

# NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA | MEDICINE & HEALTH SCIENCES

## Workforce Pipeline

**Dean of Deans**

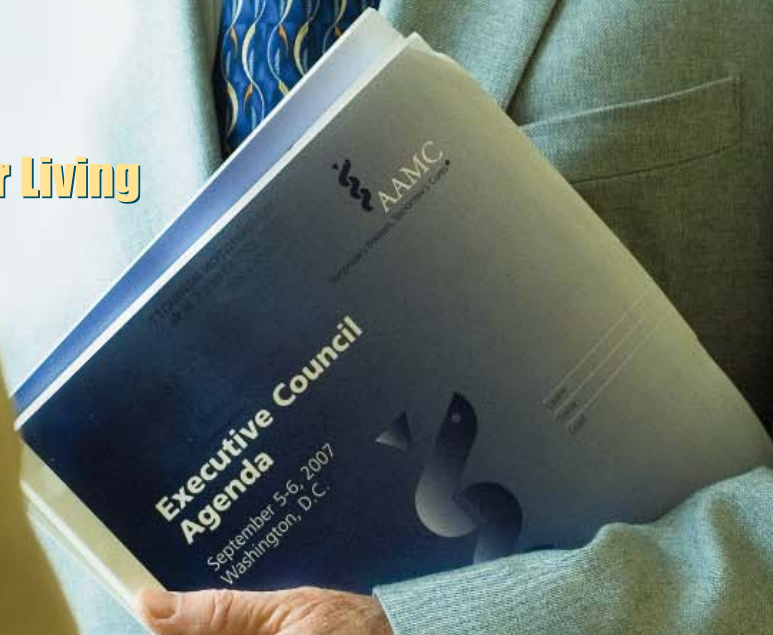
**Athlete as Physician**

**Timing is Everything**

**An Ancient Path to Better Living**

**School without Walls**

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PEOPLE OFTEN ASK ME, LIKE OTHER medical school deans around the country, where I get my energy. With



Pictured clockwise from top left: **Chris Triske, M.S. '06**, Clinical Laboratory Science; **Jeremy Gawryluk, Ph.D. '08**, Pharmacology, Physiology and Therapeutics; **Aneel Damle, M.D. '10**, Medicine; **Leah Marti, B.S. '07**, Athletic Training; **Mandy Caspers, D.P.T. '07**, Physical Therapy; **Sara Mayer, M.D. '10**, Medicine; **Kelsey Hoffman, M.D. '10**, Medicine; **H. David Wilson, M.D., Dean**; **Lei Ding, Ph.D. '07**, Biochemistry and Molecular Biology; **Sarah Wehmhoefer, B.S. '07**, Cytotechnology

the responsibility of managing limited budgets, juggling resources to meet program needs and maintaining relationships with key investors of the school, a dean sometimes needs to give himself a reason *why* he became a dean in the first place! A quick answer for me is in the photograph on this page – well, actually there are nine reasons! It's the students. What I, and

every other faculty member at the UND School of Medicine and Health Sciences do each day, affects the medical and allied health students and their future. And we're proud of that!

#### A school without walls

Our medical school classes consist of 62 students for each of the four year classes and that often confuses people, because they think that only a few students train here. It's exciting to tell them about our "real" numbers, which include students in physical therapy (142), occupational therapy (148), physician assistant (60), athletic training (43), clinical laboratory science (270), cytotechnology (4), anatomy and cell biology (12), biochemistry and molecular biology (15), microbiology and immunology (11), and pharmacology, physiology and therapeutics (13). Faculty members also teach over 1,500 undergraduate students who will become nurses, dietitians, teachers and forensic scientists.

And we do more. The school is a virtual education center, with programs designed for elementary school children to senior citizens, and some

program or another located in nearly every community in the state.

Be sure to read the **Workforce Pipeline** (page 4) article featuring the Center for Rural Health. The program is introducing students across North Dakota to careers in healthcare, and knowing that our state, like many others, will experience a healthcare shortage in the future, it's important that we provide early education about these opportunities.

Each summer the campus hosts the **Summer Institute Program** for American Indian students. This has been a successful program at UND for 25 years, with a purpose of providing a 6-week enrichment study in science and math courses for 7 through 12<sup>th</sup> graders.

The school also focuses on research that is relevant to the citizens of our state and region. This issue of *North Dakota Medicine* features a study being done at the school on **tai chi** (page 16), and the positive effects it has on college age students to senior citizens. The evidence is solid that tai chi is beneficial in cardio-respiratory function, balance and flexibility ~ all important elements to an aging population.

#### Thank you for your help!

I want to thank all of you who have contributed to the UND School of Medicine and Health Sciences this past year. The center section of the magazine contains a listing of the donors for the fiscal year 2006-2007. The number of alumni and friends who have invested in us continues to rise and we are very grateful and appreciative for this support. It is this level of commitment that provides the school the ability to grow and move forward. **A financial investment today IS an investment in the future.** Thank you!

H. David Wilson, M.D.  
Vice President for Health Affairs & Dean



## NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA  
SCHOOL OF MEDICINE AND HEALTH SCIENCES

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# NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

## FEATURES

- The Workforce Pipeline** 4  
The Center for Rural Health works with groups throughout the state to get people of all ages interested in health careers
- Dean of Deans** 8  
UND School of Medicine and Health Sciences Dean H. David Wilson, M.D., is chair of the Association of American Medical Colleges (AAMC) Council of Deans
- Athlete As Physician** 10  
Students apply valuable skills honed in the athletic arena to their pursuit of excellence in medicine
- Timing is Everything** 12  
Out of adversity, opportunity arises for INMED & INBRE
- An Ancient Path to Better Living** 14  
An ancient Chinese practice of martial arts is helping seniors find balance in their lives
- School Without Walls** 18  
Distance learning gives working professionals the opportunity to attain advanced degrees without leaving home

## DEPARTMENTS

Alumni Profile	16
Guest Author	21
Student Profile	22
News Briefs	24
Alumni Notes	27
In Memoriam	29
Planning Ahead	30
Parting Shots	31

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# The Workforce

The Center for Rural Health works with groups throughout the state to get people of all ages interested in health careers

## PIPELINE



Lois Mathiason of First Care Health Center in Park River, ND, shares the “Inspector Well Ness and the Care of Many Medical Careers” program with fifth-graders.

**W**HAT DO YOU WANT TO BE WHEN YOU grow up? The Center for Rural Health at the UND School of Medicine and Health Sciences is working with a variety of organizations throughout the state that all want to make that answer be something in health care.

Workforce shortages are a challenge for the health care system nationwide with projected physician shortages between 85,000 and 96,000 by 2020 according to the Federal Council on Graduate Medical Education.

“These shortages can negatively affect health care

quality and access to health care services,” said **Mary Amundson, M.A. '95**, assistant professor at the Center for Rural Health. “Shortages can increase stress on available providers and contribute to higher health care costs by increasing the use of overtime pay and expensive temporary personnel.”

A year ago, the Center for Rural Health, in partnership with the Dakota Medical Foundation and others, held a Health Care Workforce Summit in Bismarck to examine health care workforce issues in North Dakota. The purpose of the summit was to share what is currently being done to

feed the state's health care workforce pipeline, to explore current and emerging challenges associated with the supply and demand of health care workforce in the state, and to begin to develop an action plan to address these challenges. Among the summit participants were state legislators, representatives from state government, statewide organizations, economic development commissions, health care employers, educators, and health care providers.

### The Pipeline

Staff at the Center for Rural Health use the idea of a workforce pipeline to explain that getting people interested in health careers starts at a very young age and must continue through several steps from small children through retaining current employees.

"Each step of the pipeline offers opportunities to target specific strategies from workforce training to retention," explained **Patricia Moulton, Ph.D. ('02, '99, '97)**, assistant professor at the Center for Rural Health.

During December's summit, participants identified goals and key issues within each step, barriers to achieving the goals, elements needing change, and action steps.

### Students in grades K-12

Summit attendees indicated a need to increase student exposure to health care professions through education and business partnerships. An example is to provide more students with age-appropriate experiences in health care facilities including tours, presentations, and related activities to introduce students to health care professions.

For the past two years, the North Dakota Medicare Rural Hospital Flexibility (Flex) Program at the Center for Rural Health has funded several such endeavors throughout the state. The "Fostering Opportunities in Rural Health Occupations: Rural Hospitals and

Educators Working Together to Create Local Opportunities for Children and Youth" program funds community partnerships to expose children to health occupations with the intent to increase their awareness, interest and understanding of health careers.

One of these programs in Park River, ND, made huge strides in educating the community's fifth-graders about health careers. First Care Health Center in Park River partnered with the Park River School to do a five-week program they called "Inspector Well Ness and the Care of the Many Medical Careers."

Each week, two medical professionals would visit the fifth-grade classrooms to discuss their health career and provide a hands-one activity relating to their chosen field. Students heard from physician assistants and nurse practitioners, paramedics, laboratory and imaging technicians, physical therapists, nurses and dietitians. During these visits, the students got to view real x-rays, try on a cast, had their blood pressure monitored and took a ride in an ambulance, among other activities. On the fifth week, students visited the health center to see the equipment and meet even more health professionals.

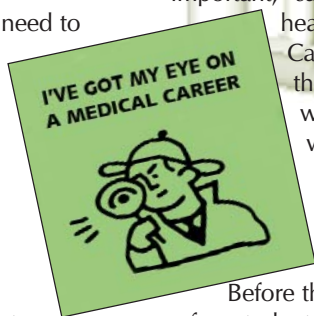
"Introducing students to a variety of careers when they are young is very important," said **Ruth Jelinek**, who headed the project for First Care Health Center. "Most of the students didn't know what these medical careers were."

