

UWWM TODAY

THE ALUMNI MAGAZINE OF THE UNIVERSITY OF WISCONSIN-MILWAUKEE

IS WATER THE NEW OIL?



UWM RESEARCH: PROTECTING A PRECIOUS RESOURCE
AND PROMOTING ECONOMIC DEVELOPMENT



FALL 2008
VOL. 10, No. 3

REGENTS APPROVE TWO NEW SCHOOLS

The University of Wisconsin System Board of Regents has approved requests to establish two new schools at UWM: The Joseph J. Zilber School of Public Health and a School of Freshwater Sciences, both of which will offer graduate programs.

The schools are aimed at improving the health of the people in the Milwaukee region as well as across the state. If they receive the final nod from the state legislature next year, the schools will be the first at UWM since the School of Allied Health Professions (now the College of Health Sciences) was established in 1975.

The requests were part of Chancellor Carlos E. Santiago's plan for transforming UWM into a research university that can drive Milwaukee's efforts to reinvent its economy.

The Milwaukee region suffers a distinct economic disadvantage, especially when compared to Dane County, says Santiago. He believes recovery hinges on increasing the number of people in the work force with college degrees – and on importing more creative minds to the area.

The City of Milwaukee needs to boost the number of its residents with bachelor's degrees from 18 percent to 36 percent if it is to remain competitive in the knowledge-based economy, Santiago said.



Rendering of the proposed Joseph J. Zilber School of Public Health

THIEL DESIGN

UWM RESEARCH ON LAKE TROUT COVERED BY NPR

Lake Michigan once held the largest population of lake trout in the world. But overfishing and predation by non-native species, such as the sea lamprey, brought lake trout to the brink of extinction.

The newest threat comes from the destruction of trout spawning sites by the non-native invasion of quagga mussels.

Today, there are very few known locations in Lake Michigan where trout spawn, and John Janssen, a senior scientist at UWM's Great Lakes WATER Institute, focuses his attention on these spots, trying to discover how – or if – a struggling population can re-establish itself.

He documents his findings with video shot in the deep waters of the lake's middle, using a submersible robot operated remotely from the deck of the research vessel Neeskay.

A video produced by National Public Radio's "Science Friday with Ira Flatow" follows Janssen and his research team as they search for baby trout at Lake Michigan's mid-lake reef. View it at sciencefriday.com/videos/watch/10120.



John Janssen's work is the subject of an NPR video.

ALAN MAGAYNE-ROSHAK '72

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UWM ESTABLISHES NEW DOCTORAL PROGRAM IN AFRICOLOGY

By *Laura L. Hunt*

Ten years in the making, a doctoral degree program in Africology will begin next year at UWM.

Approval from the University of Wisconsin System Board of Regents in June made UWM only the eighth university in the nation – and the only one in Wisconsin – to offer such a program.

Most of the other doctoral programs are at universities on the East and West coasts, including Harvard; Yale; the University of California, Berkeley; and Temple University.

“We’re talking about some of the strongest universities in the American academy,” says UWM Professor Winston Van Horne. “It will be good to have UWM situated among them.”

And yet, these few programs are not meeting the need for faculty in the discipline, says Associate Professor Joyce Kirk, chair of the UWM Africology Department.

UWM will be ideally positioned to educate the next generation of both global and local scholars and practitioners.

“A POWERFUL STATEMENT”

“The Regents’ approval is a powerful statement that demonstrates further testimony to UWM’s long-standing commitment to African American culture, heritage and community,” says UWM Chancellor Carlos E. Santiago. “Such a program will produce graduates who can enhance discourse on global and regional issues.”

The political, economic, social and cultural status of African nations affect other parts of the world, says Kirk, and the continent’s rich natural resources make it vulnerable to exploitation. But it also is a part of the world most people know the least about.

Graduates of the program will also fill a void in Wisconsin, says Van Horne.

“One can readily see individuals with this degree working in both the public and private sectors of society, especially in business and our public school systems,” he says.



Members of the Africology faculty (from left): Ahmed Mbalia, Doreatha D. Mbalia, Osei-Mensah Aborampah, Sandra E. Jones, Abera Gelan, Joyce Kirk, Winston Van Horne, Erin N. Winkler, Patrick Bellegarde-Smith. Not pictured: Anika Wilson and Armah Bartholomew.

A MAGNET PROGRAM

The approval of the doctoral degree, says Kirk, “sends a strong signal to Wisconsin and Milwaukee residents that this program is an institutional priority.”

She says about five candidates will be accepted the first year, and the department expects to attract applicants worldwide.

UWM’s Department of Africology currently offers a four-year bachelor’s degree, but does not offer a master’s degree. Instead, the Ph.D. program should take the average full-time student without a master’s degree about six years to complete. It could take less time for a student with a master’s degree to complete the doctorate.

There are currently 26 U.S. universities, including UW–Madison, that are turning out graduates with a master’s in Africology.

THREE AREAS OF FOCUS

UWM’s doctoral program will involve substantial cross-disciplinary collaboration.

The program is organized around three areas of focus:

- Political Economy and Public Policy
- Culture and Society: Africa and the African Diaspora
- A concentration outside the department in the student’s area of interest

Eleven faculty members in UWM’s Department of Africology teach and conduct research on a wide variety of topics pertaining to political economy and public policy, as well as the cultures and societies of Africa and the African Diaspora. They focus on countries such the U.S., Canada, Haiti, Ghana, Ethiopia, Malawi and South Africa.

FIRST IN THE U.S.

The department got its start on May 7, 1968, with the establishment of the Center for Afro-American Culture. The center began offering undergraduate courses in the 1968-69 academic year, making UWM the first four-year campus in the U.S. with a program in African American studies.

Besides UWM, Temple, Yale, Harvard and UC–Berkeley, other universities that offer a doctoral program in Africology include the University of Massachusetts–Amherst, Michigan State University and Northwestern University in Illinois, which began accepting students into its African American Studies Ph.D. program in 2006.

To read the complete entitlement document describing the proposed UWM doctoral program in Africology, log on to www.uwm.edu/letsci/committees/2008/fdn/fdn776.html.

STUDENT ENGINEERS DOMINATE BOEING FLIGHT COMPETITION

“We’re Number One!” has been the proud chant of a number of University of Wisconsin–Milwaukee teams. Few of them, however, have totally dominated their competitors for three years in a row like UWM’s chapter of the National Society of Black Engineers (NSBE).

Teams from the University’s College of Engineering and Applied Science (CEAS) have run up an amazing winning streak in the nationwide Boeing Flight Competition at NSBE’s annual convention. Teams compete in designing and flying a model aircraft made of balsa wood, powered by rubber bands. While it sounds simple, the competition requires sophisticated engineering skills.

In 2006 and 2007, UWM teams won first, second and third place. This year at the March event, UWM’s Firefly team took first place and its Black Panthers finished third.

Along the way, the teams have trounced competitors from powerhouse engineering schools like Massachusetts Institute of Technology and the Illinois Institute of Technology, larger programs like UW–Madison’s, and strong chapters from historically black colleges and universities like North Carolina Agricultural & Technical State University.

“Going to the national competition has been really astounding,” says Jared Outlaw, a May 2008 Electrical Engineering graduate who competed for UWM the past five years and now works for the Boeing Company in Philadelphia.

Outlaw weighed offers from We Energies and Boeing in the weeks leading up to graduation. Black Panthers team captain Olaleye Amoo is now at Toyota in Tennessee. A third UWM competitor, Tristan Hickman, graduated last December as CEAS Student of the Year. Hickman was instrumental in leading UWM NSBE teams in sweeping the competition in 2006 and 2007.



ALAN MAGAYNE-ROSHAK '72

UWM students competing in this year’s Boeing Flight Competition included (from left) Olaleye Amoo, Jarod Ballard, Worthington Hortman Jr., Jared Outlaw and Edwin Jones. UWM teams were By A Wing & A Prayer with Outlaw (captain) and Hortman; Black Panthers with Amoo (captain), Jeremy Mosley and Orville Clarke; Konichiwa with Tristan Hickman (captain) and Ballard; and Fire Fly with Jones (captain) and Patrick Ndon.

UWM GETS ITS THIRD ‘GREEN’ ROOF

It’s 33,000 square feet of seedlings now, but in a year, the spread of plants atop the Commons building of UWM’s Sandburg Residence Hall complex will fill in, making the roof truly “green.”

Sandburg students, University Housing officials and James Wasley, associate professor of architecture, turned a routine re-roofing project into the University’s third and largest green roof. Funding came from student housing fees and a grant.

