OUARTERLY

For Students, Faculty, Alumni and Friends of University of Wisconsin School of Medicine and Public Health





QUARTERLY

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

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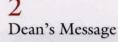
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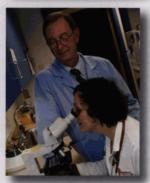
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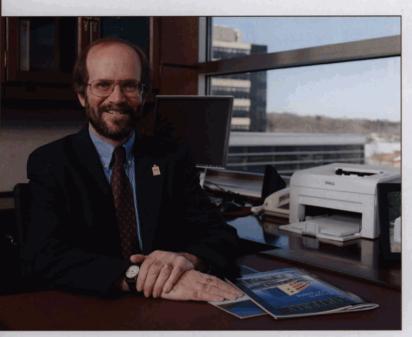
The school celebrates the opening of the first tower of a three-tower research complex.



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Years one and two mesh disciplines, incorporate public health and promote self-directed learning.

On the cover: Health surveyors are traveling the state in two custom-designed research vehicles, taking multiple measurements of health-related factors in hundreds of Wisconsin adults and their communities.



Robert Golden, MD Dean, UW School of Medicine and Public Health Vice Chancellor for Medical Affairs, UW-Madison

he beginning of the new academic year involved several exciting and important events. We opened the spectacular first tower of the Wisconsin Institutes for Medical Research (WIMR). We welcomed the newest class of medical students, who bring an incredibly diverse and impressive array of experiences and talents. We also broke ground on a new office building to provide desperately needed space for clinicians who work at American Family Children's Hospital (AFCH) and UW Hospital and Clinics.

These events signify the exciting, ongoing growth and development of our institution. We already are nationally renowned, with broad and deep expertise, but we're not resting on our laurels. We recognize the need to continually infuse ourselves with new talent as we develop the next generation of physicians and leaders. To achieve our full destiny, we must create stateof-the-art facilities that will support all of our missions.

The juxtaposition of these events demonstrates that amazing synergies exist when

an institution advances its three vital missions—patient care, research and education. The cornerstone of all we do, through teaching and discovery, is clinical service for our patients and their families. In order to be the best healthcare provider possible, UW Health has expanded not only its clinical facilities, with the beautiful AFCH, but just as importantly the necessary infrastructure for our expanding ranks of physicians, who care for patients there and indeed throughout Wisconsin.

These clinical facilities and the doctors who work in them are able to provide truly state-of-the-art care when they are housed adjacent to state-of-the-art research facilities. Patient care is enhanced, not only immediately but into the future, when basic laboratory. discoveries are brought to the bedside for rapid translation, and then ultimately into the community for incorporation into practice there. In turn, the discovery process in WIMR will be greatly enhanced and wisely guided by the interplay that will occur in the hallways, elevators and cafeterias between basic and clinical scientists, and physicians and

nurses who are caring for patients.

Perhaps most importantly, the doctors and other healthcare professionals we train will become more complete if their learning takes place in an environment in which as many questions are asked as are answered. We want the next generation of physicians to develop in a setting in which we question dogma and where there is a scientific, evidence basis to their "sifting and winnowing" of the huge volume of medical literature they will encounter over their professional lives. We feel our graduates-whether they go into primary care, specialty care or public service—will rise as leaders because they have learned how to learn in an environment in which research helps shape medical practice.

It is always invigorating to welcome fresh faces—whether it is our newest cadre of medical students, residents or faculty. It is also exciting to dedicate new buildings! But when the three missions are advanced together, it represents something of enormous importance...the opportunity to make a real difference in the health of the people of Wisconsin.

n this first message, I want Lto thank the Wisconsin Medical Alumni Association (WMAA) for the opportunity to serve as president for the next term. In my years of involvement with WMAA and the UW School of Medicine and Public Health (SMPH), it has been a privilege to meet many dedicated and generous friends and alumni. Their leadership, commitment and financial generosity have created one of the finest medical alumni organizations in the country. It is my pledge to help us achieve greater distinction.

I want to especially thank Sandra Osborn, MD '70, past president, and Karen Peterson, executive director, for bringing the WMAA closer to students than ever before. Their initiative and participation at student events have been fantastic!

Our alumni have worked hard to create programs to help support and strengthen the school and its students. Yet we must continue to cultivate these programs and increase these funds to ensure the future success and greatness of our school. It is my goal to engage a record number of alumni to participate in the success of the WMAA.

The SMPH has grown and developed beyond any other public medical school in the country during the past decade. We are fortunate to be able to share an amazing list of accomplishments by our faculty, students and alumni each season in the Quarterly. The school's success has fostered programs throughout the entire state, promoting the public health and well-being of our population. We can reach even greater heights if we can rally more support.

In 2007, we developed a five-year strategic plan that will engage more alumni and friends to support the WMAA's mission. To remain among the best, we must continue to grow and strengthen each year. I ask all alumni to take three specific actions this year.

Reflect. As you read through the *Quarterly* this fall, take time to reflect on those people who helped you to become successful: the classmates, teachers, patients and families who have supported you live on through your accomplishments. It was the SMPH that made it possible.

Participate.

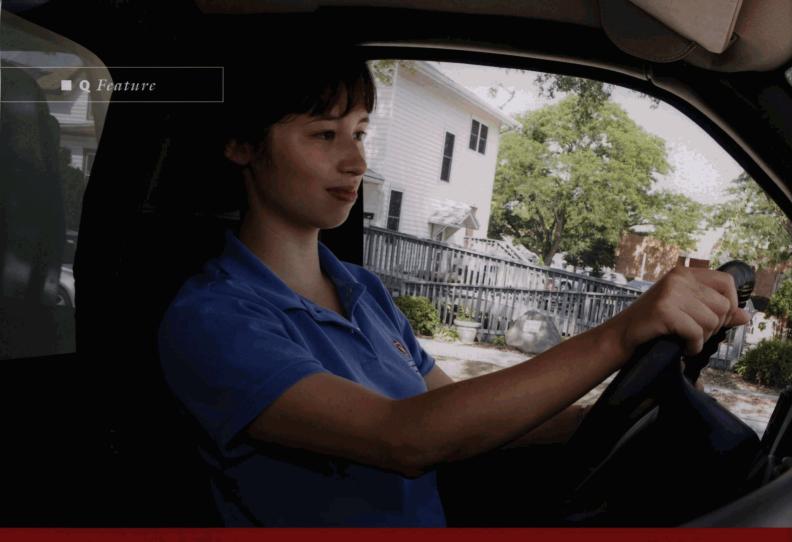
Please take the time to participate in upcoming events—Homecoming Weekend in October in Madison, the Alumni Winter Meeting in February at legendary Lambeau Field in Green Bay, Alumni Weekend in May in Madison or any events occurring near your community. Reacquaint yourself with classmates, teachers and colleagues...and meet many more who share your love for the UW!

Contribute. We all owe a debt of gratitude to the SMPH. Please help support our mission this year with a significant financial contribution. Consider joining the Middleton Society, making a gift to the alumni campaign or including WMAA in your estate planning.

I look forward to meeting as many of you as possible during the upcoming year—and to your continued support of the WMAA. Please do not hesitate to contact me for any reason. On Wisconsin!



John Kryger, MD '92 WMAA President



THE SURVEY OF THE HEALTH OF WISCONSIN MAKES HOUSE CALLS

Monitoring Badger State Health

by Phoebe Frenette

If you live in Wisconsin, you soon may notice in your town a large, specially outfitted truck emblazoned with the red letters SHOW. It's not a touring rock band or a Great Circus Parade vehicle gone astray.

SHOW—the Survey of the Health of Wisconsin—is an expansive health checkup of the Badger State launched in June 2008 by the University of Wisconsin School of Medicine and Public Health (SMPH). Researchers, public health officials and doctors

believe that this permanent infrastructure for annual health surveys will be critically important to identifying and addressing Wisconsin's future health needs.

Two state-of-the-art mobile survey centers staffed by 10 health surveyors are the most visible feature of SHOW. Traveling from Park Falls to Janesville and Eau Claire to Milwaukee, the specially trained health surveyors are taking composite measurements of health and related factors in hundreds of adults and their communities. The teams knock on doors

of randomly selected households in 120 different neighborhoods, working to enroll participants who will represent the state's 5.6 million residents. With two permanent survey centers also established in Milwaukee and Middleton, outside Madison, researchers expect to recruit approximately 1,200 Wisconsinites each year.

According to F. Javier Nieto, MD, PhD, MPH, the project's director and principal investigator, SHOW's goal is to build a growing health data and bio-sample bank, which will give public health champions and healthcare providers accurate and timely information about the prevalence of health issues Wisconsinites face.

This will mean better insight into the condition of health and wellness in the state. For example, SHOW will give estimates of how many residents get enough physical activity and have healthy dietary habits, how many have access to adequate healthcare resources, and how many may be at risk for diabetes or suffer from undiagnosed mental health problems or other conditions.

Nieto, also chair of the SMPH Department of Population Health Sciences, explains the drive behind the project.

"Health officials, policy makers, organizations and other stakeholders rely on research and statistics to guide community public health planning," he says.

But statewide statistics are limited, consisting primarily of mortality data and self-reported information collected by mail or telephone surveys.

"To expand and complement the current information, SHOW recruits at Wisconsin residents' homes, which will help us reach a truly representative sample," he says. "SHOW then administers a broad array of in-person health interviews and collects physical measurements and bio-samples. All of this will provide a comprehensive picture of health in our state that is unprecedented."

In preparation for SHOW, project leaders have built community partnerships all over the state.

"We know that community involvement is a key component for a successful project," says Nieto, "so it's a strong focus for our team."

Every SHOW community is unique, adds SHOW research manager Kathleen Massoth, MPH, so awareness campaigns are tailored to each of them. Officials at

local and regional public health departments, leaders on other UW campuses, contacts from various community organizations—all have contributed to making SHOW effective in their towns, she says.

"They help us to spread the word, and identify opportunities to encourage awareness and participation," says Massoth, adding that SHOW works with local press, from big TV stations to neighborhood newsletters.

The mobile survey centers have parked at local libraries, baseball diamonds, health centers, village halls and supermarkets. Hosts have also included the Germantown public library, UW-Manitowoc campus, Joe's Family Market in Bloomer, Witter baseball field in Wisconsin Rapids, Aurora Health Care in Lake Geneva, Gateway Technical College in Kenosha and Chippewa Valley Technical College.

"Community members are excited and interested when we roll into town. We get a warm welcome," says Emilio Delboy, one of SHOW's team members. "Many community members want to learn more about our work. Wisconsinites are concerned about the health of their families, neighborhoods and communities, and they're excited about the possibilities of improving it. I think that's why SHOW speaks to them."



Emilio Delboy (above left), one of 10 SHOW health surveyors, prepares a volunteer for a bone scan. On facing page, team member Ashley Harris takes her hand at the wheel of the mobile survey center.

Adds Liz Snowden, of the Milwaukee-based field team, "The University of Wisconsin link is strong throughout the state. Many people feel a personal connection to the university, so they stop by to say hi and to see what we are up to."

SHOW's routine in a selected community looks like this: Previously identified households receive a letter notifying them that they are invited to participate

in the study. Recruitment teams come to town and visit each selected household in-person, introducing the project and signing people up. The first part of the survey—an in-home interview and questionnaire session—typically occurs during this initial week.

Appointments are then made for additional survey components to take place a couple of weeks later at a SHOW survey center



By the time researchers complete their work with each SHOW participant, they have assembled a detailed picture.

PUTTING THE SHOW ON THE ROAD

SHOW is funded by the Wisconsin Partnership for a Healthy Future, which represents a far-reaching commitment by the School of Medicine and Public Health (SMPH) to help improve the health of people in Wisconsin for years to come. The UW Institute for Clinical and Translational Research also supports SHOW.

"In essence, SHOW is a gift to the state of Wisconsin," says Paul DeLuca, PhD, vice dean of the SMPH. "It's a mechanism for the school to broadly apply the skill set of our entire faculty, students and staff to a spectrum of public health issues that otherwise probably would not get the attention they need."

The deep commitment to SHOW reflects the school's current emphasis on public health and translational research, which moves rapidly from basic laboratory discovery to the clinic bedside and then on to the community curbside.

"SHOW is a wonderful example of combining the complete discovery process from fundamental discovery all the way to ultimate analysis, interpretation and application," says DeLuca. "No one can anticipate the magnitude of the long-term benefits that this kind of initiative can have."

For current updates about the SHOW program, please visit www.show.wisc.edu.

located nearby. Participants visit one of the two fixed survey sites or one of the program's two mobile survey centers. The 38-foot-long, extra-wide research vehicles, custom designed by Lifeline Mobile, feature private and comfortable examination and interview areas, as well as a laboratory for secure specimen processing.

Inside the temperature-controlled vehicles, field team members conduct additional interviews, take physical measurements—including blood pressure, heart rate, respiratory function, height, weight and body composition—and collect blood, urine and saliva specimens for basic testing and long-term storage for future studies.

