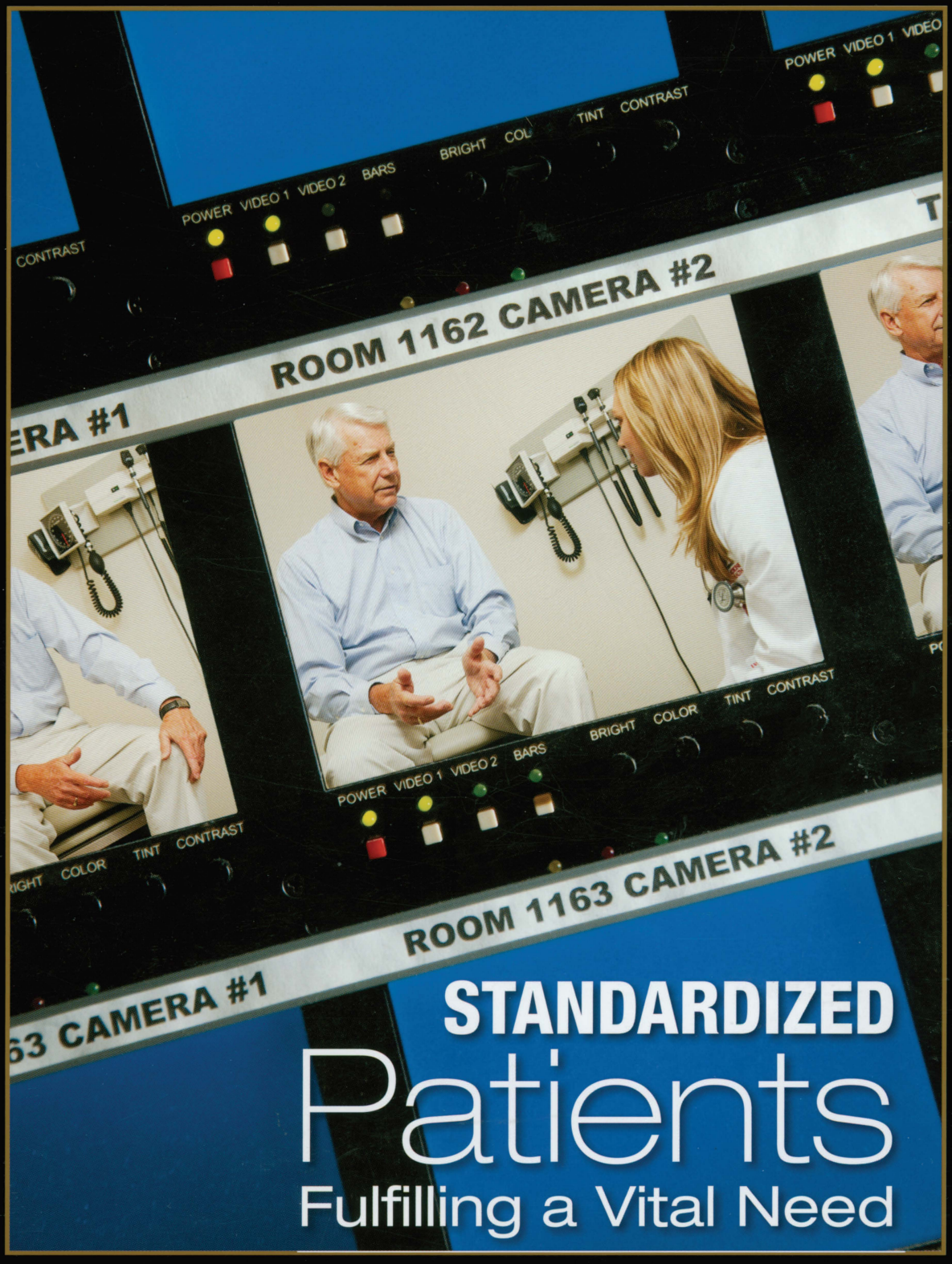
QUARTERLY

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



STANDARDIZED Patients

Fulfilling a Vital Need

VOLUME 11
NUMBER 4
FALL 2009

Calendar of Events

October 2009

Thursday, October 29
Middleton Society Banquet
Health Sciences Learning Center

November 2009

Saturday, November 14
UWHC Resident Tailgate
Wisconsin vs. Michigan football game

Friday, November 20
Alpha Omega Alpha Banquet
Health Sciences Learning Center

February 2010

Friday, February 19
WMAA Winter Event
Wisconsin Dells

April 2010

April 22 – 24
ALUMNI WEEKEND
Reunions for classes of:
1950, 1955, 1960, 1965 and 1970

May 2010

Friday, May 14
Recognition Ceremony
Graduation Party

PHOTO: UW-Madison University Communications

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

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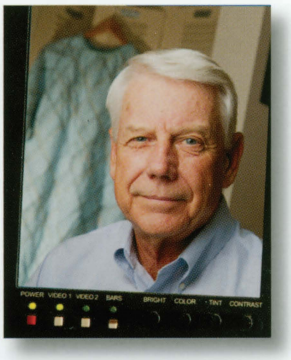
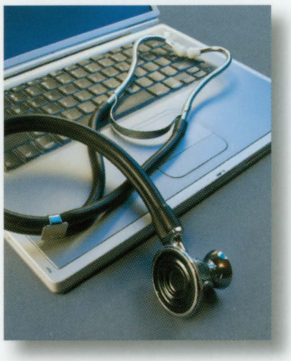
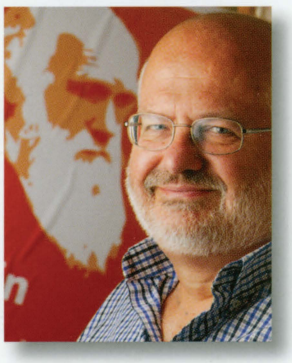
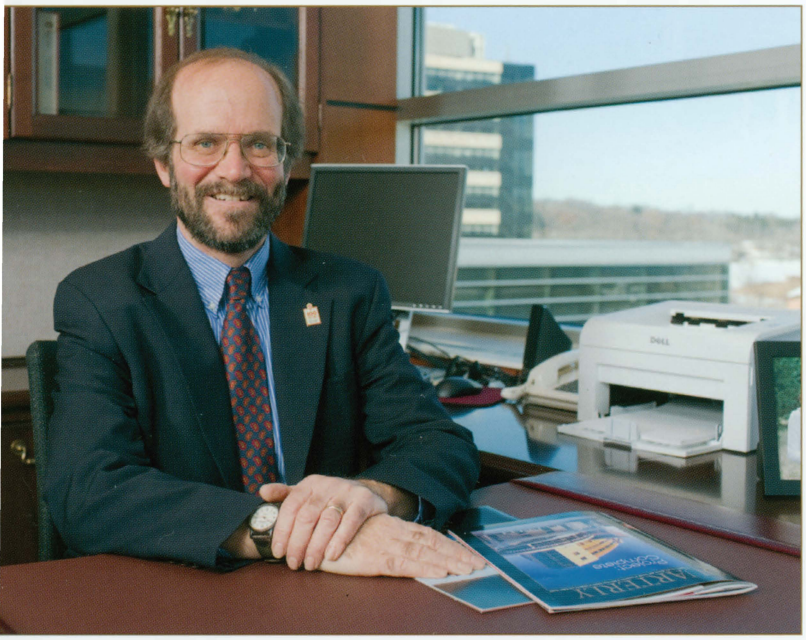






On the Cover: *Standardized patient John Lorimer explains a "clinical problem" to second-year medical student Allison Pratt.*

DEAN'S *Message*



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

Unless you have been in hibernation the past year, you are keenly aware of the intense discussions under way regarding health-care reform. These are complicated issues with no easy answers. Unfortunately, at times the debates have devolved from thoughtful exchanges into more primitive forms of expression. I hope that by the time you read this message, additional progress will have been made in forging a plan that will move us out of the downward spiral of the status quo.

Some aspects of healthcare reform that are especially relevant to academic health centers have not received as much attention as they should. I am referring to our woefully inadequate supply of healthcare professionals. Currently, we do not have enough physicians (or nurses, pharmacists, dentists or other providers) to serve disadvantaged rural and urban populations. True healthcare reform must address this maldistribution and growing shortage of clinicians. If we fail to do so, insurance and financial barriers will simply be replaced by workforce availability barriers.

This is why our school's innovative rural and urban programs—WARM and TRIUMPH—and our undergraduate pipeline program, Rural and Urban Scholars in Community Health (RUSCH), which you've read about in these pages, are so essential. They will help us direct new physicians to Badger State communities where the opportunities for service are the greatest.

A corollary to this issue involves medical student debt. Many students enter medical school with a vision of and commitment to serving the underserved, but over their years of training they find significant financial impediments to achieving that vision. When one is facing a student loan burden of more than $130,000, it is difficult not to let compensation become an important factor in deciding where to launch one's career.

When I was in medical school in the 1970s, the federal government offered capitated support, allocating thousands of dollars to the nation's medical schools for each enrolled student. While that probably is not the best model for solving the student loan problem, healthcare reform must address the real costs of medical education if it is going to have a lasting impact on the geographic and specialty distribution of physicians.

Reform must also focus on our research and clinical missions, because academic health centers play such a vital role in not only training physicians and treating patients, but also in providing new discoveries, treatments and methods of disease prevention vital for maintaining health most effectively and efficiently.

We cannot rely solely on government support for these issues. To address student debt burdens, we are launching a new campaign involving our alumni family in an effort to create need-based financial support that will allow our students to follow their dreams. We soon will be announcing the details, which include a window of opportunity for obtaining substantial matching support that will make all of our contributions go that much further. Please stay tuned.

To paraphrase a famous statement, "Ask not what your government alone can do for healthcare reform, but ask what you can do to help our medical students pursue careers of service where they are needed the most."

Autumn brings an exciting new start to each school year. The new crop of students has arrived with energy, excitement and dedication to begin their medical careers. We recently initiated them into our medical community with the White Coat Investiture Ceremony co-sponsored by Wisconsin Medical Alumni Association (WMAA) and the State Medical Society.

The WMAA also played a big role in welcoming the new medical students to campus with events such as "Movie Night" and "Take a Student to Dinner Night." The WMAA encourages new innovative programs that continue to help the School of Medicine and Public Health (SMPH) stand out among the national leaders in medical education.

No fall is complete without Homecoming Weekend, and I hope all of you who came enjoyed it as much as I did. It was fascinating to hear from our banquet guest speaker Dennis Maki, MD, of the Class of 1967, who shared his thoughts on the H1N1 flu epidemic and reflected on his years as an SMPH faculty member.

All the other great activities—the football game, the tailgate, the seven class reunions—allowed so many of us to reacquaint ourselves with classmates and fellow alumni, and we also learned about the exciting expansion of new facilities on the medical campus.

You will want to note that another football event, the Residents Tailgate, will take place on Saturday, November 14, 2009. As you know, the WMAA has made reaching out to residents a strategic goal. I plan to be at the party to meet with residents and enjoy the Wisconsin versus Michigan game. I hope to see you there.

The WMAA Winter Event is also right around the corner. Mark your calendars for Friday, February 19, 2010. To be held in the Wisconsin Dells, this will be a family-friendly event. We expect this fun get-together will liven up the winter for everyone.

The WMAA will play a role in progress throughout the entire year by focusing on a variety of major initiatives to show our support. One is an amazing opportunity to lend our financial support through the "Great People Medical School Scholarship" fund. This program increases your gift to SMPH scholarships with 50 percent matching funds from the UW Foundation. In these stressful economic times, we are truly fortunate to have an opportunity to really boost scholarship opportunities for our students, but we must act quickly to take advantage of the limited time remaining for this generous program.

Your help is also greatly needed to meet our WMAA pledge to increase Middleton Society membership by 50 percent over the next two years. The Middleton Society recognizes alumni and friends who have pledged to donate $10,000 to the school over time. I view this as an opportunity to show appreciation to our alma mater, which has created such great opportunities in our own personal lives. It's also a way to help improve opportunities for our students and ultimately physicians of the future.

I encourage you to join me as a Middleton Society member. Our annual celebration is scheduled for Thursday, October 29, 2009.

For more information on all these upcoming events, programs and gift opportunities, please go to the WMAA website: www.med.wisc.edu/alumni. Soon you'll also be able to join our Facebook page.

On Wisconsin!

John Kryger, MD '92
WMAA President

STANDARDIZED Patients

By Dian Land

John Lorimer sits in an examination room in the Wichman Clinical Teaching and Assessment Center (CTAC) at the University of Wisconsin School of Medicine and Public Health (SMPH), waiting for the first of the 25 nervous third-year medical students to enter. The students have recently completed their eight-week primary care clerkship, and now they are about to be tested on the clinical skills they have learned.

With 10 years' experience as a standardized patient at the school, Lorimer knows how his carefully scripted part of the 10-minute encounter should go. Today he will pretend to have a chronic medical problem and he will ask each of the doctors in training about testing for it. Against a detailed checklist created by the primary care clerkship faculty, Lorimer will assess how well the students address his concerns and utilize their clinical skills.

Very few papers and pencils are involved here; unobtrusive cameras will record the interactions and a sophisticated digital capture system will store them for future reference.

In another exam room, veteran standardized patient Judy Gunkel role-plays convincingly about her particular pain, very likely speaking from experience. In yet another, Jean Cato presents with an acute illness, saying she needs antibiotics.

They are three of five standardized patients (SPs) the medical students will see as part of the morning's Objective Structured Clinical Exam, or OSCE.

SPs provide a safe and controlled way to prepare students to see real patients, says Jane Banning, MSSW, director of the teaching and assessment center.

"SPs allow students to practice skills such as meeting a patient for the first time, interviewing a patient about some behavioral change, delivering bad news, conducting a routine medical history and performing physical exams," explains Banning.

The SMPH has used SPs for student teaching and testing for some 40 years. The roster currently consists of approximately 80 people, and each works from as little as one or two hours a month to as many as 20 or 30.

