



# NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

## **Beyond the Bedside**

**Teaching Compassion**

**The Debt Dilemma**

**The Goose That Laid the Healing Egg**

**Insurance Costs Squeeze  
Farm and Ranch Families**

Spring 2008  
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My year as the Chair of the Council of Deans for the AAMC is passing quickly. It has been an honor to represent North Dakota on the national scene and especially to emphasize some of the issues that as a physician, educator, and health consumer I feel have a great impact on the future of medicine and medical education. Here are highlights of the past six months:

- Chairing the task force regarding the relationship between AACOM (American Association of Colleges of Osteopathic Medicine) and AAMC with Dr. Steve Shannon, Association American College of Osteopathy, and the deans of five prominent colleges of osteopathy. This committee has spent a lot of time discussing topics such as standardized accreditation, licensure exams, academic research requirements, and other important areas that would be necessary in order to more closely align the two entities.
- Serving as the architect of the meeting for deans of all United States and Canadian medical schools. We've arranged an outstanding meeting April 5-8 featuring national speakers and topics of international relevance, varying from obesity to global health to telemedicine. A special feature for the meeting is author Atul Gawande, M.D., M.P.H. The research director and General

Surgeon at the Endocrine Surgery unit of Brigham and Women's Hospital, Boston, MA, Dr. Gawande has authored two best-selling books: "Complications" and "Better: A Surgeon's Notes on Performance." If you haven't read his work, I'd highly recommend it. He's an excellent writer and his perceptions as a resident in "Complications" and later as a surgeon in "Better" are most insightful.

On the local front, we hope you'll enjoy this edition of North Dakota Medicine. Our editorial committee thought our readers might like to share some of the tastes and talents of our faculty in "Beyond the Bedside" (page 4). There are so many ways for professionals to release the stress of demanding jobs. This group varies from the physical power of rodeo riding to the personal serenity of bird watching! As a master gardener for many years, I found the article very entertaining.

At UND we are proud to educate sensitive, caring professionals on the very personal subject of dealing with patients and families as they prepare for death. Can empathy be taught? How do you feel about that? This is the subject discussed in "Teaching Compassion" (page 10).

We hope you will have an enjoyable spring, whatever that means and wherever you live! **Please remember to give your annual gift to the medical school.** We have enjoyed an increased number of donors to the medical school for the past four years, and your gift is important to the future of the school. Whether you support your department, scholarships, technology, or whatever else interests you – YOUR GIFT MATTERS! Thank you.

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



# NORTH DAKOTA MEDICINE

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### NORTH DAKOTA MEDICINE

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SCHOOL OF MEDICINE AND HEALTH SCIENCES

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# Beyond th



Photo by Forrest Photography, Como, TX.

Mark Lundeen with White Cat A Lena in the 2007 NCHA World Championships.

**D**OCTORS PUT IN LONG HOURS DURING THE WEEK, and often the weekends offer little relief. They respond to the needs of students and patients. For doctors who are

# e Bedside



part of the university system, there is the added pressure of needing to be published and bringing in grant dollars. The job can quickly become all encompassing.

But many North Dakota doctors and scientists have unique ways to make use of their personal time. Many feel the time they spend away from work makes them healthier, happier, and more productive. And by finding balance in their lives, they serve as good examples to their students. They prove you can have a high-pressure career you love and still find time for yourself and your outside interests.

#### **A cut above**

**Mark Lundeen, M.D. (B.S. Med. '73)**, clinical associate professor of surgery, shares a passion for a sport called cutting with his daughter, Kristen, who lives in Vail, CO.

"She's a superb rider," Lundeen says. "That's really been a great family thing for us. If the people you love can enjoy this with you, there's really nothing better."

Cutting takes place in an arena and showcases the teamwork of horse and rider. The pair has 2 ½ minutes to separate, or cut, at least two cows from their herd and keep them from returning to the group. A panel of judges rates each horse's performance

on everything from how well the task was completed to how deep in the herd the cow was extracted.

"Basically (the sport) is a residual of when they were branding cattle," Lundeen explained. "It's a good way for me to stay fit and active," he says.

An orthopedic surgeon in Fargo, Lundeen adds that working with horses helps him relax and escape the stresses of work. He says there definitely is a spiritual aspect to being around these amazing creatures.

"That's the beauty of horses," he says. "They demand your concentration. That's how you escape whatever else is going on."

He also enjoys meeting people he wouldn't come in contact with otherwise.

"It's a totally different group of people than I normally interface with," Lundeen says. "That is a really neat piece of it."

#### **For the Birds**

**David Lambeth, Ph.D.**, says he's known some doctors who get so wrapped up in their work that they don't develop any outside interests. As they near the ends of their careers, they don't have hobbies to look forward to in their newly found free time. For them, he says, retirement can be a scary word.

"A lot of times, they don't know what to do with themselves when they retire," says Lambeth, a Chester Fritz Distinguished Professor of biochemistry. "I'm not going to have that problem."

Lambeth says he's finding his days are more filled than ever.

Growing up on a farm in southwest Missouri, Lambeth always enjoyed wildlife. In 1969, as a graduate student at the University of Wisconsin,

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David Lambeth, Ph.D., enjoys birding at Kellys Slough National Wildlife Refuge.

Lambeth's interest grew. Armed with newly purchased binoculars and a field guide, he went in search of a squealing wood duck another student said he'd heard.

"I had to go see for myself," Lambeth says.

That was the start of a passion that has grown through the years. Lambeth has traveled globally in search of birds.

"Birders are willing to spend time and money to see birds in other places," Lambeth notes.

He also shares his hobby by teaching bird-identification classes, mostly through Grand Forks Community Education.

And for Lambeth, it's more than just for the birds.

"I try to combine birding with exercise," he says. "And just being outside, I look at it as a way to keep in tune with the natural cycles."

The time spent birding can be a time to process what's happening in his life, either personally or professionally, and make plans for the future.

"You can be looking at birds and still do that," Lambeth says.

For Lambeth, who's retiring in June, birding has offered a much-needed opportunity to recharge his spirit.

"And sometimes I'd just say I don't want my profession to take over my life," he says.

### **Gone Fishin'**

No one would agree with Lambeth more than **Tom Mohr, Ph.D. (Physiology '86 BSPT '75)**. While he enjoys his work, he also covets his free time. He likes to spend it fly fishing.

Like most fisherman, Mohr tells stories about the big ones that got away. But catching the big fish is not what's important to him.

"The trout live in such pretty places," says Mohr, professor and chair of physical therapy. "Most of it is just being there. You can look up as you're fishing and see all the beautiful scenery. That's why I'm there. It really does refresh you."

"There's something spiritual about fly

fishing," he says. "It's just so quiet. You see bear and deer and moose. It helps you see the bigger picture. There's more to life than just work. It's pretty neat."

Mohr also enjoys making lures and tying his own flies. Some of his handiwork is on display in his office.

"I've been tying flies since I was in junior high," he says. He also crafts his own fly rods from high-quality Chinese bamboo.

"Bamboo is just an ugly piece of grass," he notes. "To make it into something beautiful, that's pretty cool."

Mohr's wife, **Peggy Mohr, Ph.D. (Teaching and Learning '93)**, an associate professor of physical therapy, has added a new dimension to his fishing adventures. A horse enthusiast, Peggy convinced Mohr that they should get their own trail horses so they could fish in more remote areas.

"She goes fishing with me, so I do the horse thing with her," Mohr says.

The sport really is a family affair for the Mohrs. Tom and Peggy's children are grown and on their own, but the family gathers for fishing.



"Bamboo is just an ugly piece of grass. To make it into something beautiful, that's pretty cool."

### The Spin Doctors

The "Spin Doctors" have developed deeper friendships and met new people through bicycling. The group was the brainchild of **Laurie Betting, DPT '04**, director of the UND Wellness Center. She wanted the center to offer spinning—indoor group cycling—classes. However, she didn't want just anyone to lead the classes. She wanted doctors.

"She was adamant about us doing it," says **Jon Allen, M.D. '84**, associate professor of internal medicine at the UND medical school.

Tuesdays at 5:30 p.m., Allen and **Dave Yearwood Ph.D.**, professor and chair of technology at UND, can be found teaching their one-hour class. At the

same time on Mondays and Wednesdays, the Spin class is led by **Will Gosnold, Ph.D.**, professor and chair of UND Geology Department, and **Jonathan Geiger, Ph.D.**, professor and chair of pharmacology, physiology, and therapeutics at the UND medical school.

Geiger, an avid cyclist, says exercise helps him balance his work life.

"There is no schedule," he says of his typical work week. "I sometimes refer to the job as trying to do everything for everyone all the time."

But the Spin class is his own time, though he's happy to spend it with others who share the goals of staying fit and healthy.

"Physical inactivity kills more people per year than smoking," Geiger points out.

Allen, a long-time runner who turned to cycling as he grew older, also battles a family history of heart disease.

"I want to do all I can to prevent it or delay it as long as I can," he says. "I think the big thing for me is the health part. I have to maintain my health."

Though the classes are challenging, Allen says

he and Yearwood like to throw in some fun. For instance, they add sound effects, such as the growl and barking of a vicious dog to the music they play to keep participants pumped up.

"You're working hard," Allen says. "It's just nice to have fun doing it, too."

### Music men

While some turn to exercise to relieve stress and calm their minds, others gravitate toward artistic endeavors, such as music. Among them are **Jeff Hostetter, M.D.**, associate professor of family and community medicine and director of the UND Center for Family Medicine, Bismarck, and **Dr. Ken Ruit, Ph.D.** associate professor of anatomy and cell biology, Grand Forks.

Growing up in a trailer home in Montana, Hostetter understood that the last thing his father wanted to do after a long day at work was listen to his son practice a cello in the living room.

“He’d say, ‘You have to pick something you can play in your room,’” Hostetter recalls.

So at 10 years old, Hostetter picked up the guitar. He couldn’t have made a better choice.

“I end up playing most days between 10:30 and midnight,” says Hostetter. “I just make myself a cup of green tea after I put the kids to bed, and I play.”

