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NORTH DAKOTA MEDICINE

THE UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

A Larger Piece of the Pie

Anatomy of a Friendship

The Gift of Compassion

Professor "Pat. Pending"

Walk the Talk

Digital Facelift

The A-Team





MANY EXCITING PROJECTS ARE ONGOING AT THE SCHOOL OF MEDICINE AND HEALTH SCIENCES. I thought it would be useful to provide an update on some of them, especially since several are the direct result of donors' support through philanthropic gifts and bequests.

- The Simulation Center addition to the Clinical Education Center (CEC) is completed. Located at the southwest corner of the CEC building, the Simulation Center has four simulation suites and two debriefing rooms. The simulation manikins have arrived, and they are being installed. The training curriculum is being drafted, and we expect the center to be fully operational this summer. We will offer training to medical students, residents, and physicians in practice, along with a wide spectrum of other health care providers, including nurses, EMTs, rescue personnel, and others. Please stop by for a tour.
- Planning is well underway for a Master in Public Health degree and a certificate program to be presented as a combined offering with North Dakota State University. The state health officer, Dr. Terry Dwelle, has been working with us in the development of this joint program. I have worked closely with Dr. Charles Peterson, dean of NDSU's College of Pharmacy, Nursing, and Allied Health, on this project, and both of us are excited about the program and the good working relationship extant between the two universities.
- Recruitment is in progress for a chair of Geriatrics. Supported by a very generous bequest by the late Dr. Eva Gilbertson, the School has contracted with a well-known professional search firm to assist us with the process. Although an excellent candidate was identified, we have not yet come to a final agreement, so negotiations continue.
- Also on the recruitment front, we are searching for a director for our nationally recognized Center for Rural Health. That search committee is chaired by Dr. Rob Beattie, chair of our Department of Family and Community Medicine. We hope to have the new director in place by this summer.
- Great excitement surrounds the progress of our new clinic facility in Bismarck for our Center for Family Medicine. An outstanding downtown site for the building has been identified, and the architects are developing plans

for a high-quality, patient-care facility. We anticipate seeing our first patient there in the summer of 2011. We can hardly wait!

- Although the next North Dakota Legislative Assembly is almost a year away, we have been hard at work for several months preparing for the session. The process for requesting programmatic support for the School involves discussion and vetting at multiple levels—first, internally within the School, then at UND, then through the SMHS Advisory Council, then through the State Board of Higher Education, and finally, through the Office of Management and Budget—all before we get to make a single presentation to the North Dakota Legislature. But this process ensures that we have fully thought through our requests, and that we are as prepared as we possibly can be. The various steps certainly can pay off—during the last legislative assembly, the SMHS was fortunate to receive a greater than 20 percent increase in base funding.
- We are actively recruiting for several faculty slots that are open because of retirements, moves, and related changes. The School has decided to use a single search committee to oversee the process, rather than multiple departmentally based committees as has been done heretofore. The use of a single, school-based committee is becoming a “best practice” around the country and offers two major advantages: an economy of scale that reduces personnel and faculty time commitments, and an emphasis on cross-departmental and interdisciplinary approaches. We are excited about this new approach, and we believe that it will pay big dividends. But if it doesn't, we'll learn from the process and adjust the procedure accordingly.
- One thing that hasn't changed is our dedication to education, and the outstanding students who select the School for their education. We continue to produce truly outstanding doctors, occupational and physical therapists, physician assistants, clinical laboratory science professionals, and sports medicine specialists who often return to North Dakota to practice, and make us proud. If you have a chance to visit our campus in Grand Forks, or our other campuses in Fargo, Bismarck, or Minot, please let my office know and we'll be sure to arrange a tour. Our facilities are first-rate, our faculty and staff outstanding, and our students make it all worthwhile. Come and visit us, and you'll see for yourself!

Joshua Wynne, MD, MBA, MPH
Interim Vice President for Health Affairs and Interim Dean



UNIVERSITY OF NORTH DAKOTA
SCHOOL OF MEDICINE AND HEALTH SCIENCES

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ANATOMY

of a

Friendship

International meeting brings together faculty, students
in the name of science and friendship for 25 years.



Photo courtesy of North Dakota Tourism/Ren Davis

Floral-flag plots honor Canada and the United States at the International Peace Garden.

IT STARTED AS A WAY FOR TWO RATHER REMOTE anatomy departments to get their students and faculty together to learn what one another were doing. Now it is an annual tradition between The University of North Dakota (UND) School of Medicine and Health Sciences' Department of Anatomy and Cell Biology and the University of Manitoba Department of Human Anatomy and Cell Science that has encouraged not only research but friendship.

Ed Carlson, PhD '70, had been chair of The UND School of Medicine and Health Sciences' anatomy department for three years when he met the chair of Manitoba's department, **Vid Persaud, MD, DSc, PhD, FRCP, FRCPI**, in 1984. Later that summer, Carlson invited

Persaud and his department to Grand Forks for an Anatomy Interchange. They agreed to do the exchange at least twice, the first year at UND, the second year at Manitoba. The two departments have been meeting nearly every fall ever since.

The start of a tradition

That first meeting was very much like the meetings that have followed. The 40-some participants started first thing in the morning with a series of 15–20 minute talks by the faculty and students of both departments. It also included one longer talk by a keynote speaker.