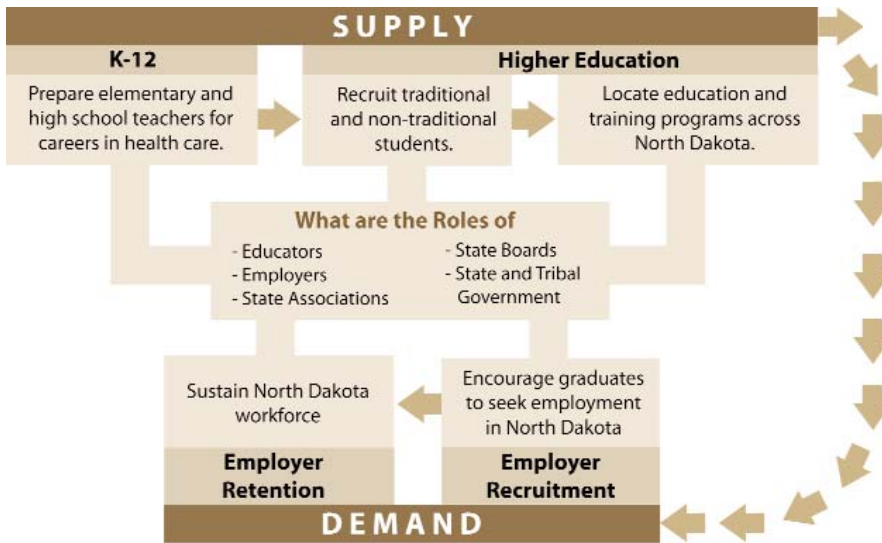
The students were tested on their knowledge of health careers before and after the program.

Before the five-week program, only a few students correctly matched health careers with a description of that career. However, when they were tested after the program, there was marked improvement.

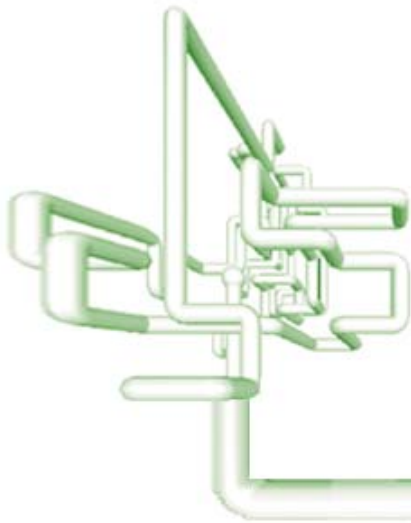
"We were extremely pleased with the results," said Jelinek. "We are looking forward to doing this again in the spring."

Our purpose is to  
measurably  
improve health and access  
to healthcare services.





Each step of the North Dakota Health Care Workforce Pipeline offers opportunities to recruit, train and retain health care workers for the state.



### Students in Higher Education

Summit attendees acknowledged a need to engage community/education programs to educate undergraduate students about health care programs.

MeritCare Health System and the UND medical school's internal medicine residency program has been working with Moorhead's Concordia College for a number of years to provide their pre-med students with a real-life picture of what health careers are like.

The Concordia cooperative education class gives students credit for observing physicians and volunteering at hospitals and nursing homes. During the semester, eight students spend a half a day a week in the internal medicine residency clinic. They spend an additional 35 hours a semester with "mentoring physicians" either job shadowing or conversing about medical careers. Each semester the entire class also visits the UND medical school for a day and participates in its Patient-Centered Learning curriculum.

"They observe how care is delivered and visit with residents on what it is like to go through medical school and residency," explained **Julie Blehm, M.D. '81**, an internist and geriatrics specialist at MeritCare Health System and associate dean for the Southeast Campus of the UND School

of Medicine and Health Sciences.

"They get realistic impressions of what medicine is."

### Higher Education Programs

Participants at the summit discussed designing rural interdisciplinary education programs for all health care disciplines and increase the number of rural training programs statewide. They also suggested an assessment of current programs and the potential for establishing other programs and collaborations along with further development of a rural curriculum (including interdisciplinary programs).

In recent years, the Dakota Medical Foundation based in Fargo has been supporting efforts to increase health care training in the state, especially in rural areas. The foundation has contributed hundreds of thousands to institutions of higher education throughout the state to support their efforts to make their programs more accessible to rural residents and to make health career students more interested in careers in the rural areas. These projects range from increasing the number of seats in nursing programs, establishing distance education programs in rural areas and provide scholarships to health profession students who intend to remain in the area.

Most recently, the foundation contacted with the Center for Rural Health to convene the regional educational institutions that produce nurses in December to develop a long-term strategy to address the nursing shortage.

"Our purpose is to measurably improve health and access to health care services," said **J. Pat Traynor, '91, J.D.**, president of the Dakota Medical Foundation. "We know that a key to achieving this goal is to have enough qualified health care professionals working where they are needed the most. We are pleased to be able to help the state's quality institutions of higher education produce those health care professionals."

### Employer Recruitment and Retention:

Recruitment and Retention of health care providers is the most immediate section of the pipeline. With fewer and fewer medical students choosing family medicine and other primary care fields, it is especially difficult for small rural communities to find physicians.

real estate agents, patients and other community members. While in Cando, community members treated the Hamiltons to the best the community has to offer including trail rides, trap shooting and beautiful Devils Lake. The result was a successful bid for Hamilton start his practice in Cando next fall.



One North Dakota community, Cando, recently had success in recruiting a physician by involving the entire community and his entire family.

**Robert Hamilton, M.D.**, is currently a third-year physician-resident at the UND medical school's Minot Center for Family Medicine. He was first introduced to the community by Cando physician **Greg Culver, M.D.**, who precepts at the Minot program. Culver convinced Hamilton to spend his one-month rural rotation in Cando, which started a series of regular visits between the people of Cando and the Hamiltons.

The Hamiltons were welcomed not only by the hospital CEO and staff, but the whole community reached out to them including hospital board members,

### Next Steps

To continue the work begun at the summit, the State Office of Rural Health program at the Center for Rural Health is funding a statewide Health Care Workforce Committee that includes individuals representing state boards, state associations, medical facilities (urban, rural and Veterans Administration), long-term care, health and human services, academic and economic development. These committee members each selected a step in the pipeline to work on through conference calls to replicate efforts currently underway and to pursue newly identified strategies.

**Julie Blehm** advises Katrina Enderle, a senior pre-med student from Concordia College in Moorehead, MN, who shadows residents at the clinic.

- Amanda Scurry

WEB EXCLUSIVE: For more on the health care workforce summit and workgroups visit: [www.ndmedicine.org](http://www.ndmedicine.org)



# DEAN OF DEANS

THIS FALL, UND SCHOOL OF Medicine and Health Sciences **Dean H. David Wilson, M.D.**, took over the reigns as chair of the Association of American Medical Colleges (AAMC) Council of Deans.

The first North Dakota dean to hold such a high office in the AAMC, Wilson presides over the meetings of



**H. David Wilson** at the Council of Deans Administrative Board meeting in September.

the council consisting of 126 medical school deans of schools that are members of the AAMC, chairs the council's governing body called the Administrative Board, and represents the deans on both the AAMC Executive Council and its 10-member executive committee.

"I feel gratified that my colleagues chose me to represent this extremely talented group," said Wilson. "It is an honor for me, the medical school, the university and the state."

UND President Charles Kupchella agrees.

"This is a terrific honor for Dean Wilson and for the University of North Dakota," he said. "To be named 'Dean of Deans' by the deans is clearly no small matter. It surely shows that he is highly respected as a leading figure in American medical education. We're lucky to have him."

The AAMC Council of Deans represents the deans from all 126 U.S. and 17 Canadian accredited medical schools. The group identifies issues affecting academic medicine including policies guiding the AAMC in its service and advocacy functions; programs for the advancement of institutional management; and support for the deans' leadership role in guiding individual schools toward excellence in medical education, research and patient care.

"The AAMC Council of Deans is instrumental in guiding the association's efforts toward excellence in medical education, research and patient care," said **Darrell Kirch, M.D.**, AAMC president. "He is a wise and experienced leader, and we at the AAMC, as well as his colleagues across the country, look forward to David Wilson's leadership as chair this year."

## **Making a difference**

Wilson said there are a number of things he would like to see the council address this year including health care reform.

"There are 45 million Americans without health insurance," he explained. "The AAMC is a player in looking at the health care system and how it should be paid for and delivered."

With the establishment of more and more osteopathic schools opening across the country, Wilson would like the council to take a closer look at the relationship between osteopathic doctors and medical doctors.



“We need to better understand the similarities, the differences and get a better understanding of what one another does,” he said. He would also like to see the two groups look at setting joint standards to ensure the quality remains high at both types of schools including looking at the possibility of both types of schools being accredited by the same body.

### A national presence

This is not Wilson’s first service in national medical associations. He was elected to the AAMC Executive Council in 2004 and served as chair of the AAMC Section on Community-Based Deans from 2002-2004.

Wilson was elected to the 12-member Council of Deans Administrative Board by his peers 2004. He was appointed and served as chair-elect of the board last year.

“Dr. Wilson has also served with particular distinction as liaison from the Council of Deans Administrative Board to the steering committee of the AAMC’s Group on Student Affairs,” said **Joseph Keyes**, senior vice president and general counsel of the AAMC. “He played an active role in the development of that group’s assessment of student academic performance and professional attributes called the Medical Student Performance Evaluation. This assessment, previously known as the ‘dean’s letter,’ is a key factor in residency program directors’ selection of applicants for their programs.”

From 2001 to 2004 Wilson was an elected member of the American Medical Association’s Council on Medical Education and served as a member of the Liaison Committee on Medical Education, the 17-member committee that is recognized by the U.S. Department of Education to accredit all U.S. and Canadian medical schools.