“It’s almost medication. I can feel myself calming down. It uses a different part of my brain than I use during the rest of the day.”

Along with working at the Center for Family Medicine, Hostetter serves as the medical director for the state prison system, a shelter, and the Burleigh county jail. He realizes he needs a way to relieve stress, and playing guitar at the end of the day fits the bill, he says.

“It’s a nice way to pass the time,” he says. “It’s my avocation, and your avocation becomes the thing that feeds your soul.”

Ruit dabbles in music, too. He can usually be found at UND from 8:30 a.m. to 6 p.m. during the week. However, it’s not strange to find him at the office on Saturdays or even Sundays, too.

“And I’m back in the evenings during the week if I need to be,” he says with a smile.

But Ruit realizes he needs to make time for his family and for himself. He finds his “me” time in music.

Ruit has been a part of the Grand Forks Master Chorale for about seven years. The chorale rehearses Sunday nights for three hours.

“I really enjoy that,” Ruit says. “It just kind of sets the tone for the week. I’m not showing up Monday all stressed out.



Photo courtesy of Tom Mohr, Ph.D.

Tom Mohr, Ph.D., appreciates the scenery while fly fishing in Yellowstone National Park.

“All of us (at the medical school) have so many balls in the air—our responsibility to students and their learning, research activities, administrative work, committees. Outside of work, it’s important for us to develop our gifts that make us each stretch as a person.”

#### **Drawing attention**

**Pat Goodman, M.D. ‘89**, clinical assistant professor of clinical neuroscience, Bismarck, has been getting a lot of positive feedback, too. Folks at the Pride of Dakota Showcase and other events where he’s displayed his greeting cards have been impressed by the work he does.

Goodman has always liked to draw. In fact, he thought he might make his living at it, becoming either an architect or graphic designer. But he’d soon discover those fields didn’t fit him, and he’d go on to become a psychiatrist. These days, he is working at MedCenter One in Bismarck.

However, that love of drawing has never disappeared. So when he turned 40, he decided he should do something with his artistic talent.

About a year and a half ago, he decided that “something” would be creating greeting cards.

“Most of them are puns or real quick comments,” Goodman says of his cards. “I like to make the connections. Like for Minnesota, I think of loons and lakes and fishing, so that’s what I put on those cards.”

“There’s always paperwork to do, patients to see. It can run your life,” he says. “Making the cards is just fun for me. It’s way different than seeing patients. It’s a good feeling when people appreciate what the cards look like.”

- Brenda Haugen

# The “Unseen” Physician Shortage

WE READ ALMOST EVERY DAY OF A new development in science offering the hope of a “major breakthrough” for one disease or another. The next time you hear such an offer, consider one of these rarely asked but vital questions:

## “Who made this discovery?”

According to the National Institutes of Health (NIH), it is more likely to be a Ph.D. researcher than a doctor. From 1972 to 1997, the percentage of physicians applying to the NIH for grant money slipped from 40 to 25 percent. The result is that in 1996 only 36 percent of money for clinical research went to physicians while 52 percent went to Ph.Ds. In 1984, there were approximately 15,000 doctors conducting NIH research. By 2004 that number had fallen by 1,000. Currently, only 8 percent of physicians involved in clinical research of any kind (NIH or pharmaceutical trials) are under the age of 40. So what is the big deal?

## “Who will be turning this major breakthrough into practical treatment?”

As aptly put by Mold and Peterson\*, “Although academicians have certain important skills and resources, these assets are insufficient.” Most practicing physicians will tell you they have learned much of what they know about medicine from their patients. Practicing doctors realize that very rarely does a patient actually present with the “classic” case of a disease. Thus clinical training is full of aphorisms as “The patients don’t read the textbooks.” Ph.D. scientists have indeed only read the textbook, and this lack of clinical experience hampers the direction, the interpretation and, ultimately, the practical application of their findings.

## “How can we make research more practical?”

Again Mold and Peterson have characterized a new way of thinking, “It is at the front line where patients, clinicians and information meet where learning begins.” Thus in order to capture this “learning” at the source, the Practice-Based Research Network (PBRN) was born. PBRNs are organizations that link primary care physicians and academic researchers, involving each in the practice of the other’s craft in order to make research more practical and to hasten the dissemination of research findings.

## “How can physicians in rural North Dakota be involved in research?”

The Northern States Ambulatory Research Network (NORTHSTAR) has recently been formed in the UND medical school’s Department of Family and Community Medicine, under the direction of **Charles Christianson, M.D.**, associate professor of family and community medicine. The goal of NORTHSTAR is to harness the vast and largely untapped expertise that exists in the rural medical practices of states like North Dakota. We use this expertise to do research that addresses the needs of patients, and elevates their level of care. In so doing, we hope to bring together and energize the primary care providers of our state.

PBRNs have proven their usefulness over the past decade. The research done by these groups of “boots-on-the-ground” physicians has greatly expanded the knowledge base we call evidence-based medicine.



Jeff Hostetter, M.D. (Family Medicine Residency '03) Director, UND Family Medicine Residency Program, Bismarck

For more information, contact: **Charles Christianson, MD** or the **NORTHSTAR** coordinator, **Jessica Behm** or go to [www.med.und.nodak.edu/northstar](http://www.med.und.nodak.edu/northstar)

\*Mold, J., Peterson, K. Primary Care Practice-Based Research Networks: Working at the Interface Between Research and Quality Improvement, *Annals of Family Medicine*, May/June 2005, 5 (Supplement 1):S12-S20

# Teaching. Compassion

“Patients want us to be professional, **all-knowing** and to **do all that we can.** They want us always to be human, to tell the truth.”

PREPARING COMPASSIONATE, empathetic health professionals to provide end-of-life care is one of the most important roles of medical and health care education.

“Death is something that’s going to happen to every one of us,” says **Mary Ann Laxen, PA/FNP ’91**, director of the Physician Assistant (PA) Program. She says it’s up to educators to prepare health professionals who can support that moment in a way that’s both positive and life-affirming for patients, and allows the family to let go (since they can’t go ‘through the door’ with them).

Because PA faculty members educate students to become primary care providers “that usually means they’ll care for the patient for many years and at the point of death,” Laxen says, and they’ll probably be in a position where they have exhausted all options to sustain quality of life.

“Students have to come to the acknowledgement that they can’t cure everything, they can’t make everything better,” she emphasizes. “If they don’t, they’ll be trying to win over what they can’t win over; all that energy is going toward avoiding death and not toward what the patient needs and wants. The provider can’t be in denial that there’s nothing else he or she can do.

“As educators, we help students work through these feelings and not take it

personally” when death is a natural, outcome, she says.

## What we teach

End-of-life education in the PA and medical (M.D.) programs includes learning and practicing how to give bad news through interaction with standardized (actor) patients. In these sessions, faculty and students who’ve observed the conversation offer feedback on what they think went well and suggestions for improvement.

In the M.D. curriculum, end-of-life care is covered mostly at the end of the first year in a session devoted to the human lifespan. In addition to interacting with “dying” actor patients, medical students also learn through lectures and role-playing with “patients” who’ve experienced a loss.

“There’s an experiential element as well as a teaching element,” says **Charles Christianson, M.D.**, associate professor of family and community medicine.

In situations where the physician must deliver bad news, he says, “It’s so emotionally charged. I tell students, ‘You’ll see physicians do it badly – and you’ll do it badly.’ We do goofy things because we’re so upset about it, too. Emotional attachment is good, but if it’s too close, it can be difficult to do a good job.”

When facing the end of their lives,

patients want different things from their doctors, he says. "Some want to hear the unvarnished truth; some want it revealed slowly. As a physician, you need to think about how much they want to hear from you, how much they're *understanding* what you're saying.

"Studies show that after the patient hears the (negative) results of a lab test, they don't remember the rest of the 20-minute conversation," Christianson explains. "They will hear that to the extent that they're able. (As a physician) you do a lot of saying, 'What more can I tell you now?'"

### **Learning from physician mentors**

In the third and fourth years, as they work and study with practicing physicians in clinics and hospitals throughout the region, "students see their preceptors deal with it and they become involved with that level of care in both the in-patient and out-patient settings," says **Jon Allen, M.D. '84**, associate professor of internal medicine and director of the Introduction to Patient Care course.

"They have an opportunity to see how different preceptors handle it – most are pretty good about sitting down with a student and reviewing it with them," Allen says. "They teach through modeling."

Senior medical student **Stacy Roers** confirms this.

