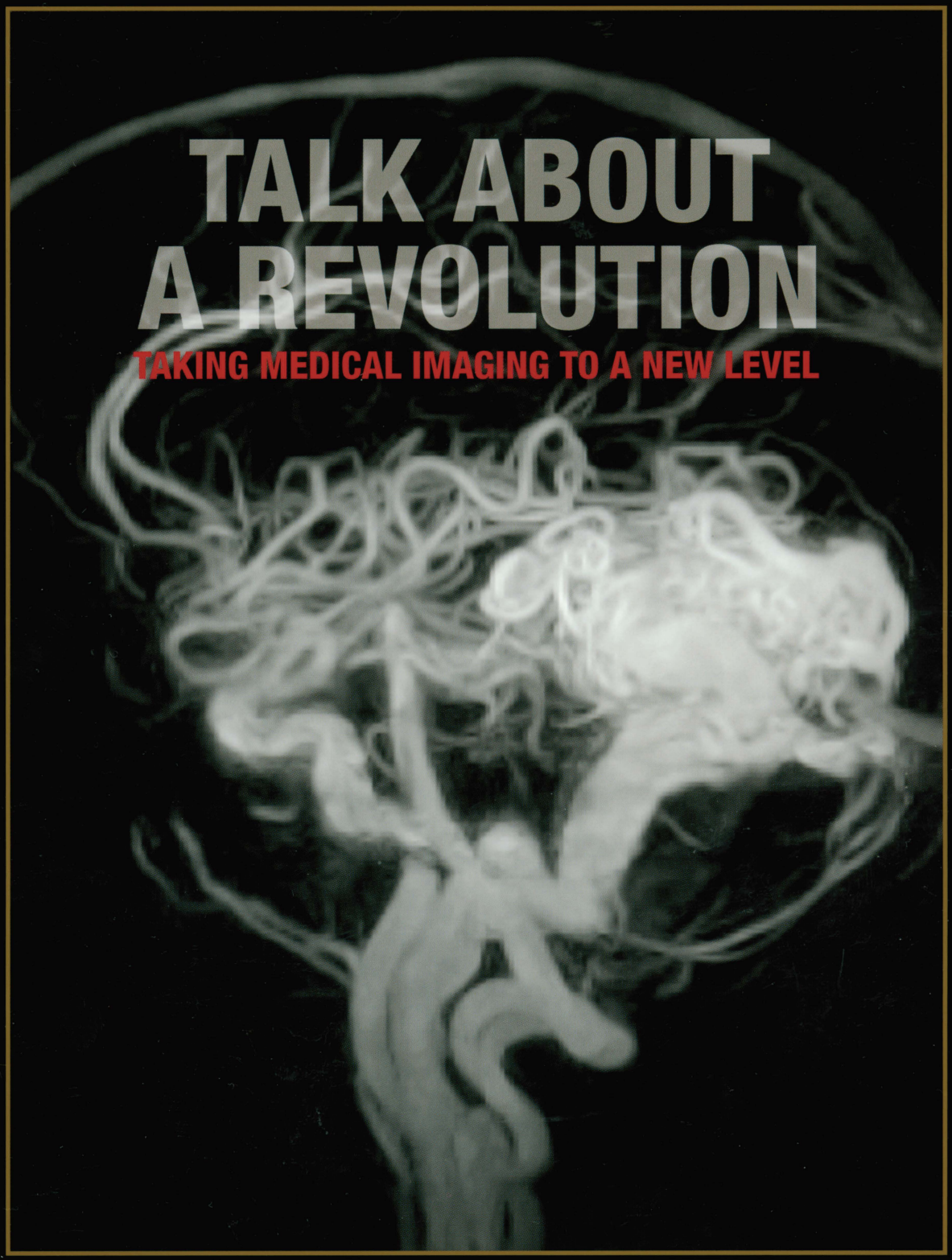
QUARTERLY

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



TALK ABOUT A REVOLUTION

TAKING MEDICAL IMAGING TO A NEW LEVEL

VOLUME 11
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QUARTERLY
The Magazine for Students, Faculty, Alumni and Friends of University of Wisconsin School of Medicine and Public Health

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Spring 2009
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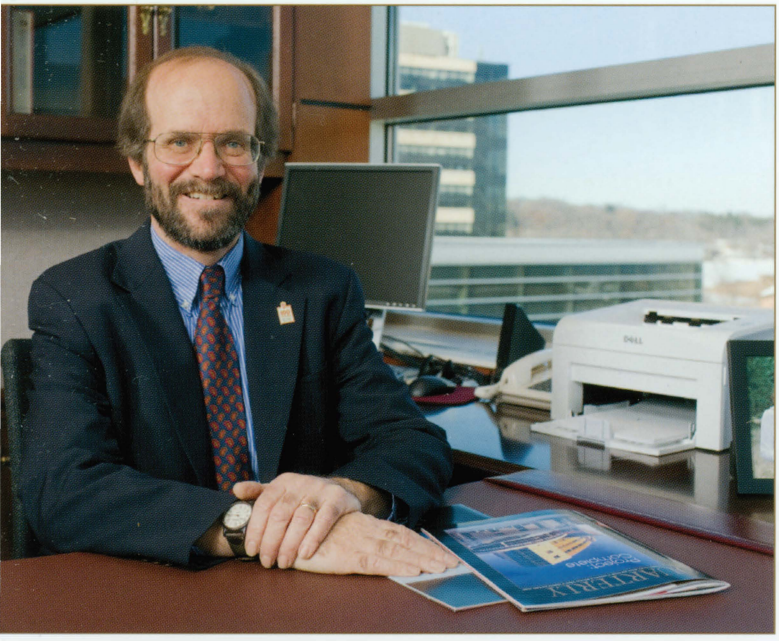
On the Cover: *Thanks to the newest techniques developed at the SMPH, magnetic resonance images such as this one—showing an arterio-venous malformation in the brain—can be acquired 800 times faster than by conventional imaging methods. Image courtesy Yijing Wu and Patrick Turski.*



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

This is an exciting and inspiring time of year, as we celebrate the emergence of spring. In this issue of the *Quarterly*, we mark several other rites of passage—including anniversaries, birthdays and graduations.

Match Day is one of the biggest pre-graduation events in every medical student's experience. As the pictures on the following pages show, our students were filled with emotion at the annual March Match. Their mentors shared in their joy. This year our students did exceptionally well, with an all-time best record for successful completion of the Match process. We are very gratified that a high percentage of students will stay in Wisconsin for their residencies. Many will enter training programs in primary care, where the need for more physicians is so great. In the next issue of the magazine, our graduation story will list our students' match results.

One of our second-year medical students was invited to participate in the recent White House Health Reform Forum. From his first days in medical school it became clear that Siavash is a very special young man who, like so many of our medical students, is deeply committed to improving the complex issues that affect the health of our society. We are pleased that the White House was able to enjoy the benefits of his perspectives and commitment.

It is a great pleasure to wish "Happy Birthday" to the Wisconsin Partnership Program. In its first five years, the program has made remarkable progress in advancing the health of the people of the Badger State. The Wisconsin Partnership Program is a quintessential embodiment of the Wisconsin Idea—extending the service and engagement of the university to every corner of the state as it builds strong collaborations in dozens of communities.

We are also delighted to wish a happy tenth anniversary to the Women's Health Research Center. This is a vital program that, with its focus on both people and populations, represents our transformation into a school that integrates medicine and public health. We commend the center's leadership for nurturing the development of successive generations of women leaders in medicine and science.

Finally, a kind of bittersweet graduation involves the departure of our outstanding senior associate dean for academic affairs, Dr. Susan Skochelak. We are extremely proud that Susan has been selected for a major national leadership position, vice president for medical education, at the American Medical Association, where she will help direct the evolution of medical education across the country. Susan has been a visionary leader who spearheaded many creative innovations in our medical school curriculum. We will miss her dearly, and are deeply grateful for the outstanding legacy that she leaves behind.

With only a few weeks remaining in this academic year, we can look forward to another season filled with many activities–and many additional causes for celebration.

Spring brings a new energy to the medical school. We feel the excitement as one school year comes to completion and we begin planning for the next. In all of this, I am reminded of the great mission that is served by our University of Wisconsin School of Medicine and Public Health (SMPH) to provide such superior medical education. The commitment to our students, faculty, school, state and society is tremendous!

Our unique school—which combines medicine and public health, our innovative leaders and the novel changes that are being made to the curriculum—places us among the best in the country. As alumni, we take great pride in the accomplishments of our medical school.

Your Wisconsin Medical Alumni Association (WMAA) leadership works very hard to create more and more opportunities for everyone to share in this pride by participating in a variety of activities throughout the year. Please watch for opportunities in your community and make an effort to step forward and get involved. I am certain you will find the rewards gratifying and beyond your expectations.

In March, we had a great Winter Event at Lambeau Field in Green Bay, Wisconsin, with a fun tour and reconnecting of friends. I took a moment to describe the success of our fundraising campaign to renovate the gross anatomy labs. The SMPH remains committed to preserving the time-honored tradition and values of gross anatomy dissection on cadaveric donors.

However, there is so much more we can achieve with updated facilities. After much discussion and planning, the school will continue to offer gross anatomy at the Medical Sciences Center (the old Medical School). This will provide great financial savings and will be a much wiser utilization of our resources. So much of our success as an alumni organization—and as a medical school—relies on the generosity of alumni and friends.

It is with this excitement that I also wish to announce our campaign to boost Middleton Society membership. The Middleton Society recognizes donors who have given at least $10,000 to the school (which can be made in installments over a 10-year period).

We believe that increasing membership by 50 percent in the coming two years is a very attainable goal. When I announced this at the Winter Event, two people immediately declared their commitment to the Middleton Society. At that moment, I realized we are truly fortunate to have alumni who are eager and willing to contribute. This campaign will require many more of you to step forward with that kind of enthusiasm.

As part of this campaign, I invite you to take advantage of an amazing opportunity to enhance your gift by becoming part of the "Great People Medical School Scholarship" campaign. The UW Foundation will enhance your gift by matching it with 50 cents on the dollar. In my recollection, there has been no greater opportunity or time to contribute to our medical school.

The culmination of spring is Medical Alumni Weekend, which is right upon us. Highlights will include the Class of 1959 50th reunion, the Awards Banquet and catching up with old friends. It's an opportunity you will not want to miss!

John Kryger, MD '92
WMAA President

Please enjoy this installment of the *Quarterly*. I look forward to seeing you on Alumni Weekend and at other WMAA events. On Wisconsin!

TALK ABOUT A REVOLUTION

TAKING MEDICAL IMAGING TO A NEW LEVEL

by Dian Land

As Charles Mistretta, PhD, took a break from the International Society for Magnetic Resonance in Medicine (ISMRM) meeting in Miami in 2005 and pondered what he had learned, the medical physicist suddenly experienced a powerful moment.

"I was thinking about the things other researchers had been discussing at the meeting, and the exciting work our University of Wisconsin-Madison team was doing, and instantly it all came together," says Mistretta. "I saw these rays crossing blood vessels. It blew my mind."

Over the next two years, Mistretta, the John Cameron Professor of Medical Physics at the UW School of Medicine and Public Health (SMPH), got very little sleep.

He and his large team of UW-Madison collaborators and graduate students focused laser-like on refining their new approach to acquiring magnetic resonance (MR) images and developing their unique way of processing the acquired data. Mistretta was fairly certain that very good things would come of the work, but he couldn't foresee then that it had the potential to revolutionize the entire field of medical imaging.

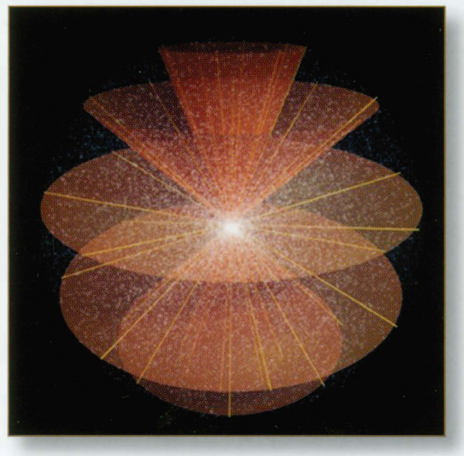
But now, to their astonishment, the UW scientists understand that their two synergistic techniques, which they originally designed for use in MR only, can also be applied to every major imaging modality—X-ray, computed tomography (CT), positron emission tomography (PET) and ultrasound.

The advances are taking imaging of the heart, brain, blood vessels, breast and joints to an entirely new level.

As is clearly revealed on these pages, the latest images—some captured hundreds of times faster than earlier methods would allow—are stunningly sharp and clean, far surpassing those of just a few years ago. Such images provide physicians with diagnostic information that until recently was unimaginable.

"Instead of working with existing systems and just making them a little better, we threw out the fundamental physics principles that weren't serving us well anymore and came up with something novel."

Mistretta, who was a high energy physicist at Harvard University before he arrived at UW-Madison in 1968, is no stranger to such paradigm shifts. In the 1980s, his team developed digital subtraction angiography (DSA), a technique that increases the contrast between blood vessels and surrounding bone and soft tissue.



VIPR acquires data much more efficiently than conventional methods, with radial lines passing through a targeted central spot.

DSA currently is considered the "gold standard" in cardiac and blood vessel imaging—almost every radiology department in the country uses it. What's more, the DSA patent is the second largest earner of all patents issued by the Wisconsin Alumni Research Foundation, or WARF, ranking second behind the patent on Hector DeLuca's vitamin D work.

"But DSA uses radiation to capture images and catheters to insert the contrast medium," says Mistretta. "We'd like to replace it."

The new noninvasive techniques, which use much less radiation, should do just that—and much more.

Combining two major developments stemming from Mistretta's labs, the techniques are based on concepts that are radically different from the ones that have governed medical imaging for the past several decades.