"We had a morning of science," remembered Carlson. "This was plowing the ground. We had never done this before."

Participants were free to explore the host university and city during the afternoon and finished the day with a barbecue at a faculty member's home. This seemingly benign activity has become essential to the event's continued success.

"What that did was change a scientific meeting into what we call a 'biosocialization event,'" said Carlson. "We got to know them on a whole different level than we would have just by going to a scientific conference."

"It's difficult to find meetings these days where you can actually meet in the backyard of someone's house and enjoy yourself after you've had a day of research," said Manitoba's current department chair, **Tom Klonisch, MD, PhD**. "It creates a very friendly atmosphere."

There have been some slight changes to the event over the years. In the mid '90s they added poster sessions so more students could participate. Some years the keynote speaker has been a more well-known, national figure rather than a member of one of the departments.

Carlson says the meeting has continued this long because the chairs have supported it. Klonisch became chair of the department at Manitoba just a month before the 2004 meeting, and he saw no reason why it shouldn't continue.

"This creates a platform for students and faculty to perform, to show and present the data, to engage in scientific discussions," he said. "These are very lively discussions. It is quite an unusual meeting ... it is quite informal, it really leaves time to discuss research at posters or after talks."

Remarkable science

Today both departments look forward to the meeting. Nearly everyone participates in one way or another. Participants work all summer on their posters and presentations.

"The quality of the science that was presented in the morning in these events was absolutely remarkable," said Carlson. "Almost without exception we were able to say this was as good as any national event we've been to."

Mandy Meyer, PhD '06, a former student in The UND department who is now a faculty member there agrees. "It really is top-notch science that is going on, and you get to hear what everyone else is doing."

"We would like to draw in as many young students as possible because this is an international platform," said Klonisch. "It's really to the benefit of the new generation of scientists to have this opportunity."

Getting harder

Since the terrorist attacks on September 11, 2001, getting students and faculty, especially those who are not citizens of either country, across the border and back has become difficult. Many of these participants have visas that limit the number of times they may leave the country.

To combat this issue, last fall UND hosted the meeting at the International Peace Gardens, a 2,300-acre park along the border of North Dakota and Manitoba that is both American and Canadian. Although the meeting drew 60 participants, the location is far from ideal. The drive for both schools is considerably longer, and the cost and preparations are much more difficult. Still, both schools are committed to continuing with the meeting, in some form or another.

"We will continue to explore different avenues to allow those students to participate," said Klonisch. "We will not give up on this."

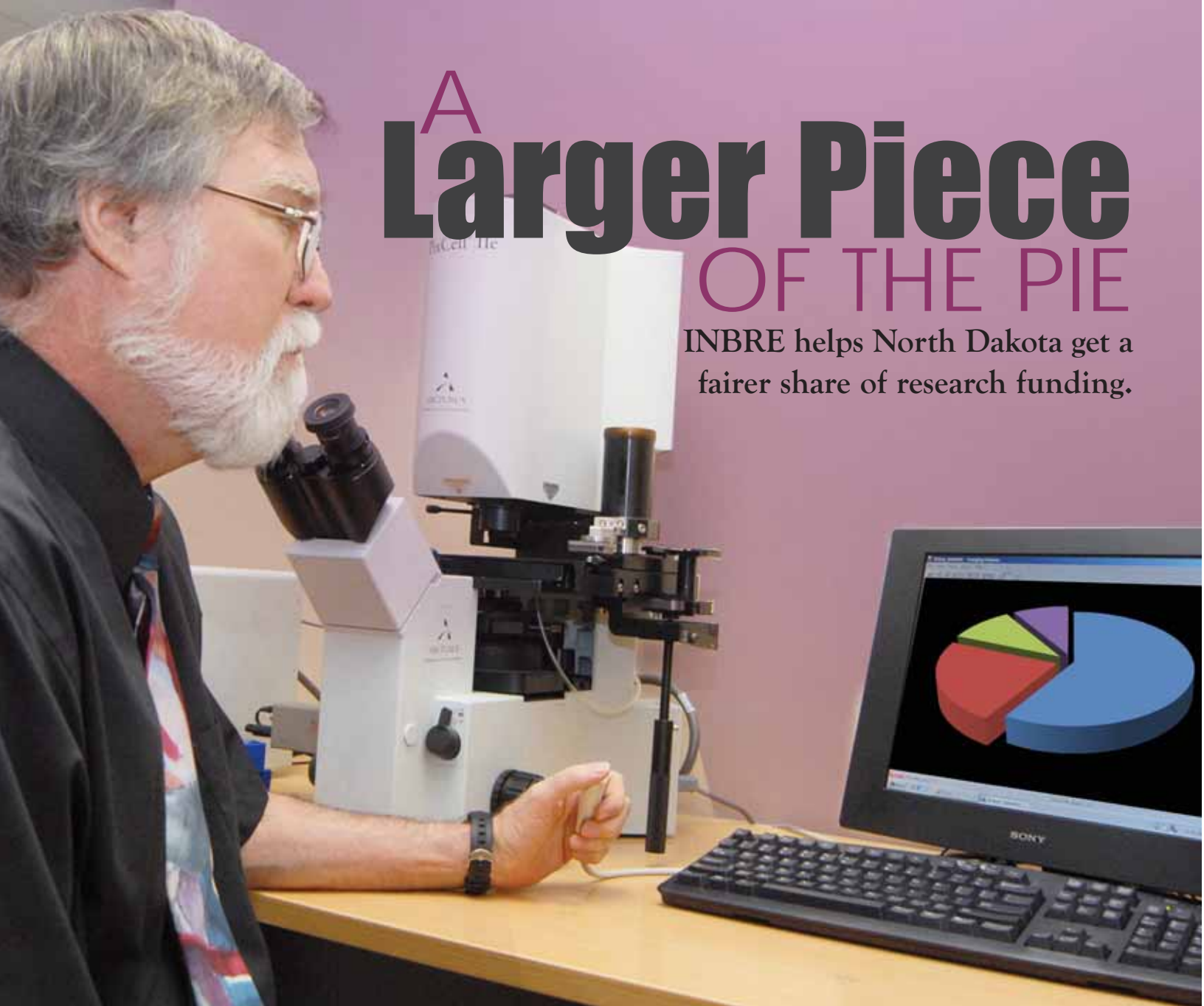
Carlson has spoken about the visa problem with North Dakota's senators, and Klonisch is working with the president of the American Association of Anatomists.

