honor these three people and what they stood for, both collectively and individually, is really something special," she notes.

Of that choice, she adds, "My classmates and I hopefully contribute to our communities every day by helping people survive longer and live better. At a certain stage in my life, however, I wanted to create a professional and personal legacy beyond the sum of all the anesthesia cases I have provided."

Lee continues, "I really want to pay it forward by leaving something that lives on—not just dollars, but something to perpetuate the sentiment behind it."

That sentiment is two-fold for Lee, who says, "I hope this helps students realize there are people—unknown to them—who want to help them reach their goals; and I hope students will in turn be moved to help others in ways they are best equipped."

She concludes, "These are important qualities that have been passed on to me from my parents and role models like Dr. Knechtle. It's really a cycle that is an honor and privilege to perpetuate."

## Kind Leads Neighborhood Map Project to Guide Medical Decision-Making

Researchers at the University of Wisconsin School of Medicine and Public Health (SMPH) have developed an online, interactive



map of more than 70 million ZIP+4 codes to offer data on socio-economic factors at the neighborhood level.

The Neighborhood Atlas, published in the *New England Journal of Medicine*, helps quantify the degree of disadvantage in a neighborhood, a critical step to identifying health disparities and designing effective interventions.

Amy Kind, MD '01, PhD '11, associate professor in the SMPH Department of Medicine's Division of Geriatrics and Gerontology, and William Buckingham, health geographer, UW Applied Population Laboratory, led the effort to create the interactive map, available at [neighborhoodatlas.medicine.wisc.edu](http://neighborhoodatlas.medicine.wisc.edu).

"We want this to be a tool everyone can use and hope it will be a catalyst for policies, research studies and clinical interventions to help reduce health disparities," says Kind.

The map is based on the Area Deprivation Index (ADI) created by the U.S. Health Resources and Services Administration three decades ago and modernized by Kind's group to the neighborhood level for the United States and Puerto Rico. The ADI covers unemployment, poverty, education and housing to yield a picture of an area's socio-economic disadvantage.

Already being used by state and federal agencies and health systems, the Neighborhood Atlas also holds potential to aid research, such as targeted clinical trials, and to improve clinical outcomes by addressing barriers to care.

## Byars-Winston Earns National Research Excellence Award

Angela Byars-Winston, PhD, professor in the University of Wisconsin School of Medicine and Public Health's (SMPH)



Department of Medicine, Division of General Internal Medicine, received the 2017-18 John Holland Award for Outstanding Achievement in Career or Personality Research by the Society of Counseling Psychology.

The award recognizes notable research on career and personality topics and honors investigators who have established research programs that are making a substantial impact in counseling psychology. Byars-Winston accepted the award at the American Psychological Association Conference in August 2018.

"I am honored to be recognized by my peers in psychology, especially since I conduct so much of my work in STEM and academic medicine," says Byars-Winston. "Dr. John Holland is one of the most influential psychologists and the creator of the Holland codes and career development model that define career counseling. To receive an award named after him is not only an affirmation of my scholarship, but motivation to continue doing work that increases diversity and equity in career development and the workforce."

Her research focuses on effective mentoring practices, and her work examines cultural influences on career development, especially for racial and ethnic minorities and women in the sciences, engineering and medicine. She has been testing the validity of theoretical models to explain and predict academic and career outcomes.

## Kalin Named Editor-In-Chief of Leading Psychiatric Journal

Ned Kalin, MD, Hedberg Professor and chair of the Department of Psychiatry at the University of Wisconsin School of Medicine and Public Health



(SMPH), has been named the next editor-in-chief of the *American Journal of Psychiatry*, the premier journal of the American Psychiatric Association (APA) and the most widely read psychiatric journal in the world.

Kalin has served as the chair of the Department of Psychiatry since 1991. A widely published researcher, he is a co-founder and co-director of the HealthEmotions Research Institute and director of the Lane Neuroimaging Laboratory, both at UW-Madison.

A distinguished fellow of the APA, Kalin also is a member of the National Academy of Medicine and the editorial board of *Personalized Medicine in Psychiatry*. He is the principal investigator on research projects funded by the National Institute of Mental Health and has received several international honors, including the Anna-Monika Prize for neuroscience research in recognition of his outstanding work related to understanding affective disorders.

Founded in 1844, the APA is the oldest medical association in the United States. It is the largest psychiatric association in the world, with more than 37,800 physician members who specialize in the diagnosis, treatment, prevention and research of mental illnesses. Kalin's term as editor-in-chief will begin in January 2019.

## Knox Named Outstanding Frontline Professional

Child abuse pediatrician Barbara Knox, MD '02, was honored with the 2018 Outstanding Frontline Professional Award by the American Professional



Society on the Abuse of Children (APSAC). The award recognizes a frontline professional who demonstrates extraordinary dedication and skill in direct care efforts on behalf of children and families.

A professor in the Division of Child Abuse and Bioethics in the University of Wisconsin School of Medicine and Public Health's Department of Pediatrics, Knox leads the UW Child Protection Program, based at American Family Children's Hospital, which provides clinical consultation to medical teams, social services, law enforcement agencies and prosecutors on suspected cases of child maltreatment. Knox and her team also provide outreach to students, clinicians and colleagues on ways to prevent, recognize and treat cases of child abuse.

She cares for children who have been or are suspected of being victims of physical abuse, sexual abuse, neglect, psychological maltreatment and Munchausen Syndrome by proxy.

Knox's education and research efforts aim to improve the recognition, diagnosis and treatment of child abuse victims. Her research focuses on child torture as a form of abuse. She is a nationally and internationally recognized expert on child torture and also consults for the Federal Bureau of Investigation's Behavioral Analysis Unit 3, based in Quantico, Virginia, which investigates violent crimes against children.

## Jaffery Appointed to Medicare Payment Advisory Commission

Jonathan Jaffery, MD, professor, Department of Medicine, University of Wisconsin School of Medicine and



Public Health, and senior vice president and chief population health officer, UW Health, has been appointed to a three-year term on the Medicare Payment Advisory Commission (MedPAC), the independent, non-partisan agency tasked with advising Congress on Medicare policies.