"Instead of working with existing systems and just making them a little better, we threw out the fundamental physics principles that weren't serving us well anymore and came up with something novel," says Mistretta.

To their astonishment, Mistretta and his team now understand that their two techniques, VIPR and HYPR, can be applied to every other imaging modality—X-ray, CT, PET and ultrasound—in addition to MR.

The first development, under way since 2002, entails collecting three-dimensional anatomical information in a much more concentrated manner than before. Termed "vastly under-sampled isotropic projection reconstruction" (VIPR), it acquires the data in a series of radial, spoke-like lines that all pass through a central targeted spot in a theoretical place physicists call K-space.

Conventional MR scanners, on the other hand, acquire two-dimensional data in parallel lines on a rectangular grid in a less targeted way, often missing the center of K-space and including unnecessary data. The conventional method takes much more time than VIPR, since it entails much more data gathering.

"Like the familiar JPEG and MPEG compression schemes used for photos and movies, our images are formed as only a small fraction of the acquired data," Mistretta explains. "VIPR is a means of just collecting the smaller

Chuck Mistretta is no stranger to paradigm shifts. His group developed today's "gold standard" in cardiac and blood vessel imaging.

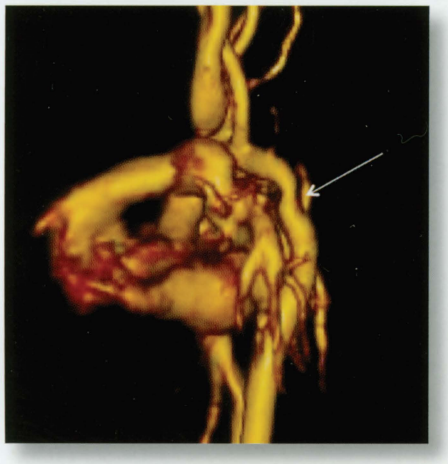


IMAGE: OLIVER WIEBEN

Phase contrast VIPR (with no contrast medium) in a free-breathing baby shows a congenital anomaly in the heart.

amount of required data in the first place."

The second major development—the one that came to Mistretta at the ISMRM meeting in Miami—involves a different method of processing, or reconstructing, acquired data into diagnostically relevant renderings of organs, bone and vessels.

Called "highly constrained back projection" (HYPR), it entails making a composite image from several images obtained with far less than the usual amount of data. Adding HYPR to VIPR accelerates the process even more.

The UW researchers are finding advantages to the techniques at every turn. They've discovered, for example, that they don't need to inject a contrast medium, which carries the risk of a reaction, when they combine VIPR with a process called phase contrast (PC).

The scientists have also found that they can use VIPR PC to determine the degree of stenosis, or artery blockage, stemming from hardened arteries by using the techniques to take blood velocity measurements. They recently reported this advance in an animal model in the journal *Radiology*.

"When we recognized how generalized this technology could be, we wanted to get the best minds in the world together to share ideas about it and move the science forward."

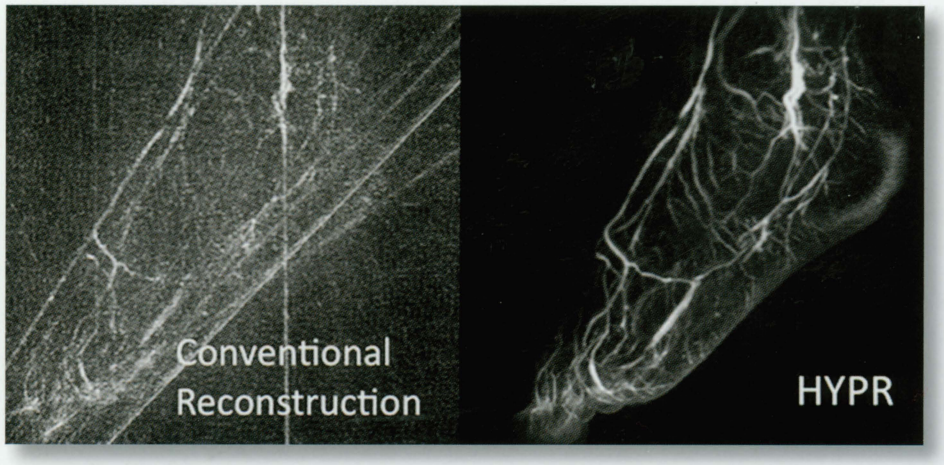
"We can measure pressure drops in narrowings in small vessels and estimate stress on blood vessel walls near brain aneurysms," says Mistretta. "None of this has been done effectively before."

Another bonus: when used in dynamic CT scanning, HYPR reduces patients' radiation exposure five- to 10-fold.

Radiologists are agog over the new images, says Mistretta.

An editorial that accompanied the *Radiology* article said the technology has the potential to be a "major advance in the diagnosis and management of vascular diseases."

In addition to their applications to heart, brain and vascular imaging, the techniques are well suited for imaging the musculoskeletal system, particularly in providing contrast between joint fluid, cartilage, arteries and veins.



HYPR entails making a composite image from several images obtained with far less than the usual amount of data. Adding HYPR to VIPR accelerates the process even more.

Technology data HYPR VOLUTION Seeing in the dark Physics RESEARCH

What more could be expected from the 68-year-old physicist? Mistretta's latest interest is in applying HYPR-related methods to a system that will let people see in the dark.

As can be expected, the UW researchers are excited. And as other scientists are learning about the technology, the buzz is building.

"When we recognized how generalized this technology could be, we wanted to get the best minds in the world together to share ideas about it and move the science forward," says Mistretta.

The result has been the creation of the UW International Center for Accelerated Medical Imaging. Housed in the school's new Wisconsin Institutes for Medical Research, the center brings together researchers from many countries to expand the new technology.

With Mistretta serving as the center's director, some 70 UW medical physicists and other scientists ultimately will be involved. International calls and e-mails from people eager to participate are streaming in.

The scientists will work on MR acquisition and reconstruction, and applications to X-ray—including CT, DSA and fluoroscopy—and nuclear resonance and ultrasound imaging.

The technology will be made available to all qualified research groups; interested individuals will participate in training through visits, symposia and a Web site, http://mywebspace.wisc.edu/groups/mrgroup/web/icami/.

"Our mission is to advance and disseminate our new medical imaging technology in a free and open way, and to combine it with the best ideas from other researchers from around the globe," says Mistretta.

What more could be expected from the 68-year-old physicist? Mistretta's latest interest is in applying HYPR-related methods to a system that will let people see in the dark. It's all about collecting as little data as is needed and then processing it.

"We like to joke that soon we'll be able to get medical images without any data at all," he says. "Actually, we're getting close."

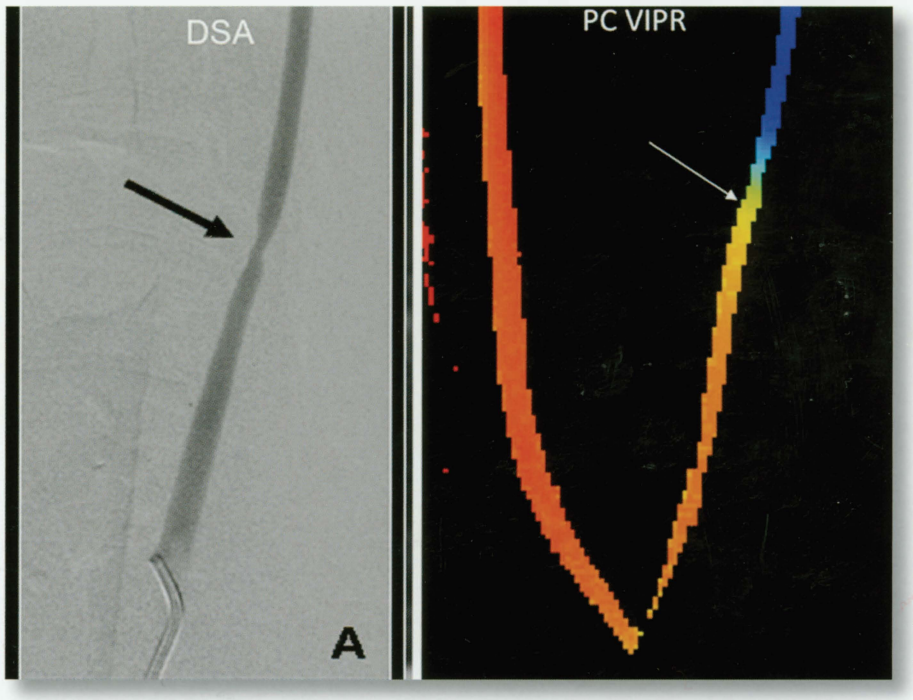


IMAGE: KEVIN JOHNSON

At left, DSA of the carotid (with catheter visible at bottom) shows vessel narrowing. At right, phase contrast VIPR, without contrast material, shows the same narrowing but also measures blood velocity revealing the precise degree of vessel blockage by color coding.

THE WISCONSIN PARTNERSHIP PROGRAM

Beginning the Next Five Years

by Moira Urich

Earlier this decade, an African American baby born in Milwaukee, Racine or Beloit had worse odds for survival than a baby born in Sri Lanka. While Wisconsin's infant death rate among whites ranks 15th in the world, just ahead of Denmark, its rate among blacks ranks 70th. Of the 35 states reporting African American infant mortality rates in 2004, Wisconsin ranked last.

To address this appalling situation, the University of Wisconsin School of Medicine and Public Health (SMPH) and the Wisconsin Partnership Program (WPP) recently launched the "Healthy Birth Outcomes Initiative" to help targeted communities in the state achieve healthy birth outcomes and reduce health disparities.

The WPP's Oversight and Advisory Committee (OAC) has committed up to $10 million to find ways of improving the health of African American women across their life spans and identify better models of prenatal care.

The initiative's recently created steering committee has been charged with increasing public awareness of the problem, identifying and engaging funding partners and releasing money for communities to implement plans and organize local efforts.

Just over five years into its existence, the WPP is helping to change the state's health landscape by targeting challenging health issues such as this one. It is an excellent example of the many WPP-funded projects that are expected to significantly improve health in Wisconsin, says Robert Golden, MD, the school's dean.

"Reducing health disparities in the state is a high priority, which is one reason why this project is so important," says Golden. The multiyear initiative is "in some ways a culmination of the WPP's first five years of creating a solid foundation. It's also an example of the WPP's support of innovative solutions that target the state's most pressing public health needs."

Eileen Smith, SMPH assistant dean and WPP director, explains that the WPP is now "achieving greater balance—in the types of organizations we are funding, in our efforts to support both long- and short-term health interventions and in our work with both urban and rural communities."

The best way to gauge the WPP's overall success, suggests Golden, is to examine how it affects the school, communities and people of the state.

—Continued on next page

THE FIRST FIVE YEARS AT A GLANCE

The Wisconsin Partnership Program (WPP) became operational in 2004 with funds received when Blue Cross/Blue Shield United of Wisconsin converted from a nonprofit to a for-profit corporation. The WPP is governed by two committees, the Oversight and Advisory Committee (OAC) and the Medical Education and Research Committee (MERC), and is currently guided by its 2009-14 Five-Year Plan.

The WPP focuses its grant-making priorities on collaborative projects that rely on the expertise of faculty throughout the UW System, state health officials and leaders of community organizations across the Badger State.

HIGHLIGHTS OF THE FIRST FIVE YEARS

- Awarded 176 grants totaling nearly $69 million to UW faculty and to community organizations statewide.
- Helped transform the school's education, research and community engagement missions by integrating public health and medicine.
- Created the Master of Public Health (MPH) program.
- Fostered 100 community-academic partnerships statewide to support the Wisconsin Idea, build the capacity of community organizations and broaden faculty research scope.
- Helped establish critical baseline data on the health status of Wisconsinites to better guide future efforts at identifying and addressing healthcare problems.
- Founded the Wisconsin Academy for Rural Medicine (WARM) to encourage School of Medicine and Public Health graduates to practice medicine in rural Wisconsin.

WARM is an example of how the WPP can help a project move from the conceptual stage to implementation and sustainability. WARM began with a small OAC grant and, following promising results, received two larger MERC grants. With steadily increasing enrollment, WARM is receiving national attention as a model for increasing the physician workforce and improving healthcare in rural areas.

For more information about the WPP and the awards it has distributed, go to wphf.med.wisc.edu.

Impact on the SMPH

"The WPP has been pivotal in helping transform our medical school into a school of medicine and public health," says Golden.

The WPP supported the creation of the Master of Public Health (MPH) program, prompted changes in the MD curriculum to include more hands-on experiences in public health and funded the creation of the Wisconsin Academy for Rural Medicine (WARM).

"Students will now be working on high-priority public health issues identified in the state health plan—drug and alcohol abuse, mental health, lead abatement and communicable diseases," Golden says. "This training will enable our future physicians to better deal with Wisconsin's public health challenges."

Fully integrating medicine and public health into the SMPH is an enormous undertaking that no other medical school in the country has embarked upon, adds Golden.

"The WPP has acted as the catalyst in this process," he says. "In fact, I believe that the transformation wouldn't have occurred without the WPP—it is the engine driving the transformation."

SMPH faculty have also benefited directly from the WPP. In addition to funding projects by established researchers, it supports the work of assistant professors and other young investigators who would be challenged to receive funds elsewhere, Smith explains.

"When their WPP-supported work is successful, they've already built a research infrastructure and often are poised to receive extramural funding for larger endeavors," she says.

Impact on Our Communities

"From the beginning, I was intrigued with the WPP not so much as a grant-making body but as a means of allowing SMPH researchers and communities to join forces," says Greg Nycz, a member of the OAC and the MERC who is also executive director of the Family Health Center of Marshfield, Wisconsin. "Those of us working in smaller communities want more than just financial resources. We put a high value on the ability to engage with the SMPH as we tackle local health problems."

The WPP's work also complements the school's translational research efforts, notes Nycz, ensuring that research results reach the places that need them the most.