“I really enjoy serving on these committees,” said Wilson. “They are a fun learning experience. I get to hear what is going on in other schools and pick up ideas for North Dakota. It also gives me the opportunity to talk about North Dakota and to spread the word about what a great medical school we have here.”

Wilson grew up in Johnston City, IL. He graduated from Wabash College in Crawfordsville, IN, before going on to medical school at St. Louis University School of Medicine. He spent 22 years at the University of Kentucky College of Medicine in Lexington and was serving as full professor and associate dean for academic affairs when he left to join the staff at North Dakota in 1995.

The AAMC is a nonprofit association representing all 126 accredited U.S. and 17 accredited Canadian medical schools; nearly 400 major teaching hospitals and including 98 affiliated health systems and 68 Department of Veterans Affairs medical centers; and 94 academic and scientific societies. Through these institutions and organizations, the AAMC represents 109,000 faculty members, 67,000 medical students, and 104,000 resident physicians.

Other schools represented on the 2007-2008 administrative board of the Council of Deans include

- ◆ Northeastern Ohio Universities
- ◆ University of West Virginia
- ◆ Emory University School of Medicine
- ◆ University of Utah
- ◆ Pennsylvania State University
- ◆ Stanford University
- ◆ University of Maryland
- ◆ Washington University of St. Louis
- ◆ University of Missouri-Kansas City
- ◆ Vanderbilt University
- ◆ University of Pennsylvania

-Amanda Scurry

I feel gratified that my colleagues chose me to represent this extremely talented group...

**it is an honor for me, the medical school, the university and the state.**



# ATHLETE as Physician:

Outstanding athletes bring qualities of leadership, self-discipline and time management to the study and practice of medicine



Michael Greenwood played for the UND football team that won three North Central Conference championships and placed second in the nation in 2003.

SOME OF THE SAME ATTRIBUTES that propel a successful athlete are present and necessary in the making of a good physician.

A commitment to “teamwork and communication skills” are among the qualities an athlete brings to the profession of medicine, says **Michael Greenwood**, first-year medical student

and president of the MD Class of 2011.

Over the years, he’s played sports “with a couple hundred people,” he says, noting that athletic competition draws “a broad range of people who come together for a specific goal.”

“Leadership skills, both on and off the field,” are critical to achieving success, he notes. “You have to persevere through the bad times, take control and get things going in the direction you want them to go.”

Recently named the North Central Conference (NCC) Male Student Athlete of the Year, Greenwood has distinguished himself as an exceptional leader and outstanding athlete, who played UND varsity football in the defensive role of free safety. His team won three conference championships and his class of teammates won more games than any other in UND’s history.

Greenwood, son of **John (B.S. ’71, J.D. ’75)** and **Susan Greenwood (B.S. ’74)** of Jamestown, ND, also has been selected to receive a 2007 National Collegiate Athletic Association (NCAA) Postgraduate Scholarship. He was one of only 29 male students, in fall sports, to receive the scholarship which is awarded to outstanding student-athletes who excel academically and athletically.

“I’ve known Mike for many years, and this scholarship award is well-deserved,” said **Roger Thomas**, NCC commissioner and former UND football coach, Grand Forks. “Mike has proven that he is among the top scholar-athletes in the country and in the NCC. I know this award will be put to good use, as he pursues his education to become a physician.”

Greenwood played varsity football for the UND Fighting Sioux, under **Coach Dale Lennon**.

Competitive sports “changed my character in ways that make me a good medical student and, I hope, will make me a good physician,” says **Jane Ostlie**, fourth-year medical student from Northwood, ND, who played for the conference-winning basketball team at Wheaton (IL) College.

She credits sports with instilling a drive for excellence and discipline she uses daily to meet the rigorous demands of medical school.

“It sounds like a cliché, but to do well, you need to expect to do well. We learned that in sports, that commitment to excellence (and) to success.”



To do well, you need to  
*expect to do well.*  
**We learned that in sports.**



Ostlie, who plans a career in family medicine, sees exercise as an essential component of preventative health care. Her stance as “a big proponent of exercise, I exercise every day” makes her more credible to patients, she asserts. “It’s hard to recommend to patients that they need to exercise if you’re not exercising.”

Ostlie is the daughter of **Laurie (B.S.P.T. ’78)** and **Jonathan Berg, M.D.**, clinical assistant professor of family and community medicine, Northwood. **Dawn Mattern, M.D. ’97**, Minot, ND, one of only two sports medicine fellowship-trained physicians in North Dakota, sees patients with sports-related injuries and non-operative conditions in her practice at Trinity Health.


She played on a North Dakota State University women’s basketball team that won two national championships in Division II.

“I can relate to my patients who



are athletes a little more,” she says. “I’ve been through just about anything you can think of... and I believe it’s important to focus on what we can do to prevent injury.”

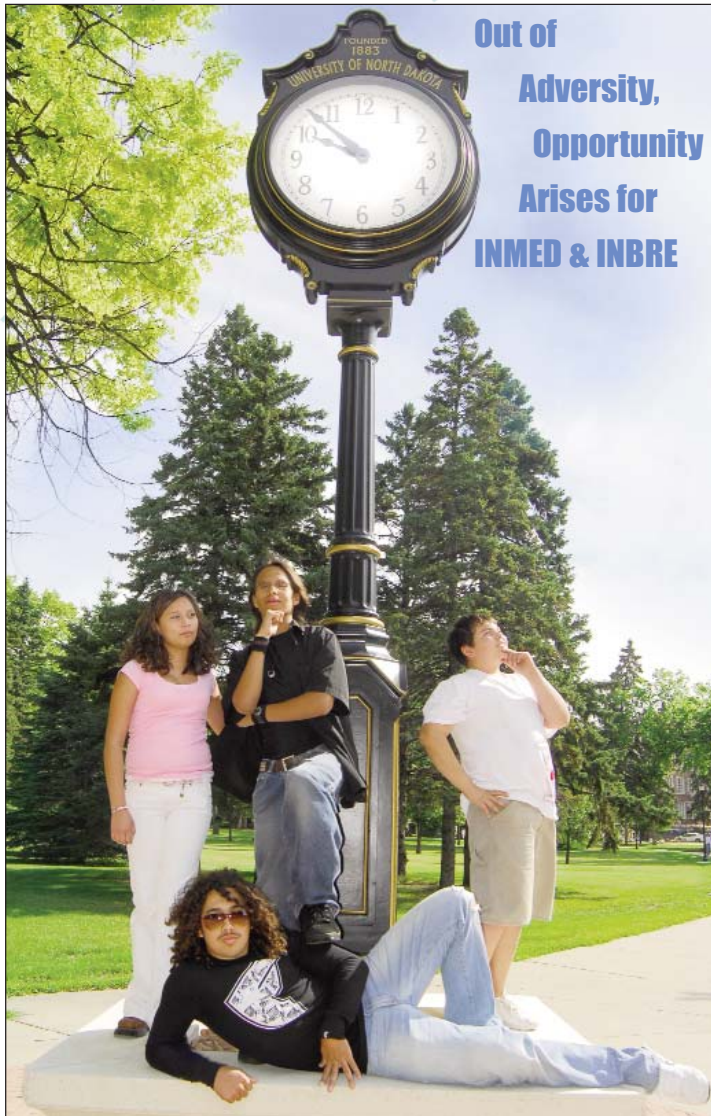
The six-foot-tall, gifted athlete who grew up in Mohall and Minot says time management is essential to her ability “to stay on top of things,” she says. Her busy lifestyle is packed with “a full day of clinic followed by games” in the evening.

“If I don’t get my stuff done, I’m in trouble.” 

- Pamela D. Knudson

**Jane Ostlie**, fourth-year medical student, is “a big proponent of exercise” who encourages patients to adopt a physically active lifestyle. As an undergraduate student, she played with a conference-winning basketball team at Wheaton (IL) College.

# Timing is Everything



Out of  
Adversity,  
Opportunity  
Arises for  
INMED & INBRE

INMED Summer  
Institute students from  
the Lower Brule Sioux  
Tribe

TIMING, AS THEY SAY, IS EVERYTHING. When the Indians Into Medicine (INMED) program at the UND School of Medicine and Health Sciences learned in the summer of 2006 that Congress would cut its budget by nearly half, program director **Gene DeLorme, J.D. '89 (B.S. '86)**, had no idea that the bad news would open the door to a new and mutually beneficial partnership.

A few months after the cuts were announced, the National Institutes of Health (NIH) made a change that enabled the North Dakota IDEA Network of Biomedical Research Excellence (INBRE) to lend direct financial assistance to INMED. It not only helped save one of INMED's most important programs, but it also created an opportunity for American Indian students in the biomedical research field.

"It was fortuitous timing, to say the least," DeLorme said. "The decision to stop funding Title VII programs created a void in funding for our programs. The connection with INBRE doesn't address all of that by any means, but yet it is a valuable part of what we are doing."

Although INMED and INBRE are both programs within UND's medical school, until the NIH National Center for Research Resources (NCRR) – which administers INBRE – amended one of its objectives, the two had little in common. INMED helped American Indian students develop careers in the health care field and INBRE assisted in developing biomedical researchers through undergraduate institutions and tribal colleges.

In October 2006, that changed when the NCRR issued an amendment allowing INBRE programs to re-budget funds to engage in outreach activities at the kindergarten through senior high levels (K-12).

"Over the years, we had requests from INBRE directors who wanted to use their resources to reach students earlier than the community college or undergraduate levels," said **Fred Taylor**, director of the NCRR's Institutional Development Awards (IdeA) program. "We wanted to provide opportunities to make young people aware of career opportunities in biomedical research."

The change allowed INBRE to help fund INMED's annual Summer Institute,

a six-week academic enrichment session held at UND for 90 American Indian students from seventh to twelfth grade. Students are recruited from 100 middle and high schools on 24 reservations in five states.