Jaffery, who also serves as president and CEO of the UW Health Accountable Care Organization, is one of 17 MedPAC commissioners who advise lawmakers on a range of health issues, including access, quality and payments to plans and providers.

As the single largest payer for health care in the United States, Medicare covers more than 55 million Americans age 65 and older, as well as younger patients with certain disabilities and diseases.

A practicing nephrologist, Jaffery holds advanced degrees in population health sciences (SMPH '08) and medical management. He completed a Robert Wood Johnson Health Policy Fellowship, during which he worked for the U.S. Senate Committee on Finance. He previously served as the Medicaid chief medical officer for the state of Wisconsin.

"I am honored to be chosen for this responsibility," says Jaffery. "Medicare is a central and important piece of our health care infrastructure, and MedPAC's role is to provide the best advice and direction possible to sustain it at a high level of quality and in a fiscally responsible way that supports both patients and providers."

## Brown Heads State's First Addiction Hotline to Guide Providers

In what is believed to be a national first, University of Wisconsin-Madison, in conjunction with UW Health, has established a



new resource for Wisconsin primary care physicians and other providers to help them manage patients with addictions.

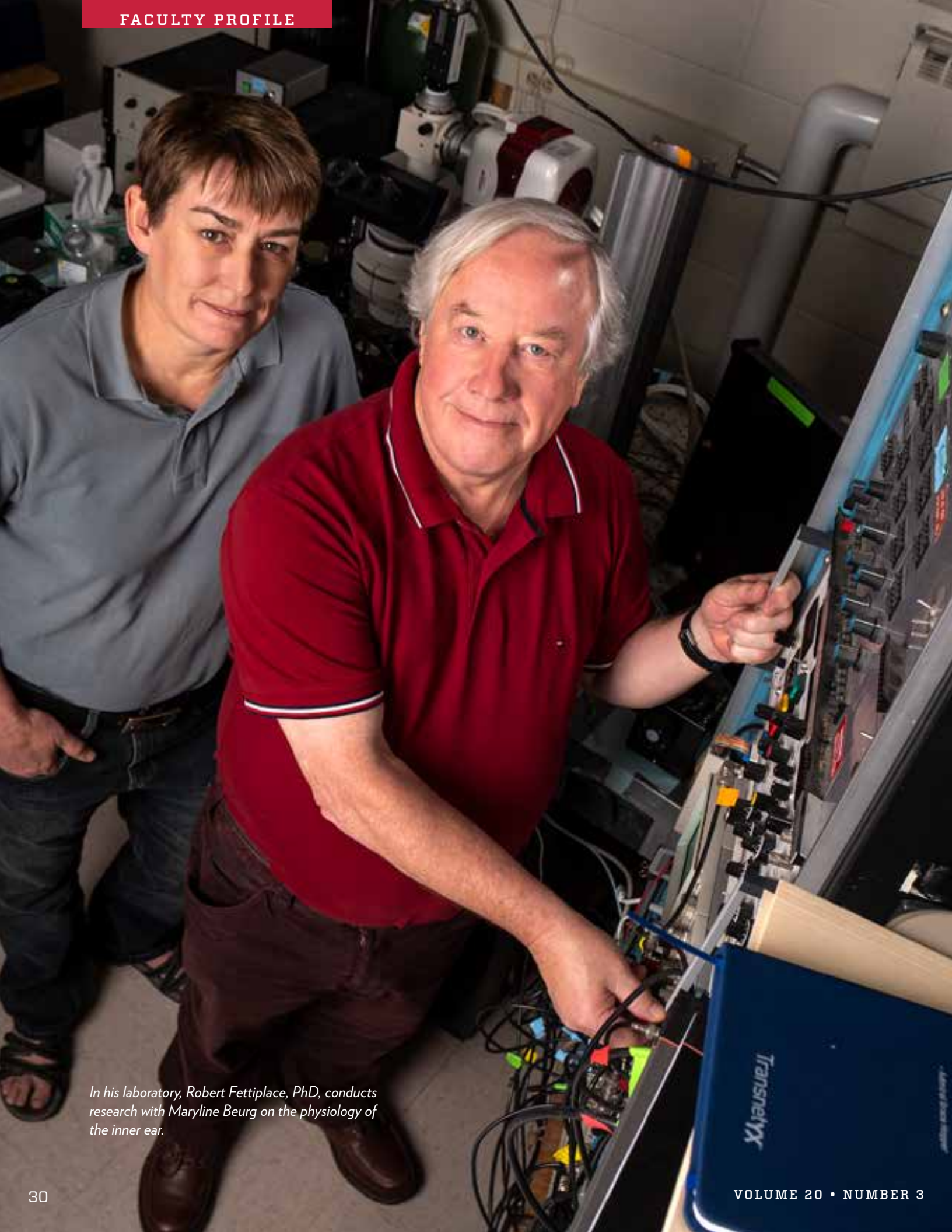
Supported by a grant from the Wisconsin Department of Health Services, the UW Addiction Consultation Hotline offers on-call assistance to providers seeking support for managing patients' substance abuse issues.

"The misuse of substances represents the single largest preventable and treatable contributor to morbidity and mortality," says Randall Brown, MD, PhD '09, associate professor, Department of Family Medicine and Community Health, UW School of Medicine and Public Health, who oversees the program. "Research shows we can effectively care for these patients in primary care settings, yet 70 percent of Wisconsin's rural counties lack a single provider who is certified to provide medication-assisted treatment for opioid-use disorders."

The hotline offers real-time support from specialists in addiction medicine and addiction psychiatry. While the focus is on acute care, specialists also can offer advice for longer-term care and follow-up for a range of addictions, including alcohol, opioids, stimulants, marijuana and synthetics.

The hotline is available weekdays from 8 a.m. to 5 p.m. Providers should call (608) 263-3260. Those outside Madison can call toll-free, (800) 472-0111.

Collaborators include the Rural Wisconsin Health Cooperative and the Wisconsin Society of Addiction Medicine.



*In his laboratory, Robert Fettiplace, PhD, conducts research with Maryline Beurg on the physiology of the inner ear.*



# Neuroscientist Earns Kavli Prize

ROBERT FETTIPLACE, PHD

by Susan Lampert Smith

When Robert Fettiplace, PhD, talks about the joy of discovery, he captures the spirit that drove explorers over mountains and into the deepest caves.