"The WPP connects the dots by helping apply research findings in community settings," he says. "Despite the downward market trend, which affects endowments, the connections between the SMPH and community health workers remain in place. This engagement is what I believe will reap the most important long-term benefits."

Nycz also appreciates the reciprocal dynamic between partners.

"It's important for communities to be able to propose projects that are of greatest interest to them as well," he says. "The WPP process encourages experts at either the university or community level to initiate projects."

Three representative WPP-funded community projects

REDUCING HOMICIDES. The Milwaukee Homicide Review Commission's work brought significant outcomes: a 15 percent drop in homicides in targeted neighborhoods. That decrease occurred despite a significant increase in homicides in non-participating districts during the same time. The commission took a public health approach to reducing violence, bringing together UW researchers, criminal justice agencies, community service providers and residents of the neighborhoods. They drew up more than 100 recommendations to improve safety. Given this success, the commission has been awarded additional WPP funding to implement the recommendations.

HEALTHCARE FOR FARMERS AND RURAL BUSINESS OWNERS. The "Co-op Care" project, a partnership of the Wisconsin Federation of Cooperatives and SMPH faculty, has provided quality, affordable health insurance to farmers, rural families, small business owners, small school districts and other groups. It is directed to rural communities with a higher than average percentage of uninsured. Multiple health purchasing co-ops were able to buy healthcare as a large group, at more affordable prices. The project team calls it a "resounding

success" in improving access to primary and preventive health services.

SMOKING CESSATION. Tribal members have the highest smoking rates among all Wisconsin residents. Because cultural norms play a role in public health work, effective interventions may differ in a city compared to rural areas or tribal communities. That's why SMPH researchers have teamed up with staff at the Menominee Tribal Clinic to develop culturally sensitive approaches to addressing this problem. The effort is expected to reduce smoking in American Indian communities.

Impact on Our State

"The WPP is working both from the ground up—with community grants—and from the top down—with broad strategic initiatives and statewide health policy," notes David Kindig, MD, PhD, emeritus professor of population health sciences at the SMPH. "We believe this multifaceted approach will enhance the impact of the WPP."

To become a healthier state, overall population health must first be measured, explains Kindig, who is recognized nationally and internationally for his public health expertise.

"In several WPP-funded projects, such as 'Making Wisconsin the Healthiest State' and the 'Health of Wisconsin Report Card,' we examined baseline health data," he says.

The report card revealed, for example, that the state as a whole gets a B– grade in overall health and a D in health disparities. This innovative statewide assessment of health disparities prompted the current "Healthy Birth Outcomes Initiative."

Gathering all parties together is essental in order to see significant progress in health measures, says Kindig.

"We're not only looking at concrete ways to improve our measures, we're also outlining which decision makers have responsibility to create needed changes," he says. "Many people might look only to government for action, but we are identifying ways government agencies can be joined by school boards, businesses, healthcare providers and community groups. We can make progress on these health goals when everyone works together."

Looking at WPP investments, one by one, illustrates the breadth of its work, Kindig says.

"Moving overall grades will take considerable time, one to two decades," he says. "But it is quite likely that WPP programs can help make a significant impact in the mid-term on intermediate outcomes such as smoking rates and infant mortality."

Three representative WPP-funded projects with statewide reach

CORRECTING LOW VITAMIN D LEVELS. Low vitamin D levels are common among Wisconsinites, who absorb less vitamin D from sunlight during colder months. This project, which connected SMPH researchers and state health officials, found that postmenopausal women absorbed more calcium when their vitamin D levels were adjusted. The project and its proposed follow-up, now being considered for National Institutes of Health (NIH) funding, may influence vitamin D recommendations and women's health across Wisconsin.

CREATING A CRYPTOSPORIDIUM VACCINE. Illnesses and mortality stemming from this waterborne parasite affect not only Milwaukee (in 1993, the city had the country's largest outbreak), but the state and nation. Researchers on this project verified that laboratory mice developed a potentially protective immune response when they were exposed to cryptosporidium antigens. Parts of this project have received NIH funding for further research.

ADDRESSING CHILDREN'S LEAD LEVELS. Lead poisoning affects Wisconsin children at twice the national rate. It is widely defined as blood lead levels above 10 micrograms per deciliter (10 µg/dl), but Wisconsin requires health interventions at twice that level (20 µg/dl). This recently funded project aims to determine the impact of moderate lead levels (10-20 µg/dl) by uniting state health experts and SMPH researchers to evaluate whether children experience long-term cognitive effects from moderate lead levels that are already monitored but as yet untreated.

Working Toward a Healthier Future

"After awarding 176 grants totaling nearly $69 million to community and state organizations and UW faculty, we've accomplished a great deal in our first five years, and have seen many significant outcomes," says Smith.

The recent drops in the financial markets have reduced the WPP's awards, she says, but this is expected to be only a temporary decline.

"The WPP's work, after all, is part of a long-term commitment to Wisconsin," she says.

The WPP's responsibility to help create a healthier state is intricately entwined with the school's transformation into an institution that integrates medicine and public health, Smith adds. This has made the WPP much more than merely a grant-making entity.

"The transformation focuses our efforts so that the impact of our work does much more than produce cutting-edge research and aid community health programs," she says. "We are beginning to make real progress in addressing significant health problems in Wisconsin."

Global Health

OPPORTUNITIES ABOUND

by Dian Land

Medical student Michelle Buelow found the summer of 2007 to be both challenging and extremely rewarding. It was just the global health experience she had hoped for. With future plans of practicing medicine in a low-resource setting either abroad or in the United States, she wanted access to a public health learning opportunity in a developing country. And she wanted to supplement it with a solid foundation of relevant coursework on campus.

It was one of the many reasons Buelow chose to attend the University of Wisconsin School of Medicine and Public Health (SMPH), she says.

"The school really values global health," says the Milwaukee native, who will earn a certificate in global health by the time she graduates in 2010.

Buelow spent that summer following her first year of medical school in Tegucigalpa, Honduras, working on a project for a small non-governmental organization (NGO) that wanted to locate and assess the needs of the poorest children living with or vulnerable to HIV/AIDS.

Using the only map she could find—from a tourist hotel—Buelow spent the next nine weeks interviewing patients who came to the HIV clinic in the public hospital for their medications, learning where the children lived around the capital city and surveying factors related to their daily lives and the care they were—or were not—receiving.

"Honduras is the second poorest country in the hemisphere," says Buelow, who also had been there before she began medical school. "There is a lack of infrastructure that is especially evident in the healthcare system."

In addition to helping conduct the HIV assessment that summer, Buelow trudged up the hills outside Tegucigalpa to deliver mosquito abatement supplies to people living in shacks to which water was piped only every 20 days. She and the others warned the residents about the dengue fever epidemic that had flared up and how best to avoid it. She also shadowed a Honduran infectious disease specialist as he saw patients at the vastly different public hospital and semiprivate hospital.

In a world that's becoming increasingly interconnected and interdependent—and a country that's attracting more and more immigrants—it's no surprise that American medical students are drawn to programs that encourage them to do this kind of international learning.

For SMPH students, the Center for Global Health (CGH) is the first place they often begin their explorations.

"We would like all medical students to be exposed to global health in one form or another," says CGH director Cynthia Haq, MD, SMPH professor of family medicine. "Global health experiences enhance physicians' abilities no matter where they practice."

The center reaches out, in fact, to all UW-Madison health sciences students, offering a continuum of options.

Students can begin by dropping in on any number of global health lectures, seminars and symposia. One of the many selections from the past year included Dr. Linnea Smith's (MD '84) description of her clinic in Peruvian Amazonia.

On the CGH Web site, http://www.pophealth.wisc.edu/gh/, students can also find a variety of resources, from a comprehensive global health bibliograpy to links to interactive Web sites.

For deeper involvement, medical students often choose to supplement their standard MD courses, particularly during years one and two, with elective courses offered by teachers from across campus. Courses span the spectrum, with titles such as "Global Environmental Change and Disease Risk," "Clinical and Public Health Microbiology" and "World Hunger and Malnutrition."

Approximately 60 medical students go on to participate in credit-based global health field study each year. Some enroll in faculty-led group courses at sites where the CGH has established fruitful ongoing relationships, as in Uganda, Thailand, Mexico and Ecuador.

Others, like Buelow, may choose to do independent field experiences. Those occurring after the students' first year usually focus on public health and health education, with some clinical shadowing. International clinical rotations typically occur during the fourth or late third year, after students have acquired clinical skills through their family medicine, pediatrics and obstetrics rotations.

CGH staff and faculty affiliates assist students at all stages with placement, planning, mentoring and academic and cultural orientation. Independent global health field experiences and clinical rotations have taken place in Uganda, Tanzania, Ethiopia, Kenya, India, Thailand, China, Vietnam, Ecuador, Mexico, Guatemala and Belize.

"In all these exposures, students are learning about diversity and poverty and



Michelle Buelow interviews a patient at the HIV clinic within the public hospital (opposite) in Tegucigalpa, Honduras. Nate Gundacker meets a family of farmers outside Guadalajara, Mexico. Connie Gundacker visits with another farmer as part of the research project.

how to communicate in other cultural settings," says Haq.

Students desiring an even more concentrated learning experience may enroll in the certificate program. Begun in 2006, it is a collaborative offering sponsored by the SMPH, the Division of International Studies and the UW-Madison schools of nursing, pharmacy and veterinary medicine.

CGH staff member Lori DiPrete Brown, MPH, directs the program while UW-Madison nursing professor Linda Baumann, PhD, is the faculty advisor.

"The certificate program focuses on building core global health competencies, combining academic preparation and a global health field experience," says DiPrete Brown.

Students must prepare an academic paper and keep a reflective journal that focuses on cross-cultural issues, ethics and professionalism.

The curriculum emphasizes health and disease in developing countries, but students may also choose to work among the increasingly diverse populations of Wisconsin and the United States. Studies may address health promotion, detection and treatment of disease, prevention and management of outbreaks, health policy, environmental health or other interdisciplinary topics.

"The program encourages students to reflect on the strengths and weaknesses of their own cultures," says DiPrete Brown. "This is the beginning of developing cross-cultural skills, which we call cultural humility."

Certificate courses and activities are open to all students interested in international health, she adds.

To date, 73 people have been admitted to the program, which typically takes two to three years to complete. Eighteen have graduated so far and another 10 are expected to obtain their certificates in May 2009.

The certificate program is extremely popular, says James Conway, MD, SMPH associate professor of pediatrics, who oversees the selection of certificate candidates.

"Choosing who to admit is tough, as we have twice as many applicants as we can accept, with more interested in participating each year," he says. "The program attracts increasingly interesting and well-qualified people."

Second-year students Nate and Connie Gundacker signed up even before they arrived at the SMPH.

The couple had spent the year after graduating from UW-Madison and before beginning medical school teaching young students in Guatemala. With that experience under their belts, they knew that their futures as physicians would very likely consist of working abroad in some way, although details are still unclear.

They've immersed themselves in global health as much as possible during medical school. Together they lead the student-run Global Health Interest Group, which promotes increased awareness of international health issues, provides exposure to the international work of UW faculty and gives medical students the opportunity to learn by developing and participating in their own global health projects.

As required for the certificate, each is currently enrolled in a two-credit class: Connie is taking "Medical Anthropology" and Nate is taking "Health and Disease in Thailand."

And last year, in the midst of their busy schedule of standard first-year medical school classes, they designed and prepared for their own summer field project in Mexico. Their five-week stay was facilitated by faculty at Centro Universitario de Los Altos, a satellite of the University of Guadalajara, where the CGH has a well-established relationship.

The project dealt with health and safety among children living and working on farms in a rural, agrarian region

Before beginning her research, surgery resident Jaime McCord (in red) observes activities in the "trauma room" at a teaching hospital in Addis Ababa, Ethiopia. Touring the countryside later, McCord is happy with the outcome after treating a young girl who had been bitten badly by a dog.

outside Guadalajara. Working with a local agricultural cooperative, PROLEA, the Gundackers explored whether safety guidelines that had been developed by researchers at the Marshfield Clinic could be adapted for use in this area of Mexico.

"We did a survey to determine the kinds of jobs kids were doing on the farms, types of farms they were working on, injuries they sustained," explains Connie. The native Wisconsinites, whose families run farms in the Badger State, visited 30 Mexican farms, observing children at work at some of them.

The students also spent time in clinics and hospitals, getting doctors' perspectives on the kinds of farm injuries they were seeing. And they conducted a review of 1,000 medical records, looking for cases involving injuries on farms.

With their Marshfield collaborators, the Gundackers hope to share their findings in an academic journal. Their recommendations will include, among other things, better pesticide management and wider use of gloves, goggles and boots.

The work in Guadalajara will continue this summer, when five additional UW students participate in a service-learning project at a local clinic. DiPrete Brown will serve as the principal investigator on the project, funded by a competitive Baldwin/Reilly grant.

The Gundackers say the certificate program has helped them in several ways.

"On our field trip, keeping track of activities on a daily basis helped us stay focused," says Nate. "And the courses gave us a system perspective that let us compare healthcare in other countries and ours."

Adds Connie: "With the rising Latino population in the U.S., it's good to be able to understand some of the different health beliefs people have."

The certificate program is open to practicing MDs and master's in public health (MPH) candidates in addition to medical students.

Jaime McCord, MD, a third-year resident in the Department of Surgery at UW Hospital and Clinics, recently completed the required course work and her field experience.

McCord first got a taste of global health during an elective in the West African country of Togo, when she was a medical student at Temple University.

"I was determined to get to Africa and experience working in an area where good, basic medical help was greatly needed," she says. She served as first assistant to an American surgeon at a small rural hospital, helping on some 90 cases. Over the course of two months, she learned to be innovative, she says, and found she loved the people.