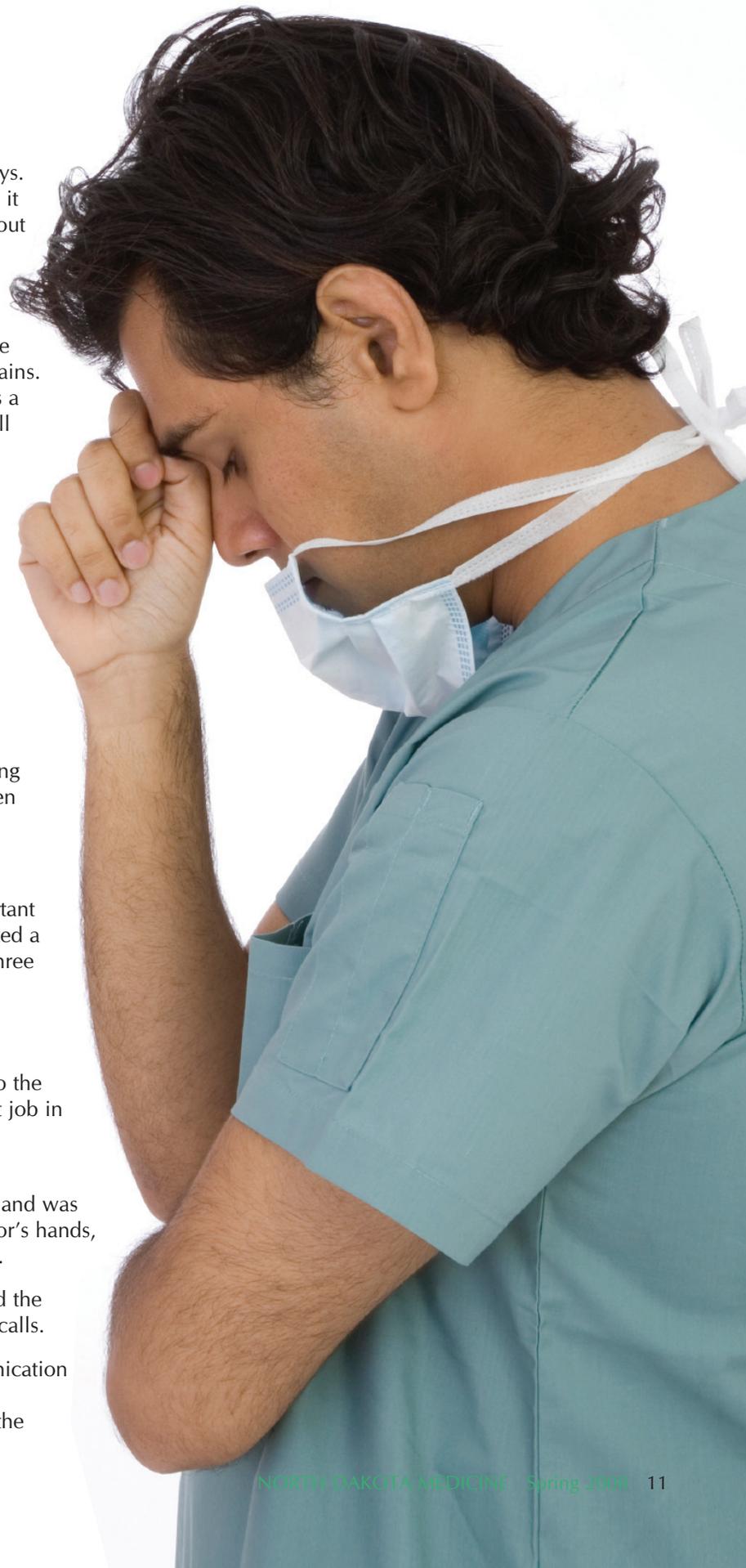
"I've had mentors who did a good job with this important task," she says. In Crookston, MN, where she completed a rotation in internal medicine, "in one week, we had three very significant diagnoses (involving) brain tumor, leukemia, and colon cancer."

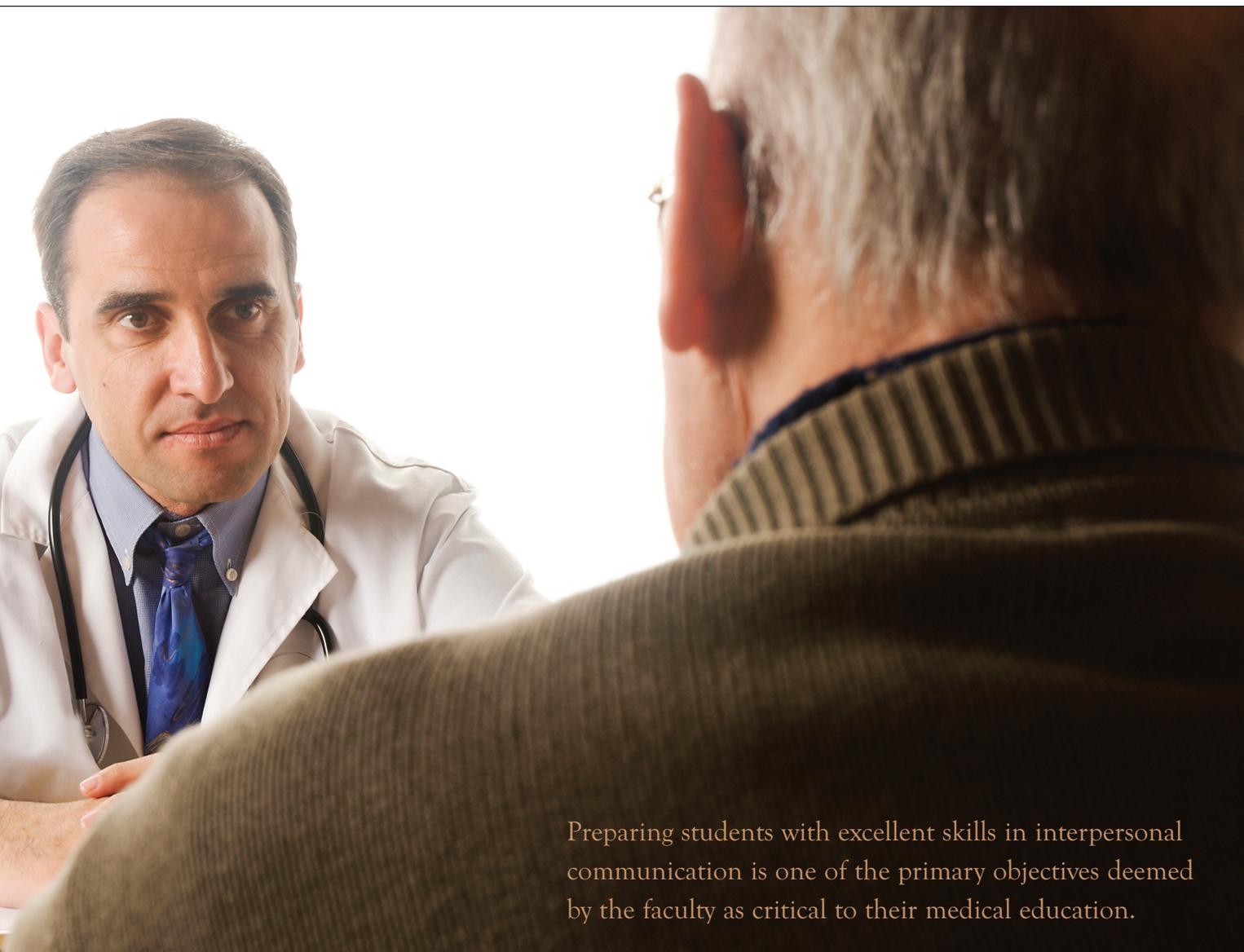
Her preceptor, **Bruce Ring, M.D.**, clinical associate professor of internal medicine, explained everything to the families and answered their questions. "He did a great job in making sure the patients were comfortable with the information they needed," she says.

With one patient in particular, who had left the clinic and was driving home by the time test results were in the doctor's hands, she says, he went to great lengths to connect with her.

"He really did an excellent job of making sure she had the support around her when she heard the news," she recalls.

Providing the best care through interpersonal communication skills has been deemed as one of the six objectives established by the UND medical faculty as crucial to the medical students' education.





Preparing students with excellent skills in interpersonal communication is one of the primary objectives deemed by the faculty as critical to their medical education.

“It’s the ability to relate to the patient, the ability to help them in their end-of-life care” that’s critical, Allen says. “We *don’t* want them to be emotionally removed, treating a disease but not a person.”

“Sympathy is something given from a distance; empathy is given up close,” he says.

After a rotation in pediatric infectious disease at the Mayo Clinic in Rochester, MN, Roers saw a lot of patients with cancer and leukemia. Of course, it was Mayo so their patients are the sickest of the sick, she says “they have a very poor prognosis,

they’re very ill.” It made me realize that (that type of practice) would be very difficult.”

“I learned later that one of my patients had died. It was very, very sad – it caught me off guard,” she notes, adding that it felt like she’d lost a relative. “It hurt.”

Also critical to students’ education is the exploration of legal and ethical considerations surrounding prolonging life, artificial feeding, euthanasia, administering appropriate levels of pain relief in light of potential addiction, respecting the wishes and decisions of the family, and other issues.

“Every single student has his or her own moral beliefs (ranging from ‘everything has to be done to keep the patient alive,’ to the other extreme of, ‘I’ll do nothing (to keep the patient alive) and might consider treatment that could hasten death,’ leading to ethical dilemmas,” says Laxen.

Medical and PA program education don’t give the answers, she says, but teachers help students to ask the right questions and to seek the answers from those qualified for a given situation.

Laxen advances the guiding question: “How do I best combine all those things that are good for the patient

with all that I believe, as well as what the patient believes, and then help prepare that patient for a moment we will all inevitably experience?”

### Is there an ‘ideal’?

“What I want to know is: are they caring individuals who empathize?” Laxen says. If there is an ideal to which she hopes PA students aspire, her model is “what I would want if it were me who was dying or if I were a family member of someone who’s dying.”

“I want to train the student to be the kind of person I would be comfortable with,” she says. “Students have to feel what the patient feels without losing themselves. When death occurs, there should be a sense of loss.”

“I wouldn’t want a family member to say (about our graduate) ‘so-and-so is the last person I want in the room right now. I don’t need to hear all the objective facts about why (some treatment) didn’t work – we all *know* it didn’t work.’”

“I want to prepare providers who speak with their eyes, as well as their words,” she says, noting, for example, that the patient shouldn’t have to beg for the pain relief that’s needed.

A leader in developing the patient-centered medical (M.D.) curriculum, Allen says “I would love for our students to be very sympathetic and caring individuals, with all the tools necessary to interact with patients and families at the end of life – having seen the modeling and the resources available so they *know* what resources are available.”

### Can empathy be taught?

“We want them to have that thing that you can’t teach,” Allen says. “Maybe it’s that deep empathy. I *don’t* want them to just say, ‘well, that’s Joe – he’s dying, so we’ll spend less time with him. But over here, Mrs. Jones, she’s just 80, she’s living. We’ll spend more time with her.’ Patients facing death also require a lot of our time – we want our students to treat Joe like they would

their own dad.”

“In med school they used to tell us not to get emotionally involved but you *have* to get emotionally involved; you have to care,” he says. “You can’t read it in a book, hear it in a lecture – it’s something students have to develop. Our preceptors try hard to model that.”

According to **Roger Schauer, M.D. (B.S. Med. ’69)**, associate professor of family and community medicine, “Patients want us to be professional, all-knowing, to do all that we can. They always want us to be human, to tell the truth, in a way that says ‘I’m sorry this is happening to you.’”