“When we find the students that are really working hard on their educational pursuits, we encourage those kids to apply to this program,” DeLorme said.

For 25 years, the Summer Institute has provided students with an opportunity to develop successful careers in health care through daily classes. They also experience life on a college campus, listen to successful American Indian health professionals, learn more about health careers, participate in educational field trips, attend a powwow and meet other American Indian students from across the United States.

“This program is probably one of the most challenging and yet rewarding components of INMED,” DeLorme said. “It takes a lot of staffing and people hours to go into the tribal communities, describe the program, encourage students and get them involved. Recruiting is a very time- and effort-intensive activity”

Funding assistance from INBRE, combined with INMED’S support from the Indian Health Service enabled INMED to maintain the Summer Institute Program at historical participant levels. Financial contributions from the UND president’s office and medical school’s dean’s office enabled INMED to continue other college-level summer programs this year.

Since 1973, INMED has helped train and educate approximately a fifth of all American Indian physicians in the country who are enrolled members of U.S. federally recognized tribes. The program also assists tribal communities by developing health care professionals

in other fields, such as nursing, allied health and administration.

However, one component lacking has been in recruiting, training and developing American Indian students for careers in biomedical research. The collaboration between INMED and INBRE will help meet that need.

“The Indian Health Service has always had an interest in doing health research and looking at the cause of disease, but it’s not had the resources,” DeLorme said. “The tie-in with the INBRE program is not to change the focus, but to expand it.

“We want individuals who will go into basic science research to assist in the provision of health care,” he said. “We’re looking at it from the perspective of studying disease, studying remedies and developing methodologies.”

**Don Sens, Ph.D.**, professor of surgery and North Dakota INBRE director, envisions a navigator program emerging from the INMED-INBRE partnership.

“We’ll teach high school students the value of science using Native Americans as mentors,” he explained. “When they come out of tribal colleges and go into the undergraduate institutions, there will be a Native American mentor they already know. We’ll navigate the person through the system.”

Negative developments seldom have positive outcomes, but in this case, the dark cloud had a silver lining.

“The success potential for INBRE is enhanced by tying in with INMED because of its reputation and the support from the tribal communities for its mission,” DeLorme said.

“We’ve explained the emphasis of the INBRE program to these representatives and they’re supportive. I think it’s a win-win for both.”

- Patrick C. Miller

“

The Indian Health Service has always had an interest in doing health research and looking at the cause of disease, but it’s not had the resources.

”



Gene DeLorme, director, Indians into Medicine (INMED) Program

# An Ancient Path to Better Living



Lloyd Blackwell III (center) and his wife, Patricia, have conducted tai chi classes on campus for years. Medical researchers are looking at how this ancient practice can yield health benefits ranging from lower blood pressure to improved balance and focus.

UND RESEARCHERS ARE EXAMINING a way to help college students lower blood pressure, the elderly remain independent longer, and possibly help prevent workplace accidents. What is this miracle? The Chinese martial art of tai chi.

The ancient practice is designed to exercise mind, body and spirit. With slow, circular, fluid movements, tai chi looks almost like a dance. But as participants move through the various stances, they gently work muscles and build concentration. According to Chinese philosophy, participants improve their flow of chi, the vital life energy that maintains health and calms the mind. While that may sound very other-worldly, UND researchers are finding results that back up these claims.

**Beverly Johnson, D.S.C. (M.S. '90, B.S.P.T. '76)**, director of clinical education in the physical therapy department, became interested in tai chi about 10 years ago. One of her students said she felt practicing tai chi gave her a competitive edge as a triathlete. Johnson was intrigued and took part in a class led by the student.

"Walking out of that class that day, I really felt energized," Johnson said.

Since then, Johnson and other UND researchers have conducted tai chi studies. One looked at older folks while a second focused on college-age students. In both studies, significant results were found.

The first study, conducted in 2000, involved 15 community-dwelling elders ages 62 to 91. "They loved it," Johnson

said. "Compliance was excellent."

At first, some of the participants needed to use chairs to maintain their balance during classes.

"By the end, none of them were using any support," Johnson said.

Tai chi is found to improve balance and posture, which means fewer falls. By cutting down on falls and resulting injuries, seniors may be able to remain independent longer.

In addition to better balance, researchers also discovered improvements in breathing and flexibility and a significant decrease in blood pressure among participants. With these improvements, some people may be able to put off the need for medication for these issues, Johnson said.

Similar results were found in the study of students. "This can be for anyone of any age," Johnson said.

Those taking tai chi classes in the 2000 study were compared with a control group that just continued with their normal activities. After the

study was done, members of the control group were offered the opportunity to take tai chi classes, too. Not only did they want to give the exercises a try, some of the researchers joined in as well.

More and more such studies are being conducted around the country. A growing body of evidence supports what has been found by researchers at UND: Tai chi is beneficial to cardio-respiratory function, flexibility and balance control, and aids the immune system. It also helps alleviate pain, such as that caused by arthritis.

Some studies have gone further, looking at the benefits to people with heart disease. Those recovering from heart attacks or other cardiac issues usually are prescribed some sort of

aerobic fitness training as part of their new ongoing routine. Tai chi fits the bill. Although considered just a moderate-intensity exercise, it gives participants a workout.

"It does become physically taxing," Johnson said.

Johnson is so impressed with the results of studies detailing the benefits of tai chi — and with her own initial experience — that she continues to use the movements herself. With her hectic travel schedule, Johnson uses tai chi to relieve stress, reduce blood pressure and alleviate back pain.

Tai chi classes are more readily found on the West Coast, and it is not unusual for classes to be offered there in long-term care facilities. Locally, classes are held from time to time at Altru, on the UND campus or through community education. Instructional videos are available, but nothing beats working with a real expert who can make sure beginners, in particular, are doing the movements correctly. People must be meticulous about the movements in order to achieve full benefits, Johnson said.

Insurers also are interested. About 30 percent of people ages 65 and older living in the community fall each year. In institutions such as nursing homes, the percentage is even higher. Though less than 10 percent of these falls result in a fracture, 20 percent of falls require medical attention. A study examining the economic impact of offering tai chi classes in nursing homes found such institutions save more than \$1,200 per participant per year by preventing falls and related injuries.

Falls, slips and trips also are major sources of injuries in the workplace, Johnson said. UND plans to begin working on a prevention partnership with Blue Cross/Blue Shield in early 2007. Among the issues they will study are the benefits of offering tai chi in the workplace and improving balance in people before they turn 40.

- Brenda Haugen  
Office of University Relations  
University of North Dakota

Tai chi can improve balance and posture, meaning fewer falls. By **reducing injuries from falls**, seniors may be able to remain independent longer.



Photo by Chuck Kimmerte

太極拳

The Mandarin term Tai Chi Chuan literally translates as 'supreme ultimate boxing,' or 'boundless fist'.

# A Community in



Jeremy St. Aubin (in red) works with athletes to improve their fitness.

WHERE IN ASHLEY, ND, CAN YOU FIND seniors in high school hanging out with senior citizens? The community fitness center, that's where. Thanks to the hard work of UND physical therapy graduate **Jeremy St. Aubin ('98, '99)**, the people of Ashley are enjoying a more active, healthier life.

St. Aubin left his hometown of Towner, ND, to attend the mortuary science program at Minot State University, but transferred to UND after two years to study physical therapy, earning both a bachelor's and master's degree with the program.

After graduation, he worked in Devils Lake and Grand Forks before moving with his wife, **Lisa (Hauschulz)**

**(B.S.N. '00)**, to Ashley in 2000 and starting work at Ashley Medical Center.

Two years ago, the superintendent of Ashley schools approached St. Aubin about a summer program for kids to prepare them for upcoming sports seasons. The problem was that the workout facilities consisted of a few weight benches in a six-foot by 10-foot furnace room at the school.

"Our goal was to be able to open up the school," said **Les Dale**, Ashley's superintendent. "We wanted to make it more of a community place. Some place all community members can use, not just students."

With the help of the school, Ashley Medical Center applied for and received a Blue Cross Blue Shield of



# Motion

North Dakota Rural Health Grant, administered by the UND medical school's Center for Rural Health, to upgrade the facilities. In addition, community members donated equipment and community organizations and businesses pitched in funds.

Ashley community members can now utilize two, 20-foot by 30-foot workout facilities that include cardiovascular and weight-training equipment suitable for a wide range of abilities.

"We went from 1956 to 2006 in a year," St. Aubin said to explain the transformation.

"Jeremy is so helpful and very ambitious," said Dale. "He really got the whole program running, purchased the equipment and was instrumental in getting programs started."

Open from 6 a.m. to 10 p.m. the facility hosts about 100 people every day including business people early in the morning, six ladies over the age of 65 who are regulars at about 9 a.m., school kids during physical education classes and physical therapy patients during the day, and high school athletes in the afternoon.

There is no fee to use the fitness center. It is maintained through donations, grant funds, memorials designated to the fitness center and other private funding.

"There are now community people here at the school every day rather than just for the occasional basketball game," said Dale.

The fitness center serves as a source on inspiration. The brightly painted walls display motivational sayings and the school's trophies and college and university pennants, reminding kids of what they have accomplished and what they can accomplish.

"There is virtually no vandalism,"

said St. Aubin. "The kids have really bought into it."

## More than Fitness

The popularity of the fitness center has extended beyond its walls. With the help of federal Medicare Rural Hospital Flexibility grants distributed by the Center for Rural Health, the health message has spread throughout the community. The community has established a basketball league in which anyone can play, referee or participate in other ways. There is a community tennis league and softball open and, on July 4 each year, community members participate in a skills challenge.

"There are now more things for the community to do," said St. Aubin. "The whole town is in support of these efforts."