Two other green roofs exist at UWM. One, installed in 2003, covers about 7,600 square feet of the roof on the Great Lakes WATER Institute. In 2007, the student environmental organization Ecotone put in a small (175 square feet) green roof adjacent to the east end of the Maryland Avenue footbridge.

The Sandburg Commons roof is a first step in a “storm-water master plan” devised by Wasley and his students. The plan’s aim is to cut the amount of storm-water runoff pouring off pavement and roofs and washing surface contaminants into Lake Michigan.

But a green roof also keeps the building cooler in the summer and warmer in the winter, reducing utility costs. And they have a longer lifespan than a more typical tar and gravel roof.

You can watch the green roof grow – go to University Housing’s live webcam: www.aux.uwm.edu/greenroof/.



Planting the new green roof on Sandburg Commons

something great in mind.®

THE STARS ARE OUT

With a newly renovated theater, freshly painted dome, Starry Nights software and upgraded projection equipment, the stars are shining brighter than ever at UWM's Manfred Olson Planetarium. The comfortable size of the 68-seat domed auditorium makes it an intimate and friendly space for learning about the skies, according to Planetarium Director Jean Creighton.

An array of new and continuing programming offer options for stargazers.

ASTROBREAKS

Astrobreaks is a free 35-minute lunch hour show from 12:10 to 12:45 p.m. on Wednesdays.

STARGAZING FROM THE PHYSICS ROOF

View the night sky from the observatory deck on the roof of the Physics Building on selected evenings, weather permitting. Last February more than 100 people gathered in subzero temperatures to view a total lunar eclipse and learn about other objects visible in the winter sky. Telescopes are available. Visit www4.uwm.edu/planetarium for scheduled stargazing sessions.

FRIDAY NIGHT SERIES

Sky shows are held in the planetarium every Friday from 7-7:55 p.m. The current show, which runs through Oct. 31, examines the Northern Lights. Shows also include a tour of the current night sky and a Q&A session. Cost is \$1. Programs are intended for adults and children 5 and older; no reservations required. The theater is wheelchair accessible.

JOURNALISM STUDENTS 'THINK GREEN NOW' AND WIN NATIONAL AWARD

A creative team from UWM's Department of Journalism and Mass Communication bested students from state universities and art institutes nationwide in a college competition sponsored by the American Public Transportation Association (APTA).

Students enrolled in the department's Advertising and Public Relations Campaigns course (JMC 524) earned second place after a presentation and reception in Washington, D.C., this May.

The APTA and Edventure Partners commissioned 12 college teams to create a campaign promoting mass transportation among consumers aged 18-25. Working with course instructor Becky Crowder, the class produced four Internet videos and the slogan "Think Green Now, Thank Yourself Later," to promote mass transportation. The team was awarded a cash prize to benefit the journalism department and a slot in next year's competition. To view the entire campaign, go to myspace.com/groreeninja.

For the spring 2009 semester, Crowder's JMC 524 class will function as a marketing communications agency for the Office of the Director of National Intelligence (DNI), competing against nine other schools to deliver a comprehensive brand strategy for the DNI.

SCHOOL GROUPS AND PRIVATE PROGRAMS

The planetarium also offers programs for school groups, with curriculum suited to the age group. Other programs are available for groups up to 75 people. The cost is \$25 per program. To schedule a private program, call 414-229-4961.

For details on show schedules and more information, check out the planetarium's Web site at www4.uwm.edu/planetarium.



Jean Creighton, director of UWM's Manfred Olson Planetarium, in the planetarium's newly renovated theater

ALAN MAGAYNE-ROSHAK '72



A still from the award-winning "Think Green Now, Thank Yourself Later" campaign: The Green Ninja demonstrates the "I'm going to be sore tomorrow" stance.

T.J. DINSMOOR

UWM STAFFER MAXING OUT HER MPG

By Kathy Quirk

These days, it's not how fast you go, it's how little gasoline you use along the way.

Debbie Anders, a service assistant in the UWM Libraries, has made good gas mileage an art form. She usually averages 50 miles per gallon on her commute from Milwaukee's South Side to the UWM campus in her Ford Escape Hybrid SUV.

Anders is one of a small but growing number of "hypermilers" – car owners focused on mpg (miles per gallon) rather than mph (miles per hour) who compete to see who can get the most mileage out of a gallon or tank of gas.

Anders (whose online hypermiler name is *debbiekatz*) and her SUV recently took part in a miles-per-gallon competition in Indiana, where she wrung 70.2 mpg from her tank.

At last year's Hybridfest in Madison, her SUV came in first and third in the competition for large hybrids – third with 48.5 mpg when she was driving it, and first with 60 mpg when a fellow hypermiler, a retiree from Florida, took it around the Madison course.

"He's someone who's really focused on this," says Anders. "He's even read and understands the patents for the Escape Hybrid."

At the third annual Hybridfest this July, Anders logged 51.9 mpg in the MPG Challenge – 57 percent better than the EPA ratings for her vehicle.

Anders became more focused on conservation after 9/11, and got interested in hypermiling shortly after buying her car. The government rates the Escape SUV as good for 31 miles per gallon on the highway and 36 miles per gallon in the city. She needed a larger family car, since her husband is over 6 feet tall, but she was concerned about gas mileage. The SUV hybrid fit the bill.

HOW HIGH CAN YOU GO?

She soon found that if she drove carefully, she could improve on the rated mileage. As her mpg began to rise higher and higher above the average, and her ability to eke more miles out of each gallon increased, she began to wonder how high she could go. She started actively seeking information on improving mileage. "I went online and began looking for information on hybrid cars, and reading blogs."

Her husband occasionally teases her



ALAN MAGAYNE-ROSHAK '72

At the July HybridFest MPG Challenge in Madison, Debbie Anders averaged 51.9 mpg in her Ford Escape SUV.

– "He says I drive like a grandma" – but Anders persists. And, occasionally, he complains about the bumpy ride on the car's highly inflated tires that help improve gasoline mileage, but "he never complains when the gasoline bill comes in."

Her tips for getting better mileage are generally pretty simple, and most work for conventional vehicles as well as hybrids:

- Keep the speed down.
- Accelerate slowly.
- Inflate the tires to the maximum recommended by the manufacturer.
- Coast when you can.
- Pay attention to what's happening ahead of you so you don't have to stop.

Anders has been known to creep up on red lights so she can catch the green and avoid stopping. "Many Milwaukee streets have timed lights, so once you make the first light, you can keep going."

PROUD OF THE NUMBERS

A few techniques are specific to hybrids. Anders figured out that starting out slowly from a stop allows her to run on just the electric engine up to about 30 miles per hour, for example. "My husband thinks I'm a little obsessive, but he's proud of me for the numbers that I get," says Anders.

Unlike some hypermilers who drive super slowly to save on gas, Anders generally tries to fit in with the traffic around her and not annoy other drivers. She observes the minimum legal speed limit and avoids coasting when she's in a situation where other drivers are around.

If there's a place to pull over to let an impatient driver pass, she'll do that.

"Occasionally someone tailgates me to make a point," she says with a smile. "I try not to be antagonistic." And when an impatient driver roars past her to get to a red light, "I try not to gloat when I pull up alongside. I'm smiling all the way to the bank."

The Hybridfest MPG Challenge in Madison is run in just such real-life conditions. Drivers are given a 26-mile route through Madison streets with regular traffic. They also have to complete the course in a minimum time – so if they drive too slowly they're disqualified. Aside from the challenge of getting those mpg numbers higher and higher, and competing in Hybridfest, Anders feels she's doing something for the environment, too.

"I'm just one little person doing one little thing, but when you get a lot of people doing a lot of little things, that starts to make a difference."

For more information about hypermiling and increasing mileage, here are some resources Anders suggests:

- www.cleanmpg.com – fuel economy and hypermiling.
- www.hybridfest.com – watch for Hybridfest news.
- www.Madisonhybridgroup.com – Madison Hybrid Group
- www.milwaukeehybridgroup.com – Milwaukee Hybrid Group

IS WATER THE NEW OIL?

UWM RESEARCH: PROTECTING A PRECIOUS RESOURCE AND PROMOTING ECONOMIC DEVELOPMENT

By Laura L. Hunt

Konstantin Sobolev (left), associate professor of civil engineering and mechanics at UWM, is working with Procorp Enterprises President Franz Hoffmann to produce a "greener" concrete from limestone pellets produced as a byproduct of new water-filtering technology.



Does Southeastern Wisconsin, backed by a core of aquatic research at UWM, have what it takes to become the world leader of new technologies in freshwater?