“While students’ experience with death will be different from mine,” he says, he wants them to recognize that physicians need to remain a source and resource for patients and families.

Years ago, practicing in Hettinger, ND, Schauer says. “when I began pronouncing children’s deaths, I realized you can’t stay emotionally separate. It’s a real loss, not just to the patient but to all they were connected to – those kids were no longer playmates of my kids.” And although it’s painful, “getting involved allows for inner peace, inner cleansing.”

As a medical educator, Schauer says, “I don’t think I’m trying to teach students to *protect* themselves, but to *learn* from patients – it’s not tiring, it’s regenerative.”

- Pamela D. Knudson

“We want them to have that thing you can’t teach... empathy.”

# The Debt

# Dilemma



## Does the **level of debt** influence medical students' **choice of specialty?**

DOES THE STAGGERING AMOUNT OF debt – usually well over \$100,000, – that medical students build up over the years spent pursuing an education affect their choice of medical specialty? Some worry it does and are concerned about the potential for medical students to choose higher-paying specialties, leaving lower-paying, primary care fields with serious shortages.

But at UND, medical student **Chris Lindgren** doesn't believe the debt he's acquired influenced his choice of medical specialty or, if it was a consideration, it was very minimal. "I don't think it had much of an impact, if any," Lindgren says.

Lindgren, a senior who'll graduate in

May, is planning a career in emergency medicine but says he went through four years of medical school open to any field.

His background as a paramedic probably tipped the scales in favor of emergency medicine.

Family practice and emergency medicine were both attractive fields. But when deciding on a career, he says, "I think it came down to my exposure to emergency medicine as a paramedic; I like the fast pace of emergency medicine."

### **The 'happiness' factor**

For **Allison Clapp**, a senior who is heading for a career in diagnostic radiology, her level of debt didn't influence her choice of specialty. "I think I basically chose according to

where I'd be most happy," she says. "Debt didn't factor into my decision."

She enjoyed all the specialties she studied during her third year, but when she took a fourth-year rotation in diagnostic radiology, she says, "I loved it."

She chose her specialty because "I like the diagnostic aspects of it," she says. "You use anatomy, physiology and pathology on a daily basis."

**Influence of mentors**

**Todd Wagner**, a senior who is planning a career in family medicine, says debt "had no particular influence" on his specialty choice.

His interest in family medicine strengthened over the last two, clinical years of medical school, especially during his third-year ROME (Rural Opportunities in Medical Education) experience in Williston.

Wagner is pursuing family medicine because it's "an opportunity to maintain a continuity of care that includes patient populations from pediatrics to geriatrics," he says, "and to care for families as well."

Debt is significant but it isn't a major concern, he says. "I've always felt that the profession would allow us to pay off whatever debt we had. I've felt pretty comfortable with it despite the large amount."

Nevertheless, according to **Judy DeMers**, associate dean for student affairs and admissions, an annual survey of graduating medical students, conducted by the Association of American Medical Colleges shows that debt level has some effect on choice of specialty.

At UND, 21.7 percent of those members of the M.D. Class of 2007 who responded to the survey reported that the level of debt had a moderate or strong influence on specialty choice, compared to 25.8 percent nationally.

"Most students say they don't choose a specialty according to debt level,"

DeMers says. "Now, however, more and more of the graduates are considering debt as one piece of the puzzle when they begin to look for the 'best' specialty for the future."

**A heart for patients**

Assistant Dean for the Northeast Campus **Jon Allen, M.D. '84**, who advises students about their career goals, says, "Debt is a fear for everybody. For most of their lives, students have never seen debt like this. It's like buying a house."

"More and more, students focus on lifestyle," he says. Primary care fields, such as family medicine, general internal medicine and general pediatrics, often offer less pay and more demanding work schedules.

"I may have a student who says, 'I love family medicine... but I have five kids, I don't think I can afford to go into family medicine,'" Allen says. He encourages students to think long-term.

"It's about 'where do you want to be, what do you want to be doing in 20 years?' Money isn't everything," he says. "It gets back to what you really want?"

"A lot of it is what you choose. For some, their true heart is being with the patients – they do it because that's why they wanted to become a doctor."

- Pamela D. Knudson

“Money isn’t everything, it gets back to what do you really want?”

How important is the level of educational debt to determining medical students' specialty choice?

	Year	No influence	Minor influence	Moderate influence	Strong influence
North Dakota	2005	37.0	29.6	29.6	3.7
North Dakota	2006	63.0	23.9	6.5	6.5
North Dakota	2007	37.0	41.3	17.4	4.3
All schools	2007	47.7	26.5	18.1	7.7

Source: AAMC (Association of American Medical Colleges) 2007 Medical School Graduation Questionnaire

# The Goose That Laid the Healing Egg

West Nile virus: An immunotherapy is on the horizon



IN THE SPORTS WORLD, A “GOOSE egg” on the scoreboard is a sign of failure. However, in **David Bradley’s** lab, a goose egg is a sign that a therapy to West Nile virus infection could soon be a reality.

Bradley, an assistant professor in the department of microbiology and immunology, initially became involved in a good-neighbor endeavor to help a food company deal with a virus ravaging its flock of domestic geese. His research now offers a potential therapy to treat humans infected with the disease.

Through the UND Research Foundation, Bradley is collaborating with the Mayo Clinic and Avianax on a study to test the immunotherapy in pre-clinical and, if successful, clinical trials. Avianax, a biotechnology company, was formed in North Dakota to develop and produce antiviral therapeutics from avians. The antibodies that trigger an immune response to the West Nile virus are extracted from geese provided by a Schiltz Foods, Inc., facility in Tolna, ND.

“Therapeutic antibodies are a focus of the National Institutes of Health,” Bradley says. “We have studies going on now using a similar model to develop therapeutic antibodies in birds and geese and goose eggs that could be used to treat a variety of viruses.”

Last year, the Centers for Disease Control (CDC) reported 369 cases of West Nile human infections in North Dakota, second only to 379 cases in

California. Only about one in 150 people infected with the virus commonly spread by mosquitoes will develop severe symptoms, according to the CDC. But in the elderly and very young, the disease can be fatal.

Bradley began working with Schiltz Foods at a time when the West Nile virus was killing many of the company's geese at its facility near Sisseton, SD. Schiltz Foods is North America's largest producer of geese.

"When you supply 80 percent of the country and you take 30 percent of that away, it's a big deal," Bradley explains. "They (Schiltz Foods, Inc.) came and asked us if we had any insight as to what they could do.

"Our first thought was that the surviving geese must also have been infected with West Nile, and they likely produced protective antibodies," he relates. "So what happens if you simply treat the geese with those antibodies?"

Bradley's lab purified antibodies from the blood serum of geese that survived the virus infection.

"We took that serum, put it back in the geese, and pretty much wiped out death due to West Nile," Bradley recalls. "We took mortality from 20 to 30 percent down to less than five percent."

The success in controlling the virus in geese might have been enough for some, but not for Bradley, who entered the field of viral immunology because of his interest in HIV research.

"We wanted to see if the goose antibodies were protective for mammals such as horses and humans," Bradley says. "Everyone predicted – myself included – that this was the end of the story."

In collaboration with Iowa State University, a study was conducted in

which rodents infected with West Nile virus were treated with serum containing goose-produced antibodies.

"Surprisingly, virtually all of the animals survived," Bradley notes. "I was completely shocked when we got the data that we did."

Bradley is working in collaboration with **Gregory Poland, M.D.**, at the Mayo Clinic in Rochester, MN. Poland is the American editor for the medical journal *Vaccine* and an internationally known expert in therapeutic vaccines.

"He is incredibly excited about our findings so far," Bradley says. "It's good to have some external expert input. You're always excited about your own work, but to have someone from the outside get excited about it and want to be part of it shows promise."

If the clinical trials lead to a therapy safe for human use, Bradley believes it's unlikely that the entire population would be vaccinated against West Nile virus.

"There's no reason to," he explains. "There are so few people who have adverse effects to the virus that vaccinating the population doesn't make sense. But to have a therapeutic way to treat those rare individuals who do have adverse effects, treating them with the therapeutic antibodies would make a lot of sense."

In the world of science, asking the right questions and getting unexpected answers is what keeps research interesting and exciting.

"Serendipity is a good thing," Bradley says with a smile.



- Patrick C. Miller

“...a study was conducted in which **rodents infected** with West Nile virus were treated with serum...virtually all of the **animals survived.**”

# Insurance costs **SQUEEEEEZE** farm and ranch families

UND Center for Rural Health  
researcher studies  
**expensive, inadequate**  
health insurance



Midwest farmers and ranchers struggle with the costs of health insurance.

**BILL AND YVETTE OLOFF** HAVE raised cattle on their farm in Persia, Iowa for almost 25 years. The family was lucky to have good insurance through Yvette's off-farm job when she was diagnosed with bronchial cancer in 2001. When Yvette was unable to work due to her illness, her family maintained her coverage offered through the employer for as long as the law allowed. Once that ended, Yvette was shocked to learn that she could only buy insurance that excluded coverage for her past medical conditions.

"Premiums are outrageous!" Yvette exclaims. "We pay \$10,000 per year." During the past four years, the family has accumulated almost \$30,000 in debt to their local bank to pay for farm

expenses and insurance premiums. They have no savings and Yvette avoids care for her continued breathing problems: "We cut back, stay home more, and borrow money."

American farmers and ranchers are struggling to cope with escalating health care costs, according to a recent report issued by **Alana Knudson, Ph.D.**, of the Center for Rural Health at the UND School of Medicine and Health Sciences, with partners at Brandeis University and The Access Project. This study cautions that, as the ranks of the uninsured swell to 47 million, insurance alone may not be adequate to protect Americans from the burden of unaffordable health expenses. Ninety percent of the farmers and ranchers surveyed had health insurance;

nonetheless, many depleted savings, incurred debt, and delayed seeking care due to medical costs and steep insurance premiums.