By the time the researchers finish with each SHOW participant, they have assembled a detailed picture consisting of the following:

- A snapshot of the household—tracking and enumerating household residents, their age, gender, relationships to each other and contact information
- Demographics—each individual's education, marital status, race and ethnic ancestry
- Housing characteristics
- Occupation and military experience
- Medical health history, including most major diseases, conditions and health events

- Weight history
- Women's reproductive history and health
- Prescription and overthe-counter medications inventory
- Vision, hearing and dental history
- Screening tests and vaccinations
- Health insurance and healthcare utilization, access and satisfaction
- Health literacy (the participant's ability to understand detailed medical information and instructions)
- Quality of life and current health status
- Depression, post-traumatic stress disorder status and general mental health
- Stress and anxiety levels
- Cognitive status
- Life events inventory
- Discrimination experiences
- Food security
- Caregiving
- Sleep habits and disorders
- Smoking habits (current and past)
- Alcohol intake (current and past)
- Dietary habits and food and beverage intake frequencies
- · Physical activity and fitness
- Sexual behavior and contraceptive use
- · Prevention and safety habits
- Assessment of the "fitness friendliness" and other characteristics of subjects' communities

All information collected for SHOW is kept strictly confidential. The data will be updated yearly, when researchers contact participants by telephone to learn of new health developments, such as a hospitalization or a new diagnosis of cardiovascular disease or cancer.

The first and only such health check-up of any state in the country, SHOW has been modeled after the Centers for Disease Control and Prevention's National Health and Nutrition **Examination Survey** (NHANES), which has provided key information about the nation's health for more than 40 years. Using NHANES as a guide, SHOW has been specifically designed for the state by including regionally important health

measures, such as assessments of the local environment and Great Lakes fish consumption.

"SHOW will immediately provide us current health as well as prospective, longterm clinical information never before available in Wisconsin," says Henry Anderson, MD, chief medical officer for the state Bureau of Environmental and Occupational Health in the Division of Public Health. "This survey will make us much better equipped to develop initiatives to help make Wisconsin healthier than ever."

The data and samples collected through SHOW will become a valuable resource for researchers down the road, providing them the means to investigate the causes of disease in

Wisconsin, the factors that determine access to healthcare and the health effects of the characteristics of Badger State communities.

Stored biological samples will offer future health researchers opportunities to explore cutting-edge questions, such as how genes shape or determine how people respond to environmental health challenges.

SHOW will also offer expansive partnership opportunities for researchers, communities and institutions developing research projects that aim to improve the health of Wisconsin communities.

"Many communities and institutions around the state are excited by the possibility of utilizing the project's infrastructure to carry out research not previously possible due to the expenses involved in this caliber of data collection," says Nieto. Researchers are also encouraged to propose ancillary studies that build on the SHOW core survey components and samples. Currently, a special SHOW committee is forming to review proposals for expanding the survey's work within Wisconsin communities.

So be on the lookout for SHOW in a community near you. If you aren't invited to participate, it's likely someone you know will be. Each SHOW participant represents about 5,000 other Wisconsinites and plays a special role in building healthy communities.

WHAT SHOW WILL TELL US

SHOW sits at the forefront of population health research efforts in that it gathers a breadth of measures not typically included in other surveys. The survey collects physical measurements and biological samples—including DNA.

SHOW records data about participants' communities, and geo-codes households, making it possible for researchers to link health information with environmental factors that might influence health. Among many other measures, the survey collects information about participants' sleep, nutrition and exercise habits, quality of life, mental health status and access to health insurance and healthcare.

School leaders hope that, in time, SHOW will answers many important questions about the health of Wisconsin residents. Below are just a few examples of how the project will shed light on Wisconsin's pressing health issues:

- Based on physical and laboratory examinations, SHOW will offer an accurate evaluation of Wisconsin residents' blood pressure, and cholesterol and glucose levels. The data will indicate what proportion of people have healthy readings or a medical condition, and how many are getting treated for such conditions and have the problems adequately controlled.
- With measurements of height, weight and waist circumference, as well as participant interviews about diet and physical activity and direct observations of the local community environment, SHOW's data will offer insight into

- factors that are associated with higher risks of obesity.
- With its confidential, computer-assisted and paper-based surveys, SHOW will gather a more comprehensive picture of sensitive health topics that people may feel uncomfortable sharing with others, such as alcohol use and sexual behavior.
 SHOW studies community environments and geo-codes households by pinpointing and recording their geographic coordinates.
- households by pinpointing and recording their geographic coordinate. With this level of detail, it will be possible for researchers to link health outcomes with environmental factors that might influence health.
- SHOW will provide an accurate measure of how many Wisconsinites suffer from depression and other chronic mental and physical conditions.

Community Physicians Lifeblood of the Preceptor Program

by Maggie Rossiter Peterman

A summer as a volunteer in the emergency room at Tulane University Medical Center after high school gave Odinakachukw "Odi" Ehie, now a fourth-year medical student at the University of Wisconsin School of Medicine and Public Health (SMPH), her first real taste of patient-centered medicine.

"I wanted to ask the doctors all kinds of questions, like, 'How did you come up with that diagnosis?'" says Ehie. "Medicine seemed really challenging and exciting, and the patients always seemed so grateful to the whole medical staff."

With that experience and three years of medical school under her belt, Ehie recently completed a six-week preceptorship under the tutelage of Chad Voskuil, MD, at the tiny Wild Rose Hospital and Clinic. With a population of 765, Wild Rose, Wisconsin, was a far cry from the hustle and bustle of urban New Orleans, but it provided an unforgettable primary-care learning opportunity nonetheless.

The preceptorships take place in more than 30

Wisconsin communities, towns scattered from the edge of the Mississippi to the shores of lakes Michigan and Superior—and everywhere in between.

The required program immerses fourth-year students in a community-based clinical environment, in a one-on-one relationship with a volunteer physician mentor. Through their preceptorships, students become proficient in providing patient care, learn to apply the principles of preventive medicine and experience firsthand the complexities of working collaboratively on a multi-disciplinary healthcare team.

Students consistently rank the preceptorship as one of their most valuable medical school learning experiences. Many preceptors have been volunteering their time and energy to the program for years, a clear indicator of its importance to them.

"The strength of the Preceptorship Program results from the excellence of our statewide community preceptors," says Jacob Prunuske, MD '00, MSPH, who directs the program. "These doctors volunteer their time and energy to teach our next generation

of physicians. We are deeply indebted to our preceptors for their hard work and commitment to excellence in medical student education."

Developed long before the use of penicillin, incubators and high-tech diagnostic equipment, the UW program—created in 1926 by the school's first dean, Charles Bardeen, MD—is the oldest of its kind in the country. Bardeen was responding to the growing national recognition that medical students needed to learn to apply the science of medicine in community settings.

The program rapidly grew into one of the most popular aspects of medical education at UW. By the time Bardeen died in 1935, imitations had popped up across the country, and the preceptor concept became an important part of medical education nationally.

Community-Minded Physicians

The Preceptor Program exemplifies the "Wisconsin Idea" promoted by UW president Charles Van Hise, who hired Bardeen in 1904, Prunuske says.

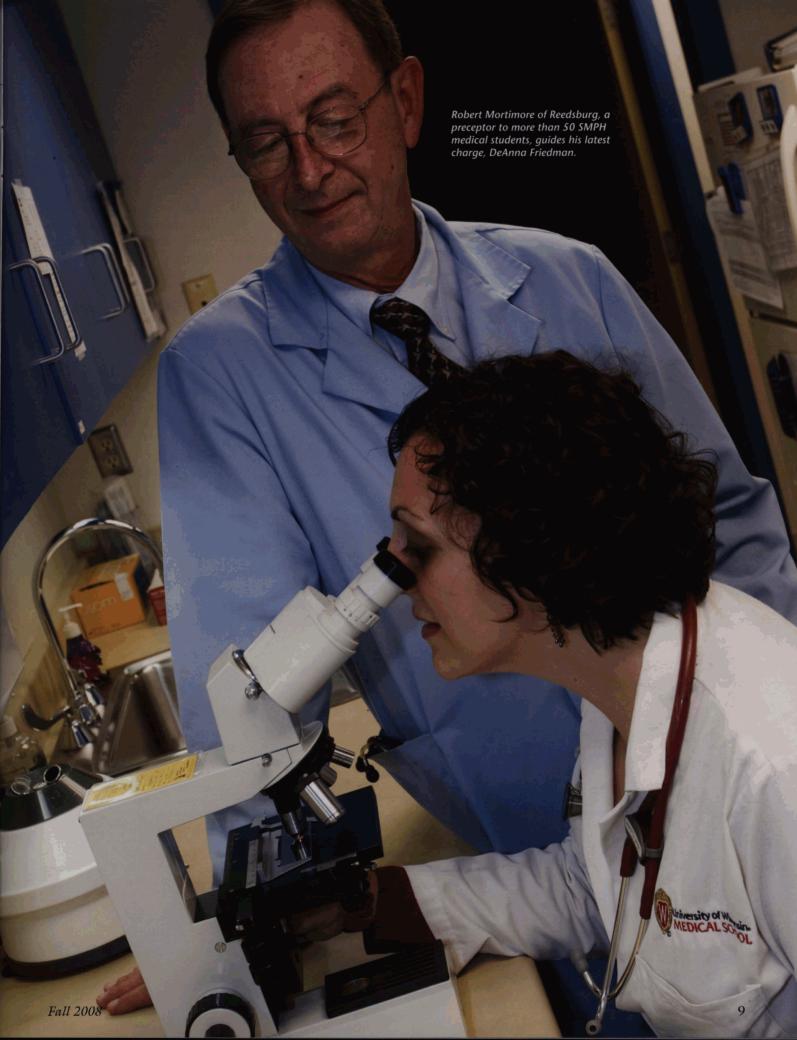
"Van Hise believed that the work done by the university should improve the health, quality of life and environment of the entire state," he says. "Preceptorship students serve as ambassadors from the UW to their preceptorship communities, sharing their knowledge and experiences gained in lectures and on the wards."

In recent years, school leaders have broadened the scope of the preceptorship so that students develop a greater understanding of the value of community support in patient care.

"Doctors work to manage diabetes and high blood pressure; however many health problems, such as obesity or substance abuse, have underlying causes that must also be addressed at a societal level," Prunuske says.

By seeking out community resources—in addition to the advice of their physician mentors—students will gain insights into the relationships between clinical care, public health and the health of the community, Prunuske believes.

"We want our medical students to see that being a doctor doesn't begin when they walk in in the morning



and end when they walk out at night," he says. "We want them to define their jobs as improving the health of the community along with the health of their patients."

Prunuske pushes students to discover the uniqueness of the towns in which they are training, urging them, for example, to explore cultural differences that may exist among residents, learn about the availability of local social services or delve into factors influencing patients' physical activities and eating habits.

Mentors Matter

Five medical students a year choose to follow Robert Mortimore, MD, on his daily rounds at the Reedsburg Area Medical Center about a one-hour drive northwest of Madison. An affable family medicine physician, Mortimore has mentored more than 50 SMPH medical students since joining the preceptorship program 11 years ago.

"This is the one time in a student's medical school training that they get out and see what front-line medicine is really like for an extended period," he says. "They soak up information like sponges."

The most common healthcare concerns among the 30,000 residents served by the medical center are diabetes, heart disease, back pain, hypertension, anxiety, depression, sore throats, ear infections and pneumonia. Ten family physicians, one pediatrician, one cardiologist, five nurse practitioners, two nurse midwives and one diabetic educator provide care at the center, a 40-bed hospital, assisted living center and nursing home.

Students can work side-by-side with emergency room doctors, cardiologists, surgeons or family physicians, Mortimore says.

"There's a whole range of opportunities in how they can spend their time here. They become part of the healthcare team," he says, adding that students live in a furnished apartment about one mile

from the hospital. "They pick up bits and pieces from each doctor. That's how they create their own style."

Learning is a two-way street, though, with senior physicians cramming in a few lessons of their own, says Mortimore.

"You know what this is?" he says, pulling his personal handheld computer from his lab coat.

"It's hard to practice medicine without the Internet and information sources these days," he says. "The students teach me the newest ways to find information on the Internet."

Adds Mortimore with a smile, "I probably learn more

Max Fox Award Honors Exceptional Preceptors

Each year, the School of Medicine and Public Health honors one or more Wisconsin community physicians who have demonstrated exceptional dedication, commitment and service as a medical student mentor in the Preceptor Program. In 2007, the award was given to Jeff Polzin, MD, of the Krohn Clinic in Black River Falls.

The Max Fox award was created in 1969 through a gift from Herman Shapiro, MD '32, to honor his preceptor, Max Fox, MD. Fox was a preceptor in Milwaukee for more than 25 years. During his 46 years of practicing medicine, he greatly influenced the careers of some 4,000 physicians. By all accounts, it was his love of teaching that made him such an effective preceptor.