"The emphasis ... is on scientific exchange and friendship," Klonisch said. "We are the anatomists that meet and that is one important aspect ... but we also have friendships, long-standing friendships, between the different researchers."



Dr. Carlson (right) presents Dr. Klonisch with the clock trophy.

-Amanda Scurry



A Larger Piece OF THE PIE

INBRE helps North Dakota get a fairer share of research funding.

Don Sens, PhD, INBRE principal investigator and a professor in the Department of Pathology.

North Dakota is one of more than 20 U.S. states and territories that, when combined, get less than 5 percent of the National Institutes of Health's budget for research, according to **Donald Sens, PhD**, a professor in the Pathology Department at The University of North Dakota (UND) School of Medicine and Health Sciences. To help rectify this disparity, friendly rivals—UND and North Dakota State University (NDSU)—banded together with other educational institutions in the state to help garner a bigger piece of the research “pie.”

Their efforts resulted in the founding of the North Dakota Biomedical Research Infrastructure Network (BRIN) in 2001. According to Sens, BRIN was very small when it started. Its main goals were to help recruit faculty and make improvements to the library.

But through the years, the program has changed and grown considerably. In 2004, the National Institutes of Health (NIH) re-implemented the project as the North Dakota IDeA Networks for Biomedical Research Excellence, or INBRE. Sens runs the program at UND, and **Donald Schwert, PhD**, a

distinguished professor of geology and director of the Center for Science and Mathematics at NDSU, serves as the program coordinator there.

"The BRIN and INBRE programs represent the most significant continuing research collaboration between UND and NDSU," Schwert said. "These programs have demonstrated that scientific collaborations can thrive, even during times of inter-campus rivalries. Statewide, these programs have established important means of scientific training opportunities for both faculty and students. For the four-year and tribal colleges, they have created campus cultures receptive to research as being integral to the scientific training of undergraduates. For all campuses, the BRIN and INBRE programs have helped fund research infrastructure that would not have been otherwise possible with normal state appropriations. Moreover, these projects have created a statewide network of scientific communication, cooperation, and collaboration among the member institutions of the network."

Working Toward Common Goals

According to Sens, among INBRE's main goals is to engage primary undergraduate universities in the state—such as Mayville, Minot, Valley City, and Dickinson—and get their faculty interested in undergraduate research so all North Dakota undergraduates are able to have a research experience. INBRE also includes another initiative that involves tribal colleges with the same goal in mind.

"Our INBRE has actually got to the point now that we have full-blown research programs at both Little Hoop and Turtle Mountain," Sens said. "So we're one of the few that have been able to really go out to the two-year tribal colleges and get real good research programs going."

Another main goal for INBRE is to build infrastructure at research-intensive universities, such as UND and NDSU. This involves providing support for core facilities, which

usually include high-priced instrumentation and techniques. Among these core facilities is a proteomics lab, where researchers can look at all the proteins in a tissue.

"It's very complex, and it's very expensive," Sens said. "The service contract for our instruments is \$60,000 to \$70,000 a year just to make sure that they're going to stay running."

Because of the expense, these core facilities would be out of the reach of most in the state were it not for INBRE.

"We provide proteomics to anybody in the state-supported system or the tribal colleges that need it," Sens explained. "We do the same thing down at NDSU. Down there we have what we call the metal analysis core. That's another core facility we keep running."

The metal analysis core allows researchers to measure metals precisely. These include metals bodies need to stay healthy, such as calcium and magnesium, and contaminants that can cause problems, such as cadmium, mercury, and lead.

"In the INBRE-II (2009 grant), the research focus among most investigators will be on heavy metals and health," Schwert said. "This is an easy focus for undergraduate-centered research, but it is also an important focus for North Dakota statewide. A heavy metal problem is intrinsic to soils in much of the state. Studying how or if these metals accumulate in plant and animal tissues will provide important data for health studies."

According to Sens, anyone in INBRE can access these core facilities, but they also are available to those outside the network as well.

Investigators at the universities have found it useful, as have local business people, such as those involved in the potato-growing industry.

"It's very open to everybody," Sens said.