"Farmers and ranchers have more financial resources than many other rural Americans," says **Bill Lottero** of the Access Project. "Middle class folks with health insurance are feeling the pinch of spiraling premiums and medical costs."

## "The presidential candidates talk about the **health care crisis**, but it's really a **health cost crisis**."

The report is the first in a series of issue briefs based on a 2007 survey of farm and ranch operators in seven Great Plains states: Iowa, Minnesota, Missouri, Montana, Nebraska, North Dakota and South Dakota. The project contracted with the USDA's National Agricultural Statistics Service to survey more than 2,000 non-corporate farm and ranch operators (those operating as sole proprietors or partnerships). Findings from the report include:

- Few farm and ranch families were without health insurance coverage. Five percent say all members of household were without health insurance and another five percent say some member of the household had a time without insurance during 2006.
- More than half (54%) of the insured farm and ranch operators got their health insurance coverage through employment off the ranch or farm, while more than a third (36%) purchased coverage directly, and ten percent had public insurance coverage such as Medicare, Medicaid, or State Children's Health Insurance Program.
- In spite of the high rate of health insurance coverage, one-quarter (26%) of respondents reported high out-of-pocket expenses in 2006 with half of these families spending \$1,700 or more in out-of-pocket expenses.
- Out-of-pocket expenses resulted in farm and ranch families using up savings, borrowing from banks and payday lenders, incurring credit card debt, borrowing against a home or

the farm, and withdrawing money from retirement accounts.

- One in five (20%) incurred medical debt, or bills from hospitals, physicians, dentists and other providers that they were unable to pay.

"Family farms and ranches are small businesses. Small businesses are the backbone of our economy. Escalating health care costs and the reduced

financial protections gained from these costly insurance products constitute a growing concern for the economic vitality of these important American business assets," explains Lottero.

"Medical debt is a financial burden not only to the farm and ranch families, but also to the health care providers," explains Knudson, associate director for research at the Center for Rural Health and a co-author of the study. "Many rural health care providers operate on very slim margins, and carrying debt impacts their viability."

The report challenges policy proposals that support eliminating benefits and allowing the sale of insurance policies with limited coverage, maintaining it will make insurance more affordable. "This report clearly demonstrates that affordability must take into account the cost of insurance premiums and out-of-pocket expenses incurred by patients," says Access Project Director **Mark Rukavina**. "Policymakers must carefully consider the impact of the increasing burden of health care costs on rural residents and their families, on rural businesses, and on rural economies generally, and look for solutions that will ease rather than aggravate this burden."

"This past year we spent \$6,000 in premiums and \$10,000 in out-of-pocket expenses," says **Tim Peterson**, a soybean and corn farmer from Rembrandt, Iowa. "The presidential candidates talk about the health care crisis, but it's really a health cost crisis." 

- Wendy Opsahl



Alana Knudson, Ph.D., researches the financial burden of health care costs on farm and ranch families.

WEB EXCLUSIVE:  
To read the issue brief,  
visit:  
[www.ndmedicine.org](http://www.ndmedicine.org)





# Leaping to SUCCESS

Nikki Dahlstrom is devoted to excelling in track and working with children as she aims for a career in occupational therapy.

BY THE TIME THEY REACH THE UPPER grades of elementary school some children who have poor handwriting skills have been mislabeled when many simply have learning issues that haven't been correctly identified.

As they progress through school with negative labels, they fall further behind and lose confidence, self-esteem, and enthusiasm for learning.

**Nikki Dahlstrom**, an occupational therapy (OT) student, wants to change that.

"It's really not their fault," and it's not something that's attributable to lack of fine motor skills, she says. "These students often have trouble with their vision and processing what they see and how they write it."

As part of her scholarly project, a requirement to earn the Master of Occupational Therapy degree, Dahlstrom plans to create a screening tool for teachers to more effectively identify children in kindergarten and first grade to help those students right when they start having noticeable problems.

"These are the things I get really excited about," she beams. "I try to make a difference." Eventually, she hopes to work

with children in a school system, community center, or Indian reservation.

The Grand Forks native says she's always been interested in children, especially those who fall through the cracks in the educational system. In pursuing an occupational therapy career, she's following in the footsteps of her mother, **Teresa Dahlstrom, BSOT '84**, who works in the Grand Forks public school system.

"I like the pediatric setting," she says. "I have learned a lot about the populations that are underserved. I like working in that area, and advocating for them."

For some children, "maybe their home life isn't so good, and they're not really connecting with their teacher," she says. "We've studied domestic violence and how kids who've seen this behavior grow and develop."

Occupational therapy with children is gratifying because it affects every aspect of their lives, she says. "You're playing with them, so they really don't know they're working on something." For example, she recalls helping a 13-year-old boy learn to ride a bike, another child to tie her shoes, and another who was afraid to be on the playground.

Her interest in children grew during a field experience last summer at Iowa City where she worked alongside occupational, physical, and speech therapists. Some of the OTs were working on handwriting with children. She also gained much insight into autism diagnosis and the use of sensory integration therapy.

Dahlstrom looks forward to going this summer to St. Paul, MN, for a field experience in psychiatric occupational therapy and, in the fall, to Boise, ID, for a rotation in a rehabilitation setting. Such experiences are valuable because they "reinforce what we've learned in the classroom," she says.

Dahlstrom is drawn to the field of occupational therapy because it's so

practical, and patients see the value of it when, one day, they can do a task that they couldn't do the day before, she says. "It has more meaning for them."

She remembers a stroke patient, with whom she worked who began to cry when he first was able to use his hand because "he didn't think he was ever going to regain use of it. He was a carpenter, so regaining use of his hand really meant a lot to him."

#### The benefits of track

Her desire for excellence extends to her involvement in track which she's been interested in since she was a child. She's competed in the high jump through high school and college.

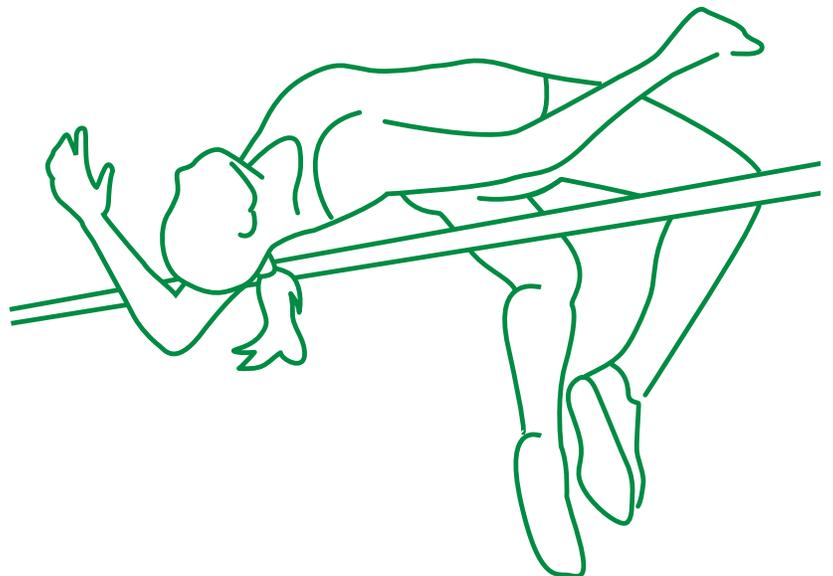
It's an individual sport," she says. "It has a 'team' component, but you're really competing against yourself."

Her father, **Rod Dahlstrom (B.S., Business Administration '81)**, is an avid fan who "goes to all my meets, no matter where they are," she says.

The friendships she's gained from track represent a huge benefit for her, and she's especially tuned in – now that she's an upperclassman – to "leading younger students in the direction they should be going and away from what they shouldn't be doing." 🌸

- Pamela D. Knudson

'UND has one of the **top OT programs** in the country, based on how well its grads do on board exams.'



# Diabetes Education a World Away

PA Grad Impacts Health Professionals' Understanding of Diabetes in Rural China



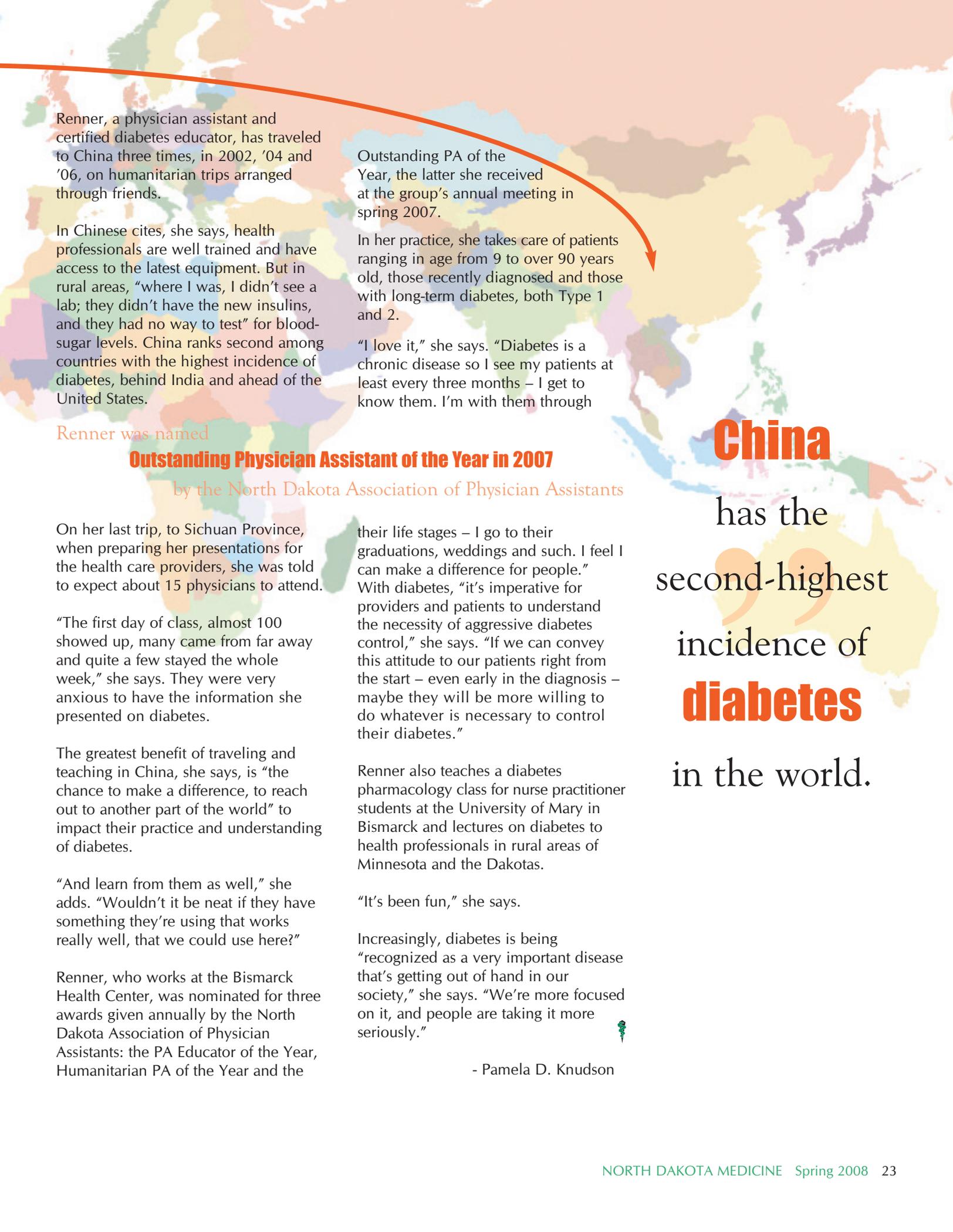
Photo courtesy of Cindy Renner, PA.