Past Max Fox award winners include:

1970	Merritt Jones, MD	1979	Thomas J. Rice, MD '45	1991	Bernard J. Haza, MD '50
1971	Peter Midelfort, MD		Robert Gilbert, MD		Thomas F. Nikolai, MD
1972	Leslie Kindschi, MD	1981	Donald Griffith, MD	1992	Eugene Krohn, MD '59
1973	Paul Mason, MD		Ben Lawton, MD '46	1994	Thomas C. Jackson, MD '67
	Einar Daniels, MD	1982	Thomas M. Haug, MD	1996	D. Joe Freeman, MD '52
	Warner S. Bump, MD		William T. Russell, MD '46	1997	Donald C. Burandt, MD '59
1974	Maurice L. Whalen, MD	1984	William L. Deardorff, MD	1998	Lynn Eggman, MD '62
	Bruce C. Prentice, MD	1985	Eugene E. Eckstam, MD	2000	A. A. Koeller, MD '61
1975	George E. Magnin, MD '46		Herbert Sandmire, MD '53	2002	Phillips Bland, MD '47
	Robert M. Senty, MD		Roger Bender, MD		John Henningsen, MD
1977	Mischa J. Lustok, MD '35	1987	Donald A. Jeffries, MD '47	2003	Sharon Haase, MD '85
	Phillips Bland, MD '47		James W. Merritt, MD	2004	John DeGiovanni, MD
	Herbert M. Snodgrass, MD	1988	James D. Michael, MD	2005	Robert Mortimore, MD
1978	Henry S. Ashe, MD	1989	Sigurd E. Sivertson, MD '47	2006	John Frost, MD '71
	Roy B. Larsen, MD	1990	Robert T. Obma, MD '65	2007	Jeff Polzin, MD
			Richard I Hartzell MD		

from them than they learn from me."

Mortimore applauds the work of SMPH officials and students.

"Over the years, I've been more and more impressed with the students coming out of the medical school," he says.

Close to Home

Jason Wells chose to work with John A. DeGiovanni, MD, a general surgeon at Sauk Prairie Memorial Hospital in Prairie du Sac, about a 25-minute drive northwest of Madison.

Wells, who plans to become a pathologist, devoted 12-hour days as he assisted DeGiovanni and others in the OR and postoperatively, focusing on controlling patients' pain.

"Dr. DeGiovanni knows everyone in town," Wells says. "They know he's a really good surgeon."

In his future practice, Wells will spend most of his time in laboratories analyzing tissues to help determine treatment and management of diseases. Still, he passed the summer observing and assisting with colonoscopies, gallbladder surgeries, bowel resections, gynecological and orthopedic procedures, replacement of catheters for chemotherapy and a tonsillectomy.

"It's important that students get involved with as many physicians and learn as many procedures as they can," Wells adds. He selected Prairie du Sac's 36-bed hospital so he could stay closer to Madison, where he and his wife, Janelle Wells, MD, live. Like many preceptorships, which help students develop both professionally and personally, Wells' experience at Sauk Prairie Memorial should serve as an important springboard into residency training.

"We're currently in the process of looking at residency programs with a couples match," he notes.

Smallest Community

On the last day of the program at Wild Rose's 25-bed facility, Ehie consulted with a 65-year-old retired high school chemistry teacher who had had knee and hip replacements and was wrestling with obesity and diabetes.

"I don't need anything else except a 20-year-old body," she remembers him grumbling.

"I wish you luck in your practice," he added. "Tell me, though, why do they call it a practice?"

Without hesitation, Ehie lobbed an explanation.

"Medicine is always a learning field," she said. "You never know everything. So you are always practicing."

Although Ehie plans a career as an anesthesiologist, she sought out a family practice preceptorship to gain an understanding of breadand-butter medicine.

-Continued on page 38

Physicians Across Wisconsin Volunteer

Community physicians who participate in the SMPH Preceptor Program are based in hospitals, clinics and medical offices that are scattered across the state, from Ashland to Wild Rose. The current roster of preceptors includes:

Amy Muchow, MD '02 Sharon Haase, MD '85 Ken Gold, MD Michael Mahan, MD Ashok Rai, MD David Manke, MD lames lerzak, MD '83 Sabrina Dunlap, MD '94 Jeffrey Stearns, MD Ioanna Gudel, MD Michael Netzel, MD Timothy Meyer, DO Fred Boehm, MD Todd Williams, MD '93 David Chokoian, MD lames Meade, MD '88 Jeffrey Meade, MD '95 Chad Voskuil, MD

Beaver Dam Beaver Dam Black River Falls Black River Falls Eau Claire Fond du Lac Green Bay Green Bay Green Bay Green Bay La Crosse Prairie du Sac Wild Rose



Celebrating the Opening WIMR'S FIRST TOWER

by Chad Hansen

The University of Wisconsin School of Medicine and Public Health (SMPH) took a big step toward its goal of uniting the twin siblings of research and patient care by opening the first tower of the Wisconsin Institutes for Medical Research (WIMR) on September 4, 2008.

Nestled between UW Hospital and Clinics and the Health Sciences Learning Center on the western edge of the UW-Madison campus, WIMR is a multiphase project that ultimately will consist of three towers.

The east tower is a seven-story, \$185 million facility that seeks to foster collaboration between scientists in their laboratories and clinicians who deliver patient care.

Leaders representing the state, university and school were on hand for the grand opening.

"Here there are no fences," said Robert Golden, MD, an ardent champion of the WIMR project in his first two years as dean of the school. "Scientists and physicians in these buildings will be able to translate discovery into better patient care at our neighboring UW Hospital and

Clinics, including the beautiful American Family Children's Hospital, and then bring these discoveries immediately next door, down the block and throughout the entire state of Wisconsin. The path from bench to bedside to curbside in the community is clear and it begins here."

Golden continued by pointing to WIMR as a logical and necessary element in the evolution of the SMPH, currently the only institution in the United States that combines the disciplines of medicine and public health in one school.

"This is the key to the transformation of the UW School of Medicine and

Public Health into the most advanced and integrated basic science, clinical science and population science program in the country," he said. "The work done here will touch on every aspect of human disease. These towers will set the stage for our school's evolution into the national research leader that dramatically improves the public's health."

In her first week on the job, recently appointed UW-Madison chancellor Biddy Martin, PhD, echoed the theme of transformation.

"Today's celebration and the opening of this structure represent not an end but just a beginning," she said. "We will hold the keys to making great advances in human health. We're helping rewrite the paradigm of public health."

SMPH vice dean Paul DeLuca, PhD, who has guided the project from inception to completion, extended the school's deep appreciation to the many players who contributed to making

WIMR a reality. He thanked university, state and federal partners, financial partners, and design and construction partners.

"You'll be amazed at the future we will have in the building," he assured the audience.

Wisconsin governor Jim Doyle's arrival was slightly delayed due to an early-morning tour of kindergarten classes for four-year-olds in La Crosse and Eau Claire. He used that day's journey as a metaphor for the state's dedication to education and progress.

"From kindergarten to the dedication of this building we are demonstrating Wisconsin's incredible commitment to research and the advancement of knowledge," he said. "Whether it's 15 kids sitting in a school room or the most advanced postdoctoral fellow doing the most far-reaching research, Wisconsin does support and will continue to support those endeavors. We are at



The governor reiterated his commitment to scientific progress that will occur in WIMR.

a building today that represents that commitment."

A ribbon-cutting ceremony led by the governor preceded public tours of the tower's fifth floor, devoted to orthopedics and regenerative medicine research, and the sixth floor's cancer research. There, scientists in white coats and goggles were already at work, searching for the discoveries to which Golden and Doyle alluded.

The new building was designed specifically to facilitate interdisciplinary research, with open laboratories and abundant shared space. Researchers from a variety of basic and clinical science disciplines will interact with one another as well as with physicians and nurses who care for patients in UW Hospital and Clinics next door.

Work will soon begin on WIMR's second tower. The three-tower complex is expected to be completed by 2015 and will ultimately house approximately 1,500 researchers.



As he cuts the ribbon, Governor Doyle is flanked by happy celebrants: (from left) former SMPH dean Philip Farrell, UW Foundation director Sandy Wilcox, Wisconsin senator Fred Risser, UW-Madison chancellor Biddy Martin, UW System president Kevin Reilly, SMPH dean Robert Golden and SMPH vice dean Paul De Luca.

Transforming the Curriculum

Improving Medical Education

by Dian Land

When James Shropshire, MD '89, was a medical student at the University of Wisconsin School of Medicine and Public Health (SMPH) 20 years ago, he and his classmates spent their first two years deeply immersed in the basic sciences. In the first year alone, the students' lives were filled with a dizzying schedule that included hours of sitting in physiological chemistry lectures, standing at gross anatomy dissection tanks and peering into microscopes at histology slides.

To his disappointment, Shropshire found that very little of the vast amount of information he was expected to memorize in those first two years related directly to clinical practice.

"There seemed to be so many missed opportunities to bring patient experiences into the curriculum," says Shropshire, a family medicine physician at UW Health's small Monona Clinic. "There was very little developing of doctoring skills. It felt very impersonal."

Such was the educational tradition at almost all American medical schools for decades, until the situation gradually began to change.

Now, as one of the course directors in the school's four-semester Patient, Doctor and Society (PDS) course and a contributor to the changing curriculum, Shropshire is pleased to see that members of the SMPH Class of 2012 are learning medicine in quite a different way. The students are

"We believe that 'connecting the dots' between courses in a more coordinated way, in a web-like fashion, is a more effective way to teach."

benefiting from instruction that meshes disciplines, incorporates prevention and public health and promotes self-directed learning more than ever before. Not only has the content changed, but so has the manner in which parts of it are delivered.

School leaders made the changes following an enormous amount of deliberation involving faculty members, staff and students. After more than a year of examining how to improve years one and two, the SMPH can now showcase a revised first-year curriculum that is more coordinated, relevant and stimulating, according to Christine Seibert, MD, who was charged specifically with enhancing the curriculum when she was named SMPH associate dean for medical education one year ago.

"This has been a tremendous collaborative effort by so many people who really thought outside the box to create something new," says Seibert.

Seibert and her colleagues, who are now working on curriculum changes for years two, three and four, rolled out the first phase of the enhancements this fall after giving attendees at Medical Education Day a preview last spring.

Connecting the Dots

The new curriculum attempts to integrate content,



Christine Seibert, MD Associate Dean for Medical Education

ideas and themes more synergistically, with less regard for traditional discipline boundaries than in the past. Historically, courses were taught fairly independently, with not much sharing of material, teaching methods or innovations among course directors.

"We believe that 'connecting the dots' between courses in a more coordinated way, in a web-like fashion, is a more effective way to teach," says Seibert. "That's what we've tried to do."

The rationale behind this move toward integrating disciplines stems, in large part, from the emerging healthcare culture, says Seibert, which features collaboration, engagement and interdisciplinary teams. The realities of clinical experience also come into play.

"When patients come to us, they have issues that are not confined to 'an anatomy problem' or even a 'respiratory problem,'" Seibert says. "Patients are integrated."

Seibert believes that it's best to begin teaching students to think across disciplines as early as possible.

"If you want students to perform in an integrated manner as doctors, you should probably be teaching classes that way from the beginning, instead of having students connect the dots later on when they see patients," she says.

YEAR ONE, FALL SEMESTER

Comprehensive Comprehensive Comprehensive Human Human Human **Biochemistry Biochemistry** Medical Cell Medical Cell Medical Cell Biology and Biology and Biology and Immunology Immunology Immunology Molecular and Molecular and Molecular and Medical Genetics **Medical Genetics Medical Genetics** Principles of Principles of Principles of Population Population Population Medicine and Medicine and Medicine and **Epidemiology Epidemiology Epidemiology** Patient, Doctor Patient, Doctor Patient, Doctor and Society 1 and Society 1 and Society 1

What's more, Seibert says, since the national board examinations are moving away from questions focusing on one discipline, the integrated coursework will better prepare students for that important step.

During fall semester 2008, SMPH Med 1s currently are taking three biomedical courses: Molecular and Medical Genetics, Medical Cell Biology and Immunology, and Comprehensive Human Biochemistry, the first two of which are interdisciplinary and new. To ensure that a close degree of coordination exists between these classes, instructors are asked to communicate course plans and outlines with each other on a regular basis.

An expanded Principles of Population Medicine and Epidemiology is now also offered in the first, instead of the second, semester. This is meant to ensure that students start thinking about public and community health from the beginning of their medical education. First semester also features a revised PDS 1, which introduces students to ethics and physician-patient communication, including cultural awareness in medical practice.

Throughout all of this, the educators have made a concerted effort to apply material learned in classes to clinical situations through relevant patient cases.

"We think this is a great first semester that really aligns content nicely and is very patient centered," Seibert says.