Taking the Initiative

A new initiative this year is bioinformatics. According to Sens, now that scientists have discovered how to sequence the human genome,



Donald Schwert, PhD,
Director, Center for Science and
Mathematics, North Dakota State
University

What these people are able to do is take huge, huge sets of data and start making sense of it.

researchers are getting data sets that are so huge they can't look at them and analyze them.

"What these people are able to do is take huge, huge sets of data and start making sense of it," Sens said of bioinformatics. "So if we sequence DNA from hundreds of people, they can find the one gene that's variable. It's a very specialized area."

Bioinformatics also delves into other areas of value to North Dakota in particular. For instance, through bioinformatics, researchers can try to figure out what type of medical record would work best in a rural state such as North Dakota where a doctor may need information on a patient who's 100 miles away.

"That's medical informatics," Sens said. "And that's one of our new initiatives. We're just really getting that going."

That's possible thanks to a \$15.9 million grant, payable over five years, which INBRE received from the NIH this year. The grant—the largest in the history of UND's medical school—helped bring a full-time professional in this field to UND November 1. A second full-time faculty member will arrive at NDSU soon, Sens said.

"The grant actually put a person at both schools, and we'll continue to build on that over the five years," he explained.

According to Schwert, in the original 2004 INBRE grant, bioinformatics was limited in scope to support for a Computational Chemistry and Biology Network hosted both at NDSU and UND and for e-journal and database support for both The UND and NDSU libraries.

"While these were important services to both campuses, they really did not satisfy the larger need for graduate-level program development in bioinformatics at both campuses," he said.

With the 2009 INBRE grant, both The UND and NDSU campuses have support to each establish bioinformatics cores, Schwert explained.

"At NDSU, for example, the funding is sufficient for us to help support two new faculty lines in bioinformatics—one line in full; another

line in part, with NDSU matching support making up the difference," he said. "The expectations on both campuses are for enhanced graduate program development in bioinformatics as a consequence of INBRE-II support."


More to Smile About

While that's enough cause for excitement, Sens said he had even more good news, thanks to the support he received from Interim Vice President for Health Affairs and Interim Dean **Joshua Wynne, MD, MBA, MPH**, of The UND School of Medicine and Health Sciences.

"The thing that I'm really, really happy with is that when this grant was really written, there was no provision in the grant for undergraduate research at UND. It was put out into the primary undergraduate schools. Joshua Wynne, who's the dean here, actually about a year ago, gave me funding to start an undergraduate research program at UND," Sens said. "Then with the stimulus that came out from the government, we were able to get supplements to both the INBRE grant and one of my other grants ... to bring more undergraduates in."

"This summer at UND we had about 40 undergraduates doing about 10 weeks of full-time research with us. It was just a great program, and we really had fun with it."

Because the government stimulus money is for two years, UND will be able to continue the program next summer. Sens said he hopes to find a way to continue the program beyond that.

"So now I have undergraduate research at all of my primary undergraduate schools," he said with a smile. "I have it at two of my tribal colleges. Now I have it also at UND." 

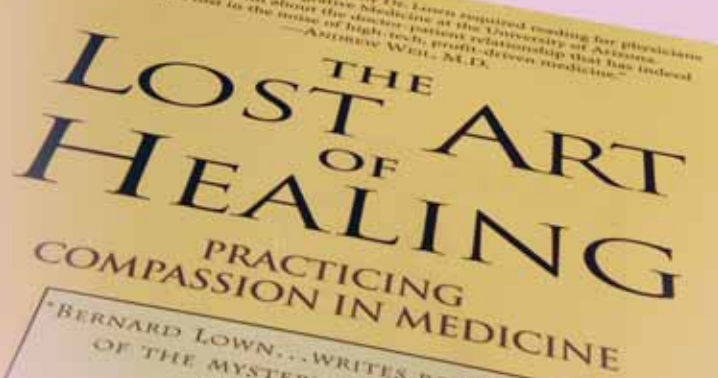
- Brenda Haugen

...the Lown emphasized teaching for physicians about the doctor-patient relationship that has indeed...
...the Lown emphasized teaching for physicians about the doctor-patient relationship that has indeed...
—Arthur Weil, M.D.

THE LOST ART OF HEALING

PRACTICING COMPASSION IN MEDICINE

“BERNARD LOWN...WRITES POWERFULLY OF THE MYSTERY AND MAJESTY OF MEDICINE.”
—The New York Times Book Review



the gift of COMPASSION

One woman turned her anger over her husband's death into an annual gift of compassion to UND medical students.

WHEN **BETTY CUMMING'S** otherwise healthy husband went in for routine hip surgery in 2000, she never thought she would be a widow by the end of the week.

The hospital's medication error that caused Wayne's death was terrible, but what was worse for Cumming was how the staff at the hospital treated her when she expressed concerns about his delayed recovery and later when he died.

"You can imagine what overwhelming feelings you have," said Cumming, a music teacher who lives in Sidney, Mont. "It's all kinds of grief that range from bitterness to sadness to anger."

A few years after her husband's death, Cumming heard about the book *The Lost Art of Healing* by Nobel Prize-winning author Bernard Lown, MD, on a radio program. She was convinced that this was exactly what the doctors who cared for her husband were lacking.

"It was like a light went off!" Cumming said. "I thought, 'this is how I change my anger into joy.'"