Cindy Renner, PA '97, says the greatest benefit of teaching the Chinese about diabetes is the chance "to make a difference." She shows health professionals in China how to test blood-sugar levels with a meter.

A FEW SHELVES OF PILLS IN THE hospital pharmacy and hundreds of drawers of dried insects, mushrooms, roots, and herbs are among the vivid images **Cindy Renner, PA '97**, Bismarck, recalls from a recent visit to China.

"The physician would write the

prescription and the pharmacist filled it with measured amounts of the specified items," she says. "Some of these were mixed into a solution which smelled a lot like vegetable soup and came out of a special machine, packaged into little, pre-measured packets."



Renner, a physician assistant and certified diabetes educator, has traveled to China three times, in 2002, '04 and '06, on humanitarian trips arranged through friends.

In Chinese cities, she says, health professionals are well trained and have access to the latest equipment. But in rural areas, "where I was, I didn't see a lab; they didn't have the new insulins, and they had no way to test" for blood-sugar levels. China ranks second among countries with the highest incidence of diabetes, behind India and ahead of the United States.

Renner was named

## Outstanding Physician Assistant of the Year in 2007

by the North Dakota Association of Physician Assistants

On her last trip, to Sichuan Province, when preparing her presentations for the health care providers, she was told to expect about 15 physicians to attend.

"The first day of class, almost 100 showed up, many came from far away and quite a few stayed the whole week," she says. They were very anxious to have the information she presented on diabetes.

The greatest benefit of traveling and teaching in China, she says, is "the chance to make a difference, to reach out to another part of the world" to impact their practice and understanding of diabetes.

"And learn from them as well," she adds. "Wouldn't it be neat if they have something they're using that works really well, that we could use here?"

Renner, who works at the Bismarck Health Center, was nominated for three awards given annually by the North Dakota Association of Physician Assistants: the PA Educator of the Year, Humanitarian PA of the Year and the

Outstanding PA of the Year, the latter she received at the group's annual meeting in spring 2007.

In her practice, she takes care of patients ranging in age from 9 to over 90 years old, those recently diagnosed and those with long-term diabetes, both Type 1 and 2.

"I love it," she says. "Diabetes is a chronic disease so I see my patients at least every three months – I get to know them. I'm with them through

their life stages – I go to their graduations, weddings and such. I feel I can make a difference for people." With diabetes, "it's imperative for providers and patients to understand the necessity of aggressive diabetes control," she says. "If we can convey this attitude to our patients right from the start – even early in the diagnosis – maybe they will be more willing to do whatever is necessary to control their diabetes."

Renner also teaches a diabetes pharmacology class for nurse practitioner students at the University of Mary in Bismarck and lectures on diabetes to health professionals in rural areas of Minnesota and the Dakotas.

"It's been fun," she says.

Increasingly, diabetes is being "recognized as a very important disease that's getting out of hand in our society," she says. "We're more focused on it, and people are taking it more seriously."

- Pamela D. Knudson

**China**  
has the  
second-highest  
incidence of  
**diabetes**  
in the world.

## Med Students Engage in ‘Tar Wars’: Describe Dangers of Tobacco School Children

More than 75 medical students at the University of North Dakota are presenting interactive “Tar Wars” talks about the dangers of tobacco use to fourth- and fifth-grade students in the Grand Forks area.

The hour-long Doctors Ought to Care “Tar Wars” presentations include learning activities designed to increase students’ knowledge of the adverse side-effects of tobacco use.

Grade-school students “are learning to identify reasons why people might start using tobacco products, and to think critically about tobacco advertising,” says **Rachel Sullivan**, a second-year medical student and member of UND’s Doctors Ought to Care (DOC). “They learn various ways to say ‘no’ to peers when pressured into using tobacco.”

The goal of “Tar Wars” is to educate students about being and staying tobacco-free and, more importantly, Sullivan says, “to provide students with the tools needed to make positive decisions about their future health and well-being.”

Physical activity is also part of the learning experience. Students participate in one-minute jumping-jacks and then breathe through a straw to demonstrate how it feels to breathe through airways damaged by tobacco use.

“Kids get a big kick out of this activity,” Sullivan says. “Most agree that not being able to breathe is scary. They wonder how they’d be able to play sports and participate in other favorite activities.”

“Doctors Ought to Care–Tar Wars,” which is owned and operated by the American Academy of Family Physicians, is implemented in classrooms throughout the United States and abroad. Since 1988, Tar Wars has touched the lives of more than 7 million children worldwide.

UND medical students also sponsor a Tar Wars poster contest that emphasizes the positive effects of not smoking. A local winner will receive a trip to Washington, D.C., in July to participate with other poster contest winners in national Tar Wars programming, meet their congressional leaders, and visit historical sites.

“As future physicians, we understand that we can positively influence our communities. Tar Wars gives us the opportunity to reach out and interact with people who need tobacco education the most: kids,” Sullivan says.



Photo by Megan Sugden

Children receive wristbands to reinforce their commitment to avoiding tobacco products, as part of the Tar Wars campaign sponsored by the UND chapter of Doctors Ought to Care (DOC).

## New Listserv Moves Latest Rural Health Findings from Researchers to Providers and Policy-Makers

Rural health research findings from eight national research centers supported by the federal Office of Rural Health Policy (ORHP) are now featured at one convenient location, the Rural Health Research Gateway Listserv. This initiative is designed to help move the most up-to-date findings of the Rural Health Research Centers to policy-makers, health care providers and others as quickly and efficiently as possible.

New information is launched on the listserv and its corresponding web site to provide easy and timely access to projects, research and findings of these national research centers. The web site has abstracts of both current and completed research projects addressing issues such as rural health quality and behavioral health, related publications, and information about the researchers and research centers.

The Center for Rural Health at the UND School of Medicine and Health Sciences is a partner in the Rural Health Research Gateway project. The Center is also a member of the Upper Midwest Rural Health Research Center, one of eight national research centers that provide valuable findings on a variety of rural health-related topics.

Sign up now to start receiving rural health research news! Visit <http://www.ruralhealthresearch.org/listserv/>

## Community Forums in Linton Invite Consumers to Discuss Rural Health Care

Concern for the future of rural health care prompted the Linton (ND) Hospital to join forces with the UND Center for Rural Health to hold two community forums at Linton in February. The forums welcomed anyone with an interest in the health and well-being of rural people and communities across the upper Midwest.

The forums focused on the future of rural health care and featured keynote presentations by **Roger Unger**, Linton Hospital administrator, and **Brad Gibbens (MPA '85, BSPA '83)**, associate director for community development and policy at the UND Center for Rural Health in Grand Forks.

"Hosting community discussion is a great way to gain fresh insights into health policy perspectives, learn what is happening around the area and develop new contacts with people dealing with issues similar to their own," says Unger. "Citizens can voice their concerns as well as offer ideas for solutions to make rural health care in North Dakota better."

Attendees participated in facilitated discussions on items such as health care costs, maintaining access to quality services, and health care workforce availability.

"Our goal in having these community meetings is to offer health care consumers a chance to learn more about rural health at the national and state level," says Gibbens. "Health care is in the national spotlight and is an important subject in the upcoming elections. A community meeting allows people to also share their thoughts on what they see as issues, what they see that is working, and how health care should be reformed."

## Dickinson Joins ROME Program; Welcomes Students

For the first time, medical students from the UND School of Medicine and Health Sciences are studying and training with practicing physicians in Dickinson, ND, through the Rural Opportunities in Medical Education (ROME) program.

The ROME program is an interdisciplinary experience in a rural primary care setting which allows students to live and train under the supervision of physician-instructors in communities throughout North Dakota. Generally, the ROME program places two students in each community. Other communities involved in the ROME program are Devils Lake, Hettinger, Jamestown and Williston.

Third-year medical students **Shaina Dockter** and **Mark Longmuir** are taking their training in Dickinson under the supervision of **Kamille Sherman, M.D. '99 (Family Medicine Residency '02)**, at the Dickinson Clinic and **Heather Hughes, M.D. '01**, at the Great Plains Clinic. Sherman and Hughes are clinical assistant professors of family and community medicine at the UND medical school and graduates of the school.

The students, whose experience began in February and continues through June, will learn about problems commonly encountered in primary care, from routine health maintenance to medical emergencies and rare or unusual diagnoses, according to **Roger Schauer, M.D. (B.S. Med. '69)**, ROME program director and associate professor of family and community medicine at the UND medical school. Teaching physicians are board-certified in family medicine, surgery, internal medicine, pediatrics, and obstetrics-gynecology, as well as subspecialists who serve that community.