The group is about two-thirds female and one-third male; 60 percent are under age 60 and 40 percent are over. Hoping to mirror the richness of the patient population any student may expect to see in a future practice, the school strives to include people of different ages, ethnicity, race, sexual orientation and socioeconomic backgrounds.

"Years ago, medical students usually went directly to the hospital to practice on patients who may have been in pain, on medications or just not feeling well," says Banning. "Those patients might not have been able to provide valuable feedback, or feedback of any kind. What's more, hospitalized patients were not available to large numbers of students in those days."

Today the vast majority of the 130 accredited medical schools in the United States use SPs. Many created their programs after the National Board of Medical Examiners began requiring students to take clinical skills examinations. In this second step of the licensure exam, students must pass a 10-station OSCE graded by SPs.

The value of SPs is widely recognized. Extensive research has shown that laypeople can do a superior job of assessing clinical skills if they are properly trained to follow a checklist of objectives for each session if the checklist doesn't require a physician's clinical judgment.

SPs are particularly effective in helping students with verbal, non-verbal, behavioral and communications skills—or "bedside manner." These skills, which can't be tested on a traditional written exam, are the ones patients increasingly demand of their doctors.

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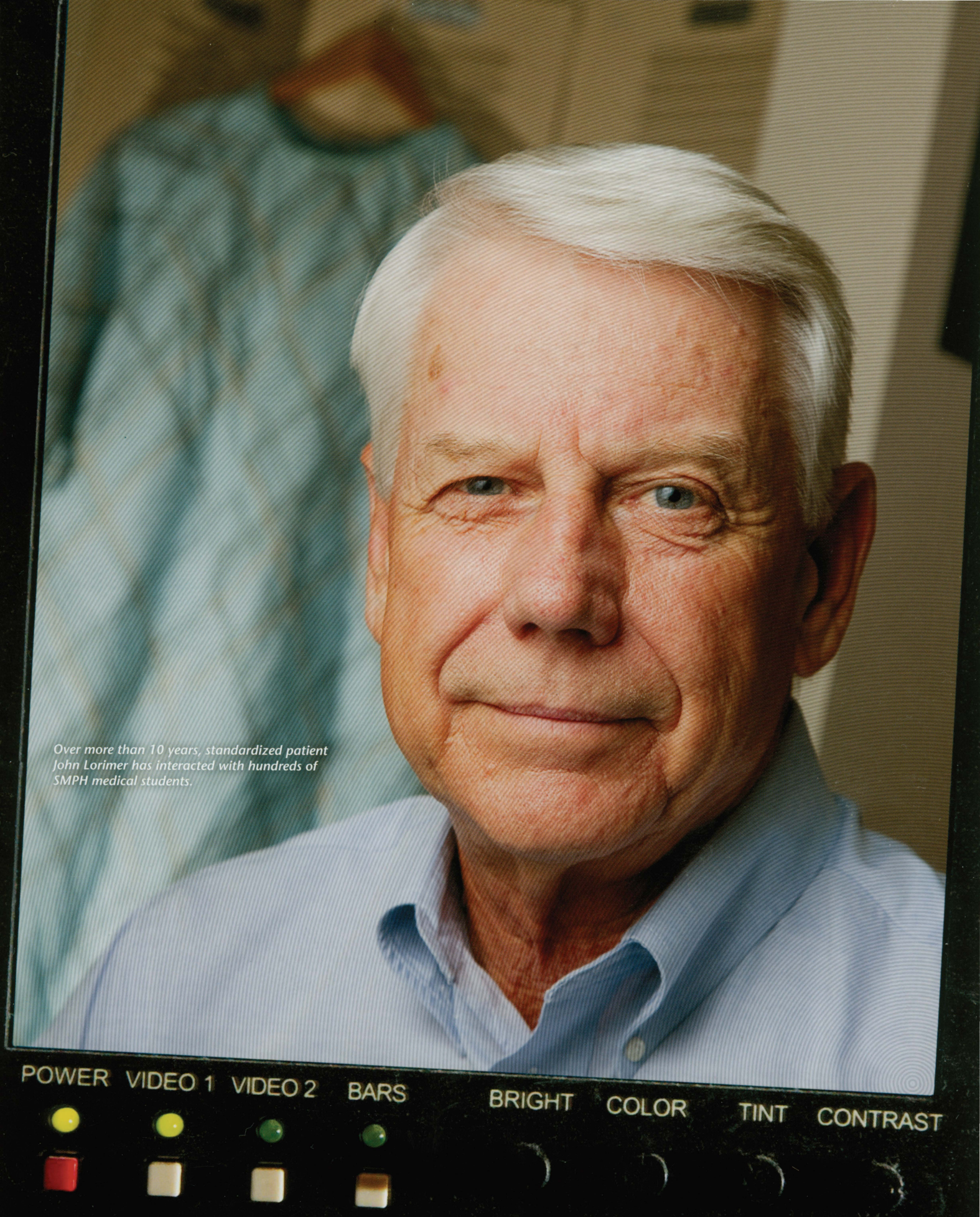

Over more than 10 years, standardized patient John Lorimer has interacted with hundreds of SMPH medical students.

CTAC director Jane Banning, left, and SP program manager Elizabeth Meister review a checklist that SPs will use to assess student performance in an upcoming OSCE.

SPs provide useful feedback both formally and informally, says Banning. One SP, for example, complimented a student on his friendly style, but gently told him that in his eagerness he was sitting a bit too close to her during the interview. Following that input, the student allowed for more personal space in his clinical interactions.

All medical students at the SMPH will experience approximately 70 encounters with SPs through their first three years. Administrative assistant Angie Bass, herself a former SP, handles most of the scheduling of SPs.

Students meet their first SPs in their second week at medical school, during the Patient, Doctor and Society (PDS) course, and the interactions continue for the duration of that two-year, four-semester course.

In their third year, students are tested in OSCEs following their neuroscience, medicine and primary care clerkships. OSCE program manager Bill Schwanke also coordinates and administers the team that organizes a Year End Professional Skills Assessment (YEPSA) at the end of the students' third year. In the YEPSA, in which eight of the 12 stations include SPs, students must demonstrate the core clinical competencies needed to graduate.

Banning works with faculty to create the clinical cases for both teaching and assessing, which can be as short as three minutes or as long as 45. She regularly joins Douglas Smith, MD, SMPH associate professor of family medicine, in monitoring how the primary care clerkship OSCE sessions are going.

The two of them do this from computers and a bank of television screens in the control room, which forms the heart of the CTAC, located on the ground floor of the Health Sciences Learning Center.

"Two cameras mounted in the ceiling of each of the 24 exam rooms capture the clinical encounters so that instructors can review each case later online," explains technician Mark Johanneck, who manages the control room.

Special software links each student-SP video with the checklist, grades the checklist electronically and allows faculty to "write" comments on the video, providing feedback on precise sections of the patient encounter. In cases in which a physician must do the grading, the observing also can be done remotely from the control room, notes Johanneck.

Elizabeth Ortiz Meister, MSSW, the SP program manager, makes sure every SP is prepared for each case. She sends them checklists and other written material describing their roles, meets with each one on one and then gathers a small group of them so they can practice with each other.

Individual consistency is crucial, Meister says.

"I need to be confident that what an SP does at the beginning of the week—or day—is exactly the same as what he or she does at the end," she says. "We want to be sure every student gets the same experience."

Consistency from SP to SP also is essential. Meister will tell all SPs, for example, exactly what to say in the opening line of a session set up for discussing a chief concern.

What constitutes the ideal SP? Acting skills are not required, say Banning and Meister.

"We want people who are genuine and honest, people who are not playing to an audience," says Banning.

SPs must take coaching well, offer feedback, be excellent listeners and understand that their sole purpose is to support medical students' learning.

"It's not about the individual," says Meister. "SPs have to speak from the place of an everyday person."

And although teaching and, particularly, assessment sessions can be stressful for the students, there are many lighthearted moments.

"SPs often tell us how poised, humane and sensitive the students are," says Meister.

All of the SPs take their jobs extremely seriously and find deep satisfaction in working closely with students and faculty.

Lorimer, a former social services manager for the state of Wisconsin, says he likes the educational environment and

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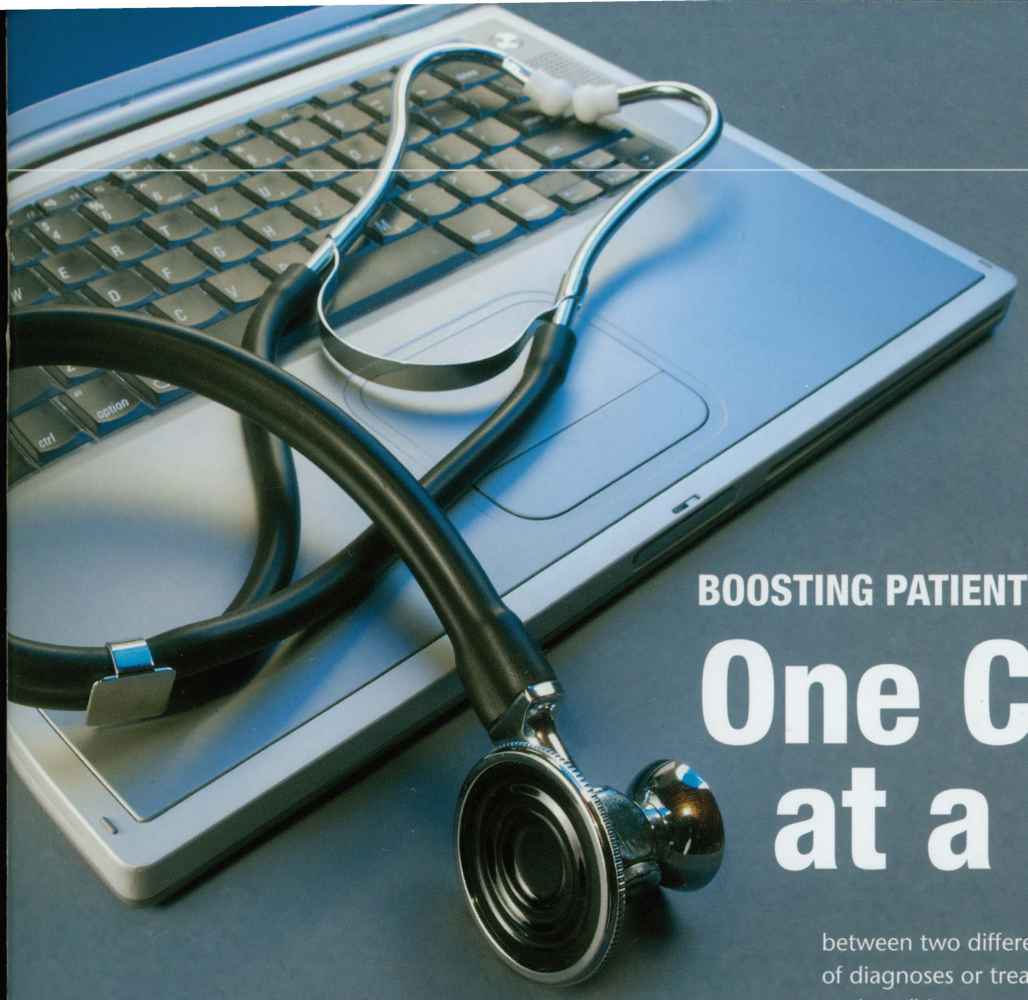


BOOSTING PATIENT CARE EFFECTIVENESS

One Click at a Time

by Kris Whitman

The mouse is often critical to scientific discovery. Nowadays the *electronic* mouse is also a revered tool. A key player in the evolving field of evidence-based medicine (EBM), it helps physicians delve into scientific data to determine the most effective diagnosis and treatment options for their patients.

While EBM dates to the advent of the Internet, this clinical decision-making technique gained widespread use more gradually than the World Wide Web. But over the past 10 years, EBM's advantages have been rapidly garnering nationwide physician support and use.

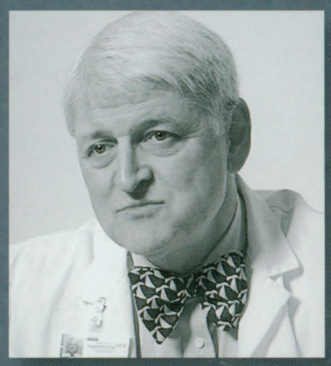
Norman Jensen, MD '65, began his medical practice before the Internet offered rapid access to resources. Today, the emeritus professor of internal medicine at the University of Wisconsin School of Medicine and Public Health (SMPH) enthusiastically uses EBM in his practice—and also teaches the new approach to medical students and residents.

Jensen describes EBM as the physician's most logical choice when trying to maximize quality patient care while also ensuring cost-effectiveness in this era of tightly budgeted healthcare resources.

"EBM is the habit of critically approaching choices, such as choosing between two different kinds of diagnoses or treatment options," Jensen explains. "One choice might be standard practice and the other might be based on very recent evidence showing that a different method may be more effective or more cost-effective than the traditional way has been."

He shares a story of how EBM could change physicians' routine choices for good reason—in this case whether to prescribe antibiotics for otitis media.

"One of my students brought to our review group the case of a 17-month-old boy with a red, painful ear, presumably an ear infection," he recounts. "In the past, physicians routinely prescribed antibiotics for otitis media, but through EBM techniques, this student found ample current evidence indicating that middle ear infections usually clear up on their own, without antibiotics."



Norman Jensen, MD '65

As a result, the group's conclusion was to avoid antibiotics in such cases.

Jensen continues, "Using antibiotics is a much bigger dilemma than it used to be. They are costly, have side effects and are producing a lot

Laura Zakowski integrates EBM into her internal medicine practice at UW Health East Clinic, where she teaches residents. Medical students begin learning about the subject in the PDS course she co-directs.

of antibiotic-resistant bugs in the environment, to the point where our grandchildren and great-grandchildren might get infections that cannot be cured. It's very important for us to use antibiotics critically."

While Jensen admits that learning and incorporating EBM into one's medical practice takes time—always a precious commodity for physicians—he sees it as beneficial to society as well as patients.