“The results of electrophysiological experiments are usually evident immediately, which can be exciting,” says Fettiplace, professor, Department of Neuroscience, University of Wisconsin School of Medicine and Public Health (SMPH). “It makes one feel like an explorer who turns a corner in the forest to encounter a new and unexpected artifact.”

Fettiplace’s explorations of the physiology of the inner ear earned him one of the highest awards in science. In September 2018, he became a Kavli Prize Laureate in a ceremony held in the Oslo Concert Hall, where the Nobel Peace Prize is awarded. He received a gold medal from King Harald of Norway and shared the \$1 million neuroscience prize with two colleagues in hearing research, A. James Hudspeth, MD, PhD, of Rockefeller University, New York, and Christine Petit, MD, PhD, of the Pasteur Institute, Paris. The award, established in 2008 and given every two years, is considered a portent of a future Nobel Prize. The ceremony, co-hosted by Alan Alda, was broadcast on Norwegian television and capped a week of festivities that included lectures, a concert, meetings with young scientists and a dinner in a palace.

Much of the work for which Fettiplace earned the Kavli Prize took place in a corner lab on the street level of the Medical Sciences Building on the UW-Madison campus.

An Englishman who can trace his heritage to the Norman conquest in 1066, Fettiplace earned his doctoral degree at Cambridge University in England. He began his career at Stanford University in California, studying photoreceptors in the retinae of turtles.

On returning to Cambridge University, he switched to studying hearing, using turtles because they were technically easier than mammals. He made his early discoveries in the turtle cochlea.

Fettiplace already was a fellow of the Royal Society of London when, in 1990, he joined the faculty of the SMPH, where he became the Steenbock Professor of Neural and Behavioral Sciences. He says he was excited to join a department filled with renowned auditory researchers, such as John Brugge, PhD; Joe Hind, PhD; Bill Rhode, PhD; Tom Yin, PhD; Dan Geisler, PhD; and Donata Oertel, PhD, in the Department of Neuroscience (formerly the Department of Neurophysiology).

Most of Fettiplace’s neuroscience career has focused on the workings of the ear, understanding how hair cells in the cochlea translate the vibrations of sound into the electrical signals that are the currency of the brain. One of his most important early discoveries was that auditory hair cells are designed electrically to pick up a specific range of frequencies and arranged along the cochlea like the keys of a piano, with high frequencies at one end and low at the other.

“Just as a prism separates white light into the colors, the cochlea behaves like an acoustic prism; it takes wide bands of noise, and the hair cells separate the sound into its component frequencies,” Fettiplace explains.

The hair cells detect motion of the membranes inside the cochlea and convert them to electrical signals. But the movements that stimulate cochlear hair cells are very small, a thousandth the diameter of the hair on a human head. So he had to invent new methods and techniques to record what the cells were doing, and he did so, in part, because no one else had.

“People think scientists develop hypotheses and design experiments to prove them. That isn’t always how science works,” says Fettiplace, who is a fellow

of the Royal Society and of the American Academy of Arts and Sciences. “You try to get a new measurement, and if you’re lucky, you stumble onto something. That’s how we discovered electrical tuning; we just wanted to be the first to make a recording from the hair cells.”

Oertel, chair of the Department of Neuroscience and a fellow hearing researcher, calls Fettiplace “tremendously creative at designing new techniques with which to study the function of the delicate inner ear.”

“He pioneered numerous techniques with which he could address problems unique to the ear,” she says. “He published his findings in a series of ground-breaking papers that are as elegant in their approach, as beautiful in their writing, as rigorous in their analysis and as meticulous in their scholarship as any I have read.”

In recent years, Fettiplace has switched his research from turtles to mice to exploit the many mouse strains that are deaf mutants. His current research is aimed at understanding the ion channel proteins that open and close in mammalian hair cells. He and Maryline Beurg, senior scientist in his lab, recently published evidence in *Nature Communications* suggesting that a protein called transmembrane channel-like protein isoform-1 (TMC1) creates the channel that converts the mechanical stimuli into electrical signals. In the small world of hearing research, Beurg previously worked in a French lab overseen by Petit.

The Kavli Prize committee—which also awards prizes in astrophysics and nanoscience—noted that together, the award-winning hearing researchers “provided fundamental new insight in how our inner ear transforms sound into electrical signals—the basis of hearing—and have unveiled genetic and molecular mechanisms underlying hearing loss . . . between them, the three laureates have helped unravel the sense of hearing.”

## Research Traces Parkinson's Damage in the Heart



**A** new way to examine oxidative stress and inflammation in the heart will help researchers test therapies and explore how Parkinson's disease affects cardiac function. By the time Parkinson's is diagnosed, about 60 percent of patients

also have serious damage to the heart's connections to the sympathetic nervous system. When healthy, these nerves spur the heart to accelerate its pumping to match quick changes in activity and blood pressure.

"This damage makes their bodies less prepared to respond to stress and to simple changes like standing up, which increases the risk of fainting, falling and fatigue," says Marina Emborg, MD, PhD, a professor at the University of Wisconsin School of Medicine and Public Health (SMPH) Department of Medical

Physics and a Parkinson's disease researcher at the Wisconsin National Primate Research Center.

Emborg, graduate student Jeanette Metzger, and SMPH specialists in cardiology and medical imaging developed a method for tracking the mechanisms that cause damage to heart nerve cells. They tested the method in monkeys and published their results in the *Nature Partner Journal (NPJ) Parkinson's Disease*.

"Now we can visualize in detail where inflammation and oxidative stress are happening,

and the link to loss of neuronal connections in the heart," says Metzger, lead author.

Results suggest the radioligand scans could help catch Parkinson's disease in some patients before other symptoms progress. Heart attacks and diabetes cause similar damage to nerves in the heart, and those patients could benefit from the new visualization method, as well.

Many UW-Madison researchers in various fields collaborated in the study.

## Air Conditioning's Impact Affects Health

**A**s climate change continues to raise temperatures, increased air conditioning use could compound the toll of air pollution on human health, according to a University of Wisconsin-Madison study.