Two years into her five-year general surgery residency at UW, McCord became a postdoctoral research fellow searching for the right project. A series of serendipitous events—an introduction to SMPH family practitioner Michael Fleming, MD, MPH, who offered her an 18-month fellowship; contact with UW vascular surgeon Girma Tefera, MD, originally from Ethiopia; and a meeting with Haq, who explained how the CGH certificate program worked—came together to provide an unusual opportunity.

Working with Tefera and with the blessings of the UW surgery department, McCord completed the "Foundations in Global Health Practice" course and then designed a project to create a registry of trauma cases seen at two teaching hospitals in Addis Ababa, Ethiopia, where no formal injury surveillance programs exist.

"The idea was to collect data so that, ultimately, action could be taken, policy written and resources allocated to reduce disabilities resulting from various forms of injury," she explains, noting that trauma is a significant health issue in the developing world.

Among other things, McCord met with local collaborators, observed procedures in "trauma rooms" at the two hospitals, satisfied all institutional review board requirements, trained data collectors, instituted quality control measures and began analyzing data during four trips to Ethiopia.

"I hope the data we collect will be good enough to be useful in a practical way," says McCord, who made her last trip in March 2009.

In the end, McCord overcame cross-cultural barriers, learned a great deal by trial and error and persisted in the face of many frustrations.

"The experience stretched me as a person, a physician and a resident," she says. "Overall, it reaffirmed what my heart had been telling me—that I needed to work in a developing country."

McCord isn't sure where she and her teacher husband, Peter, will end up working, but she knows she could thrive in Africa.

Whether any of the global health participants ever actually work or live abroad may not be the main point. The experiences they have had have enriched them beyond measure.

"What I gained from the people of Honduras was so much more than what I gave them," says Buelow, who was delighted to learn recently that the survey she conducted helped the small NGO win a Global Fund grant to care for children living with and vulnerable to HIV/AIDS. "If you understand where people are coming from and the issues they are dealing with on a daily basis, you'll be able to serve them much more effectively as a doctor."

Women's Health Research

A NOD TO THE PAST, AN EYE ON THE FUTURE

Gloria Sarto, above, visits with participants at the recent celebration marking the 10th anniversary of the UW Center for Women's Health Research. Molly Carnes, right, directs the center with Sarto as co-director. Together they are guiding other women to leadership positions.

by Beth Pinkerton

In 1968, Gloria Sarto, MD '56, PhD, one of the first female obstetrics-gynecology residents at University of Wisconsin-Madison, lost her medical privileges when she allowed a friend of a patient whose husband was out of town to be present in the delivery room. Then she was ridiculed and chastised for introducing the Lamaze birthing method to her pregnant patients. Many people also questioned her when she was the first Wisconsin obstetrician to perform amniocentesis to predict fetal genetic abnormalities. But, as is widely known, some 40 years later all these are common practices nationwide.

Strong women leaders such as Sarto, professor of obstetrics and gynecology at the UW School of Medicine and Public Health (SMPH), deserve credit for paving the way for the most radical changes in women's health in the last half century, says Molly Carnes, MD, MS, who directs the UW Center for Women's Health Research (CWHR) with Sarto as co-director. A geriatrician focused on older women's health issues, Carnes, an SMPH professor of medicine, has been a trailblazer as well.

Since her first days in academic medicine, Carnes was troubled by the lack of women faculty. Even today the problem is alarming: Though 50 percent of medical students are women, less than 10 percent of tenured medical school faculty members are women. Carnes is delighted, however, that four of the SMPH's 26 departments now are chaired by women.

Ten years ago, Carnes asked Sarto to join her in establishing the CWHR to foster the careers of women in academic medicine, particularly at UW-Madison, and to support women's health research. With an annual budget of more than $3 million, the center operates seven federally funded graduate, postdoctoral and research career development programs, including the first Health Disparities Research Scholars Program in the country.

On February 12, 2009, the CWHR celebrated its 10th anniversary at the Health Sciences Learning Center. Robert Golden, MD, dean of the school, greeted the approximately 100 people in attendance and praised the center for its work.

"The UW Center for Women's Health Research represents the best

traditions of academics in general and the best tradition of this place in particular," he said. "They…are using evidence to advance important causes that will ultimately elevate the health and well-being of all."

Carolyn Clancy, MD, director of the Agency for Health Care Research and Quality in the U.S. Department of Health and Human Services, presented the keynote address, titled "Towards Gender Equality and Health: From Evidence to Action."

Sarto gave a nod to the past with her talk, "20th Century Milestones in Women's Health," while current scholars and alumni shared their work in a poster session, setting the stage for the future.

Three former CWHR Scholars also were showcased at the event. Each gave a testimonial about the significant role the center and its founders have played in their career development.

Though counseling psychologist Angela Byars-Winston, PhD, first joined the UW-Madison School of Education faculty in 1997, it was several years later that she met Carnes—and discovered their shared interest in research addressing recruitment and retention of women and students of color in science, medicine and engineering careers.

Their meeting led to a collaboration on a grant, with Byars-Winston ultimately being hired as a CWHR associate scientist in 2007.

Byars-Winston credits the center with helping her to put theory into practice.

"We've been able to move the research from identifying the various factors that prevent retention to creating programs and research-based interventions," she says.

The research has led to the development of the Sloan Engineering Mentoring Program, which enhances academic success by providing first-year undergraduate students opportunities that increase access to and inclusion in academic and professional resources.

Byars-Winston emphasizes that the goal must be to foster a culture that values diversity, not just to improve diversity through numbers.

Cynthia Carlsson, MD, MS, first met Carnes in 1995, when she interviewed for her internal medicine residency at UW Hospital and Clinics following a fellowship in geriatrics.

"I was at this critical point in time where I wanted to continue clinical science training, but I didn't really have a support mechanism to move me towards that," Carlsson says.

Carnes guided her to apply for a fellowship in older women's health, which gave her the protected time she needed to launch her academic career studying interventions to prevent Alzheimer's disease, which is more common in women than men.

Following support on CWHR training programs, Carlsson became a tenure-track faculty member in the Department of Medicine. She is also medical director of the Memory Assessment Clinic at the William S. Middleton Memorial Veterans Hospital.

Earlise Ward, PhD, talks about finding herself at the proverbial "fork in the road" in 2002, after finishing her postdoctorate training in counseling psychology. Should she continue her work as a staff psychologist for a local mental health agency or pursue a career in research?

She chose to become a CWHR Scholar and continued her research to understand African Americans' low use of mental health services and learn more about their beliefs and traditional methods of coping.

Two years ago, she put her research into practice with a pilot study, "The Oh Happy Day Depression Intervention," a cognitive behavioral group approach to treating depression in older African American women offered at a local church and community center.

Ward says that the center's philosophy of collaboration and interdisciplinary teamwork has greatly influenced her career development and how she manages projects. In 2007 she became the first non-nurse assistant professor on tenure track in the UW nursing school.

Collectively, the three researchers are working to change the face of women's health with the ultimate goal of creating a healthcare system that can meet the unique needs of a diverse population. And, in the end, each hopes to follow in the footsteps of Carnes and Sarto and leave legacies of their own.

CWHR Scholars (from left) Angela Byars-Winston, Cynthia Carlsson and Earlise Ward have benefited significantly from their association with the center and its leaders.

"SUPER-DIAGNOSTICIAN" FIGHTS MYSTERY DISEASES

WILLIAM A. GAHL, MD '76, PHD

by Sharyn Alden

It had been a long time since William A. Gahl had gazed at Lake Mendota from the vantage point of the Memorial Union Terrace at the University of Wisconsin-Madison.

But last summer, when he was visiting campus, the "super-diagnostician" who is at the center of the innovative and newly launched Undiagnosed Diseases Program at the National Institutes of Health (NIH) did just that.

"It was intriguing to see so many exciting changes on campus and at University Hospital," he says of his visit.

Gahl himself has recently overseen some exciting changes as well.

The NIH program he directs—the only undiagnosed disease program of its type in the country—opened in May 2008 as a pilot initiative.

It brings together a high-powered team of specialists to study mystery diseases in individual patients from the "big picture" perspective—by carefully and collectively analyzing one piece of the diagnostic puzzle at a time.

More than 40 senior NIH attending physicians representing endocrinology, immunology, oncology, dermatology, dentistry, cardiology and genetics are involved. They work together to help the relatively small number of often desperate patients whose cases do not correspond to any known conditions.

Gahl's position as a top NIH research scientist and clinician studying some of the rarest hard-to-diagnose diseases in the country brings to mind the hit television show *House*.

In the six months between October 2008, when the first patient was admitted into the program, and mid-March of this year, Gahl's team saw approximately 50 patients.

"On the plus side, this is very exciting science and academically fascinating," he says. "But on the down side, we have to reject 80 percent of patients who apply because they are not suitable for our studies."

The criteria are stringent, he explains, because patients truly must be undiagnosed.

"There must also be a chance that we can help with the diagnosis and/or learn something important about cell biology or biochemistry," he says. "Applicants often have been inadequately worked up or have a combination of known disorders. Or they just want a second opinion or treatment."

For some viewers of popular television, Gahl's position as a top NIH research scientist and clinician studying some of the rarest hard-to-diagnose diseases in the country brings to mind the hit show *House*. But comparisons between Gahl and the fictional House do not stand up.

The mild-mannered Wisconsinite considers the gruff House, who conveniently wraps up each baffling medical case at the end of an hour with an "aha moment," to be not the most compassionate physician in the world. And, as anyone who has watched the show knows, that description puts it mildly.

In the real world of studying mystery diseases, "aha moments" are rare, says Gahl.

"If we discover a disease previously not seen, that could be an 'aha moment,'" he says.

Gahl's journey to becoming an NIH leader began at the UW-Madison, a campus he became well acquainted with over nine years as a student.

During his first year in medical school, he and his wife, Mary, were married. The couple, who now live in Kensington, Maryland, have four grown children and two grandchildren. Their second grandchild, born on Gahl's last birthday, was named after him.

There's no doubt about it, medicine is in the family genes. Gahl's brother Bob is a family practice physician in Two Rivers, Wisconsin; another brother, Fred, is an anesthesiologist in Rockford, Illinois.

After Gahl earned his medical degree in 1976, he completed his pediatrics residency at UW Hospital and Clinics. He then did oncology research under Henry Pitot, MD, PhD, former director of the McArdle Laboratory for Cancer Research, earning his PhD in 1981.

Shortly afterward, Gahl arrived at the NIH as a fellow in the new field of medical genetics, eventually becoming an expert on rare genetic diseases. Gahl was appointed clinical director of the NIH's National Human Genome Research Institute in 2002, and continues to serve in that capacity while leading the new Undiagnosed Diseases Program.

What's different about the program? To sum it up succinctly—its collective team approach. The physicians go well beyond looking at a patient's various symptoms and visible signs of disease.

"We also look at the patient's DNA to discern if there is a specific gene mutation and to see if there is a missing or defective gene product," explains Gahl, adding that the program aims to advance general scientific knowledge by trying to understand how an undiagnosed disease works on the genetic level.

Patients with rare diseases usually do not fall into the domain of only one medical specialty. That's what makes such cases challenging for the NIH team, says Gahl.

"To get into a typical clinic, patients with undiagnosed medical problems usually see a specialist, since our medical system is organized into specialties," he says. "It's often hard for them to get into a healthcare system that may benefit them because their disease doesn't fit into a category."

By the time they get to the NIH, the patients, most of whom have chronic problems, have probably been seen by many specialists, to no avail.

About half the patients are referred by their physicians, while the other half of them initiate the process on their own. These proactive patients ask their doctors to lend support by writing a summary letter on their behalf.

Patients are flown to the NIH's Bethesda, Maryland, campus, where they typically stay for a week and see multiple specialists. The NIH pays for airfare, food, lodging and hospital costs. For most

"I hope to establish programs like this one at eight or 10 medical centers throughout the U.S., with the NIH as a referral center or central database."

of the seasoned doctors, the patients may be the first and only ones they've ever seen with the exact set of symptoms or medical history.

People of all ages, including children with developmental delays, may be candidates for the program. Recently, a three-year-old was admitted with undiagnosed seizures that occur up to 40 times a day. She does not recognize her parents.

"We now have her DNA, fibroblasts and other information," notes Gahl, "so as we learn more and/or we see similar cases, it may lead to a breakthrough."

Most patients understand that being painstakingly assessed by this special group of physicians is probably their last hope. Unfortunately, the majority of the diseases the patients have been battling for most of their lives will never be diagnosed. Gahl estimates that for every diagnosis his team makes, another nine cases will remain unresolved.

How do patients and their families respond when they are told that some of the brightest doctors in the world can't determine what's wrong with them?

"When they go home, we tell many of them we do not have the answer to the problem—at least not yet," Gahl says. "But our patients are not upset with us. They know, from all the experiences they've been through up to that point, including a countless number of inconclusive tests, that we can provide hope."

So far the team has made two diagnoses. Both patients presented with neurological symptoms, and were diagnosed with rare forms of multiple sclerosis.

Despite the slim odds of success, there has been an outpouring of interest and a seemingly insatiable curiosity about the program from the national press. Gahl has been interviewed by *The New York Times Magazine*, CNN and *Newsweek*, as well as other media outlets.

Groundbreaking medical discoveries always make good stories because medical detective work is so fascinating, even when medical "aha moments" take years to occur.

Still, the fascination with the Undiagnosed Diseases Program is probably just getting started. As many see it, the program is already on its way to becoming the model for how medicine will be practiced throughout the 21st century—providing state-of-the-art genetic analysis along with a multidisciplinary approach.

Asked how ongoing interest and publicity has a direct effect on the program, particularly since it can accept only a small number of patients for study, Gahl responded from the perspective of a visionary and scientist.

"Depending on NIH funding, the current model may eventually be disseminated around the country. It is my hope to establish programs like this at medical centers throughout the U.S.," he says. "That might entail setting up a program at eight or 10 centers, and the NIH could serve as a referral point or central database."