According to the author's website, (www.bernardlown.org), the book is an evaluation of modern-day medicine that shows how the biggest problem in medicine today is the lost

interpersonal relationship between patient and doctor. It describes how healing is an art and how it can be integrated with standard medical practices.

...this is how
I change my
anger
into
joy.

"We're not talking earth-breaking, shell-shocking endeavors," Cumming explains. "It's ways of sharing hope and humanity from one person to the next person."

With her portion of the malpractice lawsuit settlement, Cumming has been buying a copy of this book for all the second-year medical students at The University of North Dakota (UND) since 2003. She

chose UND because two of her five children attended the school, one in physical therapy, another in sports medicine.

Cumming does not want pity from the students. She wants to make a difference.

"I'm getting older. I'm going to make some good docs," she said. "I want to be a part of who [the new doctors] are and influence in some small way.... Someplace I hope that it's going on just with a little tick of memory of what those things in the book said."

She also sends copies of the books around the country, including to her own doctor, people she meets on airplanes, even tennis partners.

The now 80-year-old Cumming still keeps every single thank-you note she receives from the medical students who receive the book.

"It doesn't make losing him any easier," she admits. "The action that I took was self-saving. So that I got rid of my anger and the hate I had for people who simply don't care for one another.... [I hope] our loss maybe will be other people's gain."

-Amanda Scurry

REAC 1

PROFESSOR “Pat. Pending”

For the modern researcher,
the race for discovery is run on dual tracks.

Stacking the deck—in a very positive way—is what this game is all about. It’s about taking something valuable—university research—and enhancing that value with a significant outside nudge. Or, to put it in business parlance, “leveraging your assets.”

For **David Bradley, PhD**, associate professor and chair of Microbiology & Immunology at The University of North Dakota (UND) School of Medicine and Health Sciences, that means partnering with The UND Research Foundation to boost the scope and reach of university-based research.

“I firmly believe that a research foundation, such as The UND Research Foundation, significantly improves both the quantity and quality of what we do,” said Bradley, a biomedical researcher and teacher with expertise spanning several areas, including arthritis and infectious disease.

“There’s a huge cultural difference in research today, compared with when I was in graduate school,” said Bradley, a Welcome, Minn., native who completed his PhD at the University of South Dakota School of Medicine, Vermillion, and conducted post-doctoral research at the University of North Carolina-Chapel Hill and at the Mayo Clinic. “Back then, interactions between

academia and the commercial and business sectors, such as biotech and pharmaceutical companies, were seen almost as ‘dirty.’ I’m sure that there are investigators even today who see that as ‘tainted money.’”

But, Bradley said, the previously prevailing attitude in academia started to change at the bigger public and private institutions about 30 years ago.

“We saw older more experienced faculty venturing out with biotechs in the 1980s, and that began to be a big deal,” said Bradley, who came to UND in 1998. “So universities ‘invented’ the ability of faculty to interact with companies outside academia. The short answer is that there was a huge change in how commercial entities interacted with university researchers. And I think that it’s very good for science because it allowed clearly directed research to flourish.”

Bradley said that universities, traditionally bound by a hands-off culture with respect to outside commercial ventures, were not very good at selling or commercializing the fruits of their research enterprise—known today as “intellectual property (IP).”

“They weren’t in a good position to deal with, nor were they a good fit for, business,” Bradley said. “What is needed is an entity trained and well-versed in taking our products, our IP, to a



David Bradley, PhD, associate professor and chair of the Department of Microbiology and Immunology at the entrance to REAC 1.

commercial partner. That doesn't necessarily have to be a foundation, but you need something to help the scientist jump the cultural, and often legal, hurdles in the university setting that makes commercialization difficult."

In the case of UND, that entity is The UND Research Foundation, headed by Jim Petell, a former research scientist who also is a registered patent agent. The Foundation is housed in Research Enterprise and Commercialization-1 (REAC-1) on the west side of the campus, near The UND Center for Innovation.

"These folks help us to connect with the market," Bradley said. "In some cases, that help can be in the shape of a building, such as REAC 1, and sometimes it's legal help and it's with the smarts of how you interact with business."

So where does the foundation fit into an individual researcher's work?

"I think, taking my case in particular, that I interact intimately with our UND Research Foundation, which provides the infrastructure, including Biosafety Level-3 facilities that we don't have here at the School of Medicine and Health Sciences or in North Dakota," Bradley said. "Without the Foundation, we wouldn't be able to do many of the things that we do now. The Foundation helped us, like it has other researchers here at UND, get together with a commercial partner. The Foundation is vital in that interaction."

Basically, it's all about moving that IP into the mainstream—from the promise of something positive to the actuality of a helpful product in the marketplace.

"Sure you can rack up the patents, but they don't bring in a dime sitting on the shelf," Bradley said. "And patents aren't free—they cost the university \$20,000–\$25,000 apiece, sometimes a lot more. Until you move a patent into the private sector, there is no income. You need someone with specialized expertise to handle that, and that's another area where The UND Research Foundation really benefits individual researchers as well as the university as a whole."

But, Bradley said, commercialization, patents, and profits are only a small part of the total story behind a university's research enterprise and The UND Research Foundation.

"They help us provide a wonderful training ground for both graduate and undergraduate students," Bradley said. "With something like a REAC 1, students train in state-of-the-art research labs, they get excellent internship opportunities, and they get to see exactly what a commercial research partner—in our case, a biotech company—does to develop a product. This is not some theoretical exercise, but a hands-on involvement in real-world projects."