Researchers forecast as many as 1,000 additional deaths annually in the eastern United States alone due to elevated levels of air pollution, driven by increased fossil fuels to cool buildings. The findings were published in the *Public Library of Science (PLOS) Medicine*.

"Air pollution is projected to get worse," says lead author David Abel, a graduate student in the UW-Madison Nelson Institute for Environmental Studies' Center for Sustainability and the Global Environment.

"With heat waves increasing, there is no question that air conditioning does and will save lives," notes Jonathan Patz, MD, MPH, director, UW-Madison Global Health Institute, and professor, Nelson Institute for Environmental Studies and the UW School of Medicine and Public Health's Department of Population

Health Sciences, and a senior author on the report. "But if we continue to rely on coal-fired power plants for electricity, each time we turn on the air conditioning, we will be fouling the air, causing more sickness and deaths."

The analysis combined projections from five models to forecast increased summer energy and the impact on power consumption, air quality and—consequently—human health. It forecasts that by mid-century, there will be an additional 13,000 annual deaths caused by increasing summer levels of fine



particulate matter and 3,000 annual deaths caused by ozone in the eastern United States.

The findings underscore the need to change to more sustainable sources of energy such as wind and solar power, and to use energy-efficient air conditioning equipment.

## Exercise, Meditation Appear to Reduce Colds and Flu



**P**articipating in mindfulness meditation or exercise may protect against the common cold and flu, according to researchers at the University of Wisconsin-Madison School of Medicine and Public Health (SMPH).

The recent study, published in *PLOS One*, found that those who participated in eight weeks of mindfulness-meditation training or took an eight-week program of moderate-intensity exercise had lower rates of acute respiratory infections (ARI)—colds, flu and flu-like illnesses—compared to a control group.

Conducted from 2012 to 2018, 390 randomized participants, age 30 to 69 years, completed the program. The Meditation or Exercise for Preventing Acute Respiratory Infection (MEPARI-2) clinical trial replicated the results of the first MEPARI study,

which included people age 50 and older.

Each participant received a flu vaccine. In the mindfulness-meditation group, there were 112 ARI episodes and 1,045 illness days. In the exercise group, there were 120 ARI episodes and 1,010 illness days. And in the control group, there were 134 ARI episodes with 1,210 illness days. The control group also experienced more health care visits and missed days of work.

In addition to the physical benefits of reduced illness, those in the mindfulness-meditation and exercise groups also experienced psychological

benefits, including a reduction of stress and depression, and improvements in mindful attention.

“More research into the benefits of exercise and meditation is warranted, maybe in higher-risk or sicker populations, where there are more health benefits to gain,” says lead author Bruce Barrett, MD, PhD (PG ’97), professor, SMPH Department of Family Medicine and Community Health. “In the meantime, we feel justified in advocating for mindfulness and exercise because the benefits appear likely, and there are minimal risks.”

## Brain Pathway Underlies Anxiety and Depression Risk

**I**n studies of young rhesus monkeys, researchers from the University of Wisconsin School of Medicine and Public Health’s (SMPH) Department of Psychiatry have discovered brain pathways that underlie children’s vulnerability to develop anxiety and depression later in life.

Published in the *Journal of Neuroscience*, the study offers insights into how anxiety develops, its underlying brain alterations and how it is transmitted from parents to children; this may provide targets for future therapies.

Notably, researchers from the UW HealthEmotions

Research Institute determined that young monkeys inherit one of the pathways critical to early-life anxious temperament.

Led by Ned Kalin, MD, Hedberg Professor and chair of the SMPH Department of Psychiatry, the research team used functional magnetic resonance imaging to study the brains of hundreds of related monkeys, which varied in levels of anxious temperament. They found that functional connectivity between two regions of the central extended amygdala is associated with anxious temperament in pre-adolescent rhesus macaques. They are using

these discoveries to guide companion studies of anxiety in preadolescent children.

“In data from a species closely related to humans, this research strongly points to alterations in human brain function that contribute to the level of an individual’s anxiety,” says Kalin, co-founder and co-director of the HealthEmotions Research Institute and director of the Lane Neuroimaging Laboratory.

Jonathan Oler, PhD, the study’s co-lead author and a senior scientist in the Department of Psychiatry, says the findings demonstrate that the degree of synchronization



between these brain regions is correlated with anxious temperament.

He says, “This speaks to the importance of studying animals related to humans because it allows us to learn about the causes of human anxiety, so we can develop better treatment and prevention strategies.”

DOROTHY FARRAR  
EDWARDS, PHD

# All of Us Research Program



by Kevin Kiley and Laura Hogan

**Y**ou wouldn't guess by looking at her, but Dorothy Farrar Edwards, PhD, has battled hypertension most of her life. Despite a trim physique and a low-key manner, a family history of heart disease and hypertension claimed her brother at a young age, and both of her parents.

"I lost my brother at age 43 to heart disease, which is way too young," she reflects. "I have hypertension and have felt, for a long time, that my family's genetics are likely a major factor. This helped to shape my entire professional career."

A professor in the Department of Medicine at the University of Wisconsin School of Medicine and Public Health (SMPH) and in the Department of Kinesiology at the UW-Madison School of Education, Farrar Edwards has focused her research on investigating the cultural, physical, genetic and lifestyle factors that lead to a wide range of health conditions that have disparate effects on different populations. Her current investigations have the goal of advancing health equity by addressing health disparities, particularly focusing on Alzheimer's disease and stroke in African American populations.

As director of the Collaborative Center for Health Equity in the UW-Madison Institute for Clinical and Translational Research (see page 10), she has contributed to significant advances in the care of minority, immigrant and tribal communities in Wisconsin, but says there's a long way to go. This is among the reasons she advocated for UW-Madison to engage in the All of Us Research Program.

An historic effort to make a positive impact on health and health disparities nationwide, the All of Us Research Program is funded by the National Institutes of Health (NIH). The NIH chose the Wisconsin consortium—comprised of UW-Madison, Marshfield Clinic, the BloodCenter of Wisconsin and the Medical College of Wisconsin—as one of 10 participating centers nationwide.