With cities both at home and abroad experiencing debilitating shortages, a new consciousness about supplies indicates that freshwater could soon surpass oil as the most sought-after commodity.

Until this year, for example, the City of Chicago hadn't metered its municipal water. Lake Michigan afforded a seemingly infinite supply. But for Chicago to switch over to tracking its water usage, someone will have to provide implements such as pumps, tanks, valves, meters, flow monitors, sensors, filters and membranes.

Chicagoans may be surprised to learn that only 80 miles north of them is the home of Badger Meter Corp., A.O. Smith and 35 other Southeastern Wisconsin companies that make or provide components for water systems and infrastructure.

This group is part of a list of more than 100 freshwater-related industries in the Milwaukee area compiled by Sammis White, director of UWM's Center for Workforce Development and a professor of urban planning, and his graduate students.

UWM Chancellor Carlos E. Santiago and members of the Milwaukee 7 (M-7) economic development group believe the city can lay claim to the title of "freshwater technology capital of the world" because of its concentration of water-related companies and freshwater research – including UWM's Great Lakes WATER Institute, one of the largest aquatic research centers on the Great Lakes.

U.S. Sen. Herb Kohl is convinced. He recently directed \$300,000 in federal funds to help UWM establish a high-tech business accelerator in close proximity to its WATER Institute. The money was approved by the Senate Appropriations Committee for fiscal 2009 and will be sent to the full Senate for consideration later this year.

"The freshwater industry holds tremendous promise and potential for the City of Milwaukee, and the surrounding area, in terms of economic and job growth," Kohl said at the Milwaukee Water Summit II in July. "With these funds, UWM, a freshwater research leader, can help establish this new facility that will help businesses grow and secure the city's place as a global capital of this vital industry."

The Milwaukee Metropolitan Sewerage District has also awarded the WATER Institute a grant this year – for modeling and management of polluted storm-water runoff. Two companies – Veolia Water, and Brown and Caldwell – have contracts from that funding. Both employ UWM graduates from the water resources and environmental engineering program in UWM's College of Engineering and Applied Science.

A highly managed natural system, the lakes are susceptible to stresses from changing climate, pollution and alterations in ecology. At the same time, the local economy depends on Lake Michigan, especially businesses that use large amounts of water, like breweries, paper mills and power generators.

"Research has two components," says J. Val Klump, director of the WATER Institute. "Basic scientific research, because we don't know beforehand what the most pressing problems will be, and research that has an immediate commercial application. We need both kinds."

Connecting the parts

It was Santiago who proposed the idea of a freshwater economic cluster last year when he told the University of Wisconsin System Board of Regents that UWM would target its investment in areas where strengths already exist: health care, advanced manufacturing, biomedical engineering and freshwater (see "From the Chancellor" on page 2).

"The question was, 'Do we really have enough here to start to build a global hub in water technologies?'" White says. The idea is to replace the old-economy industries with new high-tech, high-demand businesses, like wastewater treatment.

It is already happening, he says.

Five of the 11 largest water treatment companies in the world



J. Val Klump (left), director of UWM's Great Lakes WATER Institute, with Sammis White, professor of urban planning and director of UWM's Center for Workforce Development. White and his graduate students recently compiled a list of more than 100 freshwater-related industries in the Milwaukee area.

have a presence in the Milwaukee area, White says, including Veolia Water, GE Water & Process Technologies, Pentair Inc., ITT Corp. and Siemens AG.

The inventory also includes about a dozen environmental engineering firms that have developed their own intellectual property around water treatment.

The growth of such companies in Wisconsin began long before now, says White. The state has always been a leader in the regulation of water quality, so new technologies were needed to meet state mandates.

Now, with the global concern about water purity and supplies, consumer demand is rising, too. New technologies for wastewater treatment and protection is essential if the Great Lakes, the greatest single freshwater resource on the planet, are going to last. The demand for freshwater technology is estimated to be a \$400 billion-per-year business globally, and the U.S. is the largest market at \$100 billion per year.

Supply, demand and research

"Water is one resource we cannot import from China," says Franz Hoffmann, president of Procorp Enterprises and a member of the M-7. "We need local solutions, improved efficiency and increased sustainability."

New, more efficient desalination processes (to remove salt and chloride from water) are in highest demand globally, and one of many technologies his company researches. An asset of being in Milwaukee, he says, is that the membranes used for such processes are made here.

Procorp has developed a way to soften water that eliminates the use of chloride salts completely. This method extracts the calcium, along with dissolved carbon dioxide, by producing limestone pellets. Now the company is working on expanding the method to remove radioactive radium from well water as part of the softening process.

Testing the technology in Waukesha, where radium in well water has been a problem, Procorp erected a 25-foot-tall reactor that is removing radium, calcium and dissolved carbon dioxide from the water. However, the limestone pellets produced here

inherently contain traces of radium.

To find a sustainable reuse solution, Hoffmann is working with Konstantin Sobolev, a UWM associate professor of civil engineering and mechanics, who believes the pellets can be used as a filler to reduce the amount of cement used to make concrete and at the same time improve concrete flow and quality. That would produce a “greener” concrete because it cuts the corresponding amount of carbon dioxide emissions from cement.

“Things are falling into place,” says Hoffmann. The next step is to knit the individual pieces – the academic and the industrial – together, something Santiago hopes the new business accelerator will accomplish.

First new school in 24 years

To expand this economic cluster, Santiago says, the region will need not only research, but a skilled work force. That’s why he is asking the Wisconsin Legislature to approve UWM’s request to launch a School of Freshwater Sciences.

The proposed school will be the first of its kind in the country because it will emphasize the blending of two historically competing goals – human productivity and ecosystem sustainability.

“Now more than ever, we need science to understand waterborne threats to human health and the lakes’ surprisingly fragile ecosystem,” says the WATER Institute’s Klump. “But we also have to address sound management, and protection, restoration and remediation strategies that are both effective and cost-efficient.”

With 12 scientists, the WATER Institute conducts work in sources and remediation of contamination in the lake, the impact of invasive species and other ecological threats, marine engineering, technologies to protect drinking water and the effects of pollution on human health using fish as models.

With the WATER Institute as its core, the proposed School of Freshwater Sciences would offer doctoral and master’s degrees in freshwater sciences, along with research opportunities for undergraduate students in a variety of majors.

Graduates would be prepared to work in fields such as:

- monitoring and sensor technologies
- wastewater treatment and purification
- healthy food production
- freshwater policy issues
- legal issues and risk assessment
- redesign of industrial systems to mimic biological systems

In addition to the Great Lakes, students in the school would examine freshwater issues of all Wisconsin streams, rivers and lakes, says Klump.

If UWM receives the final nod from the state legislature next year, the proposed School of Freshwater Sciences and UWM’s proposed School of Public Health will be the first new schools here since the School of Allied Health Professions (now the College of Health Sciences) was established in 1975 (see page 3 for more on the proposed new schools).

The WATER Institute’s \$5.9 million annual budget will become the core budget of the proposed school, with an additional allocation from the state to hire more faculty members who can help boost the school’s research funding from other sources.

Such a school would not only educate Milwaukee’s future leaders and create new knowledge, says White, but also help gather momentum.

“It would bring more attention to the problem and, with that, greater resources to apply to it,” White says. “Local business can then benefit from both.”

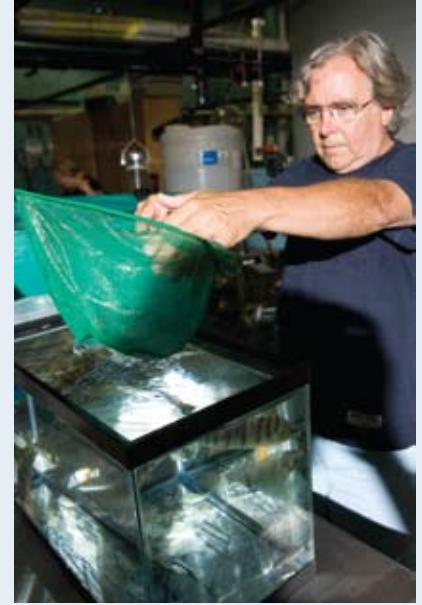
What is aquaculture?

Aquaculture, or fish farming, is the fastest growing segment of U.S. agriculture, and the only way to keep dwindling numbers of species like yellow perch from disappearing because of over-harvesting from the lake.

It also is an opportunity for Milwaukee to feed its economy. The business potential certainly exists: The commercial aquaculture industry in the Great Lakes and North Central region generates less than 4 percent of all U.S. fish production.