The medical educators have also made integration a priority during the

YEAR ONE, SPRING SEMESTER

Integrated Medical Anatomy	Integrated Medical Anatomy	Neurobiology	ASSESSMENT
Principles of Human Physiology	Principles of Human Physiology	and Anatomy of Head and Neck	
Patient, Doctor and Society 2	Patient, Doctor and Society 2	Patient, Doctor and Society 2	

Fall 2008



Steven Weiler, who is coordinating year-two curriculum changes; Laura Dast, of the medical education staff; and Seibert (right) discuss first- and second-year modifications.

second semester of the first year, when, in a significant departure from the past, anatomy and physiology are now taught.

Material presented in anatomy and physiology classes now meshes more clearly in an organ-system approach to structure and function. Using the heart as an example, the structure of valves and chambers will be discussed in tandem with lessons on functions such as ejection fractions and the volume-pressure relationship. Then when students focus on the physical exam in PDS 2, they will listen to a patient's heart and become familiar with other tests used to determine cardiac pathophysiology.

"Marrying structure and function in this way will be a powerful learning experience," says Seibert, stressing that integrating material from various disciplines and including clinical cases will be the standard and not the exception from now on. Neurobiology and Anatomy of Health and Neck rounds out the new second semester class schedule. With completely restructured content, this has become an interdisciplinary course that integrates neuroscience with gross anatomy, histology and physiology of the head and neck.

More Public Health Throughout

Since the school has made incorporating public health into all of its missions a key goal, Seibert and her colleagues have made finding ways to integrate it into each year of the four-year curriculum a top priority.

"The integration of our core biomedical curriculum laid the foundation for including prevention and public health content," she says. "But making room for it posed a challenge. You can't simply add public health material on top of anatomy and physiology. Furthermore, not all faculty members have a grasp of how public health figures in their disciplines."

The curriculum architecture committee recommended a creative way to incorporate the material: a format change that entails separating five-week blocks of intense instruction with what has been named "assessment and integration weeks."

The weeks begin with exam reviews and then exams. In the integrative activities at the end of the week, students explore how health policies and programs, cost and access issues and other factors go hand-in-hand with basic science and clinical medicine in preventing and treating disease.

Building on what they have learned and anticipating what they will learn, students discover important overarching themes in medicine that might be missed in any single class.

Basic scientists, clinical scientists and public health experts have created the integrative activities with the help of Seibert's staff.

During the first integrating week at the beginning of October, for example, students tackled the causes and consequences of preterm birth. They looked at not only the treatment of these vulnerable infants but at the range of biological, social and economic factors that are involved in addressing the growing problem.

Seibert expects that the integrating week exercises will have great value for faculty members as well as students.

"Just working together on a case gets people really energized," she says, "and will help them learn the public health implications of what they do."

Beginning in fall semester 2009, the new second-year curriculum will also inject assessment and integration weeks into an organ-block structure across both semesters. In the past, longitudinal pathophysiology, pharmacology and pathology courses relating to various organ systems extended the whole year. Smaller multiweek sessions dealing with nutrition and neoplasia were strategically added in.

Now the year will have multidisciplinary organ blocks devoted to cardiovascular, respiratory, renal, hematology, gastrointestinal, endocrine, dermatology and muscloskeletal topics, with relevant pathophysiology, pharmacology, nutrition, neoplasia and pathology integrated into each block.

"The new organ-block courses are being designed by teams of individuals representing many different disciplines," notes Seibert.

Three additional courses, a reconfigured Infection and Immunity and PDS 3 and 4, will run longitudinally for the duration of the year. And before launching into all the organ blocks, the curriculum will begin with a course called Foundations, which will present some of the basic principles students will use for the rest of the year.

Promoting Active Learning

As all medical educators know, the ongoing explosion of biomedical knowledge requires them to change the way they teach. Precious little space is available for additional material. With its need to make room for expanded new public health content, the SMPH has been further motivated to streamline its curriculum. And this has forced instructors to be most efficient about the content of their courses.

"We've asked instructors in the first two years of the curriculum to concentrate on providing students the basic concepts and underlying principles that every doctor needs to know. Then the students will learn how to apply this conceptual framework through paper cases and, eventually, their clinical work," Seibert says.

The school is also making progress on moving away from didactic toward active learning, although portions of the curriculum are still almost entirely lecture-based. Seibert points to the "problem-based exercises" (PBEs) that for years have been offered in Biomolecular Chemistry as one method of getting students used to learning in a more active way.

"We want to give students many more of these kinds of active-learning opportunities so that they become self-directed, lifelong learners as soon as possible," she says.

"We must have a constant quality improvement process, always asking: How can we make our curriculum better? How can we be a leader in medical education?"

For the PBEs, small groups of students gather around a computer, which presents them with a case to solve, such as a patient arriving at the emergency room with chest pain. The students must decide what they are looking for. Is it heart damage? If so, they are prompted to think about what happens biochemically with heart damage and what kinds of blood tests they would order to evaluate this.

"These exercises take students through what they just learned, and translate that to clinical applications," Seibert says. "It helps them understand why they have to learn about things like troponin, myoglobin and creatine kinase."

The three main curriculum changes the school has made recently integrating disciplines, incorporating public health and promoting active learning—are interrelated, says Seibert.

"We couldn't have successfully added public health without integrating other parts of the curriculum first," she says. "Public health encourages students to apply concepts broadly, and application is active learning."

In her presentation at Medical Education Day, Seibert referred often to the transformation of the curriculum. But she stresses that the job is neverending because, like the ever-evolving patient care, medical education is a dynamic process.

"We should never feel transformed," she says. "We must have a constant quality improvement process, always asking: How can we make our curriculum better? How can we be a leader in medical education?"

Along with asking questions, Seibert suggests making a promise.

"We need to promise our students that we will give them the best medical education we possibly can," she says.

Shropshire, who says that until recently he never dreamed he'd be involved in helping improve medical education at his alma mater, thinks the school is on the right track.

"The new curriculum is about creating a learning environment that produces wholeness in doctors, which includes competency in the basic sciences, in making clinical and community applications, being professional and acquiring people skills," he says. "It's a different and a much better way to teach students how to be good doctors."

Faculty Honored with

Dean's Teaching Awards

The Dean's Teaching Awards honor outstanding contributions to student education in medical school programs. Awardees are selected by a committee of faculty members previously honored for their excellence in teaching, making the awards the medical school's only peer-selected teaching awards.

Criteria include:

- Excellence in education, including teaching technology, evaluation methods, administrative efforts
- Extraordinary and sustained dedication and effort on behalf of student education
- Demonstrated high level of teaching effectiveness
- Innovation in education
 The following faculty members were given Dean's Teaching Awards at Medical Education Day last spring.

YOLANDA TAI BECKER, MD

As director of the surgery clerkship, Becker, associate professor of surgery in the organ transplantation division, has elevated a strong clinical rotation to a far superior rotation. As co-leader of the Y3/4 curriculum, she has been instrumental in leading curricular innovations, including the Transitional Clerkship that introduces third-year medical students to life on the wards. Becker also is a highly valued group leader in the Patient, Doctor and Society course.

ROBERT H. FILLINGAME, PHD

Professor and chair of biomolecular chemistry, Fillingame used creative thinking to transition traditional laboratory experiences into interactive problem-based sessions to use Health Sciences Learning Center facilities to their fullest. He was a key player in the difficult task of designing, from scratch, these computer-based active learning and problem-based exercises. As chair of Biomolecular Chemistry 704 for

the last 13 years, Fillingame has exhibited incredibly strong leadership by example.

TERRENCE FRICK, MD

Frick, associate professor of medicine in the Section of Gastroenterology and Hepatology, led the redevelopment of the second-year medical student GI/Hepatic Pathophysiology course. This included a complete revision of the course book to emphasize clarity of presentation, reduction in redundant materials and encouragement of self-study through small group seminars. He prides himself on delivering 50 percent of the lectures himself.

MICHAEL FRITSCH, MD, PHD

Associate professor of pathology and laboratory medicine, Fritsch is course director of the second-year core pathology course. After he overhauled the course, it is now one of the most well received and respected of the basic science courses. He rewrote and edited all the handout course materials, converted the laboratory from use of glass slides to virtual microscopy, and improved the clinical-pathologic-correlation material for small group discussions.

KEVIN M. MCKOWN, MD

McKown, associate professor of medicine and co-director of the rheumatology section, is co-director of the third-year Internal Medicine Clerkship and fourth-year sub-internship. He has added considerable structure, stability and effectiveness to the clerkship program while interacting with his students and expressing genuine concern for their well-being and overall education. He also is highly praised as program director of the Rheumatology Fellowship program.











Pictured top to bottom: Yolanda Becker, Robert Fillingame, Terrence Frick, Michael Fritsch, Kevin McKnown.

Dahlberg Named Governor's New Science Advisor

overnor Jim Doyle Irecently appointed James Dahlberg, PhD, the Frederick Sanger Professor of Biomolecular Chemistry at the UW School of Medicine and Public Health (SMPH), as his science advisor. The position was created to keep the governor and his administration informed of significant ongoing and developing scientific research and to serve as a liaison to the scientific research community.

"With our world-class university research programs and facilities and globally competitive technology and manufacturing firms, Wisconsin is poised to be a national leader in renewable energy and other scientific innovation," Doyle says. "Dr. Dahlberg is a respected leader in both the private and public sectors who will help Wisconsin continue to foster an environment that encourages scientific inquiry, innovation and commercialization."

Technology-based markets are a major contributor to Wisconsin's economy, accounting for tens of thousands of high-end jobs. To continue to grow Wisconsin's economy and maintain its status as a national leader



in scientific research and commercialization, Doyle feels it's important for the state to continue its success in scientific innovation.

A member of the SMPH faculty since 1969, Dahlberg is also the co-founder of Third Wave Technologies, a publicly traded biotechnology company based in Madison that develops and sells tests and reagents for analysis of specific DNA and RNA molecules. In summer 2008, Third Wave was purchased by Hologic, Inc., a company specializing in women's healthcare.

Dahlberg, now an emeritus professor, has published more than 160 research articles on the structure, function and processing of RNAs and is an inventor or co-inventor of 25 U.S. and 12 international patents.

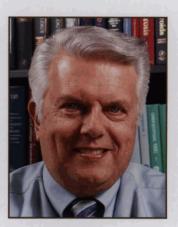
Drezner Heads Bone and Mineral Research Society

arc K. Drezner, MD, senior associate dean for translational and clinical research at the UW School of Medicine and Public Health (SMPH), began his term as president of the American Society of Bone and Mineral Research (ASBMR) on September 16, 2008, at the ASBMR annual meeting in Montréal, Canada.

The ASBMR brings together clinical and experimental scientists involved in the study of bone and mineral metabolism.

Drezner, a long-standing member of the ASBMR, has been an active, continuously funded researcher for the past 34 years, using laboratory and clinical research relating to metabolic bone disease to translate basic science findings to the bedside. Most recently his research has explored the pathophysiological basis of vitamin D-related bone deficiencies.

"I am honored to serve ASBMR, its mission and its members," Drezner says. "This organization is at the forefront of bone and mineral research, representing thousands from all over the world who are committed to furthering our knowledge and conducting



research that ensures the best in patient care."

Drezner was named director of the UW-Madison's Institute for Clinical and Translational Research in 2007 after helping the school win a \$41 million grant to fund it. He became senior associate dean for clinical and translational research in 2008, and also serves as chief of the endocrinology, diabetes and metabolism section in the Department of Medicine.

Drezner previously served as endocrinology section head and the director of the endocrinology training program at Duke University. He has promoted bone and mineral research as editor-inchief of the *Journal of Bone and Mineral Research* and as secretary-treasurer of the ASBMR.

UW Hospital and Clinics

Among Top Five Teaching Hospitals

A nationally recognized "scorecard" for measuring the quality of major teaching hospitals put University of Wisconsin Hospital and Clinics in the nation's top five best-performing institutions.

The annual assessment measured the performance of teaching hospitals in several areas known to be essential to delivering excellent care consistently across a wide variety of populations. This year, 88 academic medical centers were included in the analysis.

UW Hospital performed well on the five key measures that the University Healthsystem Consortium (UHC) assessed.

MORTALITY—comparing the observed death rate to the expected death rate for patients in a wide variety of medical specialties

EFFECTIVENESS—indicating whether patients are receiving all care for which they are eligible; how many need to be readmitted within 30 days for a related condition

SAFETY—based on eight patientsafety indicators used by federal healthquality agencies

EQUITY—assessing if hospital performance is consistently strong between male and female patients, white and non-white and people of varying socio-economic levels

PATIENT-CENTEREDNESS—

measuring how highly patients themselves rate their experience at the hospital



Ellen Wald (left), chair of pediatrics, instructs residents. The new recognition from the University Healthsystem Consortium verifies that UW Hospital and Clinics performs well across the board.

The annual ranking is produced by UHC, a national organization representing approximately 90 percent of the nation's non-profit academic medical centers.