### **Extending the Wisconsin Idea**

Farrar Edwards and Elizabeth Burnside, MD, associate dean for team science and interdisciplinary research at the

SMPH, serve as co-principal investigators for UW-Madison's site. Farrar Edwards also leads community engagement for the statewide All of Us Wisconsin consortium. She lauds the program as "exciting, innovative and ambitious," with the mission of creating the largest biobank of its kind by collecting health data from a million or more participants nationwide. She says the program illustrates UW-Madison's long-term commitment to health equity.

"I see this as an extension of the Wisconsin Idea," she says. "We, at UW-Madison, aim to bring our knowledge to the benefit of the people in Wisconsin and beyond. We are committed not only to health equity, but to making major advances in health research. We're an appropriate institution to do this, it's in our DNA, so we were willing to jump in and accept the challenge to work on All of Us."

The program is part of the Precision Medicine Initiative. Taking into account individual factors like where people live, what they do and their family health history, precision medicine techniques help health care teams make tailored recommendations to specific people of different backgrounds, ages or regions, and share ways for people to stay healthy. It also addresses ways in which medicine can be costly—in time, money and health—for patients, providers and researchers.

"Precision medicine is important because we want to make sure everyone has access to the best possible care for health problems they have," Farrar Edwards declares.

### **Strengthening the Science**

A major aim of All of Us is to ensure the inclusion of populations that are too often missing in health research, and which reflect the full diversity of the United States. The program welcomes healthy and sick participants of all backgrounds and walks of life, and from all regions of the nation.

"Chronic disease falls disproportionately on communities of color and members of under-represented groups, and we don't know why," notes Carey Gleason, PhD, MS, Wisconsin Alzheimer's Disease Research Center, and a co-leader of the Minority

Recruitment Satellite Program with Farrar Edwards. "We need to be able to better diagnose, treat and protect people from serious disease and disabling conditions, but to do this, we need to have data from the people who are at the greatest risk. The All of Us Program is designed to do that."

Participants are asked to share their electronic health records and answer questions about their health habits and their home and work life. Some will be asked to have their physical measurements taken and to provide blood and urine samples, and these participants will be offered a one-time compensation of \$25. Participants will have online access to their health data with the option of sharing the information with their health care provider, if they choose to do so.

"Information from all of these types of data can provide an important, in-depth picture of characteristics, health conditions and biologic information that might point to new treatments or special risk for certain conditions," Farrar Edwards says.

### **Safeguarding Privacy**

Given that All of Us is collecting sensitive health information on a massive scale, data security is paramount. To protect the personal data that participants give to the program, it follows strict security protocols, including security requirements for partner organizations that collect, transfer or store information, and thorough screening of researchers who seek access to the data.

Although there is a certain amount of risk involved in participating in any research project, given the privacy safeguards, Farrar Edwards believes the positive impacts of the All of Us Program outweigh the limited risk.

"I signed up as an All of Us participant because my family is seriously affected by heart disease. I'm hoping that my data will help someone find answers to why some people are at greater risk for specific health conditions and how to prevent them, because I want my children and my grandchildren to not have to experience the same health issues that I have."

For more information about the All of Us Research Program, including how to participate, visit [allofus.wisc.edu](http://allofus.wisc.edu).

## Fostering Medical Advances *continued from page 13*

and predoctoral and postdoctoral TL1 Training Programs.

Lemanske says this role was a natural fit because his research has thrived for decades, and continues to flourish, under the tenet of team science. For instance, as early as the 1970s, in collaboration with UW School of Pharmacy researchers, he developed a rat model of virus-induced airway dysfunction; the results were translated into humans with the 1998 creation of the COAST (Childhood Origins of Asthma) birth cohort project. This research subsequently led to discoveries of how environmental and genetic factors impact asthma development in children. Lemanske's current investigations have combined results from the COAST study with data from other birth cohort studies in the United States to further elucidate mechanisms of asthma inception in pediatric patients.

About ICTR, Lemanske notes that Drezner developed a “complex, integrated, well-oiled machine,” and Brasier spent a few months working alongside Drezner to learn its inner workings.

This transition time was particularly helpful due to ICTR's size and success compared with other CTSA, Drezner says, adding, “If we could have performed that Star Trek mind-meld, it would have been ideal.”

Mind-melding aside, Drezner points out that Brasier is drawing upon his abilities as a leader and mentor to grow and nurture the family environment that ICTR embodies.

### Future Perspective

Team science remains among ICTR's key components, as will an expanded emphasis on precision medicine and meaningful engagement of the health system, Brasier notes. With this in mind, the group recruited another ideal teammate in Elizabeth Burnside, MD, co-deputy executive director.

A nationally recognized breast cancer researcher with a master's degree in medical informatics from Stanford University, Burnside became an associate dean for team

science and interdisciplinary research at the SMPH in 2018. She works with Umberto Tachinardi, MD, MSc—the school's associate dean for biomedical informatics—to improve ICTR's medical informatics enterprise and its partnership with the Marshfield Clinic Research Institute.

“My work with Dr. Drezner, my informatics background and my love of mentorship make me feel like this is a good fit,” says Burnside, professor, Department of Radiology. “Over the years, I've been a grateful recipient of many ICTR resources, including research awards, informatics support and career development training.”

For example, in 2015, when Burnside was invited to lead an NIH K12 training grant, “Building Interdisciplinary Research in Women's Health,” she was charged with ensuring that ICTR resources were available to scholars. This gave her the opportunity to work closely with Drezner and other ICTR staff members and cemented her resolve to bring ICTR's crucially important resources to investigators in women's health and gender differences. She has appreciated Drezner's guidance in her endeavors since then.

“The opportunity to step into a leadership role with ICTR—and to learn more about the organization's research infrastructure—came at a great time,” she says. “I'm continually impressed by the depth of knowledge and expertise that has been cultivated by the research teams and ICTR program leaders, including those in education and training, patient engagement, informatics and other areas.”

With Brasier, Burnside and Lemanske at the helm, “the future is now for ICTR!” exclaims Drezner. “It entails taking what is here and expanding upon it.”

The new leaders plan to broaden ICTR's reach as a national leader among CTSA programs, while continuing to serve as exceptional mentors for junior faculty members and implementing the All of Us Research Program (see page 34).