And urban aquaculture can also cut shipping costs and create jobs in economically deprived communities.

UWM’s Great Lakes WATER Institute is working on commercial technologies to make freshwater fish production sustainable, affordable and healthier through its Great Lakes Aquaculture Center, supported by the U.S. Department of Agriculture. Here is a sample of that work:



Senior Scientist Rick Goetz adds small yellow perch raised at the WATER Institute to an aquarium. Brood stocks created by Goetz produce fingerlings that grow twice as fast as yellow perch found in Lake Michigan – good news for the aquaculture industry.

- Senior Scientist Fred Binkowski is the first in the world to breed yellow perch year-round, successfully producing tens of thousands of progeny. Through careful manipulation of temperatures and other environmental factors, he developed a patented method to get the fish, a dwindling species in Lake Michigan, to spawn more often. The method will soon be licensed by a commercial aquaculture company, and will allow the company to produce more fish in the same amount of time.
- In partnership with WATER Institute scientists, the central-city organization Growing Power is testing a method of using plants from its community garden to support a cost-efficient system of aquaculture. The staff at Growing Power is raising 10,000 perch that were born at the institute and transferred as fingerlings. Their cost-efficient system consists of an 8,000-gallon trench on the floor of a greenhouse, with two levels of edible plants on top. Waste from the fish provides nutrients for the plants, and the plants cleanse the water for the fish. “It’s a system that closely replicates nature,” says Will Allen, Growing Power’s CEO and founder.
- Senior Scientist Rick Goetz is developing yellow perch that can produce fingerlings that grow larger and do it faster. Goetz also analyzes how fish immune systems respond to pathogens. By studying the behavior of fish genes, he is finding ways to control disease, and increase the health and hardiness of brood stocks for the aquaculture industry.

— Laura L. Hunt

TESTING THE WATERS

UWM can boast a broad range of multidisciplinary research in freshwater issues – from ecological and environmental health to fisheries and aquatic technology. Nearly 80 faculty members and scientists are funded by grant money or have intellectual property involving water issues.

ROBERT BURLAGE **Professor, Health Sciences**

Since the 1993 outbreak of the tiny parasite *Cryptosporidium* in Milwaukee's drinking water, safeguards have been put in place to remove the environmentally tough oocysts from the water supply. But the oocysts, spores that can survive for a long time outside their host, still lurk in the lake and in freshwater rivers.

Counting the oocysts in a water sample is one way to keep track of their potential for infection. However, many of these oocysts may actually be dead and pose no risk. Burlage (shown here with a graduate student) has developed a method to determine whether the oocysts are alive, offering a clearer picture of where the live oocysts may be hiding. His intellectual property, managed through UWM's Research Foundation, could offer a better method of determining risk to the community's drinking water.

JERRY KASTER **Professor, Biological Sciences**

Kaster specializes in benthic ecology – the study of the organisms living in and on the sea floor – and has studied the effects

of invasive zebra mussels before they were even introduced into the Great Lakes.

He is currently working with one of the largest consulting firms in the country to determine whether coal, taconite and limestone debris that is swept into Lake Michigan from cargo ships provide another surface for zebra mussels to colonize. Kaster has a patent on a method to keep zebra mussels off the

critical controls on locks and dams. And he has created a biosensor for water toxins by outfitting zebra mussels with electrodes that record when the organism reacts to a contaminant by "fluttering" its shell.

DOUG CHERKAUER **Professor, Geosciences**

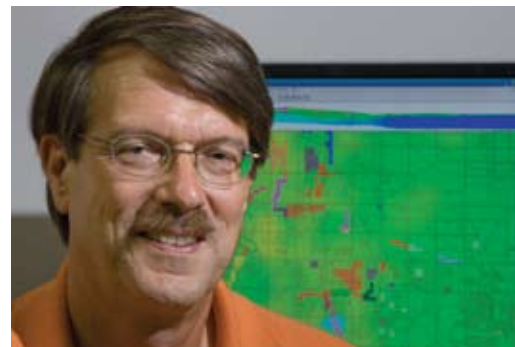
A hydrogeologist, Cherkauer specializes in groundwater issues. He has studied the declining groundwater levels throughout Southeastern Wisconsin. Increased population and development have depleted the amount of groundwater, leaving some aquifers with increasing pumping costs and levels of radium beyond the federal limit. Cherkauer, working with the U.S. Geological Survey and Southeastern Wisconsin Regional Planning Commission, is using a groundwater flow model to predict

where the worst problems are and to examine management options to keep water supplies at sustainable levels.

REBECCA KLAPER **Shaw Assistant Scientist,** **Great Lakes WATER Institute**

Klaper studies the presence and effect of residual prescription drugs and nanomaterials that pass through the sewage treatment process and into the lake unaltered. Trace amounts of these have been found in drinking water. Nanomaterials are molecules designed for a range of purposes – from making fabrics stain-resistant to delivering drugs to a targeted internal organ.

By studying the effects of exposure to these substances on fish and other marine life, Klaper is determining whether they pose a threat to human health. She tracks the genes of exposed fish and their embryos to reveal developmental effects that can lead to illness.



UWM PRODUCES A SEA OF FRESHWATER RESEARCH

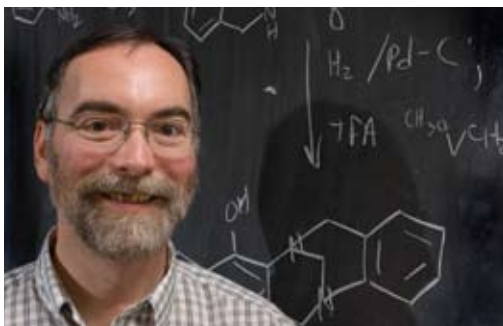
By Laura L. Hunt



PETER GEISSINGER and ALAN SCHWABACHER
Associate Professors, Chemistry

Geissinger (left) and Schwabacher have developed a fiber-optic

system that would safeguard drinking water by continually monitoring treated water for the presence of harmful compounds. This system features an array of sensors placed on optical fibers at various points inside water distribution pipes. Light pulses traveling through the optical fibers allow for remote readout of the sensors. The presence of harmful compounds would be indicated immediately by changes in the light pulses from the sensors. Such a system is capable of monitoring the water in distribution pipes for many harmful pollutants simultaneously.



Immersing herself in water purification

Graduate student gets a world-view of water issues

To get to freshwater, the residents of Quejchip, Guatemala, walk several hours over rugged terrain. And the water they tote back to the village must then be treated for illness-causing bacteria, such as *E. coli*.

Working in Quejchip this year, UWM graduate student Marissa Jablonski got a firsthand look at the daily challenges water poses for people in developing nations. Through UWM's newly formed chapter of Engineers Without Borders, students are designing a gravity-fed portable water collection and distribution system and developing a treatment plan for the village.

But the U.S. isn't immune from water problems, either. It's one reason Jablonski is pursuing a master's degree in water quality, working with UWM associate professor and environmental engineer Jin Li in the College of Engineering and Applied Science.

"Water is the future, so when it came to what to do in graduate school, I decided this is where the opportunity was," Jablonski says. "And I was going to take it."

This year, she joined the ranks of 1,600 U.S. graduate students who were "runners-up" for the prestigious Graduate Research Fellowship from the National Science Foundation. With guidance from Li, she submitted her research on how the microbe *E. coli* is transported by water.

The apparatus she uses to conduct the work mimics the paths that bacteria take as water moves them through soil. Using tubes filled with fine grains of material only 550 micrometers in diameter, Jablonski can measure the microbes' adhesion to the "soil" and how fast they travel through it.

Transport of contaminants is one specialty of Li, who joined the faculty in 2001. She also conducts research in wastewater treatment, water purification and microbial biofilms – the layer of bacteria that forms on a surface.

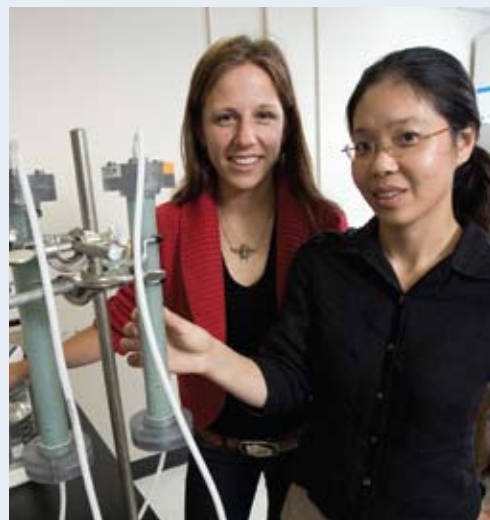
In fact, Li is looking at ways both to use the microbes for purification and also remove them from water supplies.