This is not some theoretical exercise,
but a **hands-on involvement**
in real-world projects.

Of course, everyone benefits from the additional dollars that commercial partnerships bring to the table for university research. Additional faculty at no additional cost also add up to a key benefit.

"In fact, we're updating our adjunct policy [at the School] because there are PhD-level scientists among our commercial partners who want to teach, so we can expand the pool of talent and ideas at no extra cost to the university."

"I think that these interactions between academic research and business, facilitated by our research foundation, are very good for the medical school, very good for the university's overall research enterprise: it's all about education, money, and people," he said.

-Juan Pedraza

WEB EXCLUSIVE:
For more advice, visit:
www.ndmedicine.org



WALK the TALK

New family medicine grant will improve
doctor-patient communication
and yield significant health benefits.

IN THIS FAST-PACED WORLD OF DRIVE-THROUGH office visits and managed care, effective doctor-patient communication is becoming increasingly important. To ensure that their students received the best possible preparation for future practice, The University of North Dakota (UND) Department of Family and Community Medicine applied for and received a \$445,000 grant from the U.S. Department of Health and Human Services to fund a three-year behavioral health and communications skills training program for its students.

Clinical psychologist and co-director of Clinical Sciences Education for first-year curriculum, **Rosanne McBride, PhD**, will serve as the project's principal investigator. Of the new program, she said, "As health care becomes increasingly focused on the prevention of disease and management of chronic illnesses—not just diagnosing and curing diseases—doctors of the future need to be trained in the social and behavioral factors that impact health and how to effectively communicate with patients."

As nearly 45 percent of UND medical school graduates enter primary care specialties such as family medicine, general internal medicine, and pediatrics, developing these advanced communication skills—particularly when it comes to the prevention and management of chronic disease—is essential.

"We want our students to be prepared to face the medical challenges of the future," said McBride. "A part of this is also teaching students to take care of themselves as this not only improves the quality of their life and health, but makes it more likely that they will apply the same philosophies with their future patients."

The program officially began on October 1, 2009, and McBride and her team are currently in the early stages of integrating these

First-year medical student
Aileen Aldrich, gives some
"practice" advice to
Terry Nelson, business
manager for the School.

new experiences into the existing curriculum. Because the School of Medicine has an integrated, patient-centered, case-based curriculum, the new communications and behavioral project is a natural fit. Students receive a new case each week and listen to a variety of lectures on different disciplines, such as physiology, biochemistry, immunology, and clinical medicine.

For first-year students, the first step in implementing the new program is to integrate curriculum related to obesity, lifestyle change, and end-of-life care. According to McBride, the grant money will allow the program to amplify students' hands-on experience, particularly with "standardized patients," or actors trained to behave as patients with specific health concerns such as diabetes or depression. This state-of-the-art, hands-on experience is critical, because patient communications plays a large role in improving health outcomes and chronic disease management, improving patient satisfaction and quality of life, maintaining wellness and preventing health problems, decreasing medical errors and malpractice liability—all of which can significantly lower health care costs.

In addition to expanding opportunities for hands-on experience, the curriculum will also increase the number of communications skill topics covered in the first two years of medical school, such as increasing students' awareness of cultural differences and biases when interacting with patients, lifestyle change and disease prevention, and end-of-life care communication. Funds from the U.S. Department of Health and Human Services will allow the Department of Family and Community Medicine to provide its students with increasingly complex and advanced communications skills training.

"Since in the future, health care will increasingly focus on keeping people well, it's critical that students learn how to establish good rapport and engage in meaningful dialogue with

their patients, and this type of communication training will assist them as they enter into medical practice."

As part of this program, students will also receive training on how psychological and social factors such as anxiety, depression, beliefs about illnesses, and social networks can affect specific chronic diseases and patient treatment and communication.

"For example, patients who have had a heart attack frequently develop anxiety about having another heart attack. Sometimes the anxiety is so severe that patients develop panic attacks. Panic attacks can feel like a heart attack, so patients show up in the emergency room thinking they are having another heart attack. Our students will be equipped to understand these conditions and communicate effectively with patients about them," said McBride.

As a clinical psychologist, McBride is the perfect person to lead this project for UND.

"I love teaching people about the many factors that can affect disease states—their thoughts, their beliefs, their fears and anxieties, their behaviors in managing illness, their level of support—all interact with the specific disease state to produce different outcomes for each person—even with the exact same medical diagnosis. I also love teaching future doctors the communication skills that will help them communicate better with patients, get more accurate information, and counsel patients about being healthy."

With her guidance and the support provided by the U.S. Department of Health and Human Services, UND medical students are on the fast track to conquering the medical world of tomorrow.

-Laura Scholz

We want our
students to be
prepared to face
the medical
challenges
of the future.

DIGITAL facelift



Nasser Hammami tests the new digital equipment in The Clinical Education Center at The UND School of Medicine and Health Sciences.

SEARCHING HIGH AND LOW FOR working VCRs and video tapes has ended for the staff and students who work with the Clinical Education Center (CEC) at The University of North Dakota (UND) School of Medicine and Health Sciences. The facility, built in 2001, received a digital facelift recently replacing the old equipment, used to record and grade student interactions with standardized patients, with state-of-the-art digital recording, data, and storage.