ROME is an exceptional educational opportunity for the motivated student who wants to experience and learn the practice of medicine in a small-town setting," says **Robert Beattie, M.D. '89 (Family Medicine Residency '92)**, chair of family and community medicine at the UND medical school. "It is a truly exciting educational environment with more opportunities to learn than there is time to take advantage of them."

"The students value this experience and have a great time too!" Beattie says.

One of the many objectives of the ROME program is to allow students to learn about patients in the context of continuous care over five months. This is proving to be a popular aspect among students. Another benefit of staying with one organization for several months is that students become members of the health care team. They also experience the scope of care provided in a rural setting.

"The experience is longitudinal," Beattie says. "This allows the students to know the hospital, clinics and community, and the people who work and live there. The community also gets to know them."

The ROME program "is good for the communities where students are placed," explains Schauer. "The students become part of the community. They may teach Sunday school, assist coaches, become members of musical groups or play on sports teams."

"Discussions about Dickinson as a ROME site were started a number of years ago with **Tom Arnold, M.D. '84**, clinical assistant professor of obstetrics and gynecology," Schauer says. "Over the past year, core clinical faculty members in Dickinson were identified, and we had enough students apply for ROME to warrant expansion of the program."

"One of the great advantages for the communities," Schauer says, "is that they have the opportunity to begin the process of recruiting the students to come back and establish their practices once they have finished their medical training."

The students are members of the Doctor of Medicine (M.D.) Class of 2009. After earning the M.D. degree, it is expected they will go on for three to five years of residency training in the specialty of their choice.

## UND Joins Fight Against Birth Defects



UND School of Medicine and Health Sciences is joining the National Birth Defects Prevention Network to share the message that a mother's health before, during and after pregnancy is an important foundation to having a healthy baby who grows up healthy. "Preventing Infections in Pregnancy" was the theme of National Birth Defects Prevention Month in January.

"We are excited to be part of this national awareness campaign," says **John Martsolf, M.D.**, professor of pediatrics at the UND medical school Grand Forks, and North Dakota's only clinical geneticist. "We hope to reach women, their families, and health care providers in our state with this important message."

"Women who are pregnant or planning to get pregnant need to be especially careful," Martsolf says. "Good habits to avoid infection include frequent hand-washing, careful handling of raw meats, staying away from dirty cat litter, and not handling pet rodents or their bedding. Also, it's important to get immunizations and prevent exposure to certain childhood and infancy illnesses and sexually transmitted diseases."

Women should also talk with their doctors about testing for infections like group B strep and Hepatitis B, he says. The Network is working with doctors and other health care providers around the country to encourage more education for women about infections that can harm a baby before it is born.

The Network has more than 250 members from all states, Washington, D.C., and Puerto Rico. It collects and exchanges information about birth defects and their prevention, encourages research, and provides technical support to state and local birth defects monitoring programs.

To learn more about the Network and Birth Defects Prevention Month, visit [www.nbdpn.org](http://www.nbdpn.org) or the UND Department of Pediatrics at [www.medicine.nodak.edu/genetics](http://www.medicine.nodak.edu/genetics).

## Huber Named 'Best Doctor' for 2007-08

**Jay Huber, D.O.**, assistant program director of the UND Center for Family Medicine-Bismarck, has been named as one of the Best Doctors in America for 2007-08. Selected as one of the top five percent of doctors in the country, he is among 19 North Dakota family physicians to receive the honor.

## Young Named Interim Chair of Microbiology and Immunology



**Kevin Young, Ph.D.**, has been named interim chair of the Department of Microbiology and Immunology at the University of North Dakota (UND) School of Medicine and Health Sciences.

Professor Young takes over from **Roger Melvold, Ph.D.**, who retired as chair. Melvold, Chester Fritz

Distinguished Professor of Microbiology and Immunology, plans to continue to assist with teaching, as needed, for the UND medical school. He has served as chair and professor of microbiology and immunology since 1997.

Young joined the UND medical school in 1985. He completed his doctoral degree at the University of Oklahoma and took postdoctoral training at Texas A&M University and at the University of California, Berkeley. He conducts research aimed at increasing scientists' understanding of the process of bacterial cell division, which has implications for antibiotic resistance.

In May 2007, the University presented him with the William Crozier and Edith Magwood Fawcett Faculty Enhancement Award for excellence in teaching, research, and service. He also received the UND Foundation McDermott Award for Excellence in Teaching, Research, or Creative Activity and Service in 2002, and the Sigma Xi Faculty Award for Outstanding Scientific Research in 1994.

His research has been funded with grants totaling more than \$4.5 million from the National Institutes of Health, the National Science Foundation, the U.S. departments of Agriculture and Energy, the American Cancer Society, and SmithKline Beecham Pharmaceuticals. He has written numerous research journal articles and book chapters and serves on the editorial board of the Journal of Bacteriology. He also is a peer reviewer for several scientific journals.

Young also served as interim chair in 1997, prior to the appointment of Melvold as chair.

## DeMers Honored by UND Disability Support Services

**Judy DeMers**, associate dean for student affairs and admissions, has been recognized by UND Disability Support Services (DSS) for her leadership in updating and revising the technical standards governing the medical school's admissions process as it relates to applicants with disabilities.

Each year, DSS recognizes faculty, staff, and student "access champions" who have made contributions to equitable access. Access champions are honored for their exceptional work in providing access in the classroom and on campus.

DeMers brought together representatives of the medical school, DSS, and the University Counsel's office to develop the document that provides equal access and equal treatment to applicants with disabilities. The policy delineates the physical, cognitive, and social skills and abilities needed in order to be admitted to the UND medical school.

Her accomplishments were recognized at the DSS Awards Reception in November, 2007.

## Hammami Named Acting Director of Information Resources



**Nasser Hammami (M.S., Industrial Technology '06; M.S., Clinical Laboratory Science '00; M.S., Biochemistry '98; B.S., Biological and Chemical Sciences '94)**, has been named acting director of Information Resources at the University of North Dakota (UND) School of Medicine and Health Sciences. He assumes a portion of the position held by **Judith Bruce** who resigned in December.

His responsibilities include the overall administration and management of Information Resources (IR) and supervising personnel within the IR units: computer services, medical media, classroom support, and information management.

A UND graduate, Hammami earned a bachelor's degree in biological and chemical sciences in 1994, a master's degree in biochemistry in 1998, a master's degree in clinical laboratory science in 2000, and a master's degree in industrial technology in 2006.

An assistant professor, Hammami joined the UND medical school in 1999 as a graduate teaching assistant in the Department of Pathology.

He and his wife, Renae, are the parents of two daughters, Bailey, 9, and Sara, 7. The family resides in Grand Forks.

## Researcher Receives Glenn Foundation Award for Studies on Aging



**Holly Brown-Borg Ph.D.**, a faculty member and researcher at the UND School of Medicine and Health Sciences, has received an unprecedented award from the Glenn Foundation, based in California, to support her research on aging.

An unsolicited award, this is believed to be the first such gift the UND medical school has received. Usually support for research is attracted through grant proposals prepared and submitted by faculty-investigators to federal agencies, associations and other organizations.

Brown-Borg, associate professor of pharmacology, physiology and therapeutics, received the Glenn Award for Research in Biological Mechanisms in Aging, totaling \$60,000, to support her laboratory technician, a colony of Ames dwarf mice, supplies and other materials. She has one of only five such Ames mice colonies in the United States.

Her research is focused on identifying mechanisms of stress resistance that are associated with health and longevity. For her studies, she has also received grant funding from the National Institutes of Health and the American Federation of Aging Research.

Internationally recognized in her field, Brown-Borg co-chaired the Gordon Conference on the Biology of Aging last fall in Switzerland. She has written numerous papers and articles for publication in scientific journals and was selected for the rare honor of being named a fellow of the Gerontological Society of America (GSA) in 2006. GSA Fellows represent the highest class of membership and are recognized by their peers for outstanding contributions to the field of gerontology, the branch of science that deals with aging and the special problems of aged persons.

The Glenn Foundation, based in Carpinteria, CA, supports an array of research but has a strong emphasis on aging. The foundation was founded by **Paul Glenn**, a philanthropist and alumnus of Harvard Law School.

## '00s

**Cara Mitzel, DPT '07, MSPT '95**, has joined Altru Health Systems Outreach Rehabilitation Services in Devils Lake, ND. Mitzel, the daughter of John Jr. and Marilyn Conway of Leeds, ND, and her husband, Cory, have four children, C.J., 10; Cullen, 7; Cherstin, 4, and Carlee, 1. The family lives in Devils Lake.

**Suzanne Grant-Gooden, DPT '07**, works at Altru Hospital in Grand Forks.

**Leslei Harris, DPT '07**, is employed by the Quentin Burdick Memorial Healthcare Facility in Belcourt, ND.

**Jill Melicher Larson, M.D. '04**, St. Louis Park, MN, is completing residency in ophthalmology at the University of Minnesota Medical School in June and plans to begin a fellowship training program in ophthalmic plastics and reconstructive surgery at the University of Iowa in July.

Originally from Fargo, she earned a bachelor's degree from Concordia College in Moorhead, MN. After completing the Doctor of Medicine degree at UND, she took a year of transitional training at the UND program in Fargo before beginning ophthalmology residency training in Minneapolis.

**Soon Bahrami, M.D. '01**, Louisville, KY, received the prestigious Horizon Award from North Dakota State University (NDSU). The award "honors an individual who has achieved outstanding career accomplishments and/or service to their community within ten years of graduation from NDSU." She earned a Bachelor of Science degree in psychology from the school in 1997.

When she accepted the award, she cited the strong academic credentials she also obtained at the UND medical school and complimented UND faculty and staff for providing her with an outstanding education to successfully advance in her medical career, according to **Stephen Christensen, M.D. (B.S. Med. '71)**, associate professor and vice chair of obstetrics and gynecology, Fargo, who attended the event.