Over the summer, St. Aubin holds a sports acceleration program for the athletes at the fitness center. Many attribute that program and the new fitness center with the recent success of the school's teams in sports.

But, St. Aubin isn't resting on his laurels. He continues to search out funding for his new ideas.

"Next, I'd like to set up a walking and exercise path with benches along the way," St. Aubin explains. "On each bench would be described two exercises: one easy, one more difficult, that people can stop and do during their walk. The path would also have varying lengths so you could walk for as little or much as you want to."

"It's everybody's responsibility to try to make their community better," said St. Aubin. "You're living in it. Just like you need to maintain your house, you need to maintain your community."

-Amanda Scurry

*It's everybody's responsibility to try to make their community better... Just like you need to maintain your house, you need to maintain your community.*

# School without Walls

Taking the university to the student through new distance technology



Photo by Chuck Kimberle

Jenny Marsden, MPT '00, fits her studies around her family and professional responsibilities. Shown here with her three-year-old son, Owen, she's working toward a Master of Physician Assistant Studies degree.

TECHNOLOGY, CONSUMER DEMAND and faculty flexibility are coming together to provide people everywhere greater educational opportunities to prepare for professional advancement or an occupational shift.

Gone are the days when, to earn a college degree, students had little choice but to leave home, come to campus and attend classes for several years. Today, that classroom is *anywhere* a computer can operate and the class meeting time is *anytime* a student is online — for many, who are employed and have families, that often means nights and weekends.

Distance learning brings the university to students, who can access

and complete courses of study (that fit into their busy lifestyles) without ever setting foot on campus.

## **Distance: Not new to North Dakota**

With its vast open spaces, North Dakota has a history of grappling with and overcoming distance as a barrier to education. For the past 30 years, for example, through the Laboratory Education for North Dakota (LEND) program, the UND medical school has provided continuing education and training for laboratory personnel working in health care facilities throughout the state and region.

"We make education available to fit their lives," says **Ruth Paur, Ph.D. '07**

**(Education), MSMT '93**, director of the clinical laboratory science program, Grand Forks.

"Part of our mission is to facilitate education in rural areas," she says. "Our goal is to bring the same educational opportunities to current and potential laboratory health professionals isolated by geography or time-commitment constraints."

The shortage of clinical laboratory science professionals, estimated at 17 to 22 percent, is "listed at the crisis level nationally," she notes, and stimulates the growth of distance education.

"Six years ago when we transitioned our master's degree online, we had 12 students; now we have 70," says **Janna Schill, MSCLS '04, BSCLS '01**, instructor in pathology, Grand Forks. "Our undergraduate program enrolls 150 students who are also employees at Mayo Clinic in Rochester, MN."

Distance education is very cost-effective in the training of "obviously talented people" in the health care field, Paur says. "We can repackage the curriculum and structure it differently to customize it" according to individual needs.

#### **Internet delivers**

"The way we deliver our curriculum is in an asynchronous online format. Each student can access the lectures, discussion boards and assignments on their own schedule 24 hours a day, seven days a week."

Often students study in bursts, "jackrabbit learning," covering a lot of material and listening to teachers' lectures during late-night and weekend hours.

Students make a significant time commitment to pursue an education via distance learning, Schill maintains. And "they need to have intrinsic motivation to be successful but, for many, this is their only opportunity to continue their education."

#### **Seeking more patient contact**

The motivation for **Jenny Marsden, MPT '00**, a student in the Physician

Assistant (PA) program who is working with preceptor **Wesley Borowski, M.D. '91**, Fergus Falls, MN, was that she "wanted to do more."

"I loved being a physical therapist and an advocate for patients," she says, but "I wanted to get in on surgery, to be more hands-on and more involved in pre- and post-operative care – that really interested me."

"I like the idea of having an effect on (patients') overall treatment."

Since she didn't consider herself very computer-savvy, Marsden admits to feeling a bit of trepidation about enrolling in a distance education program. But now "it's almost better" than being in a classroom, she says, "because you can replay (parts of a lecture) if you miss something."

The PA program is "very good, very intense," she says. "There's a lot of material, and it's a very fast-paced, demanding program" which requires self-discipline and excellent time management.

Distance learning "is challenging but if you can work through your own methods, it'll get done. You have to be more disciplined; you have a lot more to balance."

Even though she's not in a classroom regularly with other students, she says "the advantage of being able to stay where you are (living) *outweighs* the disadvantage of not seeing people face-to-face."

Marsden may not have been able to pursue her dream of becoming a physician assistant, if UND didn't offer this type of program, she speculates. "I wouldn't have picked up and moved my family. I don't think I could have pursued it."

#### **Earning the DPT from a distance**

The goal of the Department of Physical Therapy was "to help UND bachelor's and master's degree-holders to reach the Doctor of Physical Therapy (DPT) level," says **David Relling, Ph.D. '03 (Pharmacology, Physiology and Therapeutics), BSPT '91**, associate professor of physical therapy, Grand Forks. This conforms with the Vision

“

**The advantage of being able to stay where you are**

**outweighs the disadvantage of seeing people face-to-face.**

”

2020 Statement, adopted by the American Physical Therapy Association, advocating the DPT for entry into the profession.

The 35 students pursuing the DPT on-line comprise the second, and final, group scheduled to complete the

program since it was initiated in 2004, he says. By December, a total of 85 students from throughout the United States will have completed the online program.

Distance learning “helps students acquire new knowledge and skills in the practice of physical therapy,” Relling says, and “makes them aware of the resources that are available in the PT department, the HEF library and from their peers across the country.”

The PT faculty promotes evidence-based learning, by encouraging students “to incorporate the use of scientific literature, clinical expertise and patient values

to optimally evaluate and treat” patients’ conditions, he says.

“You kind of fall into a routine... (and) tend to do what is the most efficient,” says **John Andrew, MPT ‘98**, McMinnville, OR. “I have relied heavily on books for information and gotten out of the habit of using medical search engines to find the most recent information in my field.

“The DPT program has gotten me back in the habit of checking the current research instead of always just performing the same protocol that has worked for years.”

Although initially “skeptical” about distance learning, Andrew is “extremely impressed with the quality and organization of the online courses,” he

says. The faculty is “amazing as they respond to all my inquiries quickly – usually within the same day or 24 hours. It’s like having the physical therapy department in my living room even though I live in Oregon!”

Like many others, Andrew says “I don’t think I could have completed this degree any other way... The program does take discipline and a time commitment, but anything worth having does.”

### Occupational Therapy

The master’s degree, now required for entry into the occupational therapy field, may be earned completely online by students who hold a bachelor’s degree in occupational therapy, according to **Jan Stube, Ph.D. ‘00**, associate professor of occupational therapy, Grand Forks. The t-MOT (Transitional Master of Occupational Therapy) degree, launched in 2004, enrolls about 20 students who reside throughout the country.

Learning in the “virtual realm takes some adjustment,” she says, but once students do, they say it’s “equally rewarding” as traditional methods.

“Most say that one of the best parts is discussion with classmates (on discussion boards) and the attention, one-on-one, they receive from advisors and faculty members.”

“The faculty and staff of the occupational therapy department made the transition back to student very easy,” says **Beryl Olson, MOT ‘06, BSOT ‘96**, supervisor of physical medicine at Avera Sacred Heart Hospital in Yankton, SD. “I was impressed at how timely all the information was. I was able to take what I was learning in every class and immediately apply it to my current job duties.”

- Pamela D. Knudson

### For more information on distance learning programs, contact:

Clinical laboratory science  
<http://pathology.med.und.nodak.edu/cls/>  
701-777-2634

Occupational therapy  
<http://www.med.und.nodak.edu/depts/ot/>  
701-777-2209

Physician assistant studies  
<http://www.med.und.nodak.edu/physicianassistant/>  
701-777-2344



# Commonwealth Foundation State Scorecard

by Mary Wakefield Ph.D., R.N.

AS THE TEMPERATURES ACROSS North Dakota cool down, across the nation, concerns about health care are heating up. While solutions to challenges facing health care depend on one's vantage point, consumers, payers, providers and policymakers tend to share the same set of concerns; variability in care quality, challenges in holding down health care costs, and maintaining affordable access to health insurance. Rather than pursuing solutions to these thorny problems from the perspective of just one stakeholder group, the Commonwealth Fund has convened 18 individuals representing all of the sectors, to propose strategies that could produce a high performance health system. These strategies are designed to influence activity at the bedside, in the board room, and in the nation's capitol.

The focus of our dialogue pivots off of four goals: achieve high quality safe care, access to care, efficient and high value care, and build in capacity for systems to improve. The latter involves both organizational and workforce capacity for innovation. As part of this effort, information has been compiled on what is done well in and across the nation and where and what improvements need to occur. What becomes readily apparent is that some places are doing very well on measures of these four goals while others are not.

While there is ample opportunity for us to learn from other states, we can also take some pride in the fact that on many measures, North Dakota does quite well. In fact, our state is in the top quartile on the Commonwealth Fund's State Performance Scorecard.

Recognizing that there is much to be learned from rural America that can help to reframe health care, I invited the Commonwealth Fund representatives to North Dakota earlier this year. They heard firsthand from some of our payers and providers about how we achieve high marks on a number of important measures. For example, North Dakota has a higher than average proportion of primary care providers. Research is clear that states and nations with more primary care tend to do better managing chronic illness, holding down spending and using fewer hospital beds.

We also see homegrown virtual networks built across health care sectors, clinicians and communities. Such networks harness efficiencies and cooperation that can support quality, access, efficiency and certainly innovation.

Through the scorecard we can also see the gaps that need to be bridged in North Dakota. To do so, we can look to and learn from the states and other countries that do better than we do on some measures.