"Breaking the top five in this assessment—which is based on strong evidence of what works to improve patient care—is a tremendous achievement for our organization," says president and CEO Donna Katen-Bahensky. "I am especially proud for our physicians and staff, who share with our leadership a focus on results and accountability."

Katen-Bahensky says the ranking verifies that UW Hospital performs well across the board, not just in particular areas.

"Consistently high performance across all areas is a central goal of the quality improvement effort nationally and certainly is of highest importance to UW Hospital and Clinics," says Katen-Bahensky.

The other four institutions in the top five are Methodist Hospital, Indianapolis; Rush University Medical Center, Chicago; St. Luke's Episcopal Hospital, Houston; and University Medical Center, Houston.





Eglash stores milk in her office freezer before sending it on to a milk bank in Ohio, where it's pasteurized, refrozen and sent to hospitals for babies who can't get milk from their own mothers.

She's working to establish a mother's milk bank in the Milwaukee area. And, in an only-in-Wisconsin twist, her research interest in breast milk has led to collaboration with UW-Madison's other lactation experts: dairy scientists based in the College of Agricultural and Life Sciences.

Her career passion centers around the most essential relationship of them all: the bond between mother and baby, and the life-enhancing milk at its heart.

Every week, Eglash sees patients such as Rebecca Holtan-Brohn and her baby son, Ben. When Ben was born last winter, he arrived two weeks early and soon developed a nasty case of jaundice that sent him to neonatal intensive care. More worryingly, he just couldn't figure out breastfeeding.

"He didn't know how to latch on, even though I was trying; he couldn't get the knack of it," Holtan-Brohn recalls. "It's not always straightforward. It took at least four months for him to get the concept of feeding."

Holtan-Brohn says that through this sometimes frustrating experience, Eglash provided encouragement and tips for keeping the milk flowing while Ben learned the skill of nursing properly. Holtan-Brohn wound up pumping breast milk and having her husband, Matt, feed it to the baby from a bottle while still encouraging Ben to try nursing.

"It became a family affair," she says. "It was the routine for all three of us to get up in the middle of the night:"

Why all this hassle when she could have easily switched to formula?

Holtan-Brohn knows the benefits of breast milk, especially for a preterm baby like Ben. Research has shown that easily digestible breast milk contains a baby's optimal nutrition and helps the gastrointestinal tract mature. It offers immunologic protection against disease, and has growth factors that can heal tissue damaged by infection. Breastfeeding also confers long-term health protection against certain cancers, obesity and hypertension for the baby, and a marked reduction in breast cancer risk for the nursing mother.

But a generation ago, when Eglash was in medical school, it was common for physicians to advise women to give up on breastfeeding when problems arose. Or even before. Not only did Eglash receive almost no information about breastfeeding during medical school, she says it was assumed most women didn't want to breastfeed.

"When I did my obstetrics rotation in Alabama in the '80s, it was a standard hospital order that each woman receive bromocriptine for three days to dry up her milk," she recalls.

Eglash's development as a breastfeeding expert began a few years later, when she was practicing family medicine in Santa Monica, California, and gave birth to her daughter, Becky.

In doing research into her own problems as a new nursing mother, Eglash discovered the UCLA lactation consultant program.

She enrolled and earned certification. But as most lactation consultants are nurses or laypeople, Eglash

learned that their expertise wasn't always acknowledged in the medical world.

"That can be a barrier to physician acceptance of breastfeeding," she says. "You really need physicians educating physicians."

So, in 1994 at Stanford University, Eglash was one of the founding members of the Academy of Breastfeeding Medicine, a group that now has a growing international membership.

On its website, www. bfmed.org, appear peerreviewed medical protocols on sudden infant death syndrome and breastfeeding, premature infants and breastfeeding and best hospital practices for establishing breastfeeding.

"The rate of breastfeeding research has grown exponentially," Eglash says. "Today there are physicians, usually pediatricians, who have practices focused exclusively on breastfeeding."

Eglash is doing her own research on the chronic breast pain that can force mothers to stop nursing. She suspects a low-grade infection in the milk ducts, but proving it is difficult because one of the many healthy attributes of breast milk is its antibacterial qualities, making it devilishly difficult to culture in the lab.

So the first step is developing a standard method to culture human milk for bacteria.

She's working with Richard Proctor, MD, a former infectious-disease faculty member at the SMPH, as well as Carol Spiegel, PhD, director of the clinical microbiology laboratory at UW Hospital and Clinics.

She's also enlisted the help of the experts who study the problems of bovine mothers on the ag campus, collaborating with Pamela Ruegg, PhD, an associate professor and milk quality specialist in the Department of Dairy Science, and her colleagues. Once the lab technique is perfected, they hope to find the culprit for chronic breast pain.

"If we can prove these women with chronic breast pain have bacterial infections, we can figure out the best way to treat and prevent these infections," Eglash says.

There has been much more research on the economically important issue of mastitis in dairy cows, but human mothers are still better off: A cow with chronic mastitis is nearly always sent off to the butcher.

"When I tell my patients that," Eglash says, "they always say, 'I'm glad I'm not a cow!"

Eglash says she enjoys the research process "because it allows me to use what I've learned about other systems in the body and apply it to an organ system that has had little attention."

It also has a side benefit. Madison-area women have a resource when painful breasts or other medical issues threaten their ability to go on nursing.

Arlinda Michael, RN, a lactation consultant with the Madison Birth Center, says she refers complicated problems to Eglash. These can include low milk supply, maternal medication use, possible breast milk intolerance and chronic breast pain that doesn't respond to treatment.

"Anne is so compassionate, and moms just totally trust her," Michael says.

Michael and Eglash work together on another issue. They serve on the board of the Mothers' Milk Association of Wisconsin, which identifies potential milk donors, helps them through the donorscreening process, collects the donated breast milk at depots in Mount Horeb and Oshkosh, Wisconsin, and then uses a volunteer service called "Angel Flight" to ship the frozen milk on to the Mothers' Milk Bank of Ohio. There it is pasteurized, refrozen and sent to hospitals for babies who can't get milk from their own mothers.

At some hospitals, including the University of Iowa and Marshfield Clinic, donated breast milk is the standard diet for hospitalized infants whose own mothers can't nurse them.

Eglash says mothers' milk is considered especially important for premature babies because it helps prevent the necrotizing enterocolitis that can lead to short gut syndrome, a leading cause of life-long disability in preterm infants. Fortified human milk for very low birthweight premies is also associated with improved gut development, less risk of sepsis and other invasive bacterial infections, and a higher IQ in later life.

Because southeastern Wisconsin has epidemic numbers of premature and low-birth-weight newborns, Eglash, along with physicians at the Children's Hospital of Wisconsin, are exploring setting up a milk bank in Milwaukee, modeled on the one in Ohio.

While Madison's two baby hospitals haven't yet adopted donated breast milk as a standard of care, women who deliver at the Madison Birth Center have access to pasteurized donor human milk when supplementation is needed. Eglash says that Madison is "a hotbed" of mothers willing to donate extra milk for infants in need.

Donor mothers go through a health screening just like blood donors, with their blood tested for infections ranging from HIV to hepatitis B and C. The mother's and baby's physicians also need to certify the mother as a donor candidate. But chemically speaking, milk is milk.

"Mothers' milk in India is the same as mothers' milk in Ohio," Eglash says. And what motivates mothers to pump extra milk for other mothers' babies? Eglash says that sometimes, the milk is donated by mothers whose babies have died, and that the donation is a way of bringing meaning to their loss.

More commonly, women donate because they're making more milk than their babies can use. That was the case for Rebecca Holtan-Brohn, who pumped and froze extra milk for months while baby Ben was learning how to nurse.

"I had all this extra milk, so why not?" says Holtan-Brohn, who drops off her extra milk at Eglash's office. Besides the health screening, and taking extra steps to sterilize the pumping equipment, she says that it's easy to give other babies the gift that baby Ben enjoys.

He's a great advertisement for the benefits of breastfeeding. At seven months, he's caught up to his expected weight and is pulling himself up in order to explore his world.

"He's a go-er and a do-er," says his mom, adding that it was worth persevering during those long months when breastfeeding wasn't going well.

"It's so important for babies," she says. "They emphasize to you that it's like liquid gold."

Agent in Red Wine Keeps Hearts Young



Small doses of resveratrol—a natural constituent of grapes, pomegranates, red wine and other foods—in the diet of middle-aged mice has a widespread influence on the

genetic levers of aging and may confer special protection on the heart, an international team of researchers has found.

Writing in the June 3, 2008, online journal *Public Library of Science One*, the researchers reported that low doses of resveratrol mimic the effects of what is known as caloric restriction—diets with 20 percent to 30 percent fewer calories than a typical diet—that in numerous studies has been shown to extend lifespan and blunt the effects of aging.

"This brings down the dose of resveratrol toward the consumption reality mode," says senior author Richard Weindruch, PhD, an SMPH professor of medicine and researcher at the Geriatric Research and Education Center. "At the same time, it plugs into the biology of caloric restriction."

The study compared the genetic crosstalk of animals on a restricted diet with those fed small doses of resveratrol. The researchers examined the influence of the agent on heart, muscle and brain

by looking for changes in gene expression in those tissues. The new findings, say Weindruch and his collaborators, were associated with prevention of the decline in heart function associated with aging.

In short, say the researchers, a glass of wine or food or supplements that contain even small doses of resveratrol are likely to represent "a robust intervention in the retardation of cardiac aging."

Restoring Hearing One Cell at a Time

tolaryngologist Samuel Gubbels, MD, is one step closer to realizing a dream: treating patients who have lost their hearing by regenerating the damaged inner-ear cells that are at the heart of hearing.

Gubbels, an assistant professor of surgery at the SMPH, and collaborators recently completed a study in which they grew the specialized "hair cells" necessary for hearing by transferring a primary gene responsible for hair-cell formation into the inner ear of mice embryos.

The findings were reported in the August 26, 2008, issue of *Nature*.

Unlike previous studies, this one was the first to show that introducing the gene *Atoh 1* in utero early in development produced hair cells that work normally by several electrophysiological and biophysical measures.

The hair cells also made rudimentary connections with central nervous system cells critical to hearing, and they displayed an ability to transmit signals mechanically, further evidence that

they were true, normally functioning hair cells.

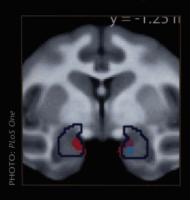
The new findings will help scientists better understand how hair cells form. And the in utero gene transfer technique the researchers developed offers promise as a viable new approach to investigating the regenerative process.

The ultimate goal, says Gubbels, would be to introduce a gene or medication to the deaf ear that would result in growth of functioning hair cells and restoration of hearing.



HOTO: Natu

Once a Shy Monkey, Always a Shy Monkey?



We all know people who are tense and nervous and can't relax. New research suggests they may have been wired differently since childhood.

In a brain imaging study involving rhesus monkeys, Ned Kalin, MD, director of the HealthEmotions Research Institute and chair of the SMPH Department of Psychiatry, found that the brains of those suffering from anxiety and severe shyness in social situations consistently responded more strongly to stress, showing signs of being anxious even in situations that others found safe.

The study appeared in *Public Library of Science One* (*PLoS One*) the week of July 2, 2008.

Anxious temperament is important because it is an early predictor of the later risk of developing anxiety, depression and drug abuse related to self-medicating, says Kalin, who has studied temperament in monkeys for years.

Using PET scans that show metabolic activity, the researchers found that monkeys with the most anxious temperaments showed higher activity in the amygdala, a part of the brain that regulates emotion and triggers reactions to anxiety, such as the fight-or-flight response. These anxious monkeys had more metabolic activity in the amygdala in both secure and threatening situations.

When the monkeys were retested a year and a half later, the results were the same.

"The brain machinery underlying the stress response seems to be always on in these individuals," says Kalin, "even in situations that others perceive as safe and secure."

Untreated Sleep Apnea Associated with Significant Risk of Death

The latest finding from the Wisconsin Sleep
Cohort—a continuing study of sleep problems in the general population—is alarming: over an 18-year period, people with severe, untreated sleep apnea died at a rate more than three times that of those without apnea.

A condition of repeated episodes of breathing pauses during sleep, sleep apnea is measured by the number of complete or partial halts in breathing per hour of sleep.