He predicts that the related, evolving field of comparative effectiveness research (CER), which relies upon EBM, is integral to achieving success in healthcare reform. Not without controversy, the American Recovery and Reinvestment Act, enacted in February 2009, distributes CER-related funding for use by federal agencies—including the Department of Health and Human Services and the National Institutes of Health.

CER will result in a *Consumer Reports* style of analysis, says Jensen.

"Just as a consumer may compare one make of vehicle to another before buying a car, in the future physicians and patients alike will be able to make evidence-based choices about diagnostic tests and treatments more easily," he says.

Jensen agrees with President Obama, who asserts that billions of dollars can be saved if physicians get smarter about the way they practice from hour to hour in hospitals and clinics.

"Although it will cost money to accomplish healthcare reform, we could save a huge amount if it is smart reform based on evidence of what works best and is cost-effective," Jensen says.

He explains how routine decisions can waste resources.

"Traditionally, while screening and monitoring patients for anemia, physicians would order an H&H—hemoglobin and hematocrit—when most of the time just one test or the other would provide the necessary information. Each test costs only $15, but if you figure you have 10,000 doctors in Wisconsin, and each orders an H&H once a day, reducing this by half would save millions of dollars each year."

Jensen suggests a solution of having the laboratory draw blood for both tests, but initially run just one test, keeping the extra blood long enough for the doctor to decide whether the second test is warranted.

"This prevents a second trip by the patient and avoids running an unnecessary test," he says.

Jensen and many others incorporate EBM training into all years of the SMPH's MD curriculum, beginning in the year-one basic epidemiology course and continuing in the four-semester Patient, Doctor and Society (PDS) course for first- and-second-year students, as well as in third- and fourth-year clerkships and clinical practice experiences.

Laura Zakowski, MD '90, associate professor of internal medicine who co-directs PDS, has integrated EBM techniques into her internal medicine practice at UW Health East Clinic, where she teaches residents.

EBM techniques help physicians assess the risks and benefits, and determine the appropriateness of relatively common diagnostic and

"EBM is the most logical choice when trying to maximize quality patient care while also ensuring cost-effectiveness in this era of tightly budgeted healthcare resources."

therapeutic techniques, including weighing a newly advertised medication against an older variety at the patient's request, Zakowski explains.

EBM is not practical when making decisions in life-threatening situations, when physicians would rapidly and simultaneously order multiple tests, she adds, but it can be used to study and determine whether changes should be made in the management of the next emergency situation that arises. It also is not the most effective tool for researching rare medical conditions.

Zakowski describes the typical EBM process.

"We begin by formulating a clearly worded clinical question," she says. "Next, we use online resources to search the literature and determine if the research results we find are valid."

Key elements to watch for are whether the study was randomized, was free of bias, used a good compilation of patients similar to the patient being seen, and was sponsored by credible sources without any conflicts of interest.

Free, user-friendly tutorials are available to learn the EBM technique, and medical librarians are a good resource to help physicians refine and confirm the quality of their searches.

Zakowski uses the National Library of Medicine's "Pub Med Clinical Queries," which was designed for EBM, when teaching medical students and residents. Available gratis to anyone, the program filters through the vast amount of available literature and helps clinicians locate the best evidence for their patient.

"Novices spend more time than experienced practitioners on their searches," says Zakowski. "I tell students that if they are spending more than one hour researching a question, they need to go to a librarian, who can teach them shortcuts and tips for doing a better search."

Adds Jensen, "While some advances in medicine can be very costly, EBM is costly not in terms of money, but in terms of time, which may be a challenge for some doctors."

He likens this to learning to ski.

"When you are 12 years old, you can learn just about anything," he says. "When you're older, you can still learn to ski, it's just more challenging!"

Jensen appreciates the time savings offered by using predigested EBM databases, such as "Up to Date" or the "Cochrane Collaboration," which charge physicians a subscription fee.

"Clinician-scientists collect evidence on commonly asked questions, then a small group of scientists review the data and offer conclusions for physicians who may not have time to review the many research studies themselves," he explains.

Zakowski and Jensen both use EBM most commonly on the inpatient wards.

"In the inpatient environment, we are often faced with making decisions about new diagnoses and therapies, and because the patient is in-house, we have more time for the research than we do in the outpatient environment," says Zakowski, who learned to use EBM during her early 1990s internal medicine residency at Oregon Health and Sciences University in Portland.

While it is sometimes quick enough to complete an EBM search during an outpatient encounter, it's common for both physicians to turn to the literature after a patient's clinic visit, particularly for complex searches. They then follow up later with the patient regarding recommendations.

A final step in the EBM process is communicating the evidence to the patient in a way he or she can comprehend.

"It's important to understanding each patient's level of health literacy," says Zakowski.

Along those lines, Jensen notes that most patients have difficulty understanding the concepts of risk and probability, terms that often arise in EBM searches. This has led to another line of research about how best to communicate risk and benefit to patients, he says.

EBM may seem like a major shift, but in fact it's been at work forever as medical advances and new methods of diagnosis and treatment come on board, notes Jensen.

"It's all based on some kind of evidence showing that the new is better than the old, and we should change the way we do things," he says.

The general practice of medicine changes annually, perhaps monthly, based on evidence, adds Jensen, noting that almost everything he does now is different from his early years in practice.

One thing that should not change, however, is case talk among colleagues, Jensen stresses.

"Talking with other doctors about patient cases is the oldest form of continuing medical education," he says. "EBM should augment, not replace, this timeless and valuable practice."

Population Health Sciences 50th ANNIVERSARY

by Susan Lampert Smith

Public health researchers recently raised a toast to the health of Wisconsin—and the world—at a symposium to honor the 50th anniversary of the Department of Population Health Sciences. Nearly 300 people came to campus in August 2009 to celebrate.

Consider just a few of the many highlights of the past half century:

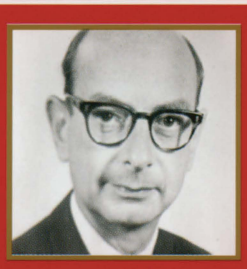
- Contributions to the health of Wisconsin via historic studies that isolated the La Crosse encephalitis virus and defined the disease commonly known as farmer's lung, a major public health concern in the Dairy State, up to the current Survey of the Health of Wisconsin (SHOW).
- Contributions to the health of the state and nation through publications such as the *County Health Rankings*, now being expanded to give counties across the entire country a health report card.
- Contributions to understanding complex health issues that become apparent only in large population studies, such as the landmark Wisconsin Sleep Cohort, the Beaver Dam Offspring Study, the Epidemiology of Hearing Loss Study, SHOW, the Wisconsin Diabetes Registry, the Newborn Lung Project, the Collaborative Breast Cancer Study, a site for the Women's Health Initiative and the Wisconsin vanguard site of the National Children's Survey.
- Contributions to global health through programs such as the Certificate in Global Health.

While the department officially began its life as the Department of Preventive Medicine in 1959, its roots go back more than a century to the founding of the Wisconsin "hygienic laboratory" on campus in 1903. W.D. Stovall, MD, served as laboratory director for 40 years. During his time, the UW Medical School recognized the public health work of the laboratory by creating a preventive medicine division in the Department of Medicine.

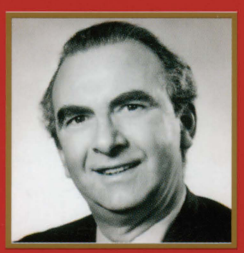
The Department of Preventive Medicine got its start focusing on the occupational health of Wisconsin workers. Medical students from that era will remember courses in infectious and chronic diseases taught by the department's first chair, Alfred Evans, MD, MPH, which had titles such as "Wheezes, Sneezes and Other Diseases."

All physicians know of the modified "Rankin Scale," which was devised in Scotland

1959 Department of Preventive Medicine is formed. Alfred S. Evans is appointed chair and also director of the Wisconsin State Laboratory of Hygiene.



1962 John Rankin Laboratory of Pulmonary Medicine established.



1968 John Rankin appointed chair of the Department of Preventive Medicine.

1970s Studies of occupational health in farmers, miners and other industrial workers under way.

1972 Rockwell Schulz organizes and leads an effort with the School of Business to start a Masters of Arts degree program in health services administration.

1978 The department starts a Master of Science degree program in epidemiology.

1979 David Kindig and Jay Noren organize and lead a residential Master of Science degree program in administrative medicine.

to assess the disability of patients who had suffered strokes. Its inventor, John Rankin, MD, had studied at Wisconsin in 1947 and returned in the 1950s.

One biographer suggested that despite Rankin's many accomplishments in stroke neurology, he became frustrated by treating the aftermath of a preventable disease. Once permanently in Madison, he switched research interests and became an expert in pulmonary physiology. He also had a vision for the Department of Preventive Medicine, which he helped create and chaired from 1968 to 1981.

"Rankin's idea was to create a new school of public health, so he brought in health economists, epidemiologists, statisticians, sociologists and health policy experts," says professor Jerome Dempsey, PhD, one of Rankin's graduate students and longtime director of the Rankin Laboratory of Pulmonary Medicine.

At the August symposium to celebrate the 50th anniversary of the Department of Population Health Sciences, alumna Kirstie Danielson (PhD '07) shares her work with public health researchers from around the country.

The new faculty complemented pulmonary physiologists like Dempsey, bringing the department into an era full of fruitful collaborations.

One example is the Wisconsin Sleep Cohort, which combined the interests of pulmonologists with the skills of epidemiologists such as Terry Young, PhD. Their landmark paper linking sleep apnea to hypertension would become one of the most cited articles in the *New England Journal of Medicine*. The cohort, which began sleeping for science in 1988, continues today.

Other long-ranging, federally funded studies based in the department were a long-term follow-up study of type 1 diabetes by Donn D'Alessio, MD; a long-term follow-up study of premature newborns by Mari Palta,

1980s

Studies of drinking water contamination and cancer incidence in collaboration with State Division of Health begun. Elliott Dick conducts studies on transmission of the cold virus.

1981

Donn D'Alessio appointed chair.

1984

Center for Health Policy and Program Evaluation (CHPPE) established.

1987-93

A number of long-term population-based cohort studies initiated, including the Wisconsin Sleep Cohort, Wisconsin Diabetes Registry, Epidemiology of Hearing Loss Study, Newborn Lung Project, Collaborative Breast Cancer Study and Wisconsin site for Women's Health Initiative.

1997

The department's existing masters programs are consolidated into an MS/PhD degree program in population health.

1998

The department's health services research, epidemiology and biostatistics faculty are geographically united in the Wisconsin Alumni Research Foundation (WARF) building.

PhD; a study of hearing by Karen Cruickshanks, PhD; and a study of breast cancer by Amy Trentham-Dietz, PhD. Maureen Durkin PhD, DrPH, co-directs the Wisconsin portion of the newly under way National Children's Study.

On the teaching side, the department added programs in epidemiology, health administration and administrative medicine. During D'Alessio's tenure as chair, which began in 1981, the department restructured its three master degree programs into the MS/PhD Population Health Graduate Program in 1997.

The following year the department was mostly geographically unified by its move to the WARF building, although research programs requiring wet labs remained in other buildings.

The department took on its new name, Population Health Sciences, in 2001, just as the medical school began its transformation into a school of medicine and public health under the leadership of former dean Philip Farrell, MD, PhD.

F. Javier Nieto, MD, MPH, PhD, took over as chair in 2002, the same year the department was named one of six institutions to house the Robert Wood Johnson Foundation Health & Society Scholars Program for postdoctoral researchers.

Meanwhile, department faculty helped land the $42 million federal grant that founded the UW Institute for Clinical and Translational Research; Maureen Smith, MD, PhD, now directs the institute's community-academic partnership branch.

Population health sciences faculty also were involved in launching the Wisconsin Partnership Program's public health initiative, including the recently accredited Master of Public Health program.

On the service side, affiliated units such as the Population Health Institute contribute to Wisconsin's healthcare policy debate and that of the nation through its regular *Issue Briefs*, conferences and forums.

Patrick Remington, MD '81, MPH, who was recently named associate dean for public health at the school, applauded the theme chosen for the anniversary symposium by the scientific program chairs, "Providing Evidence for Clinical Practice and Public Health." It reflects the school's mission to use scientifically based evidence to create a healthier population, "ruthlessly assessing the quality of evidence to make sure we find programs and policies that really work," notes Remington.

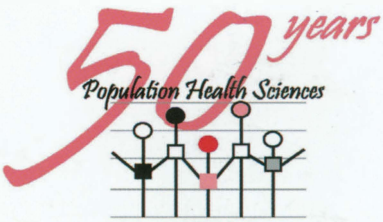
Looking forward, he says the work of transforming the school—and its future physicians and public health professionals—will continue.

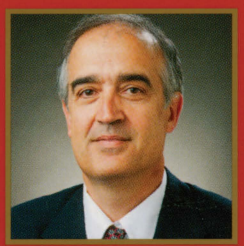
"We're trying to bring the population medicine approach to all students by incorporating public health into all aspects of the curriculum," Remington says.

All of this couldn't have happened at a better place, says Nieto.

"UW-Madison offers unique opportunities for rigorous research and training of professionals to address the determinants of health in populations and individuals," he says.

And so we can all raise a toast to the department, and to our own health. As the Italians say, "Salute Cent'anni,"—one hundred years of good health.





The Department of Preventive Medicine changes its name to the Department of Population Health Sciences.

2001

F. Javier Nieto appointed chair.

A new Master of Public Health degree program is started under the direction of Patrick Remington.

2005

Exceptional growth of department in faculty, research funding and course offerings with expenditures more than doubling.

1998-2008

Wisconsin Public Health and Health Policy Institute established.

2002

Robert Wood Johnson Foundation Health & Society Scholars Program begins.

Center for Global Health established, directed by Cynthia Haq.

2008

Survey of the Health of Wisconsin launched; Nieto is principal investigator.

2009

Department celebrates 50th anniversary.