In the meantime, the important work of the Commonwealth Fund is finding its way into briefings on Capitol Hill, articles in the health trade press, speeches at national meetings, and informing health proposals of presidential candidates. The Fund's work will continue to be informed by what was learned not only in places like Denver and Los Angeles, but also by what was learned in North Dakota. Efforts will continue around the complex but essential business of improving health and health care, because whether it's North Dakota, or across the nation, doing less than the best isn't quite good enough.



Mary Wakefield, Ph.D., R.N., director, Center for Rural Health, is a member of the Commission on Creating a High Performing Health System.

#### WEB EXCLUSIVE:

For more information on the Commonwealth's site visit to North Dakota visit

[www.ndmedicine.org](http://www.ndmedicine.org)



# UNDERSTANDING EPILEPSY



Graduate student **Chris Jurgens** applies his lifelong interest in research to finding better treatments for epilepsy.

**CHRIS JURGENS** HAS ALWAYS BEEN interested in *how things work*. As a boy, he asked his parents, “Why do we have wind?”

“And I made them answer it,” he says.

The graduate student, earning his Ph.D. degree in pharmacology, physiology and therapeutics, credits his parents, **Richard Jurgens**, chief operator at Grand Forks’ water treatment plant, and **Sharon Jurgens**, a teacher, with

fostering that sense of inquiry.

Born and raised in Grand Forks, Jurgens' wide-ranging interests propelled him to take classes at UND while still a high school student. By the time he graduated from Red River High School in 2001, he'd earned enough credits to enroll as a sophomore at UND where he majored in communication and music with a minor in math.

For a time he considered medical school but, after a brief stint volunteering at a local clinic, he decided he "wasn't cut out for patient contact." He answered an ad for lab assistants, posted by **Van Doze, Ph.D.**, associate professor of pharmacology, physiology and therapeutics.

"I thought I'd be washing dishes," he recalls, but found in Doze a gifted mentor who would guide him into the realm of serious scientific investigation.

"I was able to do experiments," he says, "and was drawn to the assortment of 'toys,' high-tech equipment that fills Doze's 'very hands-on lab.'" Science "came alive" for him in that lab.

"I'm a 'big-picture' person," Jurgens says. "I like to figure out mechanisms and how we can use (this knowledge) to help people. I'm interested in how we can use the small things I'm able to study to improve patient care at-large."

### Searching for more effective drug treatments

His research is focused on epilepsy and the role of norepinephrine in controlling seizure activity. A naturally occurring antiepileptic compound in the brain, norepinephrine doesn't interfere, and actually enhances, learning and memory.

"If we could find out how it works – the mechanisms underlying its antiepileptic properties – then we may be able to develop new drugs that are more effective and cause fewer or no adverse side effects," Doze says.

Jurgens, who's received numerous awards and recognition at UND, most recently has been selected to attend the National Graduate Student Research Festival, an annual two-day event at the National Institutes of Health (NIH) in

Bethesda, MD. The event introduces 250 advanced graduate students in the sciences to the NIH Intramural Research Program with the aim of recruiting them to do postdoctoral training at NIH.

"Competition to participate is intense," Doze says. "In 2006, 964 applications were received" for the Festival during which students present posters, attend plenary sessions, tour the NIH and interview with investigators interested in hiring postdoctoral fellows.

Jurgens is "one of our top students," Doze says. "He's conducting research of significant impact; (foundations) wouldn't fund these research projects if they didn't show potential."

For his part, Jurgens says working with Doze has been "a very positive experience.

"He's shown me a lot of things, and also how to work on my own — working with the equipment and figuring it out — and how to set up experiments. It makes me a very versatile person.

"He's fostered learning in many different ways (including) encouraging me to write grants... He's very enthusiastic about research and very enthusiastic about providing research opportunities for students."

And "the department has been supportive of me," he adds, "not only in money but also motivation, being recognized for doing things well."

Whether he eventually moves on to the NIH or another academic institution after completing the Ph.D. degree next year, Jurgens sees himself "always having an epilepsy focus," he says. "It may not be *all* that I do, but it will be a part."

- Pamela D. Knudson

I'm interested in how we can use the small things I'm able to study to improve patient care.

### Some of the awards and honors Chris Jurgens has received:

- Epilepsy Foundation Pre-doctoral Training Fellowship, 2006
- Doctoral Dissertation Assistantship award (from North Dakota Experimental Program to Stimulate Competitive Research (EPSCoR)), 2006
- Outstanding Graduate Student Presentation award (from North Dakota Academy of Science), 2007
- Outstanding Graduate Student Poster award (UND medical school's Frank Low Research Day), 2007
- National Institute of Health (NIH) National Graduate Student Research Festival (selected to attend annual event at NIH in Bethesda, MD), October 2007
- Scientific papers (first author) published in *Journal of Pharmacology and Experimental Therapeutics* and *Molecular Pharmacology*, flagship journals for the American Society for Pharmacology and Experimental Therapeutics

## Center for Rural Health Receives \$1.6 Million for Health Information Technology

The Center for Rural Health has received a \$1.6 million federal grant to help small, rural hospitals implement electronic medical records systems.

The grant will be used to form a regional health information technology (HIT) network. The Center for Rural Health is partnering with the North Region Health Alliance, a 20-member health cooperative representing primarily rural hospitals in eastern North Dakota and northwestern Minnesota to form the network.

The overall project goal is to implement electronic medical records that are usable by all the participating facilities. During the 18-month project, the group will implement electronic medical records beginning with one small, rural hospital. Using what is learned from that implementation electronic medical records will be added to two more rural hospitals.

Electronic medical records are a digital form of medical record and an efficient tool for transferring information between health care providers, decreasing medical errors and improving accuracy and security of medical records.

"We expect to see electronic medical records providing new opportunities to improve patient care and clinical staff productivity," explained **Marlene Miller**, the project's co-director at the Center for Rural Health,

A federally supported study of Critical Access Hospitals (CAHs) found that only 20 percent of CAHs nationally had some form of electronic medical records. In North Dakota, while 68 percent of CAHs budget for HIT, only 16 percent have a formal HIT plan and only 11 percent used electronic medical records.

"It is vital that we broaden the use of high-tech information systems to improve the quality and efficiency of health care," said North Dakota **Senator Kent Conrad**. "And North Dakota is leading the way with the development of the HIT network. This is an investment that will save both money and lives."



## Mohr Appointed to Commission



**Thomas Mohr, Ph.D. '86**, professor and chairman of the Department of Physical Therapy at the UND School of Medicine and Health Sciences, has been appointed as a commissioner on the panel that accredits physical therapy programs nationwide. Mohr will serve a four-year term on the Commission on Accreditation in Physical Therapy

Education (CAPTE) Central Panel. He was appointed to the six-member group by the board of directors of the American Physical Therapy Association.

Mohr has taught physical therapy at UND since 1978 and has served as department chair since 1993.

## Fargo Physicians Accept New Roles on Medical School's Southeast Campus



Blehm

Two Fargo physicians will assume the duties of **Bruce Pitts, M.D.**, who has announced his resignation as associate dean and director of graduate medical education at the UND School of Medicine and Health Sciences' Southeast Campus, based in Fargo.

Pitts is leaving his part-time position with the school to take on the full-time role of executive vice president for clinical services at MeritCare Health System, where he has served as a senior executive since 1997.

**Julie Blehm, M.D. '81**, an internist and geriatrics specialist, has been appointed associate dean for the Southeast Campus of the UND School of Medicine and Health Sciences. She will continue her practice with MeritCare Health



Theige

System in Fargo. A 1981 graduate of the UND medical school, she is board-certified in internal medicine and geriatrics. An associate professor of internal medicine, she directs the school's internal medicine residency outpatient clinic in Fargo.

**David Theige, M.D. '85**, a hospitalist with MeritCare Medical Group, will assume the role of assistant dean for graduate medical education at the UND medical school, overseeing residency programs in family medicine, internal medicine, psychiatry and general surgery and a one-year transitional program. He will continue to practice at MeritCare Health System in Fargo.



## Amundson Completes National Committee Work



**Mary Amundson, M.A. '95**, assistant professor at the Center for Rural Health, has just completed serving an appointed four-year term on the National Advisory Committee on Interdisciplinary, Community-Based Linkages. This committee provides advice and recommendations on a broad range of issues dealing with programs and activities associated

with Title VII programs. Included in these Health Resources Services Administration programs are Area Health Education Centers, Health Education Training Centers, Geriatric Education Centers, Geriatric Academic Career Awards, Quentin N. Burdick Program, Chiropractic Demonstration Projects, and Podiatric Residency Training in Primary Care Program.

## Burns to Serve on National PA Accreditation Commission



**Elizabeth Burns, M.D., M.A.**, professor of family and community medicine at the School of Medicine and Health Sciences, has been appointed to a second term on the national commission which accredits physician assistant programs throughout the United States.

In January, she begins a three-year term on the Accreditation Review

Commission on Education for the Physician Assistant, Inc. (ARC-PA), and has been elected secretary for the ARC-PA, a position on the executive committee. She was nominated by the American Medical Association to serve on the ARC-PA.

Burns also recently received the Distinguished Alumni Award from Marygrove College in Detroit, MI. The award recognizes graduates' outstanding contributions in professional, educational or artistic endeavors; community service; political action, social justice or volunteer activities, or to Marygrove College. Burns graduated magna cum laude with a Bachelor of Science degree from Marygrove in 1972.

Burns, who joined the UND medical school in 2002, is director of the National Center of Excellence in Women's Health Region VIII Demonstration Project. She is also the medical director of UND's physician assistant program through which students earn the Master of Physician Assistant Studies degree.