Writing in the August 2008 SLEEP, the SMPH researchers found that the higher the

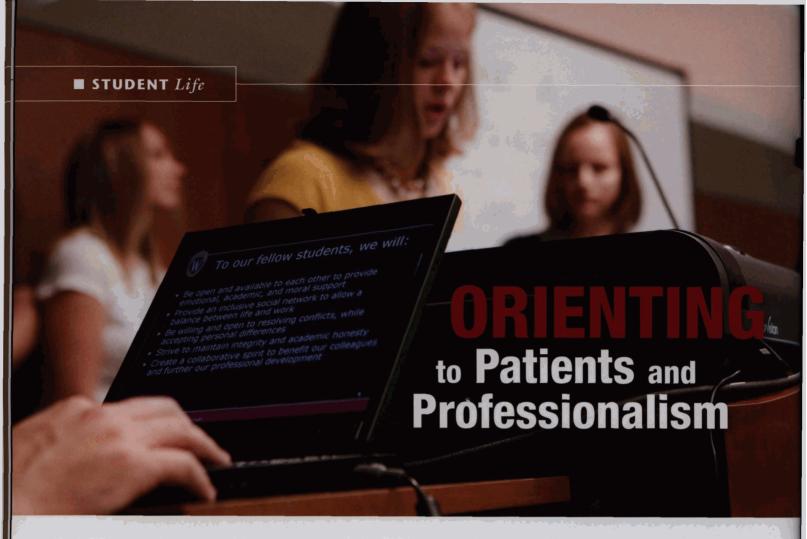
number of breathing pauses, the greater the risk of cardiacrelated death.

The good news: people who reported using the standard treatment, continuous positive air pressure (CPAP) therapy, for their sleep apnea fared better, according to epidemiologist Terry Young, PhD, professor of population health sciences, who is the principal investigator for the study.

Begun in 1989, the Wisconsin Sleep Cohort Study is based on a random sample of 1,522 Wisconsin state employees. Participants undergo overnight sleep studies that include polysomnography—an allnight recording of sleep and breathing—and many other tests at four-year intervals. The study has revealed links between sleep apnea and hypertension, stroke and depression.

The current study underscores the need for diagnosing sleep apnea, says Young. Treatment for the problem appears to help decrease the risk of death and serious complications.





by Susan Lampert Smith

On their very first morning as medical students, during new student orientation, members of the Class of 2012 heard first from a slim gray-haired woman, wrapped in a dull green hospital robe.

"My name is Meg," she told them. "I'm the face of ovarian cancer."

One by one, the "Faces of Patients" took the stage in the Health Sciences Learning Center's auditorium and told their stories. The students learned the statistics of smoking from Scott, the face of a smoker, and the difficult times faced by parents of

special needs children from Elizabeth and her husband, Terry. Their daughter sat in a wheelchair nearby, vocalizing loudly.

"And that's Emma," she said.

The students heard from Michael, the face of HIV-AIDS, and Mary, the face of diabetes. After introducing themselves, the patients took off their robes to reveal their everyday clothes beneath, symbolically revealing the real people behind the diagnoses.

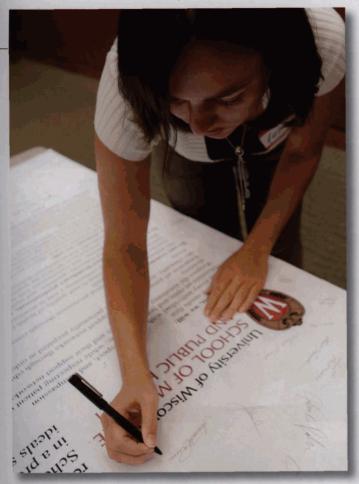
"The most important thing the students learned is that the patient comes first," says Patrick McBride, MD '80, MPH, SMPH associate dean for students. "This is a vital tenet of being a physician: it is about the patient."

"Faces of Patients" was a collaborative effort stemming from Patient, Doctor and Society (PDS), a four-semester course that begins by teaching new students how to communicate with patients.

"I wanted students to walk away from this experience remembering that there is a human being behind every diagnosis," says Jane Crone, NP, MEd, MS, a PDS course director and originator of the "Faces of Patients" program. Others who collaborated included Classroom and AV Services staff, and, most importantly, the patients themselves.

After meeting the patients, the students started medical school by creating a professional code unique to their class, and by cleaning parks as part of a community service activity. The expanded orientation week was part of major changes in store for this class. And the new orientation resulted from a collaboration between faculty, staff, students, patients and others.

"The new orientation week and the curriculum changes are all aimed at producing better doctors," says Christopher Stillwell,



Members of the Class of 2012 (left) drafted a class professional code. All students, including Aurora Reese (above), signed a giant copy of the code, which now hangs on the wall in the student services center.

director of academic and career advising.

McBride was thrilled with the results of the new students' first activity for the week: writing their own professional code.

First, they heard about the history of medical codes, from the Hippocratic Oath to the Declaration of Geneva, from Susan Lederer, PhD, chair of the SMPH Department of Medical History and Bioethics.

And then the 166 students broke into small groups and discussed the things that they believe are important: honoring their patients, community, faculty, other healthcare professionals, each other and themselves. Each group elected a representative to hash out a draft that incorporated their ideals, and finally all the students voted on each of the five sections, using the audience response system in the school's lecture hall. The debate was passionate, but respectful.

For example, they argued about whether to include a commitment to global health issues but decided their commitment to "community" could be interpreted to include world health.

"Putting it down on paper is critical to getting them to think about these things and embed them into the culture," Stillwell says. "It's a way of making the unconscious conscious."

And it was a way to see where ideals conflict. For example, students grappled with how they would put their patients first, while still caring for themselves and leading a balanced life. It's a familiar struggle for most physicians, but not normally a topic for the first week of medical school.

A giant copy of the code now hangs on the wall in the student services center, signed by members of the class. Plans are to display it, and to update and revise it, as the students move along the path toward graduation.

Later in the orientation week, students bonded by

painting a community center, helping build a Habitat for Humanity house and cleaning the park around the Goodman Pool.

Second-year students participated in many of the activities and regaled the incoming class with a hilarious welcome video that included a sketch titled "Med School Musical."

"Our primary goals are to teach students about collaboration, communication and collegiality," McBride says. "That is how medical practice and healthcare work best—when we work as a team to serve our patients. We wanted the new students to develop as a community to work together to solve the issues that they will face together as a class and as future healthcare professionals."



Students LemLem Getachew (in purple) and Sheila Roy (foreground) learned the most important thing about being a physician: it is about the patient.

ORGANIZATIONS as DIVERSE as the STUDENTS











edical school is not just about classes, labs and clinics, as the members of the Class of 2012 learned recently during the annual Student Organizations Fair.

At the fair, Med 2s talked up their extra-curricular organizations, which are as diverse as the students themselves. They range from the Medical Student

Association—the voice of students to faculty, administration and the medical alumni association—to social organizations such as Coda Blue, the student string ensemble that plays at school social events, and the Medical Student Running Club.

In between are special interest groups, such as the Emergency Medicine

Interest Group and Physicians as Health Advocates, as well as community service organizations, like Doctors Ought to Care (DOC), which trains and sends students to local schools to talk about health, and the International Health Exchange, which collects medical aid for third-world countries. Nearly 25 organizations were represented at the fair.

CHICKEN SOUP FOR THE UW MEDICAL STUDENT SOUL

POCKETBOOK PROMOTES HUMANISM

by Jimmy Wu, Med 4

All medical students remember their first year as being an overwhelming time devoted to learning the particulars of the Krebs cycle, the intricacy of the Frank-Starling mechanism and the details of the brachial plexus. Despite this, you would be hard-pressed to find many who decided to enter medical school to practice their memorization skills. Rather, in all likelihood, most students went through the tedious application process in order to become physicians who can care for their patients in times of greatest need.

Unfortunately, the many hours of studying countless modules and poring over numerous tables have a way of diminishing the development and enrichment of one's sense of empathy, humanism, leadership and dedication to service. This observation is what inspired the 2007-08 Gold Humanism Honor Society (GHHS) inductees at the UW School of Medicine and Public Health to create a "humanism" pocketbook for UW medical students.

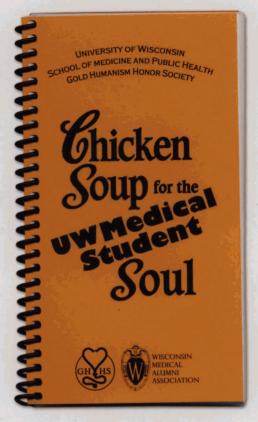
The national GHHS was created by the Arnold P. Gold Foundation to "honor senior medical students, residents, role-model physician teachers and other exemplars recognized for demonstrated excellence in clinical care, leadership, compassion and dedication to service."

Our GHHS chapter was started in 2006 and our advisors are Sharon Younkin, PhD, director of community programs at the school, and Patrick McBride, MD '80, MPH, dean of students. Selected by their peers, GHHS inductees are honored at the following year's White Coat Ceremony. Each group is asked to design a project with the mission of promoting the values of GHHS. For their project, the pioneering group created the "Humanism Rounds." Held at the hospital, these were talks about the virtues of humanism in medicine.

The pocketbook produced by the 2007-08 inductees is aptly named *Chicken Soup for the UW Medical Student Soul.* The 4-inch by 7-inch publication, intended to fit in a medical student's white coat, contains a rich collection of 27 stories submitted by medical students, residents, physicians, other health professionals and patients. The booklet is alive with poignant accounts of students' own experiences with health issues, humbling encounters with inspirational patients, and plenty of lifelong lessons that can be learned only in patient-care settings.

The pocketbooks were distributed to all incoming first-year medical students during their White Coat Ceremony on September 21, 2008. The idea was to provide the newest group of aspiring doctors a resource that serves as a reminder of why they originally embarked on this long journey. Sixteen well-deserving fourth-year medical students also were inducted into GHHS at the ceremony. We look forward to seeing the project they come up with.

The GHHS 2007-08 class consists of Patrick McKenna, Meghan Pesko, Mark Biagtan, Laura Bonneau, Zobeida Diaz, Emma Duncanson, Erica Garcia,



Luxme Hariharan, Ryan Hatchell, Ben Heinzen, Heather Peto, David Vallejo, Jr., Adam Kadlec, Kelly Mackin, Branden Pfefferkorn, Jeffrey Phillips, Jon Printz, Maggie Printz, Timothy Rolle, William Schmitt, Ellen Selkie, Shannon Straszewski, Jaime Hook and myself.

An online copy of *Chicken Soup for the UW Medical Student Soul* can be found at http://www.uwmedstudents.com/studentorgs/GHHS/.

Samples of some of the essays that appear in *Chicken Soup* are published in the Healer's Journey section of this issue of the magazine, on pages 32 and 33.



Annual Ceremony Highlights Professionalism, Service

The School of Medicine and Public Health recently welcomed the 166 members of the Class of 2012 to the medical profession at the White Coat Ceremony.

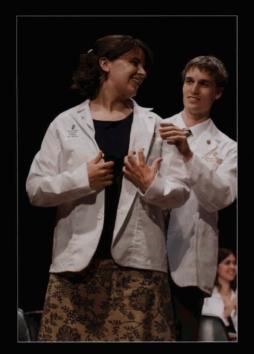
The annual investiture is always an important milestone for the new students and their proud families, symbolizing the beginning of the students' medical education. The white coats serve as a reminder of professionalism.

The SMPH extended family and representatives of the Medical Society of Wisconsin provided many words of wisdom and support, highlighting what a privilege it always has been to be a physician. The current class plays a special role in the school's history, as exactly one hundred years ago, in the fall of 1908, the newly created school welcomed its first small group of students.

Today's students function in an environment that features state-of-the-art educational, research and clinical facilities at a school that has transformed itself into an institution that uniquely combines public health and medicine under one roof. The students will learn medicine through a curriculum that has been thoughtfully revised to ensure that their instruction is most relevant and effective.

At the ceremony, the third group of Gold Humanism Honor Society members were also honored. This society recognizes students who show dedication to service, supporting people in need.

After second-year students helped the new students into their white coats, the class recited the code of ethics, vowing to act as humble professionals from that moment on.









Clockwise from top right: Robert Zemple's red shirt contrasts well with his new white coat. Med 2 Karen Schultz helps Med 1 Kristina Kraninger. Karen Schultz applauds as Joel Wood gets comfortable. Ben Durkee makes sure Abigail Bates' coat feels right.

Gooub Pants

by Paul E. Dahlberg, MD

have yet to become fully comfortable wearing scrubs. The extra larges are similar to wearing Hefty garbage bags, but some of the large-size pants are akin to wearing spandex. I have generally chosen to try and revive the parachute pants look, as the XLs tend to be more comfortable. But I have realized that this does come at a price.

For me, it was a week of little sleep. Ms. M, however, was contemplating that she was going to be spending her 70th birthday in the hospital.

Gynecology was my first basic rotation and I had been exuberant and wasteful with my energy reserves. One early Thursday morning, I stumbled into her room around 5 a.m. to pre-round with only 10 hours of sleep in the last four nights. In my post-call haze, I walked over to her bed and asked her the

appropriate personal questions for a post-op patient.

My awareness of my surroundings and myself was apparently quite impaired at that point. A nurse was in the room, but I wasn't really paying attention to what she was doing. I only remember that she was there, because later she laughed, saying that watching me was like seeing someone falling just out of arm's reach; words pointless and actions futile.