Brasier also hopes to work with leaders of the Smart Institutional Review Board Program and the National Research Mentoring Network to facilitate continued growth; both of these programs were developed with substantial help from ICTR. Further, he plans to create a new ICTR strategic plan, develop new vision and mission statements, and establish training guidelines and best practices for CTSA programs around the nation.

Golden comments, “I applaud and endorse Dr. Brasier's vision for pushing forward an ambitious agenda. His emphasis on team science is spot on.”

### Returns on Investment

Back to Prabhakaran's story, his involvement with ICTR has grown over the past decade. Due to the program's early assistance and his dedication, he is now an associate professor who mentors junior faculty members and trainees. He has expanded his research program to investigate brain plasticity not only post stroke but also related to other diseases and conditions, such as epilepsy, traumatic brain injuries and Alzheimer's disease. He also has gone on to receive numerous follow-up grants; for example, he is the principal investigator of NIH K23 and R01 grants and a co-investigator for several other federally funded studies.

Prabhakaran's laboratory continues to translate this research and applies it to do pre-surgical brain mapping prior to resection of brain tumors and vascular lesions, and epilepsy surgery.

Reflecting on the initial NIH KL2 grant he received—which led to his team's brain mapping discoveries—and the TL1 training support that has funded research by several of his graduate students, Prabhakaran says, “ICTR has been with me every step along the way. It is my second home at UW-Madison.”

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# Gold Humanism Honor Society

## CEREMONY RECOGNIZES 2018 INDUCTEES



*Clockwise from top left: Terri Young, MD, MBA; (left to right) Tracy Downs, MD, Mary Landry, MD '92 (PG '96), Chey Collura, MD, and medical students recite the GHHS pledge upon their induction into the society; Jennifer Collins receives a Humanism in Medicine lapel pin from Cassidy Bommer.*

In August 2018, the University of Wisconsin School of Medicine and Public Health (SMPH) inducted 20 fourth-year medical students, two faculty members and a resident into the Gold Humanism Honor Society (GHHS).

The Arnold P. Gold Foundation established this society to recognize rising fourth-year medical students who have demonstrated exemplary attitudes and behaviors characteristic of the most humanistic physicians. Specifically, the GHHS recognizes and encourages in physicians the development of humanism, compassion, integrity, respect and service toward patients and colleagues. The Gold Foundation also recognizes residents and faculty members who embody these characteristics.

Terri Young, MD, MBA, the Peter A. Duehr Professor and Chair, SMPH Department of Ophthalmology and Visual Sciences, provided the keynote talk at the White Coat Ceremony (see page 8), which was held in conjunction with the Gold Humanism event. Gwen

McIntosh, MD '96, MPH, associate dean for students, led the GHHS Induction Ceremony.

### 2018 INDUCTEES:

#### Fourth-Year Medical Students

Alexandra Argento-Berrio  
 Nicholas Bohrer  
 Cassidy Bommer  
 Jennifer Collins  
 Leo Dreyfuss  
 Melissa Drezdon  
 Mary Finta  
 John (Matt) Guerrieri  
 Shilpa Kalluru  
 Mark Kelly  
 Spencer Klein  
 Kali Kramolis  
 Dylan Lukato  
 Paloma Reinoso  
 Laura Steenberge  
 Molly Sygulla  
 Nicholas Thompson  
 Donna Ugboaja  
 Rebecca Veele  
 Michelle Watkinson



#### Faculty Members and Resident

Tracy Downs, MD, professor, Department of Urology, who also earned the Gold Foundation's Leonard Tow Humanism in Medicine Award

Mary Landry, MD '92 (PG '96), clinical associate professor, Department of Obstetrics and Gynecology

Chey Collura, MD, general surgery resident, Department of Surgery

# Benish Earns Max Fox Preceptor Award

REEDSBURG PHYSICIAN HONORED FOR OUTSTANDING SERVICE

*The Benish family, clockwise from top left, Deanna Benish, MD; Steven Benish, PhD; and their children, Lincoln, age 8, and Naomi, age 11; missing from the photo is their daughter Grace, age 14.*



**D**eanna Benish, MD, received the 2018 Max Fox Preceptor Award from the University of Wisconsin School of Medicine and Public Health (SMPH). The school gives the prestigious award annually to an outstanding preceptor whose effective service as a mentor and teacher has guided SMPH medical students.

A family practice physician who also does obstetrics at Reedsburg Area Medical Center, Benish has been a preceptor to fourth-year medical students since 2006; she has worked at the medical center since 2001.

“Dr. Benish serves as an outstanding role model for our students,” says Robert N. Golden, MD, dean of the SMPH. “She provides each of them with individualized learning experiences in a rural setting.”

Noting that one of the school’s primary goals is to increase the number of physicians who practice medicine in Wisconsin, especially in underserved rural and urban areas, he continues, “I thank her and the

Reedsburg Area Medical Center—as well as the Reedsburg, Wisconsin, community—for helping us achieve this goal. They do so by providing the resources and displaying the commitment that allows our medical students to gain experiences needed to improve health in rural communities.”

A student who worked with Benish shares, “Dr. Benish was a great teacher. In particular, she showed what it meant to truly care about your patients and to get to know each one as a person. Also, she gave me appropriate autonomy to learn in a hands-on way.”

Benish comments, “I am honored and humbled to receive the Max Fox Preceptor Award. To me, it represents a commitment that Reedsburg Area Medical Center has made to students and adult learners. I have been blessed to be able to work with medical students here, and I feel privileged to be able to mentor them in my role as a preceptor.”

She continues, “Our medical staff has been very welcoming of this opportunity, as well, and secondarily the students receive a broad and well-rounded experience. I look forward to continuing to share my medical knowledge and experience with students from the University of Wisconsin School of Medicine and Public Health.”

Benish grew up in the small, rural town of Oostburg, Wisconsin. She earned a bachelor’s degree in biology from Old Dominion University in Norfolk, Virginia, where she played college basketball.

Next, she earned her medical degree from the Medical College of Wisconsin in Milwaukee and completed a family medicine residency at Waukesha Memorial Hospital in Waukesha, Wisconsin.

She and her husband, Steven Benish, PhD—who earned his doctorate in education at UW-Madison—have three children: Grace, age 14, Naomi, age 11, and Lincoln, age 8.