A COUNTERWEIGHT in the year of *Darwin*

by Dian Land

As the "Year of Darwin" begins to wind down, Ronald Numbers, PhD, can start to think about getting back to his normal routine as a professor of medical history and bioethics at the University of Wisconsin School of Medicine and Public Health.

The year commemorating both the 200th anniversary of Charles Darwin's birth and the 150th anniversary of the publication of his *Origin of Species*, in which he formally described his revolutionary theory of evolution, has taken Numbers on a whirlwind tour of 15 conferences around the country.

He also flew to Havana in the spring for a meeting with the Cuban Society for the History of Science and Technology, traveled to the Vatican for a weeklong Darwin event and will end up in November at the New Library of Alexandria in Egypt for a large gathering organized by the British Council.

Numbers has been so widely sought after as a guest speaker in this Darwinian year because he is generally considered the world's leading historian on creationism, the movement that represents the strongest and broadest opposition to evolution. Creationism spans a spectrum of thinking, but essentially it rejects evolution's central tenets that the earth was created billions of years ago and all living things evolved over time.

"As a historian who studies religious responses to evolution, I'm often seen as the counterweight at these meetings," Numbers says. "The goal of my work has been to try to understand creationism, not defend it."

Numbers has written or edited several books on creationism, including the definitive history of the movement, as well as additional books on the relationship between science and religion. A former Guggenheim Foundation fellow, he is also a fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science. In 2008, the History of Science Society presented him its Sarton Medal, honoring his lifetime of scholarly achievement.

Numbers comes by his interest in creationism honestly, having been introduced to the concept "in the womb," as he says. He grew up in a family of Seventh-Day Adventists and remained a creationist until he attended

graduate school at the University of California, Berkeley. Thanks to his unique background, Numbers is widely respected by both evolutionists and creationists.

"Some people think because of my interests I must be a crypto-creationist, but in truth I'm not even a theist anymore," Numbers says.

When he began his career, Numbers wasn't sure where his niche specialty would take him. He certainly never imagined that creationism would be featured as extensively at international meetings centered on evolution as it has been in 2009.

"People used to say that creationism was just a bizarre thing confined to conservative Protestants in the American South," Numbers says, noting that a popular representation of creationist William Jennings Bryan appeared in the movie *Inherit the Wind*. "People said that it would never develop into anything of international significance."

As fate would have it, creationism has developed into something much bigger than Numbers and many others ever expected—and hence his popularity as the historical expert.

"Even in Europe, interest in creationism is rising globally as religious fundamentalism expands," Numbers says. "Across the board today, about 20 percent of the people in the world identify themselves as creationists. They are no longer an insignificant fringe element."

Numbers outlines the worldwide spread of creationism in the just-published book he edited on myths about science and religion called *Galileo Goes to Jail*.

In his chapter on the myth of creationism being uniquely American, he notes that a major movement is sprouting in the Muslim world, while at the same time creationism is creeping into Catholicism, Eastern Orthodoxy and Judaism.

"Creationism has caught on in a huge way in Korea, and it is growing in Indonesia and the former Soviet Union," he says. "It has been booming in Australia for years."

In Europe, historians at the University of Aarhus in Denmark have created a center to monitor creationism. The movement is strong in German-speaking countries, and a BBC poll a few years ago showed that fewer than half of all British residents believed in evolution.

In our Western Hemisphere, where it all began, another poll a few years ago indicated that 53 percent of Canadians believed that the first humans appeared no longer than 10,000 years ago—at a time when 47 percent of Americans felt the same way.

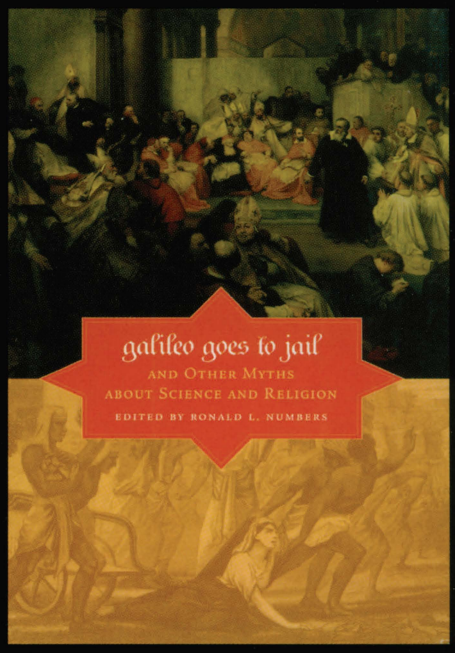
Creationists can be found in every walk of American life, including in high-profile places. Both Sarah Palin and Mike Huckabee are creationists.

But for the most part, says Numbers, creationism goes relatively unnoticed in the United States—until, that is, it reaches local school systems, where advocates who have created a big tent of opposition to evolution want the topic taught, and then moves to the courts.

"There are small battlefields in schools all over the country," he says, adding that the press picks up on the controversies only when the rumblings erupt into major court cases.

In the 1980s the Supreme Court ruled against anti-evolutionists who wanted to mandate the teaching of creationism if evolution was also taught. Nevertheless, despite this defeat, Numbers says creationists have continued to try to get around the constitutional objections.

The rise of creationism reflects a major pendulum swing in history, says Numbers.



"In the 1950s and 1960s, social scientists who studied religion predicted that the world was becoming secularized, that soon there would be no religion," he says. "But in the last 15 or 20 years, the concerns have shifted. Now we're trying to understand how conservative religion has become so robust around the world."

MOSS Named Associate Research Dean

Richard L. Moss, PhD, the Robert Turell Professor of Physiology and chair of the physiology department, has been appointed senior associate dean for basic research, biotechnology and graduate studies at the University of Wisconsin School of Medicine and Public Health (SMPH).

Moss will succeed Paul DeLuca, PhD, who recently was named UW-Madison provost and vice chancellor for academic affairs. The new SMPH associate dean position has been expanded to encompass biotechnology.

"Paul DeLuca leaves big shoes to fill, but Rick Moss is absolutely up to the challenge," says Robert N. Golden, MD, the Robert Turell Professor in Medical Leadership and dean of the school. "Rick has had a spectacular career, with remarkable success as a scientist and a teacher. In addition, he's been one of the most respected faculty leaders on campus. I'm thrilled he has agreed to take on this incredibly important position at the school."

In addition to serving as physiology department chair for more than two decades, Moss has held several other leadership positions at the school. He is the founder and director of the Cardiovascular Research Center as well as the co-founder and executive director of the Master of Science in Biotechnology Program.

Moss says he looks forward to increased focus on biotechnology at the school. The greater emphasis on biotechnology will enhance the school's position as a leader among public research universities nationally, he says.

A native of Fond du Lac, Wisconsin, Moss earned his PhD in physiology and biophysics from the University of Vermont in 1975. He was a post-doctoral fellow at the Boston Biomedical Research Institute until 1979, when he joined the SMPH faculty.

With continuous funding from the National Institutes of Health for nearly 30 years, Moss has directed a research program focused on the control of contraction in heart and skeletal muscles and alterations in contraction and excitability that contribute to dysfunction in diseases such as heart failure and hypertrophic cardiomyopathy.

In 2007, he was recognized for his research contributions with an honorary MD degree from Uppsala University in Sweden.

Moss has served in many national leadership positions, including as president of the International Society for Heart Research and on the executive council of the Biophysical Society.

Moss is a dedicated and respected teacher, guiding medical students through courses on muscle contraction, cellular excitability, and systemic cardiovascular physiology and pathophysiology. His teaching excellence has been honored with many awards, including the UW-Madison Chancellor's Award for Distinguished Teaching.

Moss has been a member of the Medical Education and Research Committee (MERC), the arm of the Wisconsin Partnership Program that has allocated $62 million in grants for research since the committee's inception in 2004. He became chair of the MERC when he officially started in his new position on August 10, 2009.

PAGE Named Chair of Medicine

Richard Page, MD, a leading cardiologist and president of the Heart Rhythm Society, has been named chair of the Department of Medicine at the University of Wisconsin School of Medicine and Public Health (SMPH).

Page, currently the Robert Bruce Endowed Chair in cardiovascular research and head of the division of cardiology at the University of Washington School of Medicine in Seattle, will join the SMPH faculty in early December.

"I am delighted that Dr. Page will be heading our Department of Medicine. I believe his leadership will take us to new levels of achievement," says Robert N. Golden, MD, dean of the SMPH and vice chancellor for medical affairs at the University of Wisconsin-Madison. "He is a nationally respected expert in the area of atrial fibrillation and other cardiac disorders. He will bring many years of clinical, research, educational and national leadership to our school."

Page received his undergraduate and medical degrees at Duke University, where he was elected to the Alpha Amega Alpha honor society. He completed a one-year Sarnoff Fellowship in the Department of Pharmacology at Columbia University.

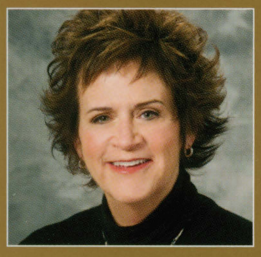
He finished his residency in medicine at the Massachusetts General Hospital, followed by cardiology and clinical cardiac electrophysiology fellowship training at Duke, prior to joining the faculty there.

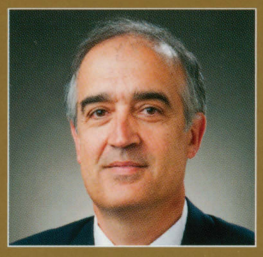
Page was then recruited to the University of Texas Southwestern Medical School in Dallas in 1992, where he served as director of clinical cardiac electrophysiology until his appointment as head of the division of cardiology at the University of Washington School of Medicine in 2002.

"Dr. Page is an outstanding leader in academic medicine. His contributions to the electrophysiology field have been enormous, and his commitment to mentoring students and trainees in research and clinical medicine is legendary," says Elizabeth G. Nabel, MD, director of the National Heart, Lung and Blood Institute. "The University of Wisconsin School of Medicine and Public Health is fortunate to have Rick join the leadership team."

Adds Paul Ramsey, MD, chief executive officer of University of Washington Medicine and dean of the School of Medicine, "All of us at University of Washington Medicine are proud of the leadership role Rick will be taking on in Wisconsin. As an innovative leader, he has made a number of important contributions to the division of cardiology at the University of Washington. He will be missed by faculty, staff, students and trainees."

Faculty Honored with Dean's Teaching Awards





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

Criteria for selection include:

- Excellence in education, including teaching technology, evaluation methods, administrative efforts, etc.
- Extraordinary and sustained dedication and effort on behalf of student education.
- Demonstrated high level of teaching effectiveness.
- Innovation in education.

The following teachers were given the awards at Medical Education Day last spring.

Jane Zanutto Crone, NP, MEd, MS

Jane Crone has earned the respect of SMPH students and faculty for her extraordinary teaching skills and the positive influence she has on preclinical medical students and internal medicine residents. As director of the gynecology-genitourinary training program, she offers students timely feedback and makes sure they leave these sessions confident in their abilities. Crone has also developed "Faces of Patients," a segment for new student orientation that dramatically introduces the class to patients who discuss how they deal with their illnesses.

Kimberly M. Lansing, MD, PhD

An instructor in the Department of Family Medicine's Primary Care clerkship at the school's Western Academic Campus in La Crosse, Lansing is noted for her original and inventive educational strategies, enthusiasm and commitment to students. She developed the problem-based learning cases that have become a cornerstone of the clerkship. She also has been instrumental in shaping the Wisconsin Academy for Rural Medicine (WARM). Her experience with case-based teaching and her creative ideas have also been an asset in developing new integrative cases for Med 1s.

F. Javier Nieto, MD, MPH, PhD

Nieto's accomplishments as a teacher, mentor and internationally recognized author have had a significant impact on the SMPH and the Department of Population Health Science, which he chairs. He has played a critical role in creating and shaping a new public health curriculum for medical and public health students. He developed the course Population Medicine and Epidemiology, which is required for all first-year medical students, and champions the need for more epidemiology throughout the curriculum.

Katharina S. Stewart, MD

Stewart's enthusiasm and drive to teach the complexities of obstetrics and gynecology make her a well-respected instructor and positive role model. Stewart led a departmental task force that made several improvements in the clerkship program. Under her leadership, the clerkship has also received significantly higher marks from students for learning environment, faculty interest and accessibility. Student approval of the clerkship's learning objectives, individual observation and feedback from faculty, and teaching effectiveness have also been high in comparison to the national mean.

Stephen J. Weiler, MD

In nearly three decades at the SMPH, Weiler has consistently been a leader in educational programs and innovations both within his own Department of Psychiatry and more broadly across the undergraduate medical curriculum. He has served as psychiatry residency program director, course director for the preclinical psychiatry courses, associate chair in psychiatry for education and year two faculty leader of the medical school curriculum transformation. He has chaired the Curriculum Architecture Task Force and the Area Oversight Committee on Neuroscience.

SHINING A SPOTLIGHT ON THE SCHOOL
Preparing for an Accreditation Visit

by Dian Land

The University of Wisconsin School of Medicine and Public Health (SMPH) will have a unique opportunity to shine a spotlight on its transformation when the Liaison Committee on Medical Education (LCME) comes to campus for an official three-day site visit in November 2009.

The LCME, the official accrediting body for all United States and Canadian medical schools, assesses each school seeking accreditation every seven years. The process determines whether an institution meets the highest standards of function, structure and performance.

"We look forward to this coming site visit so we can showcase our revolutionary model that unites public health and medicine," says Robert N. Golden, MD, dean of the school. "We believe that this innovative integrated approach addresses the evolving health and healthcare needs of the people of Wisconsin better than any other."

The accreditation process outlined in the LCME self-study guide is very specific and requires the involvement of dozens of people, explains SMPH associate dean for students Patrick McBride, MD '80, MPH, who heads the steering committee.

"A detailed self-assessment is the first step," says McBride. "In January, we created five self-study subcommittees that have now gathered and analyzed data clarifying our school's strengths and challenges."