But he cautions that the success of the program will be measured in decades, not months or years.

Last summer, as Gahl watched sailboats skim the waters of Lake Mendota and students engage in other recreational pursuits, it got him thinking about something he has enjoyed for a long time: softball.

"I played baseball as a child, but when I was in medical school and graduate school, softball became more than just getting together to play an occasional game," says Gahl.

Today, it remains a hobby he thoroughly enjoys.

"I play shortstop and left center field on the national

Bill and Mary were married during his first year of medical school.

level for a senior softball team," he says. "We play between 80 and 100 games a year."

Off the softball field, Gahl is a team player of another sort. The team he leads is advancing scientific knowledge and working tirelessly to solve some of medicine's most baffling mysteries.

Campaign Launched

Attracting Physicians to Wisconsin

by Mary Kay Grasmick

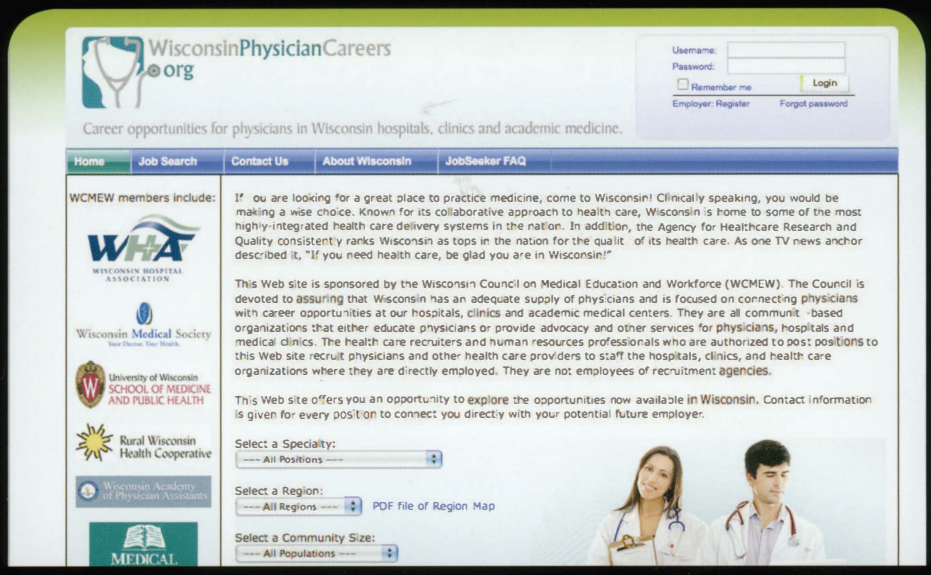
With a serious shortage of physicians looming on the horizon, Wisconsin has launched an aggressive recruitment campaign aimed at attracting doctors to the Badger State.

At the forefront of the effort is a new Web site— http://www.wisconsinphysiciancareers.org—which gives physicians a single source for exploring career opportunities at Wisconsin hospitals, clinics and academic medical centers. More than 600 physician positions have already been posted to the Web site.

The Wisconsin Council on Medical Education and Workforce (WCMEW), which the University of Wisconsin School of Medicine and Public Health (SMPH) helped found, developed the tool as a resource for all physicians, but especially those living outside the state who have had previous exposure to Wisconsin.

Wisconsin retains an average of about 38 percent of the physicians who graduate from one of the state's two medical schools—the SMPH and the Medical College of Wisconsin (MCW), according to Carl Getto, MD, SMPH senior associate dean for hospital affairs. But that's not enough to stay ahead of the growing demand, he says.

"Every state in the nation is competing for a limited pool of physicians," says Getto, WCMEW chair and a physician workforce expert. "We know Wisconsin is a great place to live, so we're counting on the fact that once you've been here, you're probably looking for a good reason to stay or move back."



Rob Fishman, MD, a second-year resident in the Wausau-based UW Family Medicine Residency Program, is still not sure where he will locate his medical practice when he completes his training in 2009. But the California native is impressed with the Wisconsin physician career Web site.

"It's a well-organized site with a high degree of transparency and honesty. From the list of the sponsoring organizations on the front page, to the way the hospitals and clinics describe the positions, it is very genuine and accessible," Fishman says. "You can search for openings statewide on your own time, send an email to find out more about a position directly to the hospital or clinic that has the opening, and have much more control over who contacts you and when."

So far, positions across 61 specialties have been posted. Family and internal medicine top the list with the most postings, mirroring a national trend. Hospitalists and psychiatrists are also in demand.

Charles Shabino, MD, Wisconsin Hospital Association (WHA) senior medical advisor and WCMEW board member, says Wisconsin's favorable medical liability environment, coupled with the state's reputation for high-quality healthcare and excellent quality of life help attract physicians.

"But we could face a crisis of monumental proportions in Wisconsin if we are not able to attract and keep an adequate number of physicians," Shabino warns.

WCMEW is comprised of several healthcare organizations, including SMPH, MCW, WHA, Wisconsin Medical Society, Rural Wisconsin Health Cooperative and Wisconsin Academy of Physician Assistants.

Susan Skochelak Moves from SMPH to AMA

Broadening Her Reach

by Kris Whitman

For Susan Skochelak, MD, MPH, a passion to become a physician quickly evolved into a lifelong mission to enhance the training of medical students. Skochelak's drive—characterized by 23 years of success in increasingly influential roles at the University of Wisconsin School of Medicine and Public Health (SMPH)—stands to broaden in scope this spring when she becomes the vice president for medical education at the American Medical Association (AMA).

"I am extremely proud that one of our colleagues has been selected for this major national leadership role, where she will help shape the future of medical education nationally," says Robert Golden, MD, SMPH dean. "Dr. Skochelak is a giant in the field of medical and health education. We will miss her."

At the AMA, Skochelak will lead the medical education division, which plays a fundamental role in setting standards for medical education and ensuring adherence to these standards through sponsorship of the Liaison Committee on Medical Education and participation in the Accreditation Council for Graduate Medical Education and the Accreditation Council for Continuing Medical Education.

The influence of these accrediting organizations has been integral throughout Skochelak's career, during which she pioneered innovative models for community-based and interdisciplinary medical education.

Through it all, the retiring SMPH professor of family medicine and senior associate dean for academic affairs has approached her work with the idealism and youthful zest she displayed when

her career began. Skochelak, for example, maintained her clinical practice throughout her SMPH tenure.

"I have always been grateful for the opportunnity to be a physician. I believe that caring for patients makes you real as an educator. I want to help students maintain the excitement of those first weeks and months of medical school," she says.

A thoughtful, humble storyteller, she reflects on her own education, which paved the way to her current vantage point.

As a medical student in the 1970s at the University of Michigan—as might happen anywhere at the time—Skochelak discovered that opportunities to gain hands-on patient care experiences were rare. One physician-shadowing elective fueled her dream of crafting community-based training that would allow students to work with patients in community-based settings from the time they entered medical school, rather than waiting until third-year clinical rotations.

"Assisting in the birth of new babies and watching abdominal surgery on a patient for the first time energized me," she says.

Skochelak's medical degree prepared her well for a family medicine residency and a preventive medicine fellowship. Subsequently, she became a Robert Wood Johnson Foundation clinical scholar at the University of North Carolina, where she also obtained a master of public health degree. When she joined the SMPH in 1986, she was ready to build on her ideas for bringing community and public health training into medical education.

"My first impression was that UW faculty and staff colleagues had an open door and were willing to talk about ideas and share thoughts. That remains true," she says. "This has been a wonderful place to be creative and collaborate. You don't find that at many institutions."

In the 1990s, Skochelak led the development of two significant changes in SMPH medical student education. First, before the term "primary care" came into common use, she forged relationships with internal medicine and pediatrics colleagues to establish an opportunity for medical students to work directly with outpatients at Madison and Milwaukee community clinics. Now called the Primary Care Clerkship, this was the nation's first program to teach integrated ambulatory care in community practices. It is now required of all third-year SMPH students and is offered throughout Wisconsin.

Building on the previous clinical medicine and practice courses, Skochelak instituted the four-semester Patient, Doctor and Society (PDS) course for first- and second-year students, focusing on biological, psychological and social aspects of patient care. She designed and implemented the Generalist Partners Program (GPP), which was one of the first to enlist community-based, primary care physicians to teach introductory clinical skills to students at local practice sites. Prior to implementing these programs, UW medical students learned clinical medicine almost exclusively in inpatient experiences until they enrolled in the fourth-year Preceptorship Program.

"The PDS and GPP programs also moved clinical training into years one and two, so medical students would feel the excitement of what it means to be a physician from the beginning of medical school," she notes.

The GPP and the required third-year core curriculum were developed with funding from two prestigious national medical education grants: the Interdisciplinary Generalist Curriculum Project and the Undergraduate Medical Education for the 21st Century. The SMPH is one of only two medical schools to receive both grant awards, which provide funding to develop enhanced curricula in ethics, professionalism, intercultural communications, practice

—Continued on page 38

Leaving a Legacy

Susan Skochelak, MD, MPH, has played a major leadership role in developing many significant innovations at the SMPH. During her tenure at the school, she:

- Created the Primary Care Clerkship
- Developed the Generalist Partners Program
- Initiated the Patient, Doctor and Society course
- Expanded medical student teaching to more than 200 new community sites
- Began new programs in rural, urban and global health
- Led the development of the Master of Public Health degree program
- Served as the principal investigator for grants totaling $18 million
- Instituted Innovations in Medical Education
- Mentored and guided dozens of women and men faculty members
- Taught patient communication, healthcare delivery and practice management skills to students, residents and faculty
- Worked with more than 3,000 medical and health professions students.

Skochelak has been widely recognized for her contributions to medical education. Awards include the Society of Teachers of Family Medicine Patient Care Award for Innovations in Medical Education, the State Medical Society of Wisconsin Distinguished Service Award and the University of Wisconsin Chancellor's Award for Distinguished Teaching.

From the IMMIGRATION OFFICE to the WHITE HOUSE

by Siavash Sarlati Med II

Louder, slower, more condescendingly, he says: "Sir, we cannot issue your permanent resident visa without the sponsor present. You'll go back to the bottom of the list."

I was only 16, but had intuition enough to know that the immigration officer thought my father was an idiot. With the official Department of Justice (DOJ) paperwork instructing us to appear for the issuance of a green card, my father explained that nothing we ever received indicated that our sponsor must be present.

This was pre-9/11, before the creation of the Department of Homeland Security and prior to the War on Terror and the Axis of Evil, when Immigration and Naturalization Services was operated through the DOJ.

Closer, louder, slower, more agitated, the officer reiterates, "Sir, you must be mistaken. I'm not sure you're understanding me."

I was at the age when a son begins to realize that his father is, in fact, human; however, I still knew my father to be an intelligent person. In other words, despite my naively pubescent affectation of superiority, I was certain that my father, who was fluent in French, English and our native Persian by the time he graduated high school, could comprehend a government document.

For 22 years, my family endured such encounters on our way to becoming Iranian Americans. Our journey took seven years longer than what most other legal residents sponsored by a naturalized citizen experienced.

With appreciation, I eventually became a United States citizen. My life in American society, having wandered through poverty and wealth, injustice and harmony, discrimination and acceptance, hate and love, has shown me that this country is imperfect, but also it can provide like no other nation in the world.

I was determined to help ameliorate the former using the latter as I stepped out of the Milwaukee branch of the homeland security office with my certificate of naturalization and its accompanying duties and privileges in hand. That day in April 2007, I could not have imagined that my first vote in a presidential election would help make history or that my determination to be a dutiful citizen would earn me an invitation to the White House in March 2009.

Flashback to November 4, 2008. I clicked on "submit" and moments later heard the TV announcer say that John McCain had conceded to Barack Obama.

Simultaneously, my girlfriend, Azin, and three of my closest friends—Hedayat, Leah and Sartouk—screamed. On that evening, minutes after submitting my online cardiovascular pathophysiology take-home exam, I witnessed the free election of the first non-white president of the United States. With my first-ever ballot in a national election, I touched history. Then, president-elect Barack Hussein Obama told us it was time to get to work.

Last December, the Obama transition team called on Americans to host "community healthcare discussions" in their homes, schools, churches and community centers—and I got to work. With the help of classmate Jon Dickman and the networking of my best friend's mother, Charlotte Floyd-Pruitt, we gathered 16 people at my father's home in Milwaukee to discuss where our healthcare system is imperfect, even broken.

Over plates of lamb and Persian rice, we discussed the experiences in our lives that underline the need for healthcare reform in America. In my father's living room, high school and medical students,

PHOTO: White House photographer Pete Souza

Seated behind President Obama at the health reform forum (opposite), Sarlati captures an historic moment. Above, standing to the president's left, he's joined by other discussion group leaders.

healthcare professionals and patients, business owners and employees, the working and the retired exercised their rights to freedom of speech, freedom of press, freedom to peaceable assembly as well as their right to petition the government for a redress of grievances.

The government read our petition. In January, as I sat in a coffee shop preparing for a renal pathophysiology final exam, I received a call from Tim Granholm, a staffer with the Obama transition team. The young intern and I reviewed the discussion points our group had submitted.

We had discussed the societal need for greater emphasis on prevention and access to primary care. We emphasized the need for providing universal healthcare coverage, lowering healthcare costs, addressing health disparities and facilitating an efficient health information system. The challenges faced by the elderly while navigating Medicaid and the high cost of coverage for those with pre-existing conditions were also paramount to those who blessed my father's living room. Women's health issues, greater public information on change-of-life management and guaranteed healthcare coverage for women and their children were critical points suggested for reform.

Tim thanked me, asked me to thank the discussion group and assured me that the more than 9,000 healthcare community discussion groups around the country were being heard. At this point, I was satisfied. The three-hour discussion and the efforts of 16 people who wanted to exert their rights as Americans and their compassion for their community members were not in vain.

A month later, the phone rang.