She investigates processes in which the bacteria in the biofilm remove waste from water by eating it. But since the biofilm can also line the distribution pipes of municipal drinking-water systems, she also wants to keep it from contaminating the water as it flows through.

"She's such a go-getter, and very high-energy," says Jablonski of her graduate professor.

The enthusiasm must have rubbed off. Jablonski plans to go on and complete a doctorate in her field, and possibly become a university professor.

"I really like the connection between water, health and education," she says.



Engineering graduate student Marissa Jablonski (left) and her adviser, Associate Professor Jin Li, are researching the transport of contaminants using equipment that simulates bacteria, such as *E. coli*, being moved through soil by water.

PETER JAKUBOWSKI '07

—Laura L. Hunt

Three major gifts keep WATER Institute moving forward

Ahead of formal approval from the Wisconsin State Legislature for a new School of Freshwater Sciences (see story on p. 3), UWM's Great Lakes WATER Institute has secured three major gifts that strengthen its role as a research and policy engine in the field of freshwater sciences.

Blueprints for a new Neeskay: Linda and John Mellowes

Plans to replace the Neeskay, the WATER Institute's 56-year-old research vessel, have taken a critical step forward through a donation from Linda and John Mellowes. The Institute has been consulting with marine engineers and naval architects on the initial plans for the new vessel: line drawings, a scale model, and detailed blueprints and engineering specifications.

"Without this design work, an accurate final cost analysis and budget figure to actually build the new research vessel cannot be obtained," explains J. Val Klump, director of the WATER Institute. "In addition, the design work will be instrumental in making future presentations come alive for potential donors when the campaign to build the new vessel is launched."

Bradford Beach Blue Wave Campaign: MillerCoors

The WATER Institute's work on the Bradford Beach Blue Wave Campaign, a collaborative effort drawing in county and private-sector partners, is the recipient of a \$125,000 charitable grant from MillerCoors. Earning Blue Wave Beach environmental certification would be a mark of prestige for the historic beach's renovation campaign, making Bradford only the second Blue Wave beach in Wisconsin.

Specifically, the MillerCoors donation supports the WATER Institute's examination of the beach's water quality, including two water-based platforms that provide ongoing water monitoring, webcams with a panoramic view of the beach and weather overlay, assessment of local stormwater management, and the preparation and submission of certification documents.

Graduate Research Fellowship: James E. Dutton Foundation

A donation from the James E. Dutton Foundation bolsters the WATER Institute's research program by providing \$75,000 to support a Graduate Research Fellowship. The fellowship will pave the way for a new freshwater scientist at the WATER Institute.

The Institute's new graduate program in freshwater studies is clearly aligned with the Dutton Foundation's environmental interests. As stated in the Institute's grant materials: "A guiding theme of our new graduate program in the study of freshwater is the interaction among the biological, hydrological, geochemical, ecological and social dynamics of freshwater systems."

—Angela McManaman



An artist's rendering of the WATER Institute's proposed new research vessel. Designed "from the keel up," it will operate as a one-of-a-kind, multidisciplinary floating laboratory.

GET READY...GET SET...PROWL Fourth Annual Panther Prowl Oct. 12



Attention all runners and walkers: The UWM Alumni Association's fourth annual Panther Prowl 5k run/walk kicks off at 10 a.m. on Sunday, Oct. 12.

Form a team or stride along on your own! This certified 5k will be run again in 2008 on pathways that cross the campus and wind in and out of beautiful Upper Lake Park. Proceeds benefit UWM student scholarships and alumni programming. Last year, a record 1,050 runners and walkers participated in the event, which raised more than \$135,000 in cash and in-kind products and services.

Advance online registration is now under way, with early-bird fees available at \$20 for adults and \$15 for students and children through Oct. 3. After that, fees will be increased to \$25 for adults and \$20 for students and children.

Participants may also register by filling in and submitting the form in the Panther Prowl brochure bound into this issue of *UWM Today*.

Last-minute entrants can sign up on the day of the event in the UWM Union Concourse, beginning at 8:30 a.m. and continuing until 9:45 a.m.

Prizes will be awarded to individual runners in several age categories, to the largest and fastest teams of 10 or more members, and to those who raise significant pledge dollars.

The event culminates in a giant party on Spaight's Plaza, where the awards will be presented and Prowl participants can enjoy music, great refreshments and a chance to relax after a brisk spin through the course.

For more information about Panther Prowl 2008, keep an eye on the event Web site at www.pantherprowl.net or contact Peppy O'Neill in the UWM Alumni Office at 414-906-4655 or peppy@uwm.edu.





Chancellor's Society gathers at the WATER Institute



Members of the Chancellor's Society for 2007-08 gathered for a reception in their honor on July 16 at UWM's Great Lakes WATER Institute. Around 200 guests enjoyed a fish dinner prepared by Research Specialist Don Szmania and other WATER Institute staff members. They also were treated to tours of the facility, highlighted by visits to the aquaculture tanks, the robotics and instruments shop, and the Neeskay research vessel.

The evening's keynote address by Chancellor Carlos E. Santiago stressed the importance of the Chancellor's Society, its members, and all that they have helped accomplish at UWM. In addition, the Chancellor spoke about the significance of the Great Lakes WATER Institute and the proposed School of Freshwater Sciences, and their value to UWM and the entire Milwaukee community.

The Chancellor's Society honors the exceptional generosity of alumni, parents and friends, as well as corporations and foundations, who contribute \$1,000 or more to the University during the fiscal year. Donors may elect to designate their gift to one school, college or program, or to divide their giving among several recipients.

For information on the Chancellor's Society, contact Stephanie Ackerman at 414-229-3018.



UWM

WATER
Institute

Great Lakes
Research Facility

600



NEESKAY

JOURNALISM MAJOR CHASES STORMS...

By Angela McManaman



Stevens captured this 2006 lightning strike from his dormitory window on the 18th floor of Sandburg Halls' South Tower, looking south over the city.

AND CLEANS UP AFTER THEM

Kyle Stevens has a complicated relationship with Wisconsin weather.

This past June he spent weekdays piling sandbags to prevent flooding in his native Janesville, Wis. As a city worker he also cleared away debris left in the wake of storms that devastated the Midwest last summer.

they're capable of – how they affect a community.”

Or, how they could affect him. On the morning of June 12 Stevens was in his car in southern Dane County, watching for rotating clouds as they grew into wall clouds – typically the final step before a funnel cloud forms.

“With infrared photography everything becomes new again,” Stevens says.

“Infrared photography doesn't capture heat; it's not thermal. It takes invisible light and reflects it back, giving you a new avenue to see very familiar things.”

A few of his favorite infrared subjects are very familiar indeed: UWM's Merrill

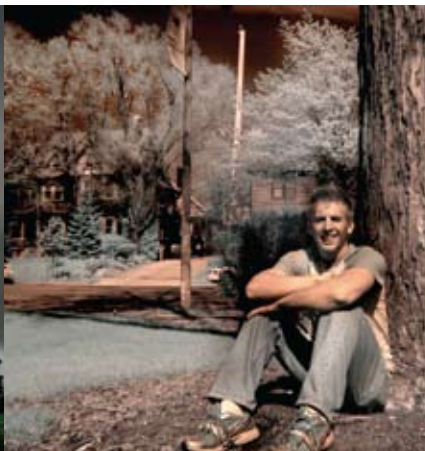


Stevens captured the edge of this rotating storm cloud along the edge of Green and Dane counties on June 12.

Afternoons and weekends, he lived a double life: chasing storms and following funnel clouds as a photographer.

It's a hobby that has captivated the journalism major since his middle-school days. He admits that the dual role he played this storm season has him seeing funnel clouds and thunderstorms a bit differently.

“After a couple years of chasing, seeing the destruction from this year's storms has opened my eyes a little bit,” says the UWM senior. “Week after week of sandbagging made me think maybe I haven't been as sensitive as I could be when it comes to these storms and what



Self-portrait in infrared

A radio announcement indicated that funnel clouds were expected imminently at a particular intersection. Stevens looked out his car window at the street signs and realized he was at that intersection; the clouds were on their way.

“I definitely moved my car,” says Stevens. “But I ended up being only about 200 yards away as the clouds touched down, picked up, touched down again.”

The following weeks proved quieter, so Stevens indulged in another artistic passion: infrared photographs of nature and architecture.



The fountain east of the Golda Meir Library in infrared

Hall, Curtin Hall and the fountain that sits east of Golda Meir Library.