Ms. M mentioned in retrospect that she thought that I was exhibiting a "hip-hop style," the waist of my pants low with the top edge of my shorts showing over them. Of course, it was not intentional. My beeper clipped at my waist was acting like the proverbial weight on the fishing line. It was not until I had removed my stethoscope from my white coat pocket, placed the ear buds in my ears and began to lean

forward to listen to her heart and lungs that I noticed that my scrub pants had sunken to my knees.

My reaction was slow. It didn't even occur to me to feel self-conscious. I just knew that those pants didn't belong down there. So I reached down and pulled them up. Ms. M, however, was mightily tickled. I think it was because of her response that I realized my faux pas. My apologies and blushing expressed themselves within the same second. I finished the physical quickly, with only a vague awareness that I should be embarrassed. From then on, Ms. M always smiled and welcomed me into the room. We joked about the incident for the rest of her short stay.

The white coat may be a daunting barrier at times, but occasionally that barrier needs to come down, in one way or another.

Voice

Anonymous

During my anesthesiology rotation, we were asked to review the charts of the patients who were scheduled for surgery the following day. I managed to find my way to first-day surgery, and spent some time "getting to know" Mr. Valentino by flipping through his paper chart and looking through the documents that had been posted on our hospital's computer system.

Mr. Valentino was in his late 60s, lived in small-town northeastern Wisconsin and had been active and

healthy all his life until several years ago, when he noticed a different quality to his voice and a new hoarseness that didn't seem to go away. Several months later, he began to notice a "lump" deep in his neck when he tried to swallow. After several years of watching and waiting, and going through various imaging scans, fine-needle aspirations and a surgical biopsy, he finally had received a diagnosis of a very rare form of vocal cord cancer. He was scheduled to undergo a total laryngectomy in the morning.

It's often amazing to me how gracious patients can be when faced with significant illnesses. Mr. Valentino was pleasant when I stopped in to chat with him before his surgery. He patiently recounted the symptoms that had led to his eventual diagnosis. He endured my fruitless poking and prodding at his hand, trying to begin his IV. He and his wife asked me questions about my medical school training, and about what kind of doctor I wanted to be. We discussed the weather (it had snowed the night before) and the upcoming Green Bay Packers game. He told me how much

he enjoyed spending time in the woods during hunting season.

In many ways, our conversation was superficial, casual, almost mundane. Yet I'm sure the conversation held great significance for Mr. Valentino. Due to the operation he was about to undergo, this was one of the last times he would be able to use his voice.

At first, the loss of a voice might not seem to be such a big deal, especially given the alternative (death from cancer). But I began to think about the many messages we convey with our voices. To never sing again, to never be able to say "I love you," to lose the ability to make yourself instantly and easily understood? That's an enormous

sacrifice to make, and one that requires great inner strength.

I have a deep admiration for Mr. Valentino's courage. He is an amazing example of how the human spirit cannot be silenced in the face of disease, even if the treatment for that disease tries to do so.

No Such Thing as a Textbook Answer

by Jimmy Wu

hat is this structure that I'm pointing to right now?" With the classic barely audible medical student inflection of uncertainty, I responded, "Ureters?" I was finally able to breathe a sigh of relief when the attending finally uttered "Good" behind his surgical mask. As the session proceeded, I surprised myself with the relative comfort I experienced in answering questions about retroperitoneal structures and funky rare soft tissue tumors. For a brief moment, I felt like I had answers for everything!

I remember walking into the patient room, brimming with the confidence that I would be able to answer any question that she had. I was so ready. Questions about the surgery? About the etiology of her tumor? About the follow-up plan for her condition? Oh, was I ready to shine!

There I was, prepared to feel validated over all the hours spent poring over articles and books as all that knowledge was finally about to be put to good use for the welfare of my patient. All charged up now, I proceeded to ask her how she was feeling and if she had any questions about the procedure and/or her condition.

With the little strength she could muster, Jeanine opened her eyes, turned toward me and weakly vocalized, "Doctor, am I gonna make it?" Maybe I didn't have the answer for everything.

At that moment, Jeanine taught me more about medicine than any class could have. Her question demonstrated the importance of always needing to cultivate a sense of humility. As healthcare practitioners, we have the knowledge to drone on about kidney disease or various types of cancer, but I quickly learned that we don't have the answer for everything, and sometimes the right thing to do is admit that we don't know and recognize the importance of simply listening to our patients.

This is what I decided to do with Jeanine, and it turned out to be the best answer possible.

The above essays appeared in Chicken Soup for the UW Medical Student Soul, a project of the 2007-08 Gold Humanism Honor Society. To read more about the project, see page 29.

seeking Submissions

Healer's Journey showcases creativity originating from members of the UW School of Medicine and Public Health family reflecting personal experiences in our world of healing. Originally focused on prose and poetry, we have opened the door to the visual arts as well. We seek submissions that are moving, humorous or unusual.

Manuscripts, subject to editing, can be no longer than 1,200 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 to: Quarterly, Health Sciences Learning Center, Room 4293, Madison, WI 53705. Or e-mail dj.land@hosp.wisc.edu.



Path to a Fellowship in Maternal-Fetal Medicine

by Sharyn Alden

Sometimes, circuitous paths lead people to doing exactly what they had hoped to do with their lives when they were young children. That's what has enfolded for Jennifer Krupp, MD '05, a fourth-year resident in the University of Wisconsin Hospital and Clinics' Obstetrics and Gynecology Residency Program.

In August, while enjoying dinner at home with her husband, Mike, and their two children, she was reflecting on the past three years, when the family moved to Madison for her residency.

"It was a beautiful evening, our 13th wedding anniversary and our children, Michael, 11, and Hannah, 9, had made stir-fry for us using vegetables from our garden," she says. "They had found the recipe at the grocery store and wanted to make it a special night for all of us."

There was also more to celebrate than the couple's anniversary.

"Everything had come together perfectly," says Krupp. "We had all grown to love Madison, but I had begun applying for positions all over the country. Then I learned I received a fellowship in maternal-fetal medicine in the UW Department of Obstetrics and Gynecology."

Krupp will begin the three-year fellowship in 2009 once she completes the obstetrics and gynecology residency. The residency is the ideal launching pad into the highly coveted fellowship program, according to Sabine Droste, MD, director of the UW ob/gyn residency program.

"Many applicants are drawn to our program, not only because of its excellent academic setting, but also because it opens doors to specialty paths such as gynecologic oncology, reproductive endocrinology and maternal-fetal medicine," says Droste, associate professor of medicine at the UW School of Medicine and Public Health (SMPH).

The selection process for the residency program is fierce since it consistently is ranked in the top third of the 249 ob/gyn programs in the country.

"Typically, we receive 300 applications for six positions each year," says Droste, who has directed the UW program for 10 years. When the field is narrowed to 60, she and others on the admissions committee interview and review the final applicants.

The UW program is unique, Droste adds.

"It's an innovative mix of top-notch instruction at an academic teaching facility combined with community-based hospitals," she says, noting that the program's clinical obstetrical facilities are based at Meriter Hospital in Madison. "This combination leads to a larger surgical volume and opportunities for residents to see a patient population that's a representative cross-section of the community. It's an excellent training ground for residents."

Two pivotal events played key roles in Krupp's decision to apply to the UW ob/gyn residency and eventually specialize in high-risk obstetrics: her experiences with the birth of her own children. When she was pregnant with Michael and Hannah, early in both pregnancies she was put on bed rest.

"These were formative situations that motivated me to want to be part of a complex problem-solving team," Krupp says. "Because of my own life experiences, I have a special interest in women's health and high-risk obstetrics, particularly when health problems like diabetes and heart and kidney diseases impact a woman during her pregnancy."

Of the many lessons Krupp has learned in her residency, one stands out as perhaps the most profound.

"Unexpected things can happen when you least anticipate them," she says.

She remembers one challenging situation that led to a deeper understanding of obstetrical training.

"We did a Cesarean section on a woman in her early 20s with placenta previa," says Krupp. A common pregnancy complication that can cause excessive bleeding before or during delivery, placenta previa can lead to hemorrhage, additional morbidity and mortality for both the mother and her child.

Not long after Krupp and the team performed the C-section, the patient took a turn for the worse in the recovery room.

"We had to do an emergency hysterectomy, something I had never

done before," says Krupp. Following the two back-to-back surgeries, Krupp studied placenta previa and potential outcomes for an upcoming "Morbidity and Mortality" conference.

Three weeks after doing the uncommon sequence of C-section followed by a hysterectomy, another woman presented with the same situation requiring the same sequence of procedures.

"It was uncanny that there would be two such situations in such a short period of time," says Krupp. "But the second time, I had a better understanding of what to expect."

Krupp's passion for medicine was instilled in her when she grew up on a farm outside the small town of Waubeka, Wisconsin—population about 200.

When she was a young girl, Krupp says, "I was always working with animals, trying to fix them when they were sick."

After graduating from high school, she asked herself: "What if helping has no boundaries?" The answer led her to pursue a career as a nurse and then a nurse practitioner.

A volleyball scholarship took her to the University of Alaska, where she earned a bachelor's degree in nursing. Three years later, she followed with an MS in nursing from Marquette University in Milwaukee. For three years Krupp worked as an RN at Milwaukee County Hospital, and four more as a geriatric nurse practitioner before feeling the same urge she had had as a young girl to learn as much as she could about medicine. She made the decision to expand her medical knowledge by applying to medical school.

She was thrilled when she was accepted to the SMPH. She and her family were living in Port Washington at the time. Mike, an electrician, continued to work for a local company while Jennifer commuted back and forth to

Madison, about an hour and 45 minutes each way.

During her first two years of medical school, Krupp used her care-giving skills to help her father-in-law, Lou, who had multiple health problems.

"He was legally blind from complications due to diabetes. He had several strokes, and had his leg amputated below the knee," she says. "He died during my third year in medical school."

Krupp earned her MD in late spring 2005 and stayed in Madison until her family joined her in the fall.

Today, Krupp is working with Ian Bird, MD, SMPH professor of medicine and director of the Endocrinology Reproductive Physiology Program at Meriter Hospital, on a research project involving preeclampsia, a common disease of pregnant women characterized by high blood pressure and the presence of protein in the urine.

The project entails collecting a segment of the umbilical cord after the baby is born to examine endothelial cells that line the cord vein, comparing women with and without preeclampsia.

"So far, we have found there are changes in the cellular signaling of these cells, which may lead to some of the complications fetuses experience in women with preeclampsia," Krupp says.

Looking back on the past three years, Krupp admits that residency life can be exhausting, but she gives the program high marks.

"It's an exhilarating environment that has only helped make us better doctors," she says. "There are so many opportunities for training and for experiencing the rewards of sharing in patients' lives."

It's also the only specialty centered on happy, healthy babies, adds Droste.

"You never grow tired of being part of those special times," she says.



by John Kryger, MD '92, WMAA president

A small but energetic group of medical alumni embarked on a trip of a lifetime. Our group—consisting of Ann Schierl, MD '57, Renee Coulter, MD '79, and myself—was part of a Wisconsin Alumni Association group trip to Alaska this past summer. We were able to instantly bond with a tailgate reception on the cruise.

Nothing bonds Badgers better than a "tailgater" and a polka.

Some of the group had previously been on a one-week land adventure touring Mt. McKinley and Denali National Park. They were blessed with great weather and incredible scenery. The cruise proved to be equally fantastic.

Our group gathered nightly for dinner to share the stories of our day's adventures, which we each enjoyed in our own way and at our own pace. It gave us the time to get to know one another and make some great new friendships. We had fun with the nightly entertainment—musical productions, country line dancing and karaoke—as a group.

There were many great excursions, including a trip to Mendenhall Glacier. And there's a UW connection: The glacier is named for the uncle of a prominent UW surgeon and professor emeritus in the Department of Surgery, John Mendenhall, MD.

The views of the mountain range and massive glaciers were incredible as we cruised the Inside Passage. The wildlife was fantastic. In addition to humpback whales and black bears fishing in salmon streams, many of us saw a pod of killer whales, moose, sea otters, harbor seals, sea lions, bald eagles and more.

It was truly a great trip to experience with people who shared a common UW bond—and there were so many more Badgers we met along the way! I look forward to my next UW trip and hope to see many more people take the opportunity to come along. On Wisconsin!

Class Notes

Class of 1953

Obstetrician Herbert Sandmire was honored in June by the Marquette, Mich., Family Medicine Residency Program for his outstanding teaching of outpatient knowledge and skills to residents. Based in Green Bay, he has trained—at least partiallymore than 700 physicians who are now practicing medicine. The Wisconsin section of the American College of Obstetricians and Gynecologists also recently presented Sandmire its Distinguished Service Award for his many years of dedicated service to the organization.