"Siavash?" the voice said. In my raspy, dawn-of-the-day voice I replied, "Who's asking?"

"This is Tim Granholm again. We're wondering if you would be willing to come to the White House this Thursday for a health policy forum hosted by the president."

Eyes wide, throat cleared, I said, "Are you serious? If you're serious, then yeah! I would love to come to the White House. Are you pulling my leg? Is this really Tim?"

I confirmed his identity. Soon, my name and social security number were on their

PHOTO: Black Women 50+ Health & Lifestyles

The Milwaukee healthcare discussion group included (bottom row, left to right): Benjamin Rahming, Maryam Ashraf, Lauren Feaster, Ikita McClain. Middle row: Mikal Floyd-Pruitt, Linda Presberry, Donna Smith, Ramona Dicks-William, Edwina Beanum. Back row: M. Eugene Pruitt, Jon Dickman, Siavash Sarlati, Joyce Feaster, Rodney Lynk, Jr., Melanie Gray, Saptarshi Ghose.

way to the Secret Service for a background check and clearance to walk through the southeast entrance of the White House at 1 p.m. on Thursday, March 5, 2009.

Five days after the call from Tim, I was standing at East Executive Park and Alexander Hamilton Place: the southeast gate of 1600 Pennsylvania Avenue, NW. Six other healthcare community discussion hosts and I stood eagerly in line with congressmen, insurance executives, pharmaceutical company representatives, lobbyists, think-tank experts, foundation leaders, doctors and other stakeholders, waiting to walk through metal detectors on our way to the East Room.

The centerpiece of the White House Forum on Health Reform was a report compiling the healthcare community discussion submissions from around the country. Presented to the president by a gentleman from our group of seven community discussion hosts, the report showed us that Americans largely agreed on the challenges facing our healthcare system.

The report contained issues that dominated the more than 3,000 discussion group submissions: access to health insurance, the cost of healthcare services, the rising costs of premiums and prescription drugs, the lack of emphasis on prevention, bankruptcy due to medical bills, management of chronic conditions, exclusion from proper health plans due to pre-existing conditions, and quality of care. Every single attendee of the forum received this report.

My White House experience was amazing, one I will never forget. I met the president, posed for a photo with him, shook his hand twice and even got to complain to him about my medical school debt. I chatted with congressmen and presidential advisors and sat feet from some of the most powerful people in the world.

From the immigration office to the White House, from struggling immigrants to successful Americans, some might say my family is living the "American Dream." But I left the White House feeling ambivalent. So many of our current problems were discussed inside: a broken healthcare system, a fractured economy, two wars abroad that have proven difficult to manage, a failing public education system and our crumbling infrastructure.

I voted for Barack Obama not because of the promise of his greatness, but because he pledged to uphold the greatness of a promise—a promise that a government should always operate through the will of the people. This promise, however, disintegrates when the people do not have the will to confront their leaders. So, I left the White House optimistic for healthcare reform, but anxious about our future.

Americans are charged and disgruntled, and rightfully so. But what happens when our luck turns around? What happens when we begin to feel good again about our money, homes, cars, investments, energy futures, treasury bonds in China and careers? What happens when we do not have a president who will try to show "ordinary Americans" they are represented by inviting seven of them to the White House for doing what is only their right and duty as citizens? Will we still care about our health, our homeless, our infrastructure, the less fortunate, the environment, global injustice or education?

I am uncertain but I hope we do. I would not have asked my father to roast lamb for 16 people without hope.

Match Day Emotions

Kristin Nackers, in white, jumps for joy to learn that she will be staying at UW Hospital and Clinics for her pediatrics residency. Nikhila Deo, on right, will also be beginning a pediatrics residency soon, but she will be heading to the University of Virginia-Charlottesville.

by Eric Klister, Theresa Plenty and Lisa Brunette

For some, it's like Christmas. For a few, it's like winning the lottery. And for others, it's the Oscars.

Match Day is one of the most emotion-filled days in the life of a medical student. It's the day when all fourth-year students in the country learn where they'll be spending the next three to five years in residency training. In most cases, students don't know the location of their residencies until they open an envelope and announce to peers, family and friends where they've been matched.

Match Day 2009 took place on March 19. It was a particularly good year for the University of Wisconsin School of Medicine and Public Health (SMPH), as a school-record 96 percent of the 170 graduating students matched to their preferred specialty.

School leaders cheered another highlight: more students are choosing to stay in the Badger State for their residencies. What's more, about 40 percent plan to pursue a residency in primary care medicine—usually defined as internal medicine, family medicine and pediatrics—where physicians nationwide are badly needed.

"We are thrilled that so many students chose to stay in Wisconsin and to respond to the increased demands in our state for primary-care physicians," says Patrick McBride, MD '80, MPH, associate dean for students. "We're very happy that our students were able to match into the specialties they want and that they are in the very best residency programs in their specialties."

While those numbers tell part of the story, Match Day also is about the wave of emotions students experience. Here's how the day played out for six of them.

It's impossible to know who was happiest with their match. But based on outward appearances, Ngozi Ogbuehi could make a strong case.

Upon learning that she'd be heading to the University of Florida College of Medicine-Jacksonville for a pediatrics residency, Ogbuehi burst into a flurry of joyous shrieks.

Jacksonville was Ogbuehi's top choice, since it will bring her closer to her home in Atlanta. But because the program accepts only 11 residents each

With their newest family member on hand to hear the news, the Walshes will be staying in Wisconsin. Aimee was chosen for the internal medicine residency at UW Hospital and Clinics.

Chris Webb is heading to New York City for residency training in anesthesiology.

year, she wasn't sure about her chances of being accepted. That led to a lot of pent-up nervous energy.

"So when I opened up the letter and I saw that it was on the piece of paper, I couldn't contain my happiness," she says. "It came out in screams and jumps."

Ogbuehi also felt relief.

"It's been a long journey for four years," she says. "Just to know that someone wants you after med school, and they want you to work in their facility, and they trust you with their patients, it's just an awesome feeling."

For Crystal Weis, the day before Match Day felt a lot like Christmas Eve.

"I just wanted to open my present and find out where I was going for the next couple years of my life," she says.

Describing how she felt about going to Oregon Health and Science University (OHSU) for her residency in emergency medicine, Weis uses words like "amazing" and "ecstatic."

Weis is from Wisconsin but says she loves Portland, where OHSU is located, and her specialty, so her residency ended up being the perfect fit.

She admits she's a little anxious to be taking the next step.

"But I know they've prepared me well here at UW," she says. "It's nerve-wracking but exciting at the same time. It's a brand new challenge."

Brent Meier says his experiences leading up to Match Day were a combination of the most stressful and wonderful times of life for himself, his wife and their 10-month-old daughter.

"A lot of unknowns, a lot of hard work," he says.

Meier enjoyed the interview process that took the family around the country.

"But it was hard to sit down and try to prioritize and figure out where we should be," he says.

It seems it all worked out. He matched to UW Hospital and Clinics in his hometown of Madison and will easily transition into a neurosurgery residency after having participated in research in the laboratory of Bermans J. Iskandar, MD, professor of neurosurgery, for the past five and one half years.

"I'm thrilled to be joining the team here," Meier says.

Jake Behrens stood out among the Match Day participants. Wearing a bright pink ruffled shirt, he was hard to miss. He

Dean McBride teases Jake Behrens, whose slogan is "Never take yourself too seriously."

Rushin Brahmbhatt marks Mayo Clinic in Rochester, Minnesota, where he looks forward to doing a general surgery residency.

began wearing the shirt his first year for student events like the Black Bag Ball.

"Never take yourself too seriously," Behrens says.

Behrens was one of four students from the Medical Student Association to help organize Match Day activities this year. They helped with awards, surveys, T-shirts and slide shows.

As students were called up to the stage to announce which residency program they were accepted to, Behrens was up front handing out pins to classmates for them to mark their match location on a map.

"I wanted to be up there while students were opening their letters," Behrens says.

Oluyemisi Adeyemi, originally from Osogbo, Nigeria, will be moving to a warmer climate soon to do her residency at the Baylor College of Medicine in Houston.

How does a student from Nigeria end up in Madison? Adeyemi says the students drew her to SMPH.

"When I came and interviewed here and met UW students, I just felt like they had this camaraderie amongst them that was very important," she says.

Adeyemi also says SMPH staff such as Gloria Hawkins, PhD, assistant dean for multicultural affairs, helped her to make her decision as well.

"She was just so supportive," says Adeyemi.

Chirantan Mukhopadhyay was perhaps a little less anxious than many students, since he found out through an early match that he'd be heading to the State University of New York-Downstate College of Medicine for his ophthalmology residency.

"With ophthalmology, I was really just happy to match anywhere," he says. "I'm glad about it. And I wanted to live in New York when I was young, so I thought this was a good opportunity."

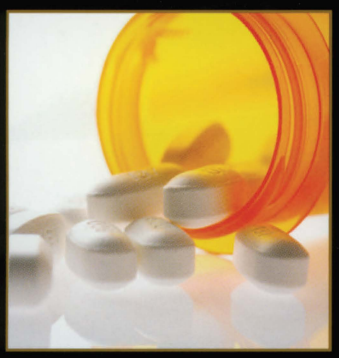
Mukhopadhyay will spend a transitional year in Milwaukee.

He's excited about the future.

"It'll be nice to get paid, finally, instead of paying for the privilege," he laughs. "Honestly, I'm just really excited about my future right now. "

Members of the Class of 2009 will graduate in May and most will begin their residencies in June and July.

Genetic Information Improves Prescribing



Warfarin, one of the world's most widely used drugs, is also one of the trickiest to prescribe. Half of those who take it are at risk of serious problems when given the standard starting dose.

Now, in one of the first illustrations of "personalized medicine" based on genetic information, an international research team has created a model to help doctors determine the best dose of the blood-thinning drug, with its brand name Coumadin, for each patient.

Three SMPH researchers were involved in the work.

The model, based on data from thousands of patients treated with warfarin, showed that when doctors included information on patients' genetic makeup and other clinical factors in their decision making, they did a much better job of predicting the appropriate dose.

The study and an accompanying editorial supporting the research appeared in the February 19, 2009 issue of the *New England Journal of Medicine.*

David Page, PhD, SMPH professor of biostatistics and medical informatics, was in charge of overseeing the data analysis on the project, which was undertaken by the International Warfarin Pharmacogenetics Consortium.

"We found that incorporating a richer set of clinical variables significantly improved dosing," Page says. "And adding genetic information improved the predictions even more."

Physicians will soon test the best predictive model, a linear regression model with eight variables, in a major clinical trial to be sponsored by the National Institutes of Health.

Risky Behavior Big on Teen MySpace

More than half of adolescent MySpace users mention risky behaviors such as sex, violence or substance use on their personal Web profiles.

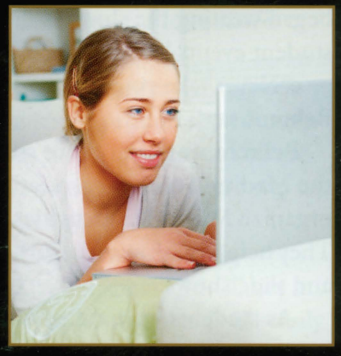
That's according to the findings of Megan Moreno, MD, SMPH assistant professor of pediatrics, and other researchers who analyzed 500 MySpace profiles in 46 states to determine how young people use the Internet as a means of presenting themselves to their peers.

The study, along with a companion study on how to reduce such postings, appeared in the January *Archives of Pediatric & Adolescent Medicine*. Moreno was co-leader of the study while she was a research fellow at Seattle Children's Hospital.

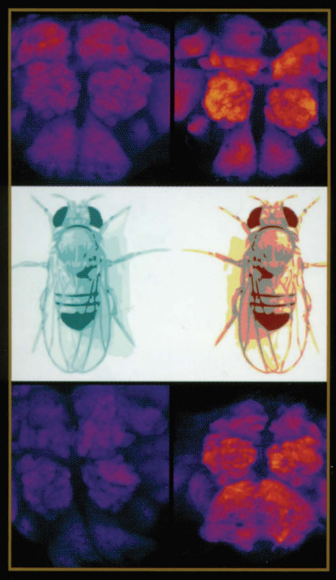
Thirty-seven percent of profiles mentioned alcohol use, 24 percent mentioned sex, 14 percent mentioned or implied they were involved in acts of violence, and 13 percent mentioned tobacco use. In a number of cases, the profilers claimed to have engaged in several of these activities.

"This is information people are hesitant to ask kids about," Moreno says. "But then you view these profiles that say, 'Hey, I got wasted and I had sex last Friday.'"

While the study examined publicly available profiles of those self-identified as 18 years and older, Moreno believes many profilers were younger, and claimed to be 18 to avoid MySpace security restrictions. Two hundred million Internet users in the world have MySpace accounts, and 25 percent are under age 18.



Sleep Downsizes Brain Synapses



If you've ever been sleep-deprived, you know the feeling that your brain is full of wool.

Now, a recent SMPH study published in the journal *Science* shows molecular and structural evidence of that woolly feeling—proteins that build up in the brains of sleep-deprived fruit flies and drop to lower levels in the brains of the well-rested.

The proteins are located in the synapses, those specialized parts of neurons that allow brain cells to communicate with other neurons. Sleep researchers Giorgio Gilestro, PhD, Giulio Tononi, MD, PhD, and Chiara Cirelli, MD, PhD, of the UW Center for Sleep and Consciousness, say this finding offers more evidence supporting their theory of "synaptic homeostasis." This is the idea that synapses grow stronger when we're awake as we learn and adapt to an ever-changing environment. Then sleep refreshes the brain by bringing synapses back to a lower level of strength.

By allowing synaptic downscaling, sleep saves energy, space and material, and it clears away unnecessary "noise" from the previous day, the scientists believe. The fresh brain is then ready to learn again in the morning.

"We know that sleep is necessary for our brain to function properly, to learn new things every day, and also, in some cases, to consolidate the memory of what we learned during the day," says Cirelli.