The infrared photos above were taken during the spring semester of 2008 in lots of sunshine, when infrared photography works best.

Although he's a student of print journalism, Stevens also is exploring professional photography. His ideal job? Remaining in the Midwest as a photographer for the Associated Press.

Read Kyle Stevens' writing and see more photos at kstevensphoto.com.

CLASSNOTES

1960s

Mary Morrison ('65 BA, '67 MBA) received the 2008 Amy J. Blue Award for her services in the Stanford University Financial Aid office. Morrison came to Stanford in 1987 as director of funds management.

1970s

June (Martin) Perry ('71 MS Social Welfare), co-founder of New Concepts Self-Development, was selected as Fellowship Open's honoree for this



year's annual charity golf event held in August at the Silver Spring Country Club. Fellowship Open is the largest golf tournament of its kind in Wisconsin and supports youth organizations in Milwaukee.

in Sun Prairie, WI, has been named to Informa Investment Solutions PSN's list of "Top Guns" managers. Informa creates a Top Guns list of the 10 best-performing money managers in the United States for each equity style. Holt-Smith Advisors' Large Cap Value product was named to the Top Guns listing

based on its strong performance for the quarter and the one-year ending March 31.

Julie E. Kendall ('78 MA Communication), professor of management at the Rutgers School of Business—Camden, has become only the second educator at a New Jersey university to be inducted as a Fellow of the

Decision Sciences Institute (DSI). She is only the ninth woman to receive this coveted international honor, considered among the highest for scholars in this field.

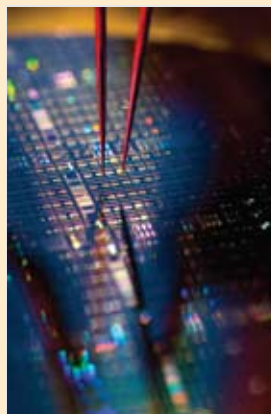
Joseph Henry ('79 BA, '84 MS History) received a Doctorate in Education, Child and Youth Studies from Nova Southeastern University, Fort Lauderdale, FL, in 2007.

1980s

Michael Koren ('80 BS Education, '85 MS Curriculum & Instruction) received the 2008 Kohl Award from the Herb Kohl Educational Foundation. This award is given annually to 100 teachers across the state. Koren teaches at Maple Dale School in Fox Point, WI. He is on the Board of Directors of the National Council for the Social Studies and serves as treasurer of the Executive Board of the Wisconsin Council for the Social Studies. He is included in the 2008 and 2009 editions of the Marquis "Who's Who in America."

Alan Magayne-Roshak

('72 BA Art History) won a third place award in the University Photographers Association of America (UPAA) annual print competition. The photo was entered in the Science/Research category, and pictures a biosensor and test probes from the lab of Professor David Klemer. Photos were judged at the UPAA 2008 Symposium at Auburn (AL) University.



Michael G. Deeken, M.D. ('74 BS Medical Science, '08 MS Anthropology) is a psychiatrist and addictionologist at Aurora Psychiatric Hospital in Wauwatosa. His master's research thesis was on the relationship between prenatal testosterone and the development of Obsessive-Compulsive Disorder.

Michael French ('76 BS Nursing) retired on June 2 after 25 years with Holy Family Hospital in Spokane, WA. For his first nine years he served as clinical director of anesthesia services. After that he became a full-time staff Certified Registered Nurse Anesthetist (CRNA) in the obstetrics practice. The hospital honored him with its Employee of the Year Award in 2007. He and his wife celebrated their 30th wedding anniversary in June.

Marilyn Holt-Smith ('76 BA, '78 MBA), owner of Holt-Smith Advisors

SAVE THE DATES!

ALL MAJORS CAREER DAY

Thursday, October 16

9 a.m.-2 p.m., UWM Union Wisconsin Room

Whether your goal is meeting potential employers for internships or full-time opportunities, exploring career options or developing your networking skills, All Majors Career Day is for you.

Sponsored by UWM's Career Development Center (CDC), this free event is open to UWM students and alumni, and students of other UW schools. More than 90 regional and national employers and several graduate and professional schools were represented last year.

For more information, visit the CDC Web site at www.uwm.edu/Dept/CDC/cdc_careerday.html or contact Ada Walker at awalker@uwm.edu.

ALUMNI SPEED NETWORKING EVENT

Thursday, October 16

6 p.m., UWM Union Ballroom East

Seeking new business or career opportunities? Want to learn how to network or grow your network? This Speed Networking event will allow you to meet with fellow alumni and employers in a professional networking setting. Professor Kathryn Dindia of the UWM Department of Communication will give a short presentation on professional networking skills. No networking experience required.

For more information or to register, contact Cindy Petrites at petrites@uwm.edu.

UWM ALUMNI ASSOCIATION'S 'REDS, WHITES & BREWS'

Thursday, February 26, 2009

Lakefront Brewery



Join the fun at Lakefront Brewery. Mingle with fellow alumni and friends while sampling a variety of wines and beers and bidding on great items in the silent auction.

Contact Amy Lensing Tate at lensing@uwm.edu for more information or to get involved.

KEEP IN TOUCH! SEND IN YOUR CLASS NOTES NEWS

Won an award? Started a business? Had an adventure? We'd like to hear about it. E-mail your Class Notes news to alumni@uwm.edu or write to UWM Alumni Association, P.O. Box 413, Milwaukee, WI 53201. Please be sure to include your full name (including maiden name, if applicable), address, year(s) of graduation, degree(s) and major(s). Photos are welcome!

SUBSCRIBE TO ALUMNI CONNECTION

Alumni Connection, the University's monthly e-newsletter, keeps you connected to campus with news about special events, the latest research and programs, athletics and fellow alums. It's free! Subscribe today at www.alumni.uwm.edu.

SHOW YOUR PANTHER PRIDE!



Julie A. Liotta, program director for Languages and Intercultural Relations at UWM's School of Continuing Education, recently took a group to La Manzanilla, Mexico, for a language immersion program. The group consisted of 15 continuing education students interested in learning Spanish, living with families and working in the community.

"While there, one of the students attended a cultural event and noticed this young man wearing a Panther T-shirt," Liotta writes. "Pretty interesting since this is a remote fishing village of about 800 inhabitants."



Brian Bellin ('04 Marketing; left in photo) and **Matt Bullamore** ('06 (Psychology) show their Panther Pride in Koh Samui, in the southern region of Thailand. The two traveled to Thailand with a group of friends in September 2006 to celebrate the end of their undergraduate studies. Bellin was the team captain for PDS, which won back-to-back intramural floor hockey championships in 2003.

Both friends currently work for US Cellular, Bellin as a sales manager in Milwaukee, and Bullamore as retail wireless consultant in Brown Deer.

"We hope you can publish our photo in an upcoming alumni issue showing our Panther Pride about as far from UWM as you can get!!" Bellin wrote.

ANOTHER WAY TO SHOW YOUR PANTHER PRIDE!

Sign up for your free UWM Alumni e-mail address

The UWM Alumni Association has entered into an agreement to offer ALL graduates an e-mail account through Google. Participants' new e-mail address will end in @uwmalumni.com.

To request an account, visit the UWMAA Web site at www.alumni.uwm.edu.

Join the new UWM Alumni Association group on LinkedIn

Connect with your fellow alumni on LinkedIn. The new UWM Alumni Association group on this professional networking Web site already has nearly 600 members.

For more information about LinkedIn, log on to www.linkedin.com. To join the group, simply e-mail alumni@uwm.edu and request an invitation to join. Please include your graduation year(s) and full name (at time of graduation) with this request.

ALL OF THESE BOOKS WERE WRITTEN BY UWM ALUMNI

WHERE'S YOURS?

Attention alumni authors: Have you written or contributed to a book? The Alumni Association wants a copy.

The Alumni House library will house a collection of books written or edited, in whole or in part, by UWM alumni. These books, yours included, will be on display to all visitors to the UWM Alumni Association. Please mail your book to:

UWM Alumni Association
Alumni House
3230 E. Kenwood Blvd.
Milwaukee, WI 53211

Please include your name, degree(s) and year(s) of graduation so that we can properly recognize you.



PETER JAKUBOWSKI '07

THE WORLD... BROUGHT TO YOU BY THE UWM ALUMNI ASSOCIATION

We are pleased to announce the 2009 UWMAA travel schedule:

MARCH

Ireland

APRIL

Mexico's Copper Canyon

MAY

New Graduate trip to Europe

The Great Journey Through Europe

SEPTEMBER

Italy's Lake Garda & the French Alps

OCTOBER

Fall Foliage Tour: New England & Cape Cod

South American Adventure



Travel is open to all UWM alumni and friends. Contact Amy Lensing Tate at 414-906-4661 or lensing@uwm.edu for more information on any of these programs or to sign up for our Panther Travel mailing list.