The five committees dealt with institutional setting, the educational program leading to the MD degree, medical students, faculty, resources, and required courses and clerkships.

"More than 124 basic and clinical science faculty, medical students, staff, alumni and administrators from the school, UW Hospital and Clinics, UW Medical Foundation and UW-Madison participated on the subcommittees," notes McBride.

As required by the LCME, the student subcommittee, composed only of medical students, created and distributed a questionnaire, and analyzed and presented their findings in a separate report.

The steering committee then synthesized the subcommittee reports into a comprehensive assessment that addresses questions in the self-study guide and focuses on noteworthy accomplishments and challenges. The subcommittees also made recommendations for addressing potential problematic areas where noncompliance with accreditation standards could occur.

From these multiple analyses, a final summary report was written and has been submitted to the LCME with other requested information.

Once the LCME team arrives for the site visit, says McBride, it will meet with faculty, students, department chairs, course directors and administrators to review and discuss further the institutional self-study.

"I am confident we will be successful," says McBride.

In March 2003, following its last visit to the SMPH, the LCME granted the school full accreditation for eight years, the maximum time awarded. Of 125 LCME standards, the school fell short in only four areas: facilities, career counseling, self-directed learning and the learning environment.

"We have worked hard to address these concerns," McBride says.

The LCME process is time- and labor-intensive, says Golden, but it is very helpful.

"It is an opportunity to evaluate and reconfirm our core values, assess our progress and receive consultative input from our colleagues serving on LCME," he says.

Annual Cancer Symposium Honors HOWARD TEMIN and HIS LEGACY

by Dian Land

Two Nobel Laureates came to the School of Medicine and Public Health (SMPH) in June 2009 to participate in the second annual McArdle Symposium on Cancer, which this year honored Howard M. Temin, PhD, also a Nobel Laureate.

Harold Varmus, MD, currently president of Memorial Sloan-Kettering Cancer Center, won the Nobel Prize in Physiology or Medicine in 1989 for his discovery of the cellular origin of retroviral oncogenes. Harald zur Hausen, DSc, MD, of the German Cancer Research Center, won the Nobel Prize in Physiology or Medicine in 2008 for discovering the role of human papilloma viruses in cervical cancer.

This year's symposium commemorated the 75th anniversary year of Temin's birth and was a tribute to his life, work and legacy.

"Howard was a dedicated researcher, teacher and mentor," says tumor virologist Bill Sugden, PhD, professor of oncology at McArdle, who was a close colleague of Temin's until his death in 1994. "He was an inspiring intellect both to his students and to his many friends fortunate enough to know him during his 34 years at McArdle."

Nearly 300 people attended the symposium, which featured a wide range of fundamental and clinical topics in cancer. It concluded with a dinner and evening program at the Memorial Union Great Hall, where many colleagues and speakers paid tribute to Temin, including his widow, Rayla Temin, PhD, an emeritus adjunct professor of genetics.

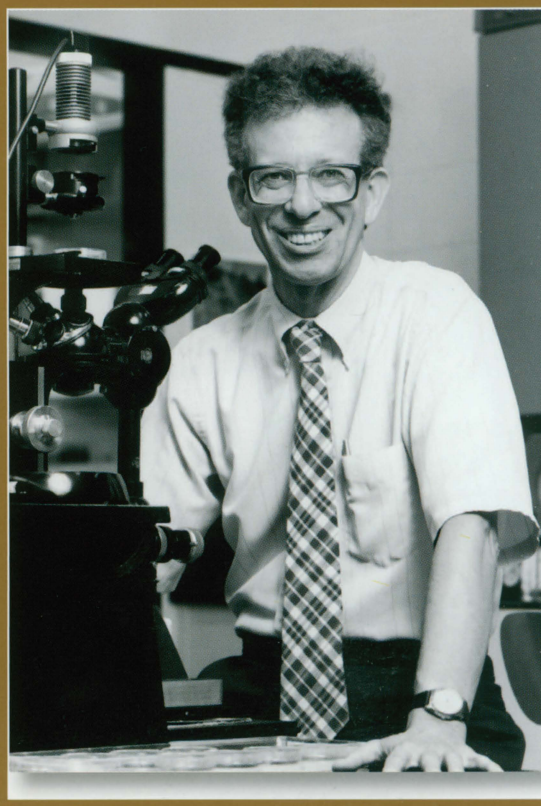
Temin received his PhD from the California Institute of Technology, where he worked in the laboratory of virologist Renato Dulbecco, PhD. Most people at the time were studying influenza and polio viruses, but Temin chose to study Rous sarcoma virus (RSV), a cancer-causing virus with RNA rather than DNA as its main genetic material.

After a brief postdoctoral period, Temin joined the SMPH faculty in 1960. Studying the RSV life cycle with his team, he proposed that although the virus contained RNA, it maintained itself inside infected cells as a DNA "provirus." This hypothesis overturned the "central dogma" of one-way information flow from DNA to RNA, and so it was highly controversial and met with disdain.

Nevertheless, Temin continued to provide experimental support for his provirus hypothesis. His team ultimately demonstrated that proviral DNA was synthesized by a reverse transcriptase carried inside the infectious RSV particles. Almost simultaneously, David Baltimore, MD, demonstrated an equivalent activity in a murine leukemia virus. The general importance of their results was immediately recognized and in 1975 Temin, Baltimore and Dulbecco together were awarded the Nobel Prize in Physiology or Medicine.

Temin and his students pursued their studies of the basic problems of retroviral replication for the next 19 years. During that time, Temin was well known as a dedicated classroom teacher.

Tumor virology continues to be a dynamic area of research at the SMPH, says Paul Ahlquist, PhD, a Howard Hughes Medical Institute investigator at



McArdle who was an organizer of the symposium.

"The tumor virology group at McArdle is widely recognized for its strength, and forms a core of an even larger, campus-wide Human Cancer Virology Program within the UW Carbone Cancer Center," he says.

The symposium was sponsored by the McArdle Laboratory, the Carbone Cancer Center and the Morgridge Institute.

STEVE KAGEN, MD '76

From Allergy Clinic to U.S. CONGRESS

by Susan Lampert Smith

The route from the allergy clinic to the former office of John F. Kennedy in the U.S. Capitol building is far from common, but one University of Wisconsin School of Medicine and Public Health (SMPH) professor who knows Representative Steve Kagen, MD '76, wasn't a bit surprised by the journey his friend took.

Kagen, an allergist by training, was elected a congressman in 2006.

"Certainly, when we were in college, he wanted to be a physician, but he also talked about running for political office," says Paul Sondel, MD, PhD, professor of pediatrics, human oncology and medical genetics at the SMPH.

Sondel has known Kagen longer than almost anyone. The two met at age 11 when they were campers at Camp Manitowish in Boulder Junction, Wisconsin. (If prompted, both can still sing the camp song.)

"Steve was an incredible camper and athlete, the kind of guy who wouldn't let a brick wall stop him," says Sondel, who recalls Kagen being able to flip a canoe onto his back and portage at an impressively early age. The two spent three summers meeting up at camp (Sondel was from Fox Point, Kagen from Appleton) and then didn't see one another again until they discovered they were both undergraduates in the same pre-med classes at UW-Madison in 1968.

The camp friends wound up being college roommates during those turbulent Vietnam-era years. They lived just a few blocks away from Sterling Hall when it was bombed by anti-war protesters in 1970. Kagen recalls Sondel running down the street to see if there were survivors who needed help.

"We had some interesting discussions during those years," Kagen recalls. "We were non-violent revolutionaries, very much opposed to our country's involvement in Vietnam."

But it wasn't all politics. Kagen was a speed skater at a time when Madison speed skaters were capturing Olympic gold. Kagen says he can claim that he trained with multiple medal winner Eric Heiden, although he says it's more accurate to say, "I can tell you what Eric Heiden looks like from behind."

Kagen says his medical school years were most influenced by pulmonologist Helen Dicke, MD '37, and by former medical school dean William S. Middleton, MD, who was his advisor. Kagen remembers one day, when he was particularly tired from speed skating, Middleton caught him yawning during a lesson at the veterans hospital.

"He said to me, 'Dr. Kagen, you're going to have to decide what kind of a doctor you're going to be before you see any of my patients,'" Kagen recalls. "'There are doctors with no spine, doctors with a spine of clay and doctors with a spine of steel.'"

From Wisconsin, Kagen went to Northwestern University Medical School and the Medical College of Wisconsin for training, and then moved home to Appleton, where he eventually founded a chain of allergy clinics.

He published more than 60 research papers, one of which tied seasonal outbreaks of asthma and allergies in the Fox River Valley to the hatching of local insects known as lake flies on Lake Winnebago. A paper he published on the connection marked the first time anyone had sequenced and cloned the gene for the allergen.

Even for people without allergies, Kagen was a familiar name in the area, as his Fox Valley clinics sponsored the nightly "pollen report" during the television newscast and he created the "Allergy Arcade" at the Fox Cities Children's Museum.

Kagen's parents had instilled a sense of public service into their children. His father, Marv, an Appleton dermatologist, ran unsuccessfully for U.S. Congress in the 1960s. And what Kagen saw as a physician made him want to change things. He was distressed that some of his patients with serious asthma and allergies would forgo drugs and treatments they couldn't afford.

"Ultimately, it was the fact that government was not helping my patients," Kagen says. "I heard the same stories every doctor hears."

While Kagen had decided back when he was an undergraduate that one day he would run for Congress, convincing his wife, Gayle, that the time was right took a few years. Finally, in 2006, she agreed that their children were old enough.

Kagen financed his race himself, spending nearly $2 million, and defeated Wisconsin Assembly Speaker John Gard in the most expensive congressional race in Wisconsin history. The U.S House of Representatives ethics committee later ruled that Kagen would have to sell his clinical practice.

Kagen ran on an affordable healthcare platform he called "No Patient Left Behind." One key component included open disclosure of pricing.

"Your medical care should be like when you walk into a restraurant and order coffee—you know up front what you'll be charged," he says.

His plan also called for a single price structure for everyone's drugs and services, and a single insurance pool that would not turn anyone away for pre-existing conditions.

Kagen (foreground) and Sondel, shown here in the 1970s, have been friends since boyhood.

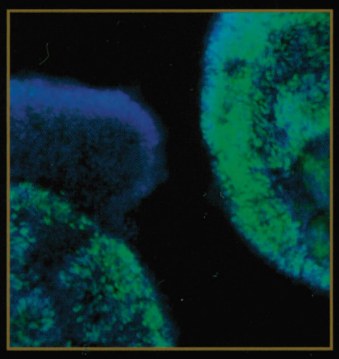
Although Kagen and President Obama are in agreement on the issues, selling the ideas to the American public has proved to be more contentious. Kagen faced the brunt of the "town hall backlash" last August after protesters opposed to government-run healthcare heckled him at a town hall meeting in Green Bay. But he remains an optimist.

"We're listening to everybody, but we're going to get the job done," Kagen says. "I'm very pleased the president has linked civil rights to healthcare. You shouldn't be discriminated against due to the way you were born."

Kagen wants his SMPH classmates to engage in the national debate.

"If anyone in my class believes they're going to retire, they're not. It's called reoccupation," he says. "I urge them to get involved in the political process. It should be doctors and nurses who decide who lives and who dies, not politicians."

From Stem Cells Come Retina Cells



SMPH scientists have successfully grown multiple types of retina cells from two types of stem cells, suggesting a future in which damaged retinas could be repaired by cells grown from the patient's own skin.

Even sooner, the discovery should lead to laboratory models for studying genetically linked eye conditions, screening new drugs to treat those conditions and understanding the development of the human eye.

The lead author on the study was David Gamm, MD, PhD, an assistant professor of ophthalmology and visual sciences.

The work built on the 2007 advance by James Thomson, PhD, SMPH anatomy professor, who made human stem cells from skin, called induced pluripotent stem (or iPS) cells.

The retina project began by using embryonic stem cells, but incorporated the iPS cells as they became available.

To make the iPS cells, the Wisconsin team took cells from skin, turned them back into cells resembling embryonic stem cells, then triggered the development of retinal cell types. The team had similar success in creating the multiple specialized types of retina cells from embryonic stem cells as well.

Ultimately, the group was able to grow multiple types of retina cells beginning with either type of stem cell, starting with a highly enriched population of very primitive cells with the potential to become retina.

The study appeared in the August 24, 2009, *Proceedings of the National Academy of Sciences*.

Brain Scans Show Uncertainty Fuels Anxiety

Emotional centers in the brain respond much more strongly to disturbing photos if the person didn't know what was coming, a new study has shown.

"Expectations have a dramatic impact on performance at work and school, interpersonal relationships and health," says lead author Jack Nitschke, PhD, SMPH assistant professor of psychiatry. "Expectations can alter perceptions of negative events as well as neural and emotional responses."

For the study, published in the September 2009 *Cerebral Cortex*, researchers used functional magnetic resonance imaging (fMRI) to chart reactions in two parts of the brain important for emotional responding: the insula and the amygdala.

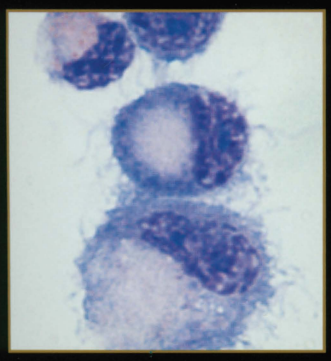
Volunteers were presented pictures that were either neutral or aversive. Before each image, the subject saw a symbol signaling one of three things about the image that would follow: a circle to show it would be neutral, an "X" to signal it would be disturbing or a question mark, which indicated uncertainty.

The insula and the amygdala both responded more strongly to the aversive picture if it was preceded by the question mark. The brain areas responded less strongly to aversive pictures if volunteers received a cue warning that the disturbing picture was coming.

Nitschke says the results have clinical implications.

"If we can reduce people's feelings of uncertainty, we can reduce their anxiety and their response to bad experiences," he says.

White Blood Cells Made from Stem Cells



With a recipe of biological signaling molecules, SMPH researchers have transformed embryonic stem cells into progenitors of white blood cells as well as six types of mature white blood and immune cells.