Hot New Cure for Shingles Pain

A clinical trial of a high-dose capsaicin patch, derived from hot peppers, showed that about 40 percent of the people with post-herpetic neuralgia (PHN) had pain relief lasting as long as 12 weeks.

Results of the study, done at the SMPH and other institutions, were published in the December edition of *The Lancet-Neurology*.

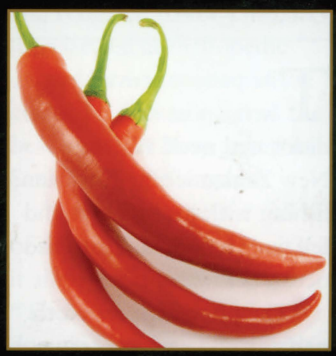
"We were surprised at the long-term pain relief," says Miroslav Backonja, MD, SMPH professor of neurology and the study's lead author. "People had pain relief for up to 12 weeks from a patch that was applied for an hour."

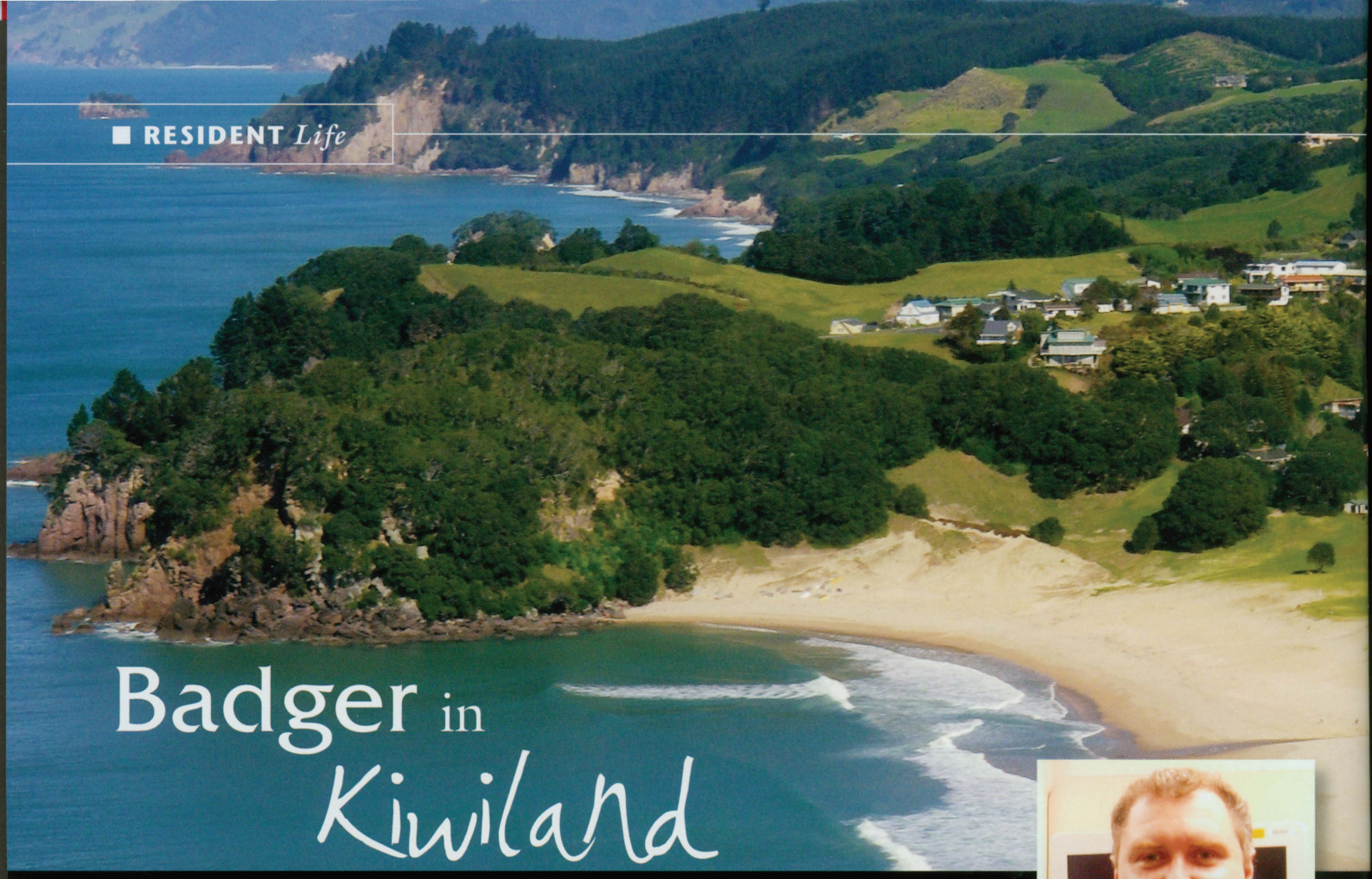
PHN results when the herpes zoster virus, which also causes chickenpox, becomes active again, after living dormant in the nerve roots. A painful skin rash breaks out along the nerve, usually on the head and face or trunk. The virus damages nerves in the area of a shingles outbreak, causing an intense pain that can last for months after the rash disappears.

PHN is most common in older people. While shingles tend to go away completely in younger patients, more than 40 percent of people older than 65 years who have an episode of shingles will develop PHN.

"This is...becoming a healthcare problem because older people are the most rapidly growing segment of the population," says Backonja.

The capsaicin may work, Backonja says, by "pruning back" damaged endings of nerve cells.





Badger in Kiwiland

FOR SPINE AND SPORTS MEDICINE FELLOWSHIPS

by Dian Land

The patient arrived by helicopter with a broken, dislocated neck. A native New Zealander, he had been fishing with his brothers and fell from a rock cliff into the ocean below.

The physician tapped to perform the neck surgery was Mark Flanum, MD '02, who was in the country training with some of the world's best spine and sports medicine specialists. As proof that the procedure went well, Flanum keeps a picture of the patient walking out of the hospital several weeks later.

Before being selected for the highly competitive New Zealand fellowships, Flanum built his skills and knowledge base in the orthopedics surgery residency at UW Hospital and Clinics. Through five intense years, he was exposed to all the orthopedic subspecialties, including trauma, pediatrics, musculoskeletal oncology, adult reconstruction, hand, foot/ankle, sports medicine and spine.

"I liked it all, but particularly sports medicine and spine," says Flanum. He decided to seek advanced training in those two areas.

An adventurous person by nature, Flanum thought that seeing how such specialists worked in other parts of the world would be a good learning experience.

"When I read about the New Zealand programs, they jumped off the page for me," he recalls, adding that combining the two kinds of training would give him capabilities that only a handful of orthopedists have.

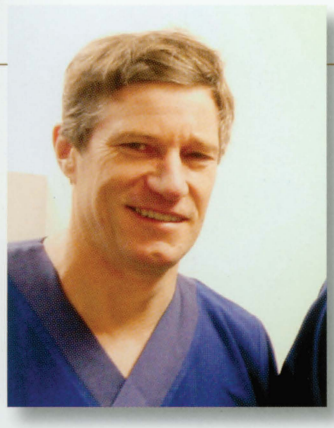
He applied and was accepted—one of only two fellows chosen each year for the sports medicine program and the only one selected for the spine program.

So in 2007, Flanum and his wife, Christine, packed up their young family—Lillian, Noah and Brynn—and took

off for a 13-month stay 8,000 miles away.

The sports medicine training was with the premier specialists in New Zealand—Barry Tietjens, MD, Bruce Twaddle, MD, and Stewart Walsh, MD. Most of their work takes place at the University of Auckland's Adidas Sports Medicine Center.

"This is an amazing place, where members of the New Zealand Olympic team and the All Blacks professional rugby team are treated," explains Flanum.



Spine specialist Peter Robertson, left, taught Flanum how to handle many complex trauma cases. Above, at the Adidas Sports Medicine Center, Flanum (far right) scrubs with New Zealand's premier sports medicine specialists (from left): Bruce Twaddle, Barry Tietjens and Stewart Walsh.

The spine fellowship was under the direction of Peter Robertson, MD, a top orthopedic surgeon who treats some of the most challenging spinal conditions seen in the country, including many complex trauma cases. Robertson splits his time between a private hospital and the public hospital that serves patients from all over New Zealand as well as a number of South Pacific islands.

"I loved getting into the mind of this experienced surgeon to learn how he analyzes and handles many different complex clinical situations," Flanum says.

With a good balance between clinic and operating room in both fellowships, Flanum was exposed to many diverse techniques.

"The country's passion for rugby generates a very high number of shoulder dislocations, knee injuries and spinal fractures," he says. "I saw more complex shoulder stabilizations/reconstructions in a month than I would see in a year in most places in the United States."

Different rules relating to the approval of surgical implants also allowed Flanum to see technology that's not available in the U.S.

"I was able to use these implants and talk to surgeons who have been using them in New Zealand for years to get their perspective on the advantages and limitations of the technologies," he says.

Flanum also got a firsthand look at universal healthcare, which, he says, works extremely well in New Zealand.

"It was a first-class experience," he says of the training.

As if that weren't enough, the Flanums loved living in New Zealand.

"The people are so friendly and welcoming, and the pace of life is much slower in this agrarian country," Flanum says. "New Zealanders pay attention to relaxing."

Life in New Zealand today has been equated to America of 40 years ago, he says.

"There is virtually no crime," he notes, "and there are no freeways outside Auckland, the largest city."

Based in Auckland, the Flanums toured the country almost every weekend.

"We went to beaches for surfing and camping and mountains for hiking and skiing," he says. "Plus we visited world-class wineries along the way."

Flanum's mother came for the first three weeks to help the family with the transition. He took her to the All Blacks championship match in which they beat Australia.

She was probably not surprised that her son was living halfway around the globe in a beautiful place where people cherish the outdoors. After graduating from UW-Madison, Flanum moved to Alaska and became a professional crabber.

In the wake of the Exxon *Valdez* disaster, he worked in maritime law on the state of Alaska's case against Exxon.

"But you don't get to see the results of your work in law for a long time," he says.

Flanum also got into mountaineering in Alaska. He took a wilderness EMT course and became involved with a local mountain rescue group, and that kindled his interest in medicine.

Once he arrived at UW medical school, he already had a specialty in mind.

"Due to my history with mountaineering and mountain rescue work, I was pretty sure I wanted to go into orthopedic surgery," he says. "The eight-week surgery rotation in my third year really cemented it for me."

After Flanum finished his New Zealand fellowships and returned to the U.S., he interviewed at orthopedic surgery practices around the country. He finally found the best fit with a busy group in Sauk Prairie, Wisconsin.

"Here I can use the full set of skills I've acquired, putting it all to good use," he says. "There are opportunities to do a wide variety of general orthopedic procedures, as well as many advanced procedures."

Flanum says he loves what he's doing.

"The best thing about it may be that, unlike a career in law, I get to see the results of my work on a daily basis," he says.

Legendary LAMBEAU

Special Site for the WMAA Winter Event

by Dian Land

Green Bay Packer giants—Vince Lombardi, Curly Lambeau, Ray Nitschke, Paul Hornung and many others—vividly came back to life for the 60 members of the Wisconsin Medical Alumni Association (WMAA) who attended the WMAA Winter Event. The gathering, held February 13, 2009, took place at storied Lambeau Field.

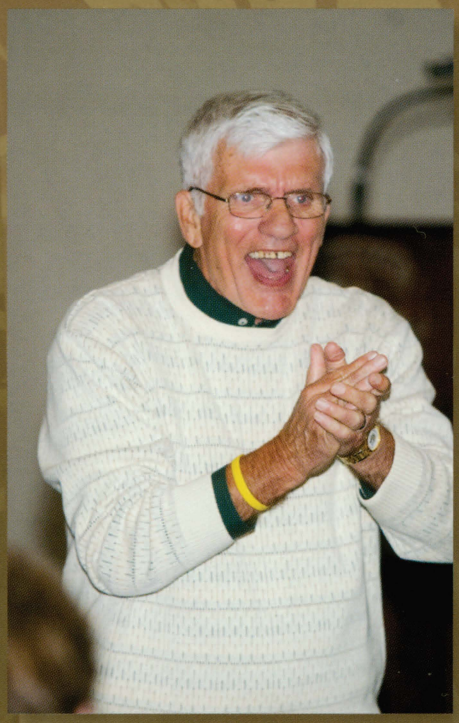
"Everyone seemed to love the venue," says Karen Peterson, WMAA executive director. "The place is so full of history."

A group of alumni from the Sheboygan area bused up together, and six representatives of the Medical Student Association carpooled from Madison while others drove from nearby northeastern and central Wisconsin towns.

Before the event began, the WMAA board of directors met and heard an audit report after Dean Robert Golden, MD, described the school's financial challenges.

Once all guests had arrived, they took stadium tours that included a look at statues of some of the best former players in action. Catherine Best's (MD '88) son, Noah, who rode up on the Sheboygan bus, soaked up the history and seemed to enjoy every moment. The tour culminated with a walk through the tunnel that leads from the locker room to the field.

Jeffrey Hansmann, MD '92, an anesthesiologist who works at St. Nicholas Hospital in Sheboygan, says the experience seemed very lifelike.



From far left: Vince Lombardi gazes down on visitors to Lambeau Field. The tour guide takes guests to the best places in the stadium. Grant Turner, a former coach and Packers booster, rouses the group with his inspirational talk. Noah Best, son of Catherine Best, exhibits perfect football form.

"The doors at the end of the tunnel swung open and we could hear a recording of what the crowd sounds like when the team actually runs out onto the field on game day," says Hansmann.

The turf, bleachers and skyboxes, which rent for up to $30,000 a game, were visible from that vantage point. The group then walked up to one of the largest skyboxes, with theater seats and a battery of television screens.