Nursing grad lived with famine, disease, gunfire in Darfur and Zimbabwe **BUT SAYING 'GOODBYE' IS WHAT HURTS**

By Angela McManaman

After three years as a nurse with Médecins Sans Frontières (MSF), Sharifah Qureshi ('00 BS Nursing) is relieved to be alive; happy to be home; and grateful to the families who shared their villages and their lives with her from 2005-2008.

She is other things, too: mournful, exhausted. Fully aware that many of the people she treated as a nurse in Darfur and rural Zimbabwe still face a day-to-day struggle for food, water, safety and shelter.

Especially in Zimbabwe, a once-prosperous nation that was the "breadbasket" of Africa. Today it's something very different.

Zimbabwe in disarray

"It's unbelievable how the situation in Zimbabwe has been compared to Kenya and Rwanda, yet for so long the people of Zimbabwe remained calm," says Qureshi.

But in the four months since she left Zimbabwe, things have only deteriorated. Robert Mugabe has ruled the country since 1980 and in June began his sixth term as president – a title he's held onto despite a March 29, 2008, loss to opposition candidate Morgan Tsvangirai.

"People are living on less than \$2 per day, there's 80 percent unemployment and 70 percent of the hospitals there are understaffed," says Qureshi.

This destabilization stems partly from the dramatic and deadly buildup to a runoff between the presidential candidates. Radical land reforms ordered by Mugabe in 2000 also are to blame. The government seized nearly all the country's commercial farms over three years. Africa's breadbasket is no longer a prolific producer of maize, corn or beef; its citizens live – and many starve – on dwindling supplies of imported and donated food.

After being arrested five times this June and seeing a political crackdown displace 200,000, Tsvangirai withdrew his candidacy to protect his supporters. Power-sharing negotiations continue, but the political crisis and food shortage have contributed to a total economic free-fall. At press time, The New York



PETER JAKUEOWSKI '07

Sharifah Qureshi poses in the Center for Cultural Diversity and Global Health in UWM's College of Nursing.

Times reported that hyperinflation in Zimbabwe reached 2.2 million percent.

Her work opening new clinics for HIV/AIDS patients and teaching HIV prevention kept Qureshi removed from Zimbabwe's political scene – as did MSF's doctrine of unwavering political neutrality. The nongovernmental organization's apolitical stance is what allows it to set up camps, hospitals and clinics in the world's most volatile conflict zones.

But it's hard to separate politics and public health for the 3,000 Zimbabweans who receive an HIV/AIDS diagnosis every week. Or the 1,500 who die weekly.

"Short of calling Zimbabwe a failed state, when you have a damaged economy like that and a politically

unstable environment, it's the people who suffer," says Aaron Buseh, associate professor of nursing at UWM. "Those who have HIV need good nutrition, regular supplies of food. Without it, how can you even take your medication?"

"In such an environment people with HIV will not do well. They will not survive."

African culture, military clash

Not that Qureshi was ill-prepared to take on the challenge of providing medical care in extreme situations – like her first mission in Darfur, Sudan.

When she arrived at the foot of Darfur's Jebel Marra mountains in December 2005, Qureshi brought with her a solid education and several

years of experience as a traveling nurse on America's West Coast. And as a UWM student in the late '90s, she twice traveled to refugee camps along the border between Burma and Thailand to deliver medical supplies.

"A big thing I learned at UWM was not to set boundaries for what I could be or do as a nurse," Qureshi says. "Learning skills was an important part of my education, but we really got into nursing theory, research, nursing across different cultures.

"So I was very open-minded about what a career in nursing could look like."

Gaining a broader understanding of disease, wellness and lifestyle, and how differently practitioners and patients consider these issues from one culture to another, is a key piece of the curriculum at the College of Nursing.

"We know that every person comes into nursing with his or her own prejudices and a unique cultural perspective," says Buseh, who researches social stigmatization among HIV/AIDS populations in sub-Saharan Africa and Wisconsin.

"But students can get a broader understanding of what it means to be culturally competent over time. The idea that we have to treat every person equally despite who they are, how they became ill, where they come from, is threaded through every course."

All of the above meant Qureshi was prepared to take on the basic medical tasks associated with running a 50-bed hospital: delivering babies, supervising in the operating theater and working in the hospital's pediatric malnutrition clinic.

Other facts of life in Darfur, where polygamy and female circumcision are common – and the next large town was two helicopter rides away – made her cultural competence just as important as her technical competence.

And some things you just can't train for.

"I hadn't expected to see myself in a war zone," says Qureshi. "And nothing can prepare you for it."

Like the time a rebel soldier put a gun to Qureshi's head as she made her way to the hospital. Or the day she treated a



Women in Darfur



Day camp in Zimbabwe

Continued from page 23

village woman who had been kidnapped and raped by soldiers over the course of 10-12 days; she returned to the village pregnant and disoriented.

Leaving Darfur

These are isolated examples of the violence that has made Darfur an op-ed staple in newspapers around the world. The conflict between Darfur's Janjaweed militia and rebel soldiers simmered throughout the early weeks of Qureshi's six-month mission. Despite the ever-present sound of distant gunfire and other signs of unrest, Qureshi felt relatively safe.

But she wasn't. An all-out battle took place in the town and within the hospital in early 2006. The details are chilling. Mindful of MSF's policy of neutrality, however, Qureshi is reluctant to say very much publicly.

After nearly 24 hours in a safe room hiding from the mortars and gunfire, six hours performing emergency surgery and a forced evacuation by a caravan of trucks from the African Union, Qureshi and her MSF colleagues reluctantly left the village about two days after it was destroyed in battle.

After a rest and debriefing in Sudan's capital, Khartoum, Qureshi resumed work in Darfur's Zum Zum refugee camp. A month later MSF asked members of the Jebel Marra mission to leave Sudan one week ahead of schedule to deal with the trauma of nearly dying in a military battle. The hardest thing to process, says Qureshi, was knowing that many of the Darfurians they had treated were either dead or hiding in the mountains surrounding their village. Many of the initial "survivors" died from cholera, dysentery and famine in the weeks after the battle.

"I feel lucky to be alive," Qureshi admits. "But the hardest part of any mission is leaving the struggle behind. When people let you into their lives like that and share their stories of living in fear, you can never forget the endurance and strength of the human spirit.

"Darfur opened my eyes to a whole different world, to how people can live in such unstable environments. But they were living calmly, day-to-day, and this instability became normal to them. You draw strength from that, and with it this promise to yourself that you will try to do something more the next time – that there is always something in life worth fighting for."



Family of three, Darfur



Children of Darfur

For now, Qureshi is enjoying her time with family, including her father and a sister who both are physicians, her mother and another sister who are nurses, and friends – many of whom she met at UWM.

She won't rule out another mission with MSF, but still considers Milwaukee her home and is busy babysitting her two nieces and four nephews. It's a

quiet life for someone who can get "addicted to emergencies," but Qureshi says she "worries that I might miss out on their lives if I'm away for too long."

Another year of this, Qureshi adds, and she might be ready for mission No. 3.

CLASSNOTES

Mary P. Le Blanc ('86 MS) has opened SHOP, a women's clothing boutique in Shorewood, WI, with her daughter, Liz LeBlanc. SHOP specializes in updated classics for women. SHOP focuses on labels from East and West Coast designers not currently available in the Milwaukee Metro area.

Thomas A. Greenwald ('87 BBA), a principal with Goranson, Bain, Larsen & Greenwald LC in Dallas, has been elected to membership in the Fellows of the Texas Bar Foundation. Fellows are selected for their outstanding professional achievements and their demonstrated commitment to improving the justice system throughout the state of Texas.

1990s

James M. Drzewiecki ('90 BS Architectural Studies) recently started Ginkgo Leaf Studio LLC, a landscape design firm in Milwaukee for both commercial and residential clients.

Scott Knuth ('90 BS Occupational Therapy) recently completed his doctorate in Occupational Therapy (OTD) from Rocky Mountain University of Health Professions in Provo, Utah. Knuth continues to be active in the Southeast District of the Wisconsin Occupational Therapy Association and looks forward to presenting his thesis to the district in one of its upcoming meetings.