While clinical use is some years away, the new technique could produce cells with enormous potential for studying the development and treatment of disease. The technique works equally well with embryonic stem cells and adult pluripotent stem cells.

If the adult cells came from people with certain bone marrow diseases, blood cells with specific defects could be produced to study the origin of the disease. The technique could also be used to grow specific varieties of immune cells that could target specific infections or tumors.

The most likely immediate benefit is cells that can be used for safety screening of new drugs, says study leader Igor Slukvin, MD, PhD, assistant professor of pathology and laboratory medicine.

"Toxicity to the blood-forming system is a key limit on drug development, so these cells could be used for safety testing in any drug development," says Slukvin.

The new technique promises to produce large quantities of cells in a dish that can be more exactly tailored to the task at hand, without requiring a constant supply of bone marrow cells from donors.

"The next major challenge is to produce blood stem cells—called hematopoetic stem cells—that might be used in a bone marrow transplant," he says.

A New "Bent" on Fusion

The fundamental process of fusion—which occurs at the moment of conception and when nerve cells release neurotransmitters—requires that a membrane be bent before the merging can begin. The protruding dimple provides a small point of contact for easy fusing with another membrane.

SMPH researchers reported the finding in the August 21, 2009, issue of *Cell*, supplying the first concrete evidence that a protein called synaptotagmin plays a critical role in initiating the process.

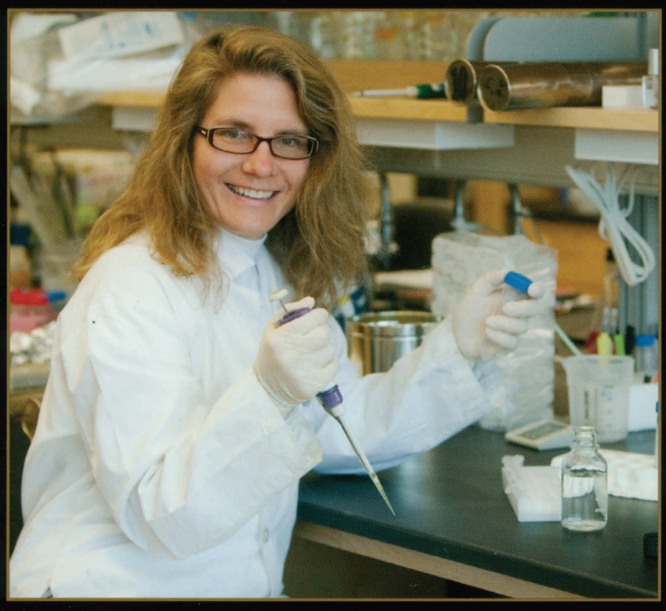
Fusion begins with membrane trafficking, when a vesicle, or bubble-like container, buds off a donor compartment and travels to and fuses with an "accepting" compartment, explains senior author Edwin R. Chapman, PhD, a Howard Hughes Medical Institute investigator in the SMPH physiology department who is an expert on synaptotagmin.

His team created vesicles with different degrees of curvature. By exposing the differently-curved vesicles to mutated synaptotagmin, which lacked membrane-bending capability, the researchers showed that the target membrane must be bent for fusion to occur.

To compensate for the mutated synaptotagmin 's inability to bend membranes, the researchers turned to another protein that controls membrane bending when vesicles return to their original form during budding and fission. That protein overcame the fusion deficiency.

The UW team also showed that a particular segment of synaptotagmin is responsible for bending membranes.

Stimulus Grants Reach $10.8 Million and Climbing



Laura Knoll is one of dozens of SMPH researchers whose work is being funded through federal stimulus grants.

by Susan Lampert Smith

A $1.2 million stimulus grant will allow Wisconsin scientists to study whether meditation or exercise can help prevent the flu.

The grant is one of dozens of School of Medicine and Public Health (SMPH) projects being funded through the American Recovery and Reinvestment Act.

Stimulus grants will also buy a new $449,000 flow cytometer for cancer researchers working in the Wisconsin Institutes for Medical Research, help create new animal models for breast and colon cancer, and study the inner workings of the eye.

Bruce Barrett, MD, PhD, had already received high scores from the National Institutes of Health for his proposal to study whether exercise or meditation can reduce the public health burden of acute respiratory infection. But the money became available only after Congress recently passed the stimulus act.

"We've been able to hire four people and we've had a tremendous response to our call for participants," says principal investigator Barrett, an associate professor of family medicine.

Barrett became interested in the topic after seeing an earlier study by SMPH and Waisman Center researcher Richard Davidson, PhD, which showed an enhanced immune response to influenza vaccination among people practicing meditation techniques.

"The money is not the most important part," says Barrett. "Every year, 36,000 deaths and about a half million hospitalizations are caused by the flu in the U.S. And flu shots are only about 50 percent to 60 percent effective. So if we can increase the effectiveness of the shot, we can save many thousands of lives."

Barrett's grant is one of $10.8 million in ARRA funds received so far by SMPH researchers. As of September 1, 2009, 36 grants have been awarded to SMPH faculty, with more in the pipeline.

"The stimulus grants are providing critical support in development of infrastructure for research, hiring new faculty and staff, and launching research initiatives," says Richard Moss, PhD, SMPH senior associate dean for basic research, biotechnology and graduate studies. "As a consequence of the increased funding provided by these grants, the pace of discovery in our research programs will be greatly accelerated."

A sampling of other SMPH projects funded by ARRA include:

- $731,340 over two years for Paul Kaufman, MD, chair of ophthalmology and visual sciences, to study aqueous humor dynamics plus another $7,425 supplemental grant for science education.
- $371,250 over two years for Laura Knoll, PhD, associate professor of medical microbiology and immunology, for the creation of a tissue culture model for Toxoplasm a gondii sexual development.
- $734,740 over two years to William Dove, PhD, professor of oncology in the McArdle Laboratory for Cancer Research, to study the progression to colon cancer in a spectrum of pathways (Dove also received another $31,025 for a rat genetic model for familial human colon cancer).
- $321,877 over six months to Susan Thibeault, MD, assistant professor of surgery (otolaryngology), to engineer the vocal fold extracellular matrix plus another $586,456 over two years for mucosal immunological and bacterial characterization in chronic laryngitis.

Stem Cells Save Life of Scientist Who Studies Them

by Susan Lampert Smith

Kurt Saupe, PhD '94, an associate professor of medicine at the University of Wisconsin School of Medicine and Public Health (SMPH), recently learned that he received a federal stimulus grant of $107,195 over 11 months to continue his studies of calorie restriction's impact on the stem cells that occur naturally in both heart tissue and fat tissue and help repair damage to the heart.

But as exciting as that news was, Saupe has had an even more personal relationship with another type of stem cell.

In December 2007, Saupe, then 46, was suddenly so out of breath he couldn't keep up with his teammates at his regular noon-hour soccer game at the McClain Center. Over the Christmas holidays, his wife, Nancy Sweitzer, MD '93, PhD '94, a UW Health cardiologist, insisted he go to urgent care.

There, the resident recognized Saupe as his first-year physiology professor.

"He pronounced my name right, which never happens," says Saupe, a Madison native whose name rhymes with "copy."

A chest X-ray showed Saupe had a collapsed lung due to a buildup of fluid in his chest, and analysis of this fluid brought even more grim news: acute lymphoblastic leukemia. The disease most often occurs in children, where it has a high cure rate. But the prognosis is dire for adults: just 25 percent live five years after their diagnosis.

Saupe soon learned that his best chance was a stem-cell transplant from bone marrow, a blood disease treatment that has been in wide use for more than two decades. The International Bone Marrow Registry matched him with a female donor in Germany. He underwent chemo and radiation therapy in May 2008 to wipe out his bone marrow and immune system.

Then Saupe received stem cells harvested from the donor after she got an injection that made her bone marrow release stem cells into her bloodstream—newer methods make stem cell donation more like giving blood than the gruesome bone drilling of the past.

The transplant has been a success. Laboratory tests show that Saupe's immune system is now female; his blood cells carry the XX chromosome pattern of a woman. And, yes, he has endured plenty of teasing from his soccer pals about that.

On being a patient, stem cell researcher Kurt Saupe says, "The more knowledge you have, the better."

"Overall, the experience taught me how difficult and complex it is to be a patient," Saupe says. "The more knowledge you have, the better."

He credits his oncologist Natalie Callander, MD, a UW Health hematologist, and his wife, who treats heart failure patients who undergo transplants, with advising him on the many anti-rejection drugs he now takes. He still struggles with health issues as a result of the chemo and transplant, but says his wife warned him, "When you have a transplant you trade in one set of problems for another."

He also has a new appreciation for bone-marrow donors. And while he isn't back into soccer shape yet, this past summer, Saupe appeared at a Madison Mallards baseball game benefiting Restoring Hope, a Middleton house for transplant patients. He says the couple's children, Peter, 8, and Geneva, 10, loved that experience.

"They could care less that I got tenure," Saupe says, "but they thought throwing out the first pitch was really cool."

Increasing Enrollment to Meet the State's Needs

LARGEST GROUP EVER Begins Classes

by Dian Land

The largest entering class in school history—168 students—has just begun its first year of medical education at the University of Wisconsin School of Medicine and Public Health (SMPH).

And fortunately for the residents of the Badger State, the class includes 18 students who are part of the Wisconsin Academy for Rural Medicine (WARM), the school's specialized MD program that focuses on underserved populations in rural Wisconsin.

"The University of Wisconsin is committed to helping Wisconsin address the serious projected shortage of doctors, which is expected to affect in particular rural areas," says SMPH dean Robert N. Golden, MD. "Our state has a higher proportion of citizens living in rural areas compared to the national average. It also has a lower percentage of doctors practicing in rural areas. We can help change those statistics by developing programs to attract and retain physicians in rural Wisconsin."

For many years, class size hovered around 150, says Lucy Wall, assistant dean for admissions at the SMPH. But the school this year substantially increased the number of students admitted to the MD program.

The growing WARM program, begun in 2007, helps explain the increase. In the first year of the program, the school enrolled five WARM students, with the goal of enrolling a total of 25 first-year students by 2011.

"But interest in the program has been greater than we expected, so we have accelerated the growth in our WARM student admissions the past two years," Wall says. The 18 new WARM students enrolled this year have all expressed a commitment to rural practice.

The past academic performance of all members of the Class of 2013 remains as high as ever, says Wall, with the mean cumulative grade point average being 3.72. Nine of the medical students have master's degrees and three have PhDs.

Fifty-three percent earned degrees from Wisconsin colleges and universities; degree-granting institutions outside Wisconsin included Harvard, Stanford and University of Chicago.

But strong academics aren't the only thing the admissions committee wants to see in applicants.

"We are equally interested in each individual's personal qualities," says Wall."We want to know what experiences they have had in life, what activities they have engaged in, the extent to which they may have gone out of their comfort zone to do other things in life."

So it should come as no surprise that members of the Class of 2013 include a former collegiate women's hockey player, hospice volunteer, intern for Mayor Richard M. Daley in Chicago, martial arts instructor, Special Olympics volunteer, legislative intern for a Wisconsin senator, rancher and burn unit volunteer.

One student has had open heart surgery twice, and two are hearing impaired—all are healthy and thriving.

What people have experienced in the past helps shape them for today and tomorrow, says Wall.

"These things are important because they can translate into how you might relate to classmates, faculty, other members of the healthcare team and definitely patients," she says. "We're interested in a person's character."

Unforgettable Experiences With INTERNATIONAL Medical Students

After riding camels in the Sahara, Vasu Sunkara connects with new and old IFMSA friends.

by Vasu Sunkara, MD '09

This past March, I found myself in Hammamet, Tunisia, with 800 other medical students from around the world. We were there attending the general assembly of the International Federation of Medical Students Association (IFMSA). The week of group discussions, lectures and training sessions is usually the highlight for IFMSA students. Our experience in that small but beautiful country bordering the Sahara desert was unforgettable.

The IFMSA is the largest medical student organization in the world, with 1.2 million members in 95 different countries. The sheer size of the organization makes it an excellent vehicle for promoting intercultural connections. From Taiwan to Chile, medical students work under the IFMSA banner to coordinate clinical and research exchanges, as well as to host IFMSA-supported international projects.

During my last two years as a medical student at the School of Medicine and Public Health (SMPH), I served as a national officer for the United States, overseeing IFMSA basic science research exchanges. This was as part of the American Medical Students Association (AMSA). Working with students at the universities of Virginia, North Carolina, SUNY Upstate and Wisconsin, I helped promote the growth of the AMSA-IFMSA research exchange program.

The premise behind the exchanges is that students from IFMSA member countries travel to each other's countries to do research projects for one to two months. It is a true "one-for-one" exchange overseen completely by medical student officers. This keeps the costs low. A typical American exchange has fees that do not exceed $600. The fee includes one month of free lodging and often a food allowance.

Our team invited American professors to host IFMSA international students in their labs for the summer, marketed IFMSA exchanges to first-year medical students at our schools, oversaw the receipt of application payments to AMSA and screened applications for students applying to the program.

It was a lot of work, but completely worth the effort. In one year, we increased the number of projects by 150 percent, recorded the best year for the number of outgoing students, had a Nobel Laureate in medicine (Dr. Oliver Smithees) participate for the first time

Abubaker (right) and Vasu in traditional clothes of their countries at the closing ceremonies.

in IFMSA history and expanded the program to the University of Iowa.

The UW-IFMSA example has been one of the biggest success stories. With the support of faculty members such as Drs. Richard Moss and Gary Lyons, we currently have four research projects available for incoming students. This summer we welcomed to Madison our first group of IFMSA students—from Turkey, Spain and France.

We also sent Jason Chiang, a SMPH Med 2, to Egypt this summer. Jason is the third UW student who has benefited from the program in the last three years.

The general assembly in Tunisia provided me my most memorable experience. The fellow IFMSA students I met were truly remarkable individuals. Smart, gracious and ambitious are just a few of the words that come to mind in describing many of them. Two students impressed me the most.