"You could watch the game on seven TVs as you hung out with friends and noshed the food," says Hansmann, who had seen one Packer game from a smaller skybox in the past.

After the tours, guests enjoyed a social hour in the Legends Club, followed by a Southwestern-style buffet in the Bart Starr Room, where WMAA President John Kryger, MD '92, spoke.

Kryger urged everyone to give back to the medical school. He introduced the dozen or so members of the Middleton Society who were present, holding them up as exemplary alumni who generously support their alma mater.

—Continued on next page

"The doors at the end of the tunnel swung open and we could hear a recording of what the crowd sounds like when the team actually runs out onto the field on game day."

Clockwise from right: Med Is Bob Zemple, Amrik Ray and Allie Pratt enjoy the social hour with Marvin Jumes, '58, and his wife, Pat. Members of the Class of '86 Kristin David Janssen, Steve Fox (and wife Wendy) and Paul Veregge (and wife Lisa) catch up at the event. David Ritzow, '92, and his wife, Kim, visit with classmate John Kryger, WMAA president.

For David Ritzow, MD '92, an orthopedic surgeon in Appleton, it was his first Winter Event.

"I liked the venue. Especially in this part of the state, Lambeau Field is always a draw," says Ritzow, who says he also thought the choice and quality of the food was great.

Ritzow says it was a pleasure to see classmate Kryger, "our illustrious president," again. They caught up with another classmate after the event.

Ritzow also reconnected with James Kuplic, MD '67, the father of one of his practice partners.

Herb Sandmire voiced what may have been on everyone's mind: "Is Brett Favre coming back?"

"It was great to see Jim and his wife, Betty, there and have dinner with them," he says. "My wife, Kim, and I had a great time and will look for upcoming WMAA events."

The guest speaker of the evening was Packer historian Grant Turner, who is also a teacher and coach at a local high school. Turner addressed the crowd in a loud, rousing voice, pacing in front of them, pointing his finger and jumping up and down.

"He was a bundle of enthusiasm, and very entertaining," says Hansmann.

Turner finished by taking questions and supplying answers.

Herb Sandmire, MD '53, a Green Bay obstetrician, voiced what may have been on everyone's mind: "Is Brett Favre coming back?"

Class Notes *Compiled by Barbara Lukes*

Class of 1957

E. Richard Stiehm received the Special Recognition Award of the American Academy of Allergy, Asthma and Immunology in March 2009. The award was in recognition of his exemplary career devoted to immunologic disorders in children.

Class of 1960

Last spring, **Leslie M. Klevay** and his wife, Martha, visited fellow classmate **Jim Urban** and his wife in Arizona. In November, Klevay visited the universities of Padua, Pavia and Rome, where he lectured on Alzheimer's disease as copper deficiency, based on his recent paper. He has been part-time at the University of North Dakota School of Medicine and Health Sciences since his retirement from the Human Nutrition Research Center. Klevay is looking forward to his 50th class reunion in 2010.

Class of 1964

Robert D. Heinen retired December 17, 2008, from his position as medical director at Bethesda Lutheran Home and Services, in Watertown, Wisc. He plans to write several books and wants to continue to sing and be more active in church activities.

Class of 1980

John B. Herman is now chair of the Massachusetts Board of Registration in Medicine, which licenses the commonwealth's 36,000 physicians.

Steven J. Merkow, an orthopedic surgeon in Waukesha, Wisc., was recently appointed to the WMAA board of directors. He is also a member of the Wisconsin Interscholastic Athletic Association medical advisory board and is medical director of the Orthopedic Associates of Wisconsin Sports Medicine.

Class of 1983

John Carlson is a member of the Central Pennsylvania Risk Retention Group Board. He enjoys watching his daughter win the University Rifle Club's pistol match. Carlson's son attends Hofstra University.

Mark DeCheck is in family practice in Racine, Wisc. He is treasurer of the county medical society and a director of the Wisconsin Medical Society.

Peter Geldner lives in River Forest, Ill., where he enjoys boating, skiing and spending time with his family.

Christopher Huiras practices general and vascular surgery in LaCrosse, Wisc. He has an active life with his wife, Krista, and their many kids, dogs and cats. They enjoy sports, music, outdoor activities in the woods and on the water.

Gary Koritzinsky lives in Bethesda, Md., and has a private internal medicine practice. He is a member of the George Washington Hospital board of trustees and is medical director of the Pan American Health Organization.

Joann Lohr lives in Cincinnati with her husband, Michael Rierdon. When she isn't doing vascular surgery, she likes to train dogs.

Kevin Sandmire, an internist, is president of Prevea Clinic in Green Bay. He travels often and likes to play golf. He has been married for 24 years and has two sons, ages 20 and 17.

Dean Sienko, who lives in Williamston, Mich., has a daughter who is a member of the UW marching band and two sons who are avid tennis players. His standard poodle is a conformation champion.

Brian Smith has lived in Wausau, Wisc., for 22 years. He's been married for 10 years, with a blended family of four boys.

Meg Smollen is an obstetrician/gynecologist in Iowa City, Ia. She is a single mom with two young sons.

Michael Vrabec is an ophthalmologist living in Menasha, Wisc. He has two daughters, and recently celebrated his 26th wedding anniversary.

Class of 1992

Elise (Jochimsen) Beltrami was recently promoted to captain in the commissioned corps of the U.S. Public Health Service (PHS). She first joined the PHS in 1997 as an Epidemic Intelligence Service (EIS) officer with the Centers for Disease Control and Prevention (CDC). In 2002, she received her master of public health degree in health policy and management from Emory University. She now serves as the associate director for science for the Division of Healthcare Quality Promotion (DHQP) at the CDC. Elise is married to John Beltrami, MD (UW housestaff, 1990-91). They live in Decatur, Georgia, and are the parents of four-year-old twins.

Class of 1996

Matthew Geck is a spine surgeon in Austin, Tex. He recently founded the Spinal Deformity Foundation, and for the past two years has traveled to Coli, Columbia, to train doctors, service clinics and perform more than 50 surgeries. Geck is often referred to very complex cases of adult scoliosis, cervical myelopathy and pediatric scoliosis. He has been selected to receive a 2009 Forward Under 40 Award from the Wisconsin Alumni Association.

Class of 2000

Gerlyn Brasic, who lives in Bangor, Wisc., was certified by the American Board of Internal Medicine in hospice and palliative medicine in October 2008.

In Memoriam

Mary H. Schmidt '62
December 5, 2008
Marshall, Wisconsin

Carlos Parsloe, PG
January 19, 2009
Sao Paulo, Brazil

Goodbye, Respected Leaders

Derek J. Cripps, MD, the SMPH dermatologist who developed the sun protection factor (SPF) rating system commonly seen on sunscreen bottles, died January 23, 2009, in California. Cripps, 80, was born and educated in Britain, but did his residency at the University of Michigan. He was hired in 1965 by UW-Madison, where he did research and saw patients. Cripps began developing the SPF rating system in the early 1970s. He was also part of a team of researchers who won a federal grant to study porphyria in Turkey, from 1979 to 1984. Cripps and his wife, Eileen, had been married 45 years and lived in Madison.

Ronald H. Laessig, PhD, emeritus director of the Wisconsin State Laboratory of Hygiene (WSLH) and professor of population health sciences, died March 29, 2009, at his home in Madison. Laessig, 68, received his PhD in chemistry from UW-Madison. He became WSLH director in 1980 after serving 10 years as assistant director. He was an active researcher and speaker in the areas of clinical chemistry, laboratory quality improvement and newborn screening. After retiring in 2006, Laessig continued working on newborn screening issues at the WSLH. Laessig and his wife, Joan, had been married for 42 years.

Pizer Is Newest Board Member

Steven J. Pizer, MD '85, a general pediatrician from Kohler, Wisconsin, is the newest member of the Wisconsin Medical Alumni Association (WMAA) board of directors.

"Steve is a wonderful addition to the board," says Karen Peterson, WMAA executive director. "I'm thrilled that he has expressed an interest in working with students, as reaching out to them is always one of our most important strategic goals."

Pizer sees it as an opportunity to become more generally aware of and involved in the medical school's various activities.

"I'd like to encourage more local physicians to participate in the medical school Preceptorship Program, in which fourth-year students are immersed in clinical activities with physicians across the state," he says.

Pizer remembers his own medical student days fondly.

"I'll never forget the first day of my clinical rotation in pediatrics at the Gundersen Clinic in LaCrosse," he says. "The exposure to 'real world' medicine in this setting convinced me that pediatrics was my calling."

Pizer also recalls professor June Dahl, PhD.

"With her dynamic lecture style, she transformed pharmacology from a potentially dry subject into an interesting field of study."

In his clinical practice today, Pizer is interested in behavioral pediatrics, especially attention deficit disorder.

In his spare time, Pizer enjoys distance running, golf and reading American history. Hailing from a family with deep UW-Madison ties, he is a lifelong Badger fan.

Skochelak *continued from page 23*

management and health-care systems.

Skochelak quickly points out these accomplishments have been team efforts.

"One of the things I value most is the camaraderie and collaboration among my colleagues," she says. "None of this has been done by just one person."

Continues Skochelak: "Looking back and ahead, there are so many resources and opportunities I've been afforded to really make a difference. That was my goal when I came to Wisconsin—to make a difference and change medical student education."

Raised in rural Michigan and the first in her family to become a physician, Skochelak is married to physician-researcher Michael F. Fleming, MD, MPH, an SMPH professor of family medicine. Their youngest daughter is a second-year medical student.

"I always hoped she would choose to attend medical school," says Skochelak, who says she sometimes thought having two physician parents might scare her daughter away from the profession.

Skochelak looks forward to her new role with the AMA.

"I now have the opportunity to move from affecting *one* school to a position in which I will be able to affect *multiple* schools and more physicians," she says. "I will be part of the group that sets direction for where medical education needs to go in the future."

"Yes, We Do!"

Christopher Larson, MD '75
Editorial Board Chair

The Wisconsin Medical Alumni Association (WMAA) Winter Event is always a fun activity to look forward to. Over the past four years, we have given greater thought to choosing the setting, the night and the city than in previous years.

The 2006 event was held at the Wausau Club in Wausau; the 2007 event was scheduled for Marshfield, but had to be canceled due to bad weather. The 2008 event was particularly memorable because of its location at the dramatic Milwaukee Art Museum on Lake Michigan. Holding the event in exciting places and in different communities around the state helps us with our mission of keeping alumni connected.

This year, we chose Green Bay and planned well enough ahead to secure the Lambeau Field atrium, reception area and banquet halls. The location was a "big deal" and helped make attendance outstanding. Many of our alumni in attendance were from northeastern Wisconsin, and some were first-timers.

The event is a combination of an afternoon meeting of the WMAA's board of directors with invited representatives from the Medical Student Association (MSA). Seeing old friends and faculty, mixing with medical students at the reception and over dinner, and hearing an outstanding speaker were all reasons for added excitement.

The WMAA sponsored pre-reception tours to show small groups of alumni and their family members Lambeau Field's attractions. As we moved through the tunnel onto the field, our guide played recorded crowd noise, simulating the welcome the Packers hear while running into the south end zone, where the famous goal-line stand took place in the historic "Ice Bowl."

The cocktail reception gave us a chance to socialize before dinner and allowed many alumni to meet and visit with the five first-year and second-year medical students who are MSA representatives.

I asked Med II Joe Ebinger, MSA president and class co-president, how he liked the experience. He said, "It was great to be able to join with School of Medicine and Public Health alumni and discuss their medical school experiences, their practices and lives. Lambeau provided the perfect backdrop for the event and we all look forward to future interactions with our great alumni."

Med I Bob Zemple, class co-president, said that he felt the trip was very rewarding. Discussions at the board meeting particularly reassured him that the board values students' opinions and the MSA's input. He is convinced of the WMAA's solid commitment to the school and its students.

Zemple visited with alumni during the social hour and sat with WMAA president-elect Donn Fuhrman, MD '76. Their table's conversation included note sharing on families and friends.

Med I Allison Pratt was equally impressed.

"I really enjoyed getting to know the alumni, learning about how they chose a career, and updating them on the changes our medical school is making to better our education," she said. "I was very privileged to attend the board meeting and take the tour of Lambeau (awesome!)."

Together with Amrik Ray and John Tackett, these three medical students made the trip from Madison.

Dean Robert Golden gave us an official welcome and was available for questions before, during and after dinner. John Kryger, MD '92, provided the WMAA update, emphasizing opportunities to be part of the Middleton Society.

The keynote speaker, Packer historian Grant Turner, used his coaching skills to whip up the audience. His grasp of Lambeau lore, the teams, coaches and management were perfect for our group, who want to stay current on our Packers.

It was the first winter event for Jeff Hansmann, MD '92, who was part of a group that rode up on a bus from Sheboygan.

"Do you always have this much fun?" he asked.

"Yes, we do!"

Calendar of
Events

May 2009

MAY 7 – 10
ALUMNI WEEKEND

Thursday, May 7
5 p.m. Dean's Reception
Wisconsin Institutes for Medical Research

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
10 a.m. Brunch and Tours for Alumni and Students
Health Sciences Learning Center

FRIDAY, MAY 15
GRADUATION

10 a.m. Graduation Recognition Ceremony, Union Theater
7:30 p.m. Graduation Party, Monona Terrace Convention Center

October 2009

Sunday, October 4
1 p.m. White Coat Ceremony, Union Theater

OCTOBER 16 – 17
HOMECOMING WEEKEND

Reunions for classes of 1969, '74, '84, '89, '94, '99, and '04
Wisconsin vs. Iowa Football Game

PHOTO: UW-Madison University Communications

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.***

Name _____ Year _____

Home Address _____

City _____ State _____ Zip _____

E-mail Address _____

Recent Activities _____

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Observations

PHOTO: UW-Madison University Communications

After a long, cold winter, people take time to lounge on Bascom Hill and enjoy a warm spring afternoon.

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AND PUBLIC HEALTH