## Oncogenic Viruses *continued from page 7*

induction and maintenance of human tumors, and develop novel approaches to prevent and treat these tumors,” the team focuses on three types of human tumor viruses—papillomaviruses, hepadnaviruses and herpesviruses—which contribute to 19 of the 21 viral-induced human cancers.

In progress reports, Lambert describes the grant’s seminal contributions. For instance, the team has trained more than 140 post-doctoral fellows, many of whom have established distinguished careers. Also, over the past five years, PPG team members:

- published more than 90 papers that contribute to the global understanding of human tumor virus biology and ways to prevent or treat viral-associated cancers;
- discovered the critical role of estrogen receptor alpha expression in the stroma in mediating estrogen’s carcinogenic effect on cervical epithelia in mice and women, and the cell non-autonomous effects of HPV oncogenes, expressed only in the cervical epithelia, on the stroma, thus defining new roles of the tumor microenvironment in cervical carcinogenesis;
- defined the recently identified mouse papillomavirus, MmuPV1, to be a highly informative model for high-risk cutaneous HPVs in causing skin disease and cancer, at the pathophysiological, molecular and genomic levels;
- developed high-resolution imaging strategies to view multiple steps in replication of the HBV genome;
- used new imaging capabilities to discover the novel association of HBV reverse transcriptase (Pol) with mitochondria, identifying a potentially novel role of Pol in virus-host interactions;
- used “visible” EBV, created by this PPG, to discover that EBV remarkably reorganizes the architecture of the host nucleus to allow it to support the amplification of the EBV genome upon lytic activation; and
- developed “visible” KSHV and discovered that it replicates during latency differently than does the highly related EBV.

“Another important feature is that our team’s interactions go beyond the PPG’s boundaries, impacting research across the country and the globe,” says Lambert. “More than half of our publications involve collaborations outside the grant.”

He adds, “By having investigators work on shared projects focused on one or more human tumor viruses, we aim to use advances in understanding one virus to foster experiments on others. These collaborations are aided by meetings at which faculty discuss findings, technical problems, breakthroughs and much more.”

More than a quarter of the team’s studies in the past five years involved two or more PPG labs. For instance, Lambert—who has developed powerful mouse models to understand oncogenesis by the human papillomavirus HPV16—works with Ahlquist to build on their findings that the tumor microenvironment plays critical roles in cervical carcinogenesis. And Loeb is working with Ahlquist and Sherer to define the replication steps of human HBV using high-resolution and live-cell imaging technologies that are shared with Johannsen and Sugden.

In other collaborative work, Mertz and Kenney’s laboratories focus on understanding the regulation of EBV’s switch from latent to lytic (replicating) states with the goal of developing beneficial therapies.

“We want to better understand what controls that switch by looking at cellular factors in strains of EBV. We then look for drugs—lytic-induction therapy—that can switch the virus from its dormant state into its replicating state, which it must be in for drugs to work. After we test drugs in a petri dish, we progress to testing the successful compounds in mouse models to see whether they effectively kill cancer cells without harming normal cells,” explains Mertz.

Kenney describes a recently published study in which the team found that a specific base pair change present in certain cancer-associated EBV strains has a large effect on the activity of a critical EBV gene promoter.

“This viral promoter, which drives the switch from latent to lytic infection, is more active in the cancer-associated EBV strains, making them able to produce lots of infectious virus,” she says. “We believe that the importance of this promoter alteration is that it allows the virus to reproduce more actively, particularly when patients are co-infected with malaria.”

Kenney says the presence of malaria is why EBV-positive Burkitt’s lymphoma appears primarily in the “malaria belt” in Africa but is uncommon in the United States. Researchers believe malaria infection is a co-factor in causing cancer in Africa, and she predicts other co-factors that preferentially activate the cancer-associated promoter variant could be responsible for southern China’s high incidence of NPC.

“Although almost everybody is infected with EBV, researchers don’t fully understand why it causes cancer in only a small percentage of people, nor why it causes different cancers regionally,” says Kenney.

Johannsen notes, “Immunocompetent people require more cellular mutations to develop EBV-associated tumors. Contracting EBV is one step in a multi-step process to get cancer, but what are the other steps? Our work aims to answer questions like this.”

In addition to investigative work, UWCCC faculty members share their knowledge with the next generation of researchers through a grant-funded Virology Training Program, led by Lambert. Aimed at predoctoral and postdoctoral trainees interested in all aspects of virology, it has 19 faculty members, including all PPG team members, who study a broad variety of viruses, including those that infect plants and insects, and others that cause human cancers. Also, some study viruses related to emerging diseases, such as Ebola and new strains of influenza.

Through research and teaching, McArdle Laboratory’s faculty members continually search for and share innovative discoveries and approaches in their quest to understand viruses, prevent illnesses and develop treatments for patients here and throughout the world.

# Shared Knowledge in Precision Cancer Care

**T**raditionally, cancers have been classified by their site of origin—breast cancer starts in the breast, and colon cancer starts in the colon. This paradigm is now being challenged through the Precision Medicine Molecular Tumor Board (PMMTB) at the University of Wisconsin School of Medicine and Public Health (SMPH) and University of Wisconsin Carbone Cancer Center (UWCCC).

Cancer is a genetic disease in which DNA mutations cause the cells to act cancerous. For example, mutations impart persistent cell growth and prevent cell death. Knowledge of particular mutations can profoundly help some patients because select drugs can turn off specific characteristics of the cancer cells, leading to tumor regression.

One of our patients at the UWCCC is a 79-year-old man diagnosed with colorectal cancer that has spread to his liver. He had survived a different cancer years earlier and, based on his experience, declined further chemotherapy. In helping consider alternatives, his oncologist referred his case to the PMMTB, where his tumor underwent intensive characterization. Surprisingly, his colon cancer was driven by a gene called HER2—a receptor on the surface of the cell that typically drives the growth of breast cancer. The PMMTB recommended treatment of this patient's cancer with trastuzumab (Herceptin), a drug almost never used for colorectal cancer. This drug is a monoclonal antibody that targets and turns off the HER2 protein, and it is used primarily for breast cancer. Importantly, this therapy has minimal toxicities compared to the standard chemotherapies used to treat colorectal cancer. With this information, the patient decided to proceed with trastuzumab treatment. He has had a remarkable response with a dramatic decrease in his carcinoembryonic antigen (CEA) tumor marker level and a significant reduction in his cancer burden over the past six months.