## Vari Named Interim Director of Continuing Medical Education and Outreach



**Richard Vari, Ph.D.**, has been named interim director of the Office of Continuing Medical Education and Outreach at the University of North Dakota (UND) School of Medicine and Health Sciences, effective Oct. 1. He continues in his current position, associate dean for medical education at the school.

Vari replaces **Wayne Bruce, Ph.D.**, who recently resigned. Bruce served the UND medical school since 1975 when he was appointed director of the clinical laboratory science program.

Vari joined the UND medical school in 1993 as a member of the physiology faculty. He has been instrumental in designing and implementing the patient-centered learning curriculum at the school.

## Doctors Make Patient-centered Learning Focus of Presentation and Article



McBride (right) with medical student Michael Greenwood in a PCL classroom

The value of the patient-centered learning (PCL) approach used at the School of Medicine and Health Sciences in promoting humanism and professionalism has received recognition at a national level recently.

**Rosanne McBride, Ph.D.**, and **Charles Christianson, M.D., Sc.M.**, of the Department of Family and

Community Medicine presented a poster entitled, "A case-focused patient centered curriculum: generating critical substrates for learning humanistic values at student, faculty and institutional levels," at the Arnold Gold Foundation symposium "How are we teaching humanism in medicine and what is working?" in Chicago in September 2007. The Arnold Gold Foundation is a leading force supporting humanism in medical education.

McBride and Christianson, along with **Richard Vari, Ph.D.**, **Linda Olson, Ed.D.**, and **H. David Wilson, M.D.**, also published a paper in the November issue of *Academic Medicine* exploring the role of the PCL process in promoting institutional change to support the values of professionalism.

WEB EXCLUSIVE:

To read their paper, visit [www.ndmedicine.org](http://www.ndmedicine.org)



## Neuroscientist's Research Nets \$700,000 for Study Related to Alzheimer's Disease



A UND neuroscientist has received a grant totaling nearly \$700,000 from the National Institutes of Health (NIH) to study Alzheimer's disease.

**Colin Combs, Ph.D.**, associate professor of pharmacology, physiology and therapeutics, received an RO1 award from the National Institute on Aging, a division of NIH, to study a particular

mechanism in the brain which could play a role in the progression of Alzheimer's disease.

The four-year grant allows Combs to continue research, using mice, aimed at identifying a target for a specific mechanism he's developed that shows potential to stop or slow the inflammatory changes in the brain which are believed to be involved in Alzheimer's disease.

Combs, who joined the UND medical school in 2000, has been studying the underlying causes of Alzheimer's and other neurodegenerative diseases for about 18 years. He is a member of an initial group of researchers in the Center of Biomedical Research Excellence (COBRE), funded through a five-year, \$10.3 million grant from the NIH beginning in 2002. The five-year renewal of the COBRE grant, funded with \$10.1 million from NIH, was announced by the UND medical school last month.

## UND Researchers to Study HIV-Dementia, in Collaboration with Johns Hopkins University Medical School



**Jonathan Geiger, Ph.D.**, professor and chair of pharmacology, physiology and therapeutics at the UND of Medicine and Health Sciences, has received funding from Johns Hopkins University medical school and the National Institutes of Health (NIH) for studies related to the dementia that afflicts patients infected with human

immunodeficiency virus (HIV). The studies, analyzing new methods and mechanisms that may be targeted to help treat HIV-dementia, will be conducted in collaboration with Dr. Norman Haughey, principal investigator on the two grants and assistant professor of neurology at Johns Hopkins University School of Medicine in Baltimore, MD.

The five-year grants, totaling \$2,325,000 from the National Institute of Alcohol Abuse and Alcoholism and the National Institute of Mental Health, will fund studies aimed at deepening scientists' understanding of the mechanisms which lead to dementia in HIV/AIDS patients. Designated as RO1 grants, they are among the most highly ranked grants awarded by the NIH.

"Due to the increased effectiveness of treatments that have been developed for HIV, patients with this disease are living longer and the incidence of HIV-dementia has decreased," said Geiger, a co-investigator on these grants.

"However, because people living with HIV/AIDS are living longer, and are exposed to a number of other disorders and the ingestion of various drugs of abuse including alcohol, the prevalence of HIV-dementia is increasing," he said. "This underscores the importance of studying this form of dementia which is the most common form found in persons under 40 years of age." "It's important to identify new therapeutic interventions designed to improve, or prevent further decline in, brain function because current treatments have had limited success," he added.

"Our goal is to investigate underlying mechanisms in HIV-dementia and to identify effective interventions against the neurological complications experienced by HIV-infected individuals," Geiger said.

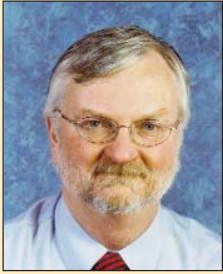
The NIH grant projects are titled: "Dysfunctions of Sphingolipid and Sterol Metabolism in HIV-Dementia" and "Interaction of Alcohol with HIV Proteins."

## Rural Health Policy Summit



(left to right) Dr. Frank Cerra, senior vice president, University of Minnesota Academic Health Center; Kristin Juliar, director, Montana Office of Rural Health; and Brad Gibbens, associate director, University of North Dakota Center for Rural Health, were keynote speakers at the first Upper Midwest Rural Health Policy Summit held in Crookston, MN, on August 17. The summit focused on the future of rural health care policy and drew more than 140 participants.

## NIH Funds Project to Improve Diagnosis of Eating Disorders



Mitchell

Researchers in the Department of Clinical Neuroscience at the UND School of Medicine and Health Sciences and the Neuropsychiatric Research Institute (NRI) in Fargo have received a grant from the National Institutes of Health (NIH) to advance the understanding of eating disorders among health professionals.

**Drs. Stephen Wonderlich and James Mitchell**, who each hold the title of Chester Fritz Distinguished Professor of Clinical Neuroscience at UND, have received \$110,000 from the National Institute of Mental Health for a project aimed at furthering the scientific



Wonderlich

understanding of eating disorder diagnoses. **Ross Crosby, Ph.D.**, clinical professor of clinical neuroscience at the UND medical school and director of biomedical statistics and methodology at NRI, will also serve as a consulting statistician on the project.

With grant support, they plan to convene a series of meetings of a group of leading researchers in the field to clarify "the next generation of eating disorders diagnosis," Wonderlich said. The group will conduct scientific studies to improve the classification of symptoms and characteristics of eating disorders by professionals who treat these very serious mental health and medical disorders.

## ALUMNI NOTES

'00s

**Vijay Korimilli, M.D. '07**, hospitalist, joined MeritCare Hospital in Fargo, ND. He earned a medical degree from JSS Medical College, India, and a master's degree from the University of South Florida, Tampa. He completed his residency in internal medicine at the UND Fargo campus.

**Lynelle Noisy Hawk, M.D. '07**, has established her medical practice at the Indian Health Service (IHS) Hospital in Fort Yates, ND. A member of Oglala/Hunkpapa Lakota Nation, she has a special interest in diabetes care and women's and children's health.

Originally from the Pine Ridge (SD) Indian Reservation, she completed her first two years of medical education at UND and went on to earn her medical degree from the University of South Dakota School of Medicine. She completed her residency in family medicine at the UND Bismarck campus. Throughout medical school, she was enrolled in the Indians Into Medicine (INMED) Program. She is a member of the Association of American Indian Physicians.

**Eram Shahira, M.D. '07**, hospitalist, joined MeritCare Hospital in Fargo, ND. She earned a medical degree from Osmania Medical College, India. She completed her residency in internal medicine at the UND Fargo campus.

**David Kuylen, M.D. '04**, emergency medicine, joined St. Joseph's Hospital and Health Center in Dickinson, ND. He completed his residency at Synergy Medical Education Alliance in Saginaw, MI.

**James Schmidt, M.D. '04**, joined Trinity Medical Group's hospitalist program in Minot, ND. He's certified in cardiac, trauma, neonatal and pediatric life support. He earned his medical degree from UND and completed his family medicine residency at the UND Center for Family Medicine in Minot.

**Elena Rodgers-Rieger, M.D. '03**, pathology, joined MeritCare Broadway in Fargo, ND. She completed her residency at the University of Minnesota, Minneapolis.

**D.J. Hatlestad, M.D. '02**, emergency medicine, joined Medcenter One in Bismarck. He completed his residency at the University of Missouri, Kansas City.

## ALUMNI NOTES

**Kenneth Watts, M.D. '02**, has joined the medical staff at St. Mary's Regional Medical Center in Enid, OK. He is a licensed general surgeon and has been a general surgery resident at Baylor College of Medicine in Houston since 2002. He received his bachelor's degree in pharmacy from Southwestern Oklahoma State University.

From 1996 to 1998, Watts practiced medicine at USPHS W.W. Hastings Indian Hospital in Tahlequah as a clinical pharmacist.

'90s

**Monica Mayer, M.D. '95**, New Town, ND, presented a talk, "Medical Aspects of Lewis and Clark," about medicinal uses of plants and herbs, at a heart health workshop in October at United Tribes Technical College in Bismarck.

"Women – The Heartbeat of Our Nations" was aimed at raising awareness about heart diseases and stroke. The event was sponsored by the American Heart Association, Dakota Medical Foundation and the college's Land Grant Extension Program.

Mayer, a graduate of the UND family medicine program in Minot, practices family medicine at Trinity Community Clinic in New Town.

'80s

**Byron Busch, M.D. '88**, internal medicine, joined CentraCare Health Plaza in St. Cloud, MN. He received his medical degree from the University of North Dakota School of Medicine and completed residency at Marshfield Clinic, Marshfield, WI. He was in private practice 16 years in Billings, MT.

**Patty Fahy, M.D. '84**, recently received national praise for her focus on improving physician careers, recruiting more women into the field and enhancing workplace satisfaction. She was featured in Business 2.0 Magazine and honored as "Health Care Manager of the Year" by The Denver Business Journal.