Mariana, from Portugal, was one of the most dynamic people I met at the conference. Her confidence and poise were tempered by her efforts in not letting anyone feel left out. She organized a working group that met multiple times during the general assembly on how to promote the research exchange program internationally. At the conclusion of the working groups, each group was asked to present their findings to the entire audience. While the other groups restricted presentations to only one or two people, hers was the only one in which she had every person within the group speak up.

Not surprisingly, her consideration and hard work were quickly recognized by the entire group. She was given the best new officer award. In accepting the award in front of 40 clapping people, her surprise was real. In listening to her words of thanks, I realized that here was a truly genuine person who worked not for fanfare or out of making herself seem bigger than others, but simply out of an interest in making things better. It was inspiring.

Abubaker, from Sudan, introduced me to a country I knew only through the limited perspective of programs on CNN. He had single-handedly led the creation of a new IFMSA project, the Sudanese Tropical Education Project (STEP). Based at the University of Khartoum, STEP not only provides clinical and basic science instruction in the pathogenesis of diseases such as Leishmaniasis and tuberculosis, but also provides participants the chance to observe patient care.

Organizing this took the coordination of many fellow medical students as well as the administrative support of his medical school. There was also the matter of ensuring no visa delays for participants. Abubaker handled all these issues with poise and professionalism. I was impressed that at only 20 years of age he had successfully overseen such a large project. It made me realize how much a medical student can accomplish.

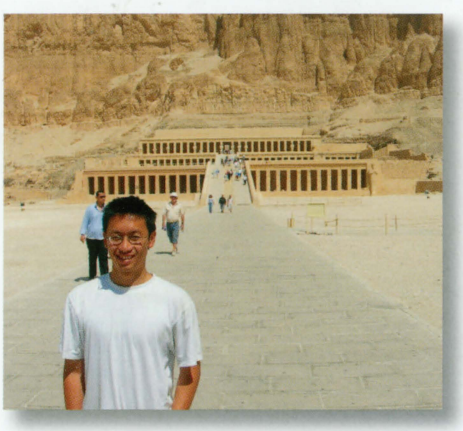
The impact of those two students on my thinking has been significant. And Jason, who is now running UW's AMSA-IFMSA with undergraduate Kyle Swinsky, felt something similar on returning from Egypt.

He says: "Immersing myself in the healthcare setting of a developing country opened my eyes to an entire world where both resources and infrastructure were lacking. Despite these shortcomings, the Egyptians I encountered were some of the most generous and compassionate people I have ever met. I was amazed by a healthcare provider who would take care of not only his patients, but everybody he saw inside and outside of the clinic. After my short stay was over, I had a group of lifelong friends and colleagues. The personal and professional growth that I gained from this exchange is impossible to quantify."

Faculty, as well, have seen the value of the program.

Says Dr. Lyons, "My student, Annaick Desmaison from the Faculty of Toulouse Purpan, has been outstanding. I wish she could stay. She is one of the brightest students I have interacted with. Although she had little previous lab experience, she accomplished a great deal in eight weeks."

The IFMSA enriched my medical school experience tremendously. It does this for thousands of students and faculty around the world. As the program rapidly expands I hope that even more students, faculty and staff will get to see what makes this organization so special.



Med 2 Jason Chiang spent time in Egypt last summer. He now co-directs UW's AMSA-IFMSA.

New Undergraduate Program Aims at Underserved Populations

With a premed advisor, undergraduates from UW-Milwaukee and UW-Platteville listen to WARM student Clay Dean during a tour of SMPH facilities.

by Kris Whitman

Eleven University of Wisconsin System undergraduate students—all of whom envision future careers as physicians caring for rural and urban patients in Wisconsin—recently entered the first of two academic years in a new program addressing a serious state and national threat: inadequate access to quality healthcare for many individuals in urban and rural areas, where too few physicians choose to practice.

The undergrad pre-med students recently finished the inaugural summer session of Rural and Urban Scholars in Community Health (RUSCH), a new offering of the School of Medicine and Public Health (SMPH), in partnership with UW-Milwaukee and UW-Platteville.

The new program includes community health experiences, career mentoring, research opportunities and academic support.

"RUSCH serves as a bridge between the SMPH, UW-Platteville and UW-Milwaukee to encourage future medical students to consider practicing in underserved areas," says Robert Golden, MD, dean of the school. "Because RUSCH aims to attract students from diverse and disadvantaged backgrounds who hope to attend the SMPH—and to subsequently practice in rural or urban areas of Wisconsin—it provides a wonderful opportunity to increase the diversity in the backgrounds of our students."

To be eligible for the program, students must have:

- fulfilled science course prerequisites,
- met minimum GPA standards,
- completed at least a year of undergraduate study and
- demonstrated a commitment to community service.

Says Byron Crouse, MD, SMPH associate dean for rural and community health, "RUSCH is among three SMPH initiatives designed to address Wisconsin's worsening shortage of physicians, particularly among those who practice in underserved areas."

The school's other programs with goals that complement RUSCH are the Wisconsin Academy for Rural Medicine (WARM), in which SMPH medical students have opportunities to participate in a rural setting, and Training in Urban Medicine and Public Health (TRIUMPH), which provides medical students experiences in urban-setting clinical medicine and community and public health.

"The strong academic programs in science and biology at UW-Platteville and UW-Milwaukee result in students who are well prepared to be successful in RUSCH," Crouse says.

Through opportunities to learn about careers in medicine and to participate

–Continued on page 38

American Indian Students **Explore Health Sciences Professions**

One hundred seventy-seven American Indian middle school and high school students from all corners of the Badger State traveled by car and bus last spring to attend the fifth annual American Indian Health Sciences Day at UW-Madison.

Co-sponsored by numerous groups on campus, including the UW School of Medicine and Public Health, the UW School of Pharmacy, the UW School of Nursing as well as the Great Lakes Inter-Tribal Council, the daylong program, called "Health Is Our Future," took place in the Health Sciences Learning Center.

The yearly event serves to both welcome and attract American Indian students into the health sciences professions.

Jacquelynn Thompson Arbuckle (St. Croix Ojibwe), MD '95, clinical assistant professor of general surgery at the school, was the guest speaker.

Following her talk, the students explored multiple health career activity stations, getting up-close introductions to drug compounding, taking vital signs, nutrition and organ systems.

The students met American Indian professionals in the health sciences and had an opportunity to interact with UW-Madison American Indian students who have successfully navigated pre-college and college programs. A panel of current health science students and professionals also provided guidance and advice. Careers in medicine, nursing, pharmacy, library science and biomedical engineering were described.

Next year's program will be held on April 9, 2010.

Lasker Stamp Unveiled

The United States Postal Service chose the School of Medicine and Public Health (SMPH) as the place to showcase a new stamp honoring medical research advocate Mary Woodard Lasker.

The unveiling of the stamp, part of the "Distinguished Americans" series, took place, fittingly, in the soaring atrium of the new Wisconsin Institutes for Medical Research May 14, 2009.

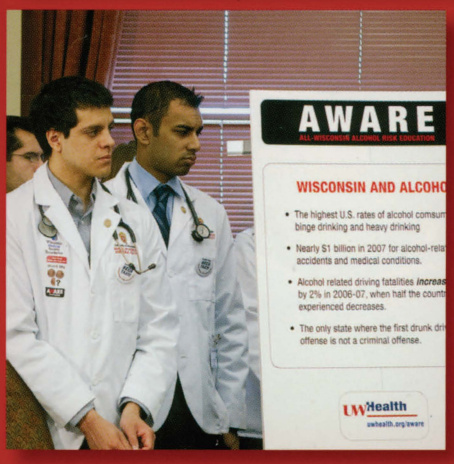
Originally from Watertown, Wisconsin, Lasker pressed tirelessly for research into cancer, heart disease, stroke and AIDS. She and her husband, Albert, founded the Lasker Foundation and created the Lasker Awards, which are among the most prestigious in American science and medicine.

More than 300 Lasker Awards have been presented since the program's inception in 1945. Three UW-Madison scientists are among the illustrious recipients: cancer researcher Howard Temin, PhD, who went on to win the Nobel Prize; Paul Carbone, MD, former director of the UW Carbone Cancer Center; and Karl Paul Link, the UW biochemist who discovered the anticoagulant warfarin.

The Madison postmaster led the ceremony, while Walton Schalick, MD, PhD, a medical historian at the SMPH; Robert N. Golden, MD, dean of the school; and Mark LeFebvre, vice president for health sciences at UW Foundation, made remarks.

Rayla Temin, PhD, and Mary Carbone were also in attendance.

Medical Students at the Capitol



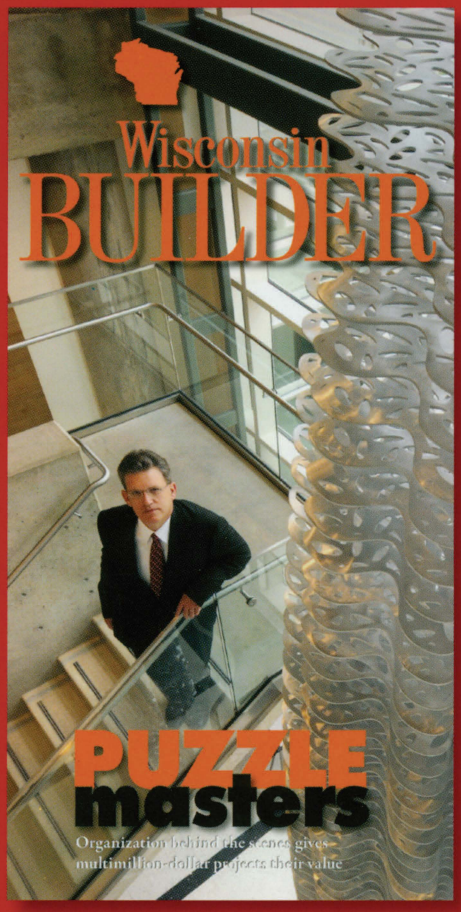
UW Medical Students for Legislative Action will soon head to the State Capitol a second time to show their support for a bill that would increase the beer tax by pennies a bottle to raise money for alcohol treatment and prevention.

About 14 of the second-year students also wore their white coats to a legislative action day in April to show their concern for doing something about Wisconsin's drinking problem. The 50-member student group has joined leaders from UW Health, law enforcement and community groups as part of the statewide AWARE (All-Wisconsin Alcohol Risk Education) Coalition.

Group founders Joel Wood from Menominee and Mostafa Ahmed from Eau Claire, both Med 2s, say their interest in the issue came out of their first "integrative case," in which they learned about a patient with severe trauma injuries brought into the emergency department after a drunken driving accident. They also looked at the larger public health aspects of alcohol abuse and met with law enforcement, alcohol treatment experts, legislators, lobbyists and others.

"We see the connection between Wisconsin's drinking problem and many of the medical problems we are learning about in school," says Ahmed. "As students concerned with public health, we want to make a difference."

WIMR and Wells in the News



Architect Mark Wells, assistant dean for facilities at the School of Medicine and Public Health (SMPH), has been fielding a lot of calls from editors and reporters lately.

That's because he's the person who probably knows the most about the Wisconsin Institutes for Medical Research (WIMR), the building the school proudly opened last summer.

Wells has juggled thousands of details as the planning, designing, constructing and housing of the 469,000-square-foot WIMR east tower, the first of three, has progressed over the past five years. More than 300 SMPH researchers have settled into the seven-floor structure. Another 150 or so are expected to make the move by the end of the year.

As shown at left above, Wells appeared on the cover of the August 2009 *Wisconsin Builder*. WIMR has also been featured in *Architecture Week*, *Archinnovations* and *Real Estate BisNow*.

Midwest Construction magazine will honor WIMR in its "Best of 2009" competition as the higher education-research project of the year. Winners in other categories include the Art Institute of Chicago's Modern Wing and Nichols Bridgeway, Trump International Hotel & Tower and the new terminal building at Indianapolis International Airport.

Phase one of the WIMR project included master planning and building design by HOK. Milwaukee-based Zimmerman Architectural Studios, Inc. served as the architect of record.

Physician to My Dying Father

by Surya Pierce, MD

Dr. Pierce is a resident in family medicine at the SMPH.

In the middle of my first year as a doctor, I very briefly and suddenly became physician to my father in the days before he died. My twin roles as physician and son were well paired; each brought out the best in the other. Without a doubt, this experience forever changed my life as a physician, as a son and as a human being.

Before my father became my patient, he had spent several years passing away. His working life passed away with a large cerebellar stroke about seven years earlier. However, he was able to reclaim his ability to walk, to speak, to enjoy conversation and to spend long hours listening carefully to the other-than-human world of the oak savanna around our family home.

One year ago he passed much further away with a major heart attack, followed a week later by a massive embolization of his right middle cerebral artery. He was no longer able to walk or feed himself, but he still enjoyed simple conversations despite his growing difficulty understanding.

He and my mother spent a difficult year seeking various forms of rehabilitation, looking for suitable living arrangements and fighting infections. He started having seizures. He was found to have MRSA endocarditis from his pacemaker. It was after a prolonged seizure that his ability to communicate through speech passed away, and his doctors transitioned his care to palliative.

After the first night at my now mute father's bedside, I saw that in order to be a good son I would need to regard him also as a patient. Having made the transition to palliative care in a large urban hospital, he seized for over an hour as I tried to tactfully explain my family's beliefs to residents not unlike myself. I explained that by seeking to treat his seizure we were not trying to prolong his life but rather to preserve whatever of his mental clarity we could in order to prepare him for his dying process.

My family believes that the process of dying is very important. We feel that death is a great opportunity to begin a transition to the next place *on the right foot*. By claiming my role as a physician to my father, I was able with medication to abate his seizure and to prevent him from having any further seizures. Despite his inability to speak, he remained conscious and communicative up until his final breaths. This was as he had wished it to be.