Technologic advances over the past decade have enabled the clinical application of DNA sequencing, allowing it to be routinely

and inexpensively performed on hundreds of genes in each patient's cancer. However, using this information can be daunting, given the number of possible genes that may be involved. That said, breathtaking progress in cancer therapy provides hope, and it also challenges oncologists to keep abreast of the latest innovations. Today, integrating genomic information into patient care is one preeminent challenge, as it strikes at the very root of traditional cancer classifications.

To address this challenge and optimize the impact on cancer patients across Wisconsin, the SMPH and the UWCCC launched the PMMTB as a collaborative endeavor that links oncologists across the state with the diverse expertise of UW-Madison faculty and staff members, at no cost to physicians or patients.

The PMMTB calls upon UW-Madison experts in pathology, genomics, genetic counseling, medical oncology and pharmacy, as well as collaborators from health systems throughout Wisconsin. The board focuses on helping patients who do not have a curable treatment option.

Since 2015, the PMMTB has led a bimonthly, web-conferenced statewide tumor board through which physicians can discuss cancer patients, including their tumor DNA test results. To date, the PMMTB has reviewed DNA testing and provided specific recommendations for more than 500 patients. Along the way, patients and physicians have taken advantage of advanced testing and review to gain access to new treatment options, including exciting new clinical trials and the off-label use of U.S. Food and Drug Administration-approved therapies.

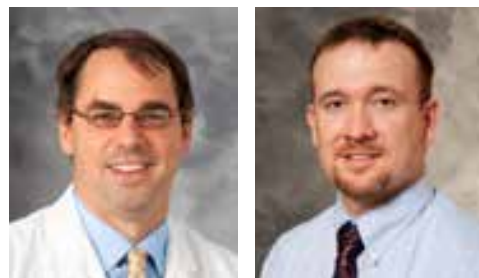
Implementation of DNA testing in patients also presents practical challenges, such as knowing when to test, actually obtaining the tests, interpreting results, finding clinical trials and working with insurance companies. By sharing best practices and knowledge, the PMMTB is helping oncologists across Wisconsin avoid such pitfalls, with the goal of making sure patients in the Badger State

receive the most advanced and broadest access to precision oncology.

To further these efforts, in 2017 the Wisconsin state government provided support for the PMMTB, which enhanced its infrastructure. The board now is providing access for more patients, and by creating a database that carefully catalogs outcomes, it is continuously improving the strength of its predictive power.

Not all cancer patients will benefit from precision oncology. Those with potentially curable cancer are best served by stepwise advances in clinical trials or standard treatment. Many who have incurable cancer have common DNA mutations in genes such as TP53 and KRAS, which are poor drug targets, and mutations in these genes do not help identify the best treatments. However, a significant fraction of those with incurable cancer can benefit profoundly.

Through the PMMTB's work, every cancer patient in Wisconsin can have access to the most sophisticated, state-of-the-art approach to personalized oncology care.



**Mark Burkard, MD, PhD (left)**

Associate professor, Department of Medicine, Division of Hematology and Medical Oncology; co-leader, Precision Medicine Molecular Tumor Board, SMPH

**Dustin Deming, MD '07 (PG '10, '12)**

Assistant professor, Department of Medicine, Division of Hematology and Medical Oncology; co-leader, Precision Medicine Molecular Tumor Board, SMPH



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# 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](mailto: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), Jon Grossklaus, MD '69, won the prize drawing and will receive a gift from the Wisconsin Medical Alumni Association!



**HINT ABOUT PHOTO ABOVE:**  
A scholarship is named in his honor.

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## ABOUT LAST ISSUE'S PHOTO:



In the past issue of *Quarterly*, 16 people correctly guessed the identity of Phillips "PT" Bland, MD '47 (photo at left), emeritus associate professor, University of Wisconsin School of Medicine and Public Health (SMPH). Bland, who died in 2011 at age 87, served as a preceptor for fourth-year SMPH medical students in Westby, Wisconsin, for five decades. A past president of the Wisconsin Medical Alumni Association, he earned the Max Fox Preceptor Award and Ralph Hawley Distinguished Service Award.

Among many who considered Bland a mentor and friend is William Calkins, MD '77, who said, "As he related the story, Dr. William Middleton personally asked [Dr. Bland] to be a preceptor—the youngest, at age 25."

Thad C. Hagen, MD '65, shared, "Dr. Bland was a highly sought after preceptor in the unique UW Preceptorship Program for students to leave the "ivory tower" for a quarter. ... I still value everything I learned about medicine and life from him."

Jim DeLine, MD (PG '83), for whom Bland was a mentor and later a colleague, wrote, "Though a GP, he was the best 'bones man' around. We had no orthopedic help for many years. Also, he served as medical director of our hospice program and was instrumental in fundraising for the Bland Bekkedal Hospice House, named in his honor."

Brothers Doug Angevine, MD '62, and James Angevine, MD '59, recalled having many valuable experiences while training in Bland's practice; the latter commented, "The night before my [preceptorship began], Dr. Bland had made a house call by snowplow."

Similarly, John Boncyk, MD '79, who grew up in Westby, noted, "I remember "Doc Bland" making a house call when I was sick. He was a colorful character who made many contributions to the personality of the community."

And Roger A. Rathert, MD '66, said, "Not only did Dr. Bland open his practice to [trainees], he invited each of us to become a part of his family for the time we were there."

# 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.

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Changes coming on January 1, 2019—including a new minimum cumulative household contribution of \$25,000, compared to the current level of \$10,000 to join—are being made to ensure that the Middleton Society reflects today's economic realities. Existing members are not affected by this change.

Those who join the society before the end of 2018 can be part of this prestigious organization before the changes occur. Gifts and pledges to any area of the school

and/or Wisconsin Medical Alumni Association, as well as previous gifts to these areas, count toward the threshold giving level for membership.

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**FOR MORE INFORMATION**, please contact Jill Watson, associate vice president for development, at [jill.watson@supportuw.org](mailto:jill.watson@supportuw.org) or (608) 262-4632.



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