Class of 1971

Robert J. Jaeger, of Mosinee, Wis., former president of the Wisconsin Medical Alumni Association, became presidentelect of the Wisconsin Medical Society during the society's annual meeting in Madison in April 2008, laeger, a specialist in obstetrics and gynecology, is an assistant clinical professor at the Medical College of Wisconsin. Now retired from full-time practice, he has served on the board of directors of both Family Planning Health Services Inc. and the Rice Clinic in Stevens Point. He has held various leadership roles, including president of the medical staff at St. Michael's Hospital in Stevens Point. A 32-year member of the Wisconsin Medical Society, Jaeger is active in numerous professional organizations. He has been a member of the society's board of directors for a total of 21 years. With nearly 12,000 members dedicated to the best interests

of their patients, the Wisconsin Medical Society is the largest association of medical doctors in the state.

Class of 1973

Based in Coconut Grove,
Richard Boxer is currently
professor of clinical urology at
the University of Miami. Recently,
TelaDoc, Inc., a national network
of board-certified, licensed
primary care physicians that
provides cross-coverage services
on demand to members, named
Boxer as its chief medical liaison.

Richard Kane is currently an associate professor of medicine at Aurora UW Medical Group in Milwaukee. He is editor of the newsletter for the Wisconsin Association of Medical Directors (WAMD), is a WAMD board member and has been an officer for 24 years.

Susan Palmer is chair of the American Society of Anesthesiologists Committee on Ethics. She has been in private practice since 2002 and enjoys traveling and reading.

Class of 1978

Daniel Dumesic is currently the president of the Androgen Excess-Polycystic Ovarian Syndrome Society. His interests include music and photography.

Jeanne K. Mittelstad, of Eau Claire, Wis., recently earned a "Doctor of Naturopathy for Health Care Professionals" from Clayton College of Natural Health. Since she is no longer doing surgery, her creative need is satisfied by sewing.

After practicing emergency medicine in Milwaukee for 18

years, **David Moss** is now in a two-year integrative medicine fellowship with Andrew Weil, MD, at the University of Arizona.

Class of 1982

The American Board of Internal Medicine (ABIM) recently appointed Christine A. Sinsky, an internist with expertise in ambulatory practice redesign, quality improvement and performance measurement, to its board of directors. ABIM sets the standards and certifies physicians practicing in internal medicine and its subspecialties. The board guides ABIM's overall mission and direction. Sinsky has been an invited lecturer at many conferences regarding improving ambulatory medical practices, pay-for-performance and quality measurement. Board certified in internal medicine, she is an editorial reviewer for Journal of General Internal Medicine and Annals of Family Medicine. She is a member of the Society of General Internal Medicine clinical practice committee and is the lead site physician at the Wisconsin Research Network, a practicebased research network.

Classs of 1983

Daniel Mueller is division director of rheumatic and autoimmune diseases at the University of Minnesota Medical School. When not busy with that, he is playing his electric quitar.

Judith Pauwels is program director of the University of Washington Family Medicine Residency Program. In her free time, she hikes, fly-fishes and travels.

Peter Stamas, Jr. has been practicing emergency medicine for the past 23 years at Marshfield Clinic. He is chair of the Department of Emergency Medicine there and chief of staff at St. Joseph's Hospital. Active with his four children, he enjoys golf and hockey when time permits.

Class of 1988

Betty Amuzo is a faculty member at Aurora Sinai in Milwaukee. Her many hobbies include kayaking, tae kwon do, gardening, reading, and watching kids' football and wrestling.

Barbara H. Center specializes in general and child adolescent psychiatry, working as the chief medical officer of Prest and Associates, an independent review organization specializing in behavioral health and substance abuse. She has three daughters.

David R. Farley is currently director of the General Surgery Program at Mayo Clinic. He is a professor of surgery and became president of the Minnesota Surgical Society in 2008. He coaches basketball, baseball and football for his kids' teams.

Thomas S. Hartzheim is chair of the Department of Surgery at Community General Hospital, in Syracuse, N.Y. He has four children ranging in age from 6 to 18 years, and enjoys soccer and golf.

Class of 1993

After living in Minnesota for 10 years following his residency, **Bill Cooper** and his wife, Lisa, moved to Eagle, Wis., where they own a horse farm. "My hobby is shoveling horse manure. My activity is feeding horses. Occasionally, I even ride horses," he reports. Bill does internal medicine for ProHealth Care Medical Associates at the Oconomowoc clinic. Daughter Quinn was born in 2003.

David M. Johnson has been an assistant professor of radiology and neurosurgery at Mount Sinai Hospital in New York City for the past four years. His interests are kite surfing, snowboarding and renovating historic houses.

Mary Jo Oyen is a comprehensive ophthalmologist with Davis Duehr Dean serving rural southwestern Wisconsin. She participates in EyeCare America to serve elderly Americans with limited resources. Oyen has made six medical mission trips to the Philippines, Kenya, Brazil, Kosovo and Belize.

Class of 1998

Anna Bowen has been working at the Centers for Disease Control and Prevention for five years as a foodborne outbreak "disease detective" and public health researcher. Most of her projects pertain to prevention of diarrheal morbidity and mortality among children in developing countries. She and her husband, Paul Melstrom, have a six- monthold daughter.

Matthew R. Talarczyk is completing his Air Force obligation. He has been deployed to Iraq as a trauma surgeon and has helped teach combat surgery courses around the country. He has been active in cleft lip humanitarian efforts in Latin America and the military craniofacial program. This fall, he is traveling to Nepal to help instruct a trauma disaster preparation/response course.

Class of 2003

Jennifer Bergin completed a radiology residency and breast imaging fellowship at University of Wisconsin in June 2008 and joined Radiology Waukesha, S.C., working primarily at Waukesha Memorial Hospital. Bergin and her husband have a son, Thomas Henry, who turned three.

Laurel M. Hansen is practicing broad-spectrum family medicine with OB in an urban, underserved community in St. Paul, Minnesota. Her hobbies include gardening, fishing and camping.

Gregory J. Horwitz is at the North Kansas City Hospital practicing urology care. He and his wife, Colleen, have a son, Greyson. Horwitz enjoys traveling and playing his drums.

Daniel J. Jackson is currently an allergy and immunology fellow at the University of Wisconsin. He and his wife, Mandy, have a 14-month-old daughter, Riley.

Nicole E. St. Clair is working as a pediatric hospitalist at Children's Hospital of Wisconsin. She is also developing a global health program for residents interested in doing international work. She and her husband, Matt Lister, have a 16-month-old daughter, Hannah.

In Memoriam

Maurice Farrar '53 December 15, 2004 Phoenix, Arizona

David Sherman '62 May 20, 2008 Hoover, Alabama

PRECEPTORS continued from page

"It's already helped me," she says. "I was involved in obstetric procedures, internal medicine and the emergency room. I had never done a spinal until this rotation."

Ehie also learned the importance of factors that might not be top-of-mind to all physicians.

"There are financial and social barriers," she points out. "Vegetables and good protein are more expensive than a fast-food burger and fries you can buy for less than \$5."

Voskuil agrees that economics play a pivotal role in his patients' health.

"I see a lot of people on state aid," he says. "It makes my job more challenging. If they have to drive one hour to get a cardiac stress test, it might cost \$10 in gasoline."

Voskuil says Wild Rose has helped him stretch as a physician.

"I step out of my comfort zone frequently, but that's how you learn," he says. "That's one of the things that brought me here."

He relies on information he digs out of the *American Family Physician*, a peerreviewed journal published twice a month. "Be sure to keep on reading and you'll do fine," he advises his students.

Prescription: Experience

The preceptorships take place primarily in rural settings across Wisconsin, but the school also offers rotations in medium-sized cities, such as Green Bay, La Crosse and Eau Claire, as well as one urban rotation in Milwaukee. Here students work alongside volunteer family practice physicians in inner-city community clinics, where the vast majority of the patient population is underserved and minority.

Physicians in this setting may encounter cases that are not typically seen in rural clinics, says program director Prunuske, but communityoriented care remains front and center.

"With the help of seasoned mentors who volunteer in the preceptor program, SMPH medical students are gaining the valuable experiences they need to become superior doctors, no matter what the setting," he says. "Active physicians who care about their communities are the lifeblood of the program."



Each Year, a Remarkable Class



Christopher Larson, MD '75 Editorial Board Chair

E ach year I look forward to the summer Quarterly article on graduation. This year, I found the large number of students choosing residencies in a primary care specialty to be remarkable, especially in light of a September Associated Press article projecting a shortage of primary care physicians. Why are students who eventually choose a primary care specialty drawn to the UW School of Medicine and Public Health (SMPH)? I talked to some incoming students to find out what attracted them to UW, and to get a sense of what the first weeks of school were like.

Medical school typically greets Med 1s with the initial first-day fears of starting something completely new. Joining a class of 165 strangers in an unfamiliar learning environment can be daunting. However, students now have a full week to get to know each other in what might have previously been considered an optional orientation. Orientation week helps to build unity and class spirit through a number of shared activities. There are Med 2-sponsored social nights, which are relaxed, fun-filled events, and through learning community or house-organized volunteer projects, class members, as a group and individually, give something of themselves to the Madison community. This year new students also wrote a group class professional code, describing in their own words what it means to be a physician. According to Gena Cooper, the week provided a broad picture of the responsibilities physicians have to patients, the profession and the community.

Charles Acher, who received his Master of Public Health before starting medical school, offered some valuable insights into a curriculum that he feels is working. He was excited to hear that population health had been integrated into the first-year curriculum, saying that this addition is "something long overdue." Charles went on to say that the medical community needs to "truly understand public health and what it means, both on the individual level and on the societal level."

Students had input into switching to a block system of studies, which frees up time for other things. Rishi Lall commented that she particularly liked the integration of subject matter in the curriculum so that material is addressed concurrently in biochemistry and cell biology.

Gena felt that the population health/ epidemiology, molecular/ medical genetics, cell biology, biochemistry and Patient, Doctor, and Society (PDS) courses all paralleled in every sense, and were taught in the context of the human body. Gena, part of the Wisconsin Academy of Rural Medicine (WARM), reminded me that WARM is in its second year with a total of 18 students.

PDS introduces new students to skills related to interviewing and communicating with patients through role-playing. As part of this course, students were eager to start the Generalist Partnership Program (GPP), where they meet one-on-one with physicians in Madison and surrounding areas, experiencing hands-on exposure to patients and being introduced to examples of physician-patient interaction. According to our students, this early clinical exposure is regarded as somewhat unique to the UW experience.

The house system—in which each Med I is assigned to one of five houses—is also a hit. This system was created as a way of breaking each class into smaller groups so students can get to know each other better and develop meaningful friendships.

I feel that through these different activities the SMPH is attracting community-minded students who embrace the mission and vision of our medical school. Many of these students have chosen, or will choose, to be part of the expanded approach to healthcare at the rural, community and public health levels as primary care physicians.

Calendar of

Events

October 2008

OCTOBER 24 - 25 HOMECOMING WEEKEND

Reunions for classes of 1973, 1978, 1983, 1988, 1993, 1998 and 2003

Friday, October 24

10 a.m. Quarterly Editorial Board meeting 2 p.m. WMAA Board of Directors meeting

4 p.m. Tours of the Health Sciences Learning

Center and the American Family Children's Hospital

5:30 p.m. Homecoming Dinner

Saturday, October 25

9 a.m. WMAA football tailgate at Union South Wisconsin vs. Illinois

November 2008

Friday, November 14

6 p.m. AOA banquet in the HSLC atrium

Saturday, November 15

Football tailgate party for UWHC

residents

Wisconsin vs. Minnesota

March 2009

Friday, March 6

3 p.m. WMAA Winter Board Meeting 6 p.m. WMAA Winter Event at Lambeau Field

May 2009

MAY 7 - 10 ALUMNI WEEKEND Thursday, May 7

5 p.m. Dean's reception

Friday, May 8

10 a.m. Quarterly Editorial Board meeting 11:30 a.m. Class of '59 Luncheon, Tripp

Commons

2 p.m. WMAA Board of Directors meeting

3:30 p.m. WMAA Annual Meeting 6 p.m. WMAA Awards Banquet

Saturday, May 9

9 a.m. Brunch and tours for alumni and

Friday, May 15

10 a.m. Graduation Recognition Ceremony,

Memorial Union Theater

7 p.m. Graduation Celebration! Monona

Terrace

We Want to

Hear From You

Please send us information about your honors received, 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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Have you moved?

Please send us your new address.
Mail to: Wisconsin Medical Alumni Association
Health Sciences Learning Center
750 Highland Ave.
Madison, WI 53705

Rather connect by computer?

Please send your information to us at: www.med.wisc.edu/Alumni/stay_connected

PHOTO: Jeff Miller/UW-Madison University Communicat

■ Observations



A bold "W" banner hung between the columns of Bascom Hall last November. The changing colors of the trees on Bascom Hill signaled the arrival of another autumn.

University of Wisconsin Medical Alumni Association Health Sciences Learning Center 750 Highland Avenue Madison, WI 53705 Nonprofit Org. U.S. Postage PAID Madison, WI Permit No. 2117