My family brought my father home for three nights and four days during which I slept and sat at his bedside. My personal beliefs in the sacredness of the human being drew me to ask how I could best serve a man who had served me beyond any reciprocation. This belief also drove me to make myself vulnerable to his dying process. This belief collapsed the separateness of my medical knowledge and absorbed the façade of medical professionalism.

Although the technical challenge of providing comfort was minimal, the challenge of providing explanation, confidence and compassion to my family and dying father shook me to my very soul. The care for my father was the most powerful, precise, intimate and emotionally connected I have ever provided.

While a slow death is obviously far from favorable, my father's passing now seems a gift. Although far from ideal, he had a great death, at home, among family and friends, with uplifting thoughts and sounds, in an old farmhouse, surrounded by a beautiful forest, in a divine river valley. My family and I are humbled by the experience of helping to manifest such a death. We supported one another exquisitely through a vast continuum of emotions.

The love I felt for my father brought out the best physician in me, and I have no regrets. I now feel that as advised by at least one millennia-old medical tradition, one's patients are best regarded as kin.

Seeking Submissions

Manuscripts can be no longer than 1,200 words. Photos must be high resolution. Subject matter should relate to any aspect of working or studying at the SMPH or in the medical field in general.

Send submissions to:
Quarterly
HSLC, Room 4293
Madison, WI 53705
Or e-mail dj.land@hosp.wisc.edu.

Class Notes *compiled by Barbara Lukes*

Class of 1943

When **Louis W. Sennett** paged through the last issue of the *Quarterly* and read of R.K. Meyer and W. H. McShan, early proponents of the UW endocrinology and reproductive physiology program, memories started flooding back. He recalled working for Dr. McShan as an undergraduate student at $15 per month, extracting progesterone from five-gallon jugs of urine obtained from pregnant women at St. Mary's hospital. Subsequently, on being admitted to medical school in 1941, Sennett received a telegram to report for military duty. It was during exam week. He took the wire to his faculty advisor and asked what he should do. He was told to continue studying until he heard back from him. His advisor then went to Washington, D.C., and met with Clarence Dykstra, who was head of the federal National Military Recruitment department. Soon after, Sennett received a wire saying that all eligible medical students were to be inducted into military service as privates. Tuition costs, medical books and a small salary of $60 a month were to be paid by the military. Sennett was informed that his recruitment problem was an important part of developing the national program for military service of medical officers. He ultimately went on to graduate, did an internship of nine months and residency of 18 months. Then he entered the army as a first lieutenant along with his classmate, **Bill Merkow**. Sennett is the founder of Metro Medical Testing Co., LLC, in Milwaukee. Its mission is to provide preventive health testing at affordable costs for those with no health insurance.

Class of 1969

Tom Belfiori is a naturalist at two Florida state parks and an ecotour guide for Orbridge International. He and his wife, Carol, spend their winters in Bonita Springs, Fla., and summers in Minnesota.

Walter Burgdorf quit working full-time 15 years ago and moved to Germany. The associate editor of the largest German dermatology journal, he recently translated, for the second time, the bible of German dermatology, Braun-Falco's *Dermatology*. He has promised himself he will never do it again.

Mary Kaye Favaro belongs to the Medical Reserve Corps in Myrtle Beach, S.C., and has taken continuous training to assist in the event of a disaster. Astronomy continues to be a great hobby. She travels with her telescopes to area star parties, which are week-long observing sessions.

David Kasuboski did a 440-mile bicycle ride in the Colorado Rockies in August. After resting a few days, he hiked the 220-mile John Muir trail in the High Sierras.

Graham Loynd has done 15 overseas medical mission trips to Central and South America since he retired.

Class of 1974

Margaret Draeger retired in 2002. Her second career is as a church organist in Ripon, Wis. She works for two pastors at three churches. She also likes horseback riding.

Class of 1980

Paul Apyan is currently an associate professor for the Department of Orthopedic Surgery at the University of Tennessee College of Medicine, Chattanooga unit. He has held the position as director of arthroplasty for several years and was recently elected a member of the American Orthopedic Association.

Class of 1984

Lori Deitte and her husband, **Mark Rice** (Class of 1982), live in Jacksonville, Fla., where Lori is program director of the radiology residency at the University of Florida in Gainesville. She enjoys spending time with family, going on power walks, hanging out at the beach and traveling.

Class of 1989

John Haeberlin, his wife, Susan, and their twin daughters, Michele and Sally, recently moved back to Wisconsin after living in Georgia for two years. John wants to get immersed in the education system, especially for children with special needs. He restores old cars and likes to drum. In fact, drumming is not just an interest, it's a way of life. "But I never drum while doing surgery," he says. "It can be hard on the patients!"

Class of 1994

Sherri Alderman, who lives in Portland, Ore., with her husband, Bill Arnold, has taken up singing jazz in her spare time. And she still plays the dulcimer and flute. Aquatic gardening is her favorite summer hobby.

Thomas Pinter recently completed the Race Across America as part of an eight-person team. He's planning on doing Ironman Wisconsin in 2010 to try to beat his 2005 time of 14 hours and two minutes.

Class of 2004

Christina Capperino Hook lives in Baraboo, Wis., where she practices obstetrics. She also is a volunteer faculty member in the UW Department of Family Medicine, staffs the Baraboo resident clinic and mentors first- and second-year medical students through the Patient, Doctor and Society course and the Generalist Partners Program. She still plays the violin now and then. Christina and her husband, Brad, have a nine-month-old baby girl.

Other

Jack Westman, SMPH professor emeritus of psychiatry, has written a book *Breaking the Adolescent Parent Cycle.* The book presents a holistic, multi-system perspective that offers a feasible approach to furthering the interests of dependent parents, their babies, their families, and our society. He is interested in comments and suggestions. He hopes that his blog can provide a forum for stimulating thinking and planning action. Go to: http://blog.jackwestman.com.

Standardized Patients *Continued from page 6*

enjoys the stimulation of being in contact with young people.

"I wanted to play an active role in training doctors of the future," says Lorimer, who has helped hundreds of SMPH medical students over the years.

Adds Meister, "It's heartwarming, and not unusual, when an SP seeks us out to say, 'I love doing this. Please schedule me for more sessions.'"

Many SPs also take advantage of the health information programs the department has organized for their benefit.

SPs aren't helping just medical students either, adds Banning. UW pharmacy, nursing, physical therapy, physician assistant and genetic counseling students also use the service, and the UW veterinary medicine school is now on board.

"More and more disciplines are adopting this style of teaching and assessment because it is so effective," Banning says.

The future may mean more electronic simulations, she says. "But people who work with patients need the ability to synthesize skills that involve clinical knowledge, clinical reasoning and interpersonal communication. SPs fulfill this vital need."

Call for Nominations

Wisconsin Medical Alumni Association (WMAA) Awards

The WMAA awards committee invites you to nominate your colleagues and classmates for consideration for the 2010 awards listed below. School of Medicine and Public Health (SMPH) alumni, faculty and staff, as well as other professional colleagues, may submit nominations.

Complete nominations should include:

- a letter stating for which award you submit the nomination, outlining in detail the nominee's qualifications,
- the nominee's curriculum vitae, including current address and phone number, and
- secondary letters or materials in support of the nomination, if available.

Medical Alumni Citation Award

For an SMPH alumnus who has achieved distinction in medicine. Achievement is recognized through excellence in the practice of medicine, academic activities and research accomplishments.

Medical Alumni Service Award

For outstanding service to the WMAA. It is offered to an alumnus who has exhibited exceptional commitment to the association over a period of years.

Ralph Hawley Distinguished Service Award

For an alumnus who has made outstanding contributions to the local community through medical practice, teaching, research or other humanitarian activities.

WMAA Honorary Life Membership

For an SMPH or UW Hospital and Clinics employee who has been particularly supportive of and helpful to students and alumni.

DEADLINE: Nominations must be postmarked no later than December 1, 2009.

SUBMIT TO: Karen S. Peterson, WMAA Executive Director, 750 Highland Avenue, Madison, WI 53705. E-mails are welcome at: kspeters@wisc.edu.

Dr. Kenneth Gold Given

Max Fox Award

One of Beloit's "Favorite Doctors," Kenneth Gold, MD, was honored Wednesday, June 17, 2009, when officials from the University of Wisconsin School of Medicine and Public Health (SMPH) presented him the Max Fox Preceptor Award.

The ceremony took place in Beloit following a reception hosted by the Wisconsin Medical Alumni Association.

The Max Fox Preceptor Award is given annually to an outstanding preceptor whose effective service as a mentor and teacher has guided UW medical graduates. Some 50 physicians across the Badger State volunteer in the preceptorship program.

In addition to Gold's family, colleagues and friends, Wisconsin senator Judy Robson, a former nurse practitioner who has known Gold professionally since 1961, sent a representative to present Gold a commendation for his service to the state of Wisconsin.

Gold has been a preceptor to SMPH students for 12 years, welcoming them into his practice to shadow him and learn as he cares for his patients.

An internist who works at Beloit Clinic, Gold is a clinical professor at the SMPH. He is also affiliated with Beloit Memorial Hospital, where he has held several leadership positions.

The Wisconsin Society of Internal Medicine named him "Internist of the Year" in 1988 and presented him its Laureate Award in 2001. The State Medical Society of Wisconsin has honored him for "Meritorious Service." The *Beloit Daily News* placed him first on its "Favorite Physicians" list in 1991, 1992 and 1993.

Gold received his medical degree from the State University of New York-Brooklyn, did his residency at University Hospitals in Columbus, Ohio, and completed a fellowship in psychiatry and medicine at the University of Rochester, Strong Memorial Hospital.

The Max Fox Preceptor Award was created by Herman Shapiro, MD '31, in 1969, to honor his preceptor, Max Fox. During his 46 years of practicing medicine, Fox greatly influenced the careers of some 4,000 physicians.

Dean Robert Golden (left) and WMAA President John Kryger (right) are on hand to congratulate Kenneth Gold.

Underserved Populations *Continued from page 30*

in community health-improvement projects, students in the RUSCH program develop knowledge, skills and attitudes that prepare them for admission to and success in medical school and future medical practices.

The inaugural six-week summer session exposed students to public health concepts and community health resources through community service projects with underserved urban and rural populations in Milwaukee and Platteville.

In August, the students entered the first of two academic-year experiences, during which each was linked with a mentor. The students will attend seminars on medical and healthcare topics, participate in research and community service and begin a review of the Medical College Admission Test to prepare for medical school application.

Admission into the RUSCH program does not guarantee admission to medical school. But students who successfully complete the program will be given consideration, along with other students, if they apply for admission to the WARM and TRIUMPH programs.

Leading by Example

Christopher Larson, MD '75
Editorial Board Chair

In a recent issue of the *New England Journal of Medicine*, Robert Steinbrook, MD, commented that while we examine various possibilities for healthcare reform, it's easy to forget that success might depend as much on the availability of primary care physicians as on the specifics of any reform.

Access to timely medical care is a continuing priority, particularly in places where doctors are in short supply, are not accepting new patients or are not accepting patients with certain types of insurance. Effective primary care can improve the quality of care and health outcomes—and save money.

Easing the shortage of primary care physicians will require money and innovative approaches to selecting students and promoting primary care medicine as a career choice.

As interest in adult primary care has decreased in recent years, more students than before have entered anesthesiology, radiology and other specialties. Quality of life is becoming an ever-increasing priority, especially among the current "Y Generation."

Compared to graduates who become office-based generalists, those who become specialists, hospitalists or emergency medicine physicians often can expect to have greater control over their lives, a wider variety of professional experiences, sufficient funds in the short term to pay off student debt and higher incomes over the long term. According to the Robert Graham Center (March 2009), over a 35- to 40-year career, the difference in income results in a $3.5 million gap, on average, between the return on investment for primary care physicians and that for subspecialists.

I view the process of transforming our medical school's teaching curriculum as one that is preparing for the changing needs in healthcare and addressing the problems of primary care, including rural and inner-city physician shortages, on several fronts.

Our school has undergone a seamless transformation to become—in name, mission and vision—the University of Wisconsin School of Medicine and Public Health (SMPH) The changes are real. In conversations with students, I have learned that the curriculum truly integrates public health and community-based medicine from day one in each classroom. It also creates opportunities for students in their clinical years to experience healthcare delivery outside Madison.

Our medical school's strong emphasis on public health, rural medicine and inner-city cultural immersion is evidenced by the school's very successful Wisconsin Academy for Rural Medicine (WARM), now in its third year with 36 students. The program attracts candidates to fill 18 positions reserved each year for students committed to practicing medicine in a rural setting. The Training in Urban Medicine and Public Health (TRIUMPH) program, launched this spring, attracted seven Med 1 students who chose a summer elective in inner-city Milwaukee.

The lay press is reporting on the success of these efforts. In 2009, the SMPH was among 16 medical schools that *U.S. News and World Report* ranked as having the most graduates entering residency programs producing primary care physicians.

Although public medical schools do produce, on average, more students interested in primary care as a specialty than their private counterparts, the SMPH has distinguished itself again by being among the elite in this regard. The post-graduation plans of members of the school's 2009 class (as listed in the summer *Quarterly*) are again remarkable in that more than 40 percent are pursuing specialties that could lead to primary care careers, with eight percent of the class choosing family medicine.

There is no question that the SMPH continues to attract students who want an integrated approach that includes, from the outset, building blocks for a Master in Public Health degree. Students also want a strong, integrated curriculum in public heath combined with opportunities in community-based primary care medicine.

Our philosophy is one that will continue to produce the kind of physicians we desperately need in our state and country.

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.***

Have you moved? Please send us your new address.

CONTACT INFORMATION:
Wisconsin Medical Alumni Association
Health Sciences Learning Center
750 Highland Ave.
Madison, WI 53705

OR www.med.wisc.edu/alumni/share-your-news/874

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Observations

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PHOTO: Jeff Miller, UW-Madison University Communications

Fallen leaves cover the ground in autumn as people stroll along a walkway past the food vendor carts set up on Library Mall.

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SCHOOL OF MEDICINE
AND PUBLIC HEALTH