Fahy is the associate medical director of HR at Kaiser Permanente Colorado and speaks nationally on the topic of physician leadership.

**James Dehen, Jr., M.D. '83**, was inaugurated as president of the Minnesota Medical Association in September. The MMA is a professional organization representing about 10,000 physicians, fellows, residents and medical students in Minnesota. As president, he will serve as the spokesperson for the association and participate in setting policy.

Dehen is board certified in general surgery and has been in private practice at Brainerd Medical Center since July 1988. At St. Joseph's Medical Center he has served as chief of surgery, chief of staff and a member of the hospital board of directors.

'70s

**Mark Odland, M.D. '78**, was recently elected board chair for the MMIC Group in Minneapolis, MN. He is assistant chief of surgery and interim chair of the department of surgery and director of transplant services at Hennepin County Medical Center, and surgical director of renal transplant services at Abbott Northwestern Hospital, both of Minneapolis. Odland, who served as board vice chair for a number of years, joined the board in 1996.

'60s

**Janet Gilsdorf, M.D. (B.S. Med. '68)** wrote a book about her experience with breast cancer entitled *Inside/Outside: A Physician's Journey with Breast Cancer*. This memoir of a physician with cancer tells the unforgettable story of when a doctor becomes a patient.

Gilsdorf is professor of pediatrics and communicable diseases and professor of epidemiology at the University of Michigan. She is also director of pediatric infectious diseases, Mott Children's Hospital; director of the cell and molecular biology in pediatrics training program; and director of the Haemophilus influenzae research laboratory.

WEB EXCLUSIVE:

To read an excerpt from Dr. Gilsdorf's book or to order a copy, visit [www.ndmedicine.org](http://www.ndmedicine.org)



'30s

**Lucille Fostvedt, M.D. (B.S. Med. '38)**, was presented with the American Cancer Society's highest honor, the St. George National Medal of Honor, in November. The award is given to volunteers who have made a significant contribution to the society over an extended period of time. Fostvedt, the first female physician in Palm Springs, CA, ran cancer support groups out of her home for 25 years.

## IN MEMORIAM

**Lionel DeMontigny, M.D. (B.S. Med. '59)**, a retired US Assistant Surgeon General who spent 22 years serving Native Americans and Alaska Natives as a commissioned Officer of the United States Public Health Service, died on September 2, 2007 in Warfordsburg, PA. He was 72.

Dr. DeMontigny, who attained the rank of rear admiral in the Public Health Service Commissioned Corps, was an American Indian of the Chippewa-Cree tribe and one of the first American Indian physicians to serve in the Indian Health Service as a commissioned officer.

He received many awards for his work in elevating the health status of the American Indian and Alaska Native but none he treasured more than his 2006 recognition by UND and the "Indians into Medicine Program" for his lifetime of effort to encourage American Indians to enter medicine and to serve in areas where they could bring "Healing to Fellow First Americans."

He attended UND and the University of Wisconsin for his pre-med and medical degrees. In 1962, he joined the Commissioned Corps of the U.S. Public Health Service and soon after completed a residency in preventive medicine at the University of Oklahoma where he also earned the additional degree, Master of Public Health.

His service took him to a variety of reservations throughout the West and subsequently to the headquarters of the Indian Health Service in Rockville, MD, where he served in a variety of leadership posts.

After his retirement from the Corps in 1984, he served as public health director of the Monongalia County in Morgantown, WV. He later settled on a farm in West Virginia where, in addition to his continued work with the Association of American Indian Physicians and the "Indians into Medicine Program," he taught at the University of West Virginia.

He is survived by his wife Shirley Favilla DeMontigny; a son, Alexander DeMontigny, NY; three daughters, Suzanne Tucker of Beltsville, MD, Cynthia Whitehorn of Tulsa, OK, and Cheri Orellana of Independence, WV; three brothers, Armond DeMontigny of Helena, MT, Charles DeMontigny of Kent, WA, and William DeMontigny of Belcourt, ND; four stepchildren, Jacqueline McQuen of Washington, DC, John Favilla of Canton, OH, Dennis Favilla of Adamstown, MD, and Terry Favilla of Lititz, PA; as well as five grandchildren and eleven step-grandchildren.

Donations in his name may be made to:  
INMED –University of North Dakota School of  
Medicine and Health Sciences  
Room 2101  
501 North Columbus Rd Stop 9037  
Grand Forks, ND 58202-9037

**John Kerr, M.D. (B.S. Med. '46)**, a Mesa, AZ, pediatrician who cared for thousands of youngsters, their children and grandchildren, and helped create organizations that would nurture thousands more, died on May 20, 2007. He was 84.

Dr. Kerr opened Mesa Pediatrics in 1954 and began treating kids at Sunshine Acres Children's Home when it opened the following year. For the next 50 years, he cared for the Sunshine Acres kids free of charge, then took on the children at the East Valley Child Crisis Center when it opened in 1981.

Much of Dr. Kerr's community service came alongside his wife of 59 years, Betty Kerr, who was the crisis center's founding board president. The Kerrs were named Mesa's man and woman of the year in 1967, the only time a couple has been so honored.

During his years as one of the first pediatricians in town, Kerr saw the need for mental health treatment and alternative schools for troubled children.

He went on to help found the community's primary social service agencies, including PREHAB, the MARC Center and the East Valley Behavioral Health Association. He also served on the governing board of the Mesa Unified School District for a decade.

After retiring in 2003, Dr. Kerr continued to provide free medical care to the crisis center, Sunshine Acres, St. Vincent de Paul in Phoenix and a Mesa clinic.

Among his many awards and accolades, Dr. Kerr's family said he was most proud of John K. Kerr Elementary School in Mesa. He visited the school regularly, attending band performances, field days and other special events. He asked that the school band play at his funeral.

In addition to his wife, Dr. Kerr is survived by four children, six grandchildren and two great-grandsons.

**Leslie Lundsten, M.D. (B.S. Med. '43)**, Bemidji, MN, died Aug. 21, 2007.

He earned a Bachelor of Arts degree at UND in 1942. After completing two years of medical education at UND, he went on to earn the Doctor of Medicine degree from the University of Chicago Health Science Center. He practiced internal medicine.

# A Woman of Firsts

**EVA GILBERTSON, M.D. (BS MED '39)** IS USED TO GOING FIRST. Raised on a farm near Maddock, ND, she was the only woman in her medical class at UND, the first female to complete the radiology residency program at Mayo Clinic, and upon her graduation – the first female radiologist in the state of Washington.

Dr. Gilbertson takes this journey of firsts in stride, recalling a double major at UND, with home economics as a back-up to medicine – just in case they wouldn't let a woman into the program! Well, she did get in, "and from then on," she laughs, "I've left the cooking to someone else."

She completed her medical degree at Temple University, and both her residency and fellowship at Mayo Clinic's radiology program.

With gifts and a pledge in excess of \$5 million she established an endowed chair at her Alma Mater in August that will provide the first step for a Department of Geriatrics, a much needed service to this rural state with a higher than national average of aging population. **The Eva L. Gilbertson, M.D., Distinguished**



Dr. Eva Gilbertson and Blanche in Seattle, 2006.

“Health care delivery is different for older people. Their needs are different, and if the aging population is growing and medicine doesn't react – who will be there to serve this public?”

**Chair of Geriatrics** will support education and research in geriatrics. Well aware of the special medical needs of the elderly, Dr. Gilbertson's intent is for the endowment to fund a nationally recognized, board certified geriatrician who will train and mentor students, conduct research relevant to this population base and provide medical services to citizens in the region. The title "distinguished chair" is the highest academic position a faculty member can hold.

Though retiring years ago from a long and successful private practice in Seattle, WA, Dr. Eva Gilbertson is still astute in the field of radiology. She remains abreast of new techniques and procedures, reading professional journals and following advancements in radiological education.

Visit us online at [www.med.und.edu/alumni](http://www.med.und.edu/alumni) today to see how **YOU** can help!

**Editor's Note:** Dr. Gilbertson passed away suddenly, November 16, 2007, after this publication had gone to press. The faculty and staff at the UNDSMHS would like to express our deep sympathy to Eva's family and many friends.

For more information, contact:

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## PARTING SHOTS



Altru Health System anesthesiologist and UND clinical instructor of surgery, **Michael Schuster, M.D.**, demonstrates management of a difficult airway during the 3rd Annual Rural Surgery Symposium held in September in Grand Forks.



The annual Malpractice Bowl tradition continues between UND law and medical students. The medical women lost with a score of 6 to 34, while the medical men won 14 to 6.



UND Occupational Therapy students from the Casper, WY, campus show off their UND pride at the Wyoming Occupational Therapy Association annual meeting in September. (Left to right) assistant professor **Anne Haskins, OTR/L**, **Kelsey Hewitt**, **Whitney Schilling**, **Joe Troudt**, **Trista Aaberg**, assistant professor/professional coordinator **Breann Lamborn** and **Sarah Cooper**.



### ND Tar Wars Poster Contest Winner

Fifth-grader **Kathryn Peterson**, daughter of **Mark and Rhonda Peterson**, Grand Forks, was the winner of the 2007 North Dakota Tar Wars Poster Contest. She and her family traveled to Washington, D.C. for a recognition ceremony, and her poster was featured on a Grand Forks billboard. Tar Wars is a tobacco-free education program for kids from the American Academy of Family Physicians and Doctors Ought to Care.



Occupational Therapy students and faculty volunteered to support the Alzheimer's Association Memory Walk in September. The OT team won the trophy for the most participants. The Memory Walk raised more than \$14,000 to contribute to better Alzheimer's advocacy, education, and support programs for those affected by Alzheimer's disease and related disorders.



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