"Soon has achieved prominence in the realm of both anatomic and clinical pathology as well as in the subspecialty of dermatopathology," he says. "She is well-respected and highly thought-of in her field."

Bahrami conducts innovative research in dermatology and pathology at the University of Louisville School of Medicine in Louisville, KY, where she also teaches medical students and residents.

While completing internship training in obstetrics and gynecology and residency training in anatomic and clinical pathology at the University of Louisville, she was recognized with the Young Leader Award from the College of American Pathologists and the Golden Apple Resident

Teaching Award, given to her three consecutive years for excellence in teaching. As a resident-physician, she also held several leadership roles including chief resident and president of the House Staff Council.

She took fellowship training at Indiana University where she gained experience and began to focus her research on the diagnosis of diseases and cancers of the skin. Her special interest in this specific area of medicine had been recognized by a Specialized Training Grant given by the College of American Pathologists for a period of time she spent at Yale University School of Medicine.

## '90s

**Kathy Rustebakke, MPT '93, BSPT '89**, has joined Axis Clinic in Grand Forks. She specializes in providing outpatient services in industrial and occupational medicine, general orthopedics and spinal rehabilitation. With more than 20 years' experience as a physical therapist, she has worked in Grand Forks for 14 years.

**Yvonne Gomez, M.D. '94 (Family Medicine Residency '97)**, a family physician with Altru Health System, is the medical director of Third Street Clinic in Grand Forks. The Third Street Clinic is a non-profit organization that provides health care, emergency dental care, vision care, and limited prescription medication assistance for persons who have no health insurance, cannot access treatment through other agencies, and do not have the resources to purchase their own medical or dental care. Third Street Clinic, which has been meeting the needs of the medically underserved who are low-income or homeless in the Grand Forks area for 16 years, is considered a "clinic without walls."

## '80s

**William Noyes, M.D. '89**, radiation oncologist for the Cancer Center of North Dakota in Grand Forks, attended the American Society for Therapeutic Radiology and Oncology meeting in Los Angeles.

In addition to attending the conference, he participated in several subcommittee meetings. He serves as chair for the subcommittee on Code Utilization and Application, chair for the ASTRO Coding Guide, which is used in each health care facility in America, and co-chair for the CMS subcommittee. Noyes also is a member of the Congressional subcommittee for government relations and the health policy committee.

**Earl Dunnigan, M.D. '83 (Internal Medicine Residency '87)**, a nephrologist at St. Alexius Medical Center in Bismarck, has been named as one of the Best Doctors in America for 2007-08. This is the sixth consecutive time he has earned this prestigious honor.

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**James Schneider, M.D. (B.S. Med. '72)**, of Albuquerque, NM, died Oct. 3, 2007. He was a family physician. After completing the B.S. Med. degree at the UND medical school, he went on to earn the M.D. degree from Texas Tech University Health Science Center School of Medicine.

**Milo Johnson, M.D. (B.S. Med. '63)**, of Pewaukee, WI, died January 27, 2008. A native of Wessington, SD. He received his M.D. degree in 1965 from Temple University School of Medicine in Philadelphia, PA. He is survived by his wife, Janice (Kramlich) Johnson.

**William Waldschmidt, M.D. (B.S. Med. '48)**, of Wailuku, HI, a heart surgeon, died at home Jan. 28, 2007. He is survived by his wife, Phyllis, and two sons.

**Julian DuBois, Jr., M.D. (B.S. Med. '43)**, died unexpectedly on Dec. 16, 2007, in South Padre Island, TX.

A native of Sauk Centre, MN, he graduated from Sauk Centre High School, Beloit College, UND and New York Medical College. He served in the U.S. Army during medical school and subsequently in hospitals in Sheridan, WY, and Spokane, WA. He joined his father in medical practice at the Sauk Centre Clinic in the fall of 1949. After 39 years of serving the community, he retired from practice in 1988.

Dr. DuBois is survived by his wife Virginia; two daughters; a son, and six grandchildren.

**Ralph Dukart, M.D. (B.S. Med. '42)**, 91, passed away at his home in Dickinson, ND, on Dec. 8, 2007.

Born on the family farm in the Lehigh area southeast of Dickinson, he grew up and graduated from Dickinson High. He attended Dickinson State Teachers College for two years, then transferred to UND. He was accepted to Wayne State University, College of Medicine in Detroit where he earned the M.D. degree.

Dr. Dukart served his internship at St. Mary's Hospital in Detroit. He was inducted into the US Army; he achieved the rank of captain. He was honorably discharged in 1946.

The Dukarts moved to Richardton, ND, where he started his medical practice. In 1947 he moved to Dickinson where he joined the Dickinson Clinic and practiced medicine in obstetrics-gynecology and family practice for 37 years. In 1984 he retired and continued to make Dickinson his home.

Dr. Dukart served as public health officer for the Southwest District Health Unit for 15 years. In 1963 he served as president of the Obstetrics/Gynecology Society in North Dakota. He was chief of staff at St. Joseph's Hospital in Dickinson at various times throughout his career, a hospital board member, and St. Benedict's medical director. He received North Dakota Medical Association Commendation

Award in 1983 for 40 years of service and then in 1993 for 50 years of service. He was a lifetime member of the American Medical Association, a member of the North Dakota Medical Association.

Survivors include: 11 daughters and three sons; 41 grandchildren, and 39 great-grandchildren.

**Walter Dailey, M.D. (B.S. Med. '37)**, 99, Grand Forks, died peacefully at home, surrounded by family on Dec. 28, 2007. Born in New Rockford, ND, Dr. Dailey's early childhood was spent on a farm and he attended a country school for the first two years. The family moved to New Rockford, and later to Watford City, ND. He graduated from high school at Minot in 1925. He graduated from Minot State Teachers College with a B.A. degree in 1930, and taught mathematics and science at Parshall, ND.

Since he was always interested in medicine, he left teaching to attend medical school at UND. He transferred to Rush Medical School in Chicago and received the M.D. degree in 1939. This was followed by a year of internship at St. Joseph's Hospital in St. Paul, MN. He then became a member of the Campbell Williamson Clinic in Grand Forks. He was on the medical staff of St. Michael's and Deaconess hospitals in Grand Forks for all his professional life. He taught physical diagnosis at the UND medical school for a few years.

He served as president of the Third District Medical Society in 1947, and chief of staff at Deaconess Hospital from 1965 to 1966. He retired from active medical practice in 1985.

He is survived by a son; four daughters; 14 grandchildren, and 15 great-grandchildren.

**John Olson, M.D. (B.S. Med. '36)**, 95, of Fort Smith, AR, died Dec. 20, 2007. He was a surgical physician with Holt Krock Clinic from 1947 to 1994.

He earned his M.D. degree in 1938 from the University of Pennsylvania and completed his internship at the Presbyterian Hospital in Philadelphia in 1940. He earned the M.S. degree in surgery from the Mayo Clinic in Rochester, MN, in 1944 and was a surgical consultant to the Veterans Administration Hospital in Fayetteville, AR, from 1947 to 1994.

He served as chief of staff for Sparks Regional Medical Center for many years. He held memberships in The International Society of Surgery, American College of Surgeons, Southwestern Surgical Congress, and the Southern Surgical Association. He also served as ship's doctor in the U. S. Navy as a lieutenant from 1944 to 1946. He is survived by a son; two daughters; a sister; six grandchildren, and eight great-grandchildren.

**Lorance Krogstad, M.D. (B.S. Med. '32)**, Scobey, MT, died June 28, 2007. He earned a Bachelor of Arts degree in 1931 and the B.S. Med. degree in 1932 from UND.

# The Meredith Factor

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Pictured is second-year medical student Amanda Johnson, 2006 Meredith Scholar, Mandan, ND, and Cameron Charchenko, first-year medical student, 2007 Meredith Scholar, Dickinson, ND.

Don Meredith (B.S. Med '52) is a retired orthopedic surgeon who had a successful practice in Mankato, MN, for many years. He and his wife, Marge (Rabe) Meredith (B.S. '51) spend their winters in Sun City, AZ. The Meredith name is synonymous with leadership and high academic achievement at the UND School of Medicine & Health Sciences.

### Blanche E. Abdallah

Director of Advancement & Alumni Relations

### Bethany A. Andrist

Development Officer

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Med School Winter Formal

Freshmen and sophomore medical students take a break from their studies in January to get together for a night of socializing, dining, and dancing at the annual Medical School Winter Formal.



OT Bake Sale

At a February bake sale, occupational therapy students raised funds for a project called, Ali's Playground, a "boundless" playground especially designed for children with disabilities in Grand Forks.



"Nothing But Nets"

Sara Mayer, second-year medical student, advertises the campaign to purchase mosquito nets to protect African families from contracting malaria, a leading killer of children in Africa.



Health Fair

UND medical students, including Christian Buhr, teamed up with Altru Health System and Grand Forks Wal-Mart to offer free health screenings. The goal was to increase public awareness about diabetes, high blood pressure, high cholesterol, and healthy lifestyles.

# Upcoming Events

*you won't want to miss these*

April 18

## American Indian Health Research Conference

8:00 a.m. to 3:30 p.m.

UND Memorial Union, Grand Forks, Free and open to the public  
[www.ruralhealth.und.edu](http://www.ruralhealth.und.edu)



April 30-May 4

## Society of Teachers of Family Medicine Spring Conference

Baltimore, MD  
Elizabeth Burns and  
VCHC CEO Sharon Ericson will present  
"A Partnership to Improve  
Rural Women's Health:  
The Domestic Violence  
intervention Network."

May 11

## Medical School Awards Brunch

10:30 a.m. Memorial Union, Grand Forks

## Medical School Commencement

Rodney J. Rohrich, MD, FACS,

keynote speaker

1:30 p.m.,

Chester Fritz Auditorium

(L. Sannes, 777-2514)

April 24

## North Dakota Academy of Science

Hilton Garden,  
Grand Forks  
[www.ndacadsci.org](http://www.ndacadsci.org)

May 17

## Casper Occupational Therapy Graduation

Casper, WY

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