Susan Ann (Dobberpuhl) Kotecki ('91 BS Nursing) was nominated by peers to receive the third annual Dr. Tom Williams Spirit of Volunteerism Award at Central DuPage Hospital in Winfield, IL. Kotecki is one of seven nurses recognized by peers for leadership, volunteerism or clinical excellence at a celebratory event concluding Nurses' Week 2008. Kotecki's volunteer work included coordinating a stroke awareness day at St. Peter's Catholic Church in Geneva, IL.

Anthony Frontier ('93 BA) received his Ph.D. in Education at Cardinal Stritch University's Winter Commencement in December 2007. He is director of instruction for Whitefish Bay (WI) Schools.

Kathleen McCann ('93 BA Journalism and Mass Communication) received the Paragon Award from the Southwest Wisconsin chapter of the Public Relations Society of America (PRSA) for exemplary work in 2007. McCann earned the award of merit in media relations for developing a media outreach program to highlight the merger between Brooks Stevens and Ingenium Product Development. McCann received the award at the PRSA Paragon Award Ceremony on May 20.



Christian Himsel ('97 MA MLIS, SLIS) was recently appointed director of library and information services at Concordia University Wisconsin's Rincker Memorial Library.

Kelly Schauer ('97 BA Human Resource Management/ Psychology) received an MBA with an emphasis in Healthcare Administration from Concordia University Wisconsin in December. In July Schauer joined Children's Hospital and Health System of Wisconsin as the admitting and registration services manager.

Beckysue Wolf ('98 MS Nursing) has joined Advanced Pain Management (APM) as a nurse practitioner. She will practice at APM's Green Bay office.



Phillip Kurimski ('99 MS Geosciences) has been promoted to senior meteorologist with the National Weather Service in Detroit. He was previously a meteorologist with the National Weather Service in Green Bay.

2000s

Peter Blewett ('00 PhD English) was re-elected president of the Milwaukee Board of School Directors for the 2008-09 academic year. Blewett served as president during the 2004-05 and the 2007-08 academic years. Blewett was elected to the MPS Board of Directors in 2001 and re-elected in 2005.

Eric Wightman ('00 MS Education) was promoted to assistant principal at South Milwaukee Middle School in 2007, after serving two years as dean of students.

May-Lin Chang ('01 BS Architectural Studies) has been promoted to associate by HGA Architects and Engineers in Sacramento, CA. Chang is part of the firm's architectural studio, specializing in health care. Chang has served as a designer for projects across California and Nevada, including several at Sutter Roseville Medical Center in Roseville, CA, and Community Medical Center in Fresno, and participated in a Sutter Health prototype hospital "co-opetition."

Joseph Klein ('01 BS Architectural Studies) has joined the S.J. Janis Company Inc., a design build remodeling firm, as a residential designer. Prior to joining S.J. Janis, Klein owned KDG, a commercial design consulting firm serving clients in northern Illinois.



Robert A. Jansen Jr. ('02 BBA Finance, Accounting and Economics) has been promoted to vice president of Mertz Associates Inc. in Waukesha, WI.

Tiffany Thomas ('02 MS) recently completed United Way of Central Indiana's Leadership United program.

Melinda Hileman ('05 Journalism & Mass Communication) has started two companies, Hileman Design (a creative firm with Web design, graphic design, desktop publishing and public relations services) and Grounding Stones Jewelry (selling hand-made wire-wrapped pendants). www.hilemanholdings.com.

Joe Neman ('06 BS Education) recently finished a two-year assignment in the education system in American Samoa. Neman took two teenage boys under his wing while he was there, helping them graduate and prepare for college. Neman and his sister have set up a pledge page for the teens to help them get closer to their college goal. Visit <http://sendtheboystoschool.pledgepage.org/> for more information.

UWM ALUMNI ASSOCIATION ELECTION RESULTS

The following alumni were elected to the UWM Alumni Association Board of Trustees. Their three-year term began July 1, 2008.

Linda Jackson Cocroft ('79 BS Community Education), Founder/Publisher, Black Women 50+

Marshall L. Gallant Sr. ('73 BS History, '79 MS Curriculum & Instruction), Adjunct Professor, UWM School of Education

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Rafael Acevedo, Lena Taylor, Joseph Czarnecki and Gary Williams retired from the Alumni Board of Trustees on June 30, 2008.

Alum followed his dream – **ALL THE WAY TO THE SUPER BOWL**

By David Driver

Jeff Friday was finishing up a BS degree in Physical Education at UWM in 1989 when he began a letter-writing campaign.

It was not just a handful of letters. And it had nothing to do with helping to elect a President, or even the student body head.

Friday said he wrote nearly 100 letters, mostly to colleges with Division I athletic programs, as he sought a position as a graduate assistant strength and conditioning coach.

“That was the next progression,” said Friday, who had worked with the track team at UWM as an undergraduate, at a time when the school did not have a full-time strength and conditioning coach.

Friday landed three offers. The one from Louisiana Tech was for physical education, which was not his focus. Another was from Northern Colorado, which did not have a strength and conditioning coach but had recently hired a former UWM track coach. And the third was from Illinois State, which did have a strength and conditioning coach.

‘I HAD TO HAVE A MENTOR’

“Illinois State was the best situation for me, because I thought I was going to be mentored by someone,” said Friday, a Milwaukee native. “I realized I had to have a mentor. I think it was an evolution of what I enjoyed. I realized it was what I was passionate about. There really was no turning point per se.”

Friday got a master’s degree in Exercise Science in 1991 from Illinois State following a two-year stint at the school. He then spent four years as an assistant strength and conditioning coach at Northwestern University in Evanston, Ill., and helped develop a football squad that won the Big 10 title in 1995. He also worked with the men’s and women’s basketball teams.

“They [Northwestern] were trying to upgrade and catch up with the rest of the Big 10. I was blessed. I was able to travel with the men’s basketball team,” Friday said. “I also tried to meet the strength coach wherever we traveled to learn information and take it back to Northwestern. We played the Minnesota Gophers and I met with the Vikings strength coach, Steve Wetzel. I asked if I could come back and watch a practice.”

A SERENDIPITOUS DAY

“I went with the intention to watch. During training camp he [Wetzel] relied on part-time help,” Friday added. “His part-time help didn’t show up that day.” So Friday was pressed into service at the Vikings’ NFL training camp.

Friday kept up the relationship and was hired by the Vikings in 1996.

“It was apparent early when I started working with Jeff, that he had the innovative vision and education to direct successful strength and conditioning programs at the highest level,” said Wetzel, now the director of athletic development at Tektonic Athletic Development and Rehabilitation in North Spring, Texas.

Friday was with the Vikings from 1996 to 1998, and all three seasons the team made the playoffs. Minnesota set a record for most points scored with 556 in 1998.

When Brian Billick, the Minnesota offensive coordinator, got the head job with the Baltimore Ravens prior to the 1999 season, Friday joined his staff in Maryland.

ON TO A SUPER BOWL RING

In his second season with the Ravens, the team set a record for fewest points allowed (165) in a 16-game schedule and set an NFL record for fewest rushing yards allowed. Baltimore then won its first Super Bowl in 2001 over the New York Giants.

“It helps validate what you are doing,” Friday said. “You are just a piece of the pie or the puzzle. It validates your effort a little bit. It was a great time for the family and those memories made it really special. Sometimes you don’t realize how special it is until you look back. We won it in the second year with that coaching staff. It was a really good staff.”

For his efforts Friday was named Professional Strength and Conditioning Coach of the Year by his colleagues in the Professional Football Strength and Conditioning Coaches Society in 2000.

“You get recognized when you win,” said Friday, who downplayed the personal award. “Winning definitely helps.”



Jeff Friday on the sidelines at a Baltimore Ravens game.

COURTESY BALTIMORE RAVENS

A NEW CHAPTER BEGINS

Friday’s tenure with the Ravens ended after the 2007 season when Billick was let go as the head coach. It is common for assistants to be dismissed in the NFL when a change is made at the top so a new head coach can pick his own staff.

Friday, who lives near Baltimore with his wife and two children, began his own business early this year. “Being away from the NFL has given me the opportunity to try this,” said Friday, who normally worked 10-hour days with the Ravens.

What is his philosophy on athletic training?

“I think we all have our views on the way things should be done,” he said. “I try to find the player’s needs and then meet those needs. Your main goal is to protect the body. Secondly you want to enhance the performance. Those are the two things you are really trying to do. You don’t want a player to be at risk in the weight room.”

Editor’s note: David Driver is a free-lance writer in Maryland and the former sports editor of a Baltimore daily. He can be reached through his Web site at www.davidsdriver.com.

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