A necessity

The Clinical Education Center, located across Hamline Street from the School in Grand Forks, includes 16 exam rooms with one-way windows and recording devices in each. Students

in the Doctor of Medicine degree program, the physician assistant program, nursing, and other medical studies use the exam rooms to practice and test their clinical skills. The students are recorded interacting with standardized patients, or actors portraying patients with certain medical conditions. Faculty members use these interactions to grade the students on their interviewing and examination skills.

Before the recent upgrade, VCRs would record each session in the exam rooms.

"The VCRs were not reliable," said **Nasser Hammami MS '06, MS '00, MS '98**, chief information officer for the School. "It was failing on us in the last couple of years."

A committee of faculty members who use the CEC and those who maintain the system determined what the facility needed and heard proposals from the top companies supplying such services. The committee chose B-Line Medical, the number one clinical skills and simulation center solutions provider. The company's other clients include Cornell University, Duke University, George Washington University, and Johns Hopkins University.

Digital recording and distribution

The software provided by B-Line Medical has two components: digital recording and distribution, and testing and assessment.

The system includes automated digital recording that is then stored in individual student files on a secure server. These recordings are completely Web accessible and are searchable by case, student, standardized patient, date, and more.

"Digital recording has the advantage of allowing us to give 24/7 access to the students to view their recordings and to send the recordings to clinical faculty around the state for evaluation," said Hammami.

"Students will likely view it more than they would when they had to come up here and view a VCR tape," said **Jon Allen, MD '84**, assistant dean of the School's Northeast Campus in Grand Forks. "We're trying to always get students to watch their own performance. When they watch their own performance, they get to spot their mistakes and see areas where they can make improvements a whole lot easier."

The new system uses the existing cameras in the exam rooms, but includes new microphones and a completely revamped viewing room. The facility's climate control system was also upgraded to keep the new servers at safe temperatures.

Testing and assessment

Through the testing and assessment portion of the software, faculty members can better facilitate clinical exams.

"It draws back all the information on the students and how they did," said Allen. "We get information from the preceptors that graded them ... and we also get the same from the standardized patient."

The new software also gives faculty real-time access to a wealth of data on how the evaluation process is working, ensuring consistency in grading.

"One of my goals is to work with other users of the facility ... to try to put together composite research of interrater reliability and evaluate where we are currently and brainstorm ideas on what we can do to improve," said **Jeanie McHugo, PhD '08, PA-C**, assistant professor in the School's physician assistant program.

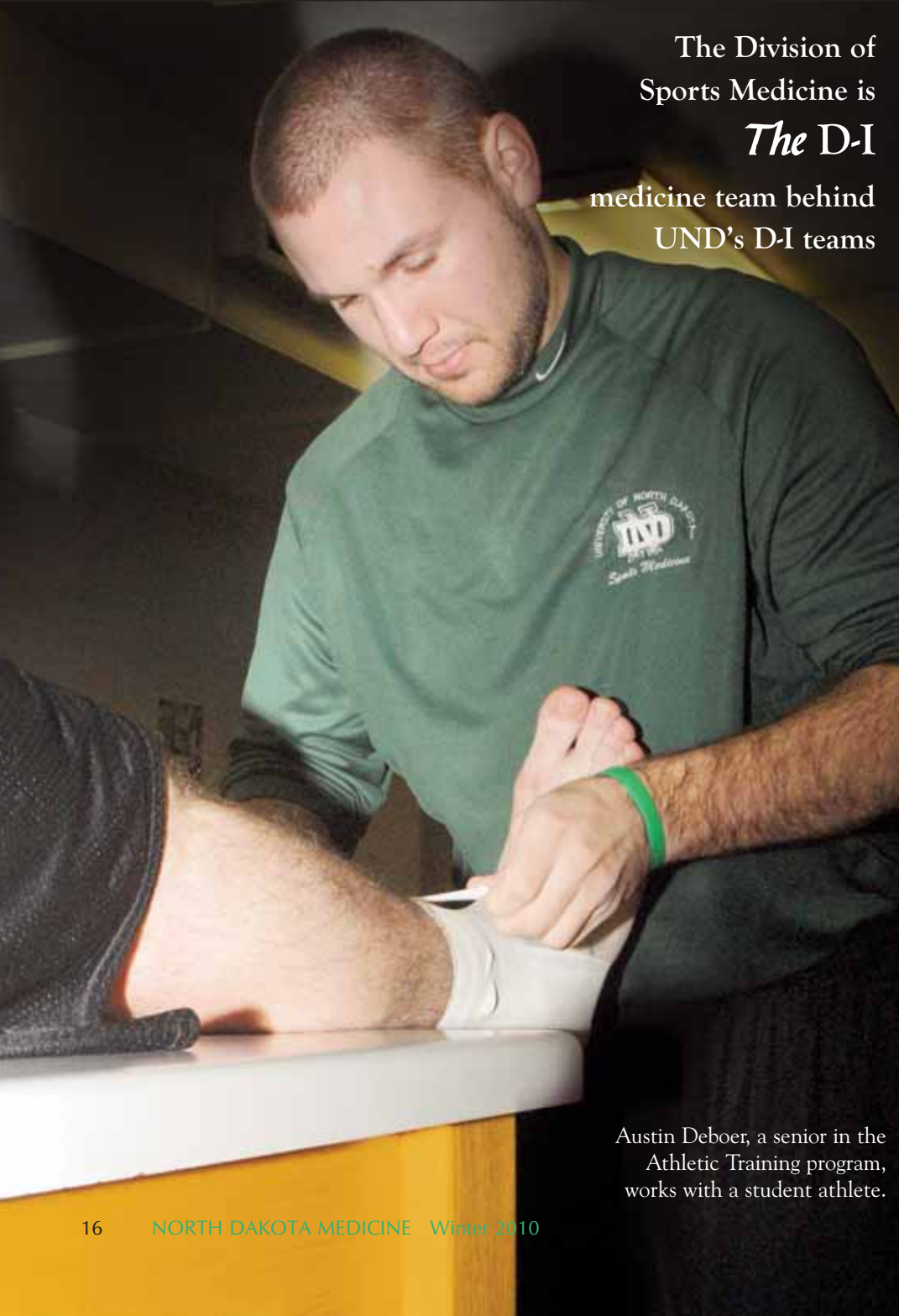
It draws back all the information on the students and how they did

Allen explains, "every time another student comes through the same preceptor, we can grab an idea of how the preceptor works. We can get reliability statistics of each preceptor and eventually when we get enough data, we can have interrater reliability statistics so we can study everything from class variation ... or how did any small subgroup of students compare to any other small subgroup of students."

- Amanda Scurry

The A-TEAM

The Division of
Sports Medicine is
The D-I
medicine team behind
UND's D-I teams



Austin Deboer, a senior in the Athletic Training program, works with a student athlete.

WHEN BRITNEY SPEARS WOWED the crowd at the Alerus in Grand Forks in September 2009, The University of North Dakota (UND) School of Medicine and Health Sciences Division of Sports Medicine was there to provide support for her and her huge crew.

Britney and performers like her don't mount their razzle-dazzle shows alone. It takes a big team of drivers, musicians, performers, and technicians to rock and roll before showtime. And for Britney's show here, that team included two certified athletic trainers—**McKynsay Vanderpan** and **Erika Hunt**—from The UND Division of Sports Medicine. Just in case.

"There's a lot of strenuous physical activity in such a big act," said **Steve Westereng**, a certified and licensed athletic trainer and program director for UND Sports Medicine, which is physically housed in Hyslop Sports Center but is part of the Department of Family Medicine in The UND School of Medicine and Health Sciences. Certified athletic trainers are starting to provide a more diverse role. Traditionally, support has been given to team sports, but the profession is starting to appear in other areas of physical activity, such as the performing arts and in industrial settings.

"The Alerus management called us before the performance with a request for two certified athletic trainers" to take care of any sprains, strains, and other on-the-spot injuries that could be treated, said Westereng, who got his BS in Athletic Training from UND in 1994, interned for a year with the Philadelphia Eagles, and got his MS in Exercise Physiology from the University of Minnesota.

The Britney Spears gig was a parlay for this lively academic team that spends lots of time with the 400 or so UND men and women athletes, now all part of a Division I program in transition. That's time practicing and playing—at home or wherever else the action is.

"Yes, we travel with the teams—that's a part of our mission to provide quality health care to the physically active," said Westereng, a Minot native who spends a good part of his year working with The UND football squad with assistant athletic trainer **John Flatt, MS, ATC**. Athletic training students who have a clinical rotation in football will also travel with the team to experience working conditions on the road. They're part of the health team that includes longtime UND team physician **William Mann**.

UND's sports medicine program also helps other disciplines provide education, research, and service in this area, Westereng said. Its top priority—besides providing certified athletic trainers for the University's sports teams—is to prepare students—22 undergraduates this year—for a Bachelor of Science in Athletic Training, which was approved by the North Dakota Board of Higher Education in 1990, the same year that the American Medical Association recognized athletic training as an allied health profession.

The Division's mission also includes providing clinicals for a fourth-year medical elective in sports medicine and for residency training in sports medicine. Research and continuing education are vital aspects of the Division of Sports Medicine to improve the quality of care for athletes, Westereng said.

"We were the first undergraduate athletic training program in the country to be located in a medical school," said Westereng. Earlier, athletic training was part of the phys ed program. "Today, many of our students still come from the Upper Midwest, but we're also getting more students from all around the country."

For folks like Westereng, who spends a lot of time with football players, it's all about helping athletes stay healthy and recover well from injuries.

"Sports medicine takes a team approach to preventing, diagnosing, and treating injuries sustained while playing a sport or exercising," Westereng said. An athletic trainer is a certified, health care professional who practices in the field of medical athletic training. UND's Bachelor of Science in Athletic Training program recently was recertified for 10 years—the maximum accreditation—by the Commission on Accreditation of Athletic Training Education.

"This was the third time in a row we got the longest accreditation possible—we are very pleased with that, and it is a credit to the experience and hard work of all of our faculty," he said.

Division I now is a reality across the board for UND athletics—it's a new reality, Westereng said.

"It hasn't changed our program that much because we were always keyed on how best to take care of our student athletes, always working to improve our curriculum and our training," he said. "We stay focused year-round. We've added a couple of full-time athletic trainers because of the increase in expectations and expanding needs of the athletic teams."

For sure, Westereng said, "everyone's expectations—players, coaches—have been elevated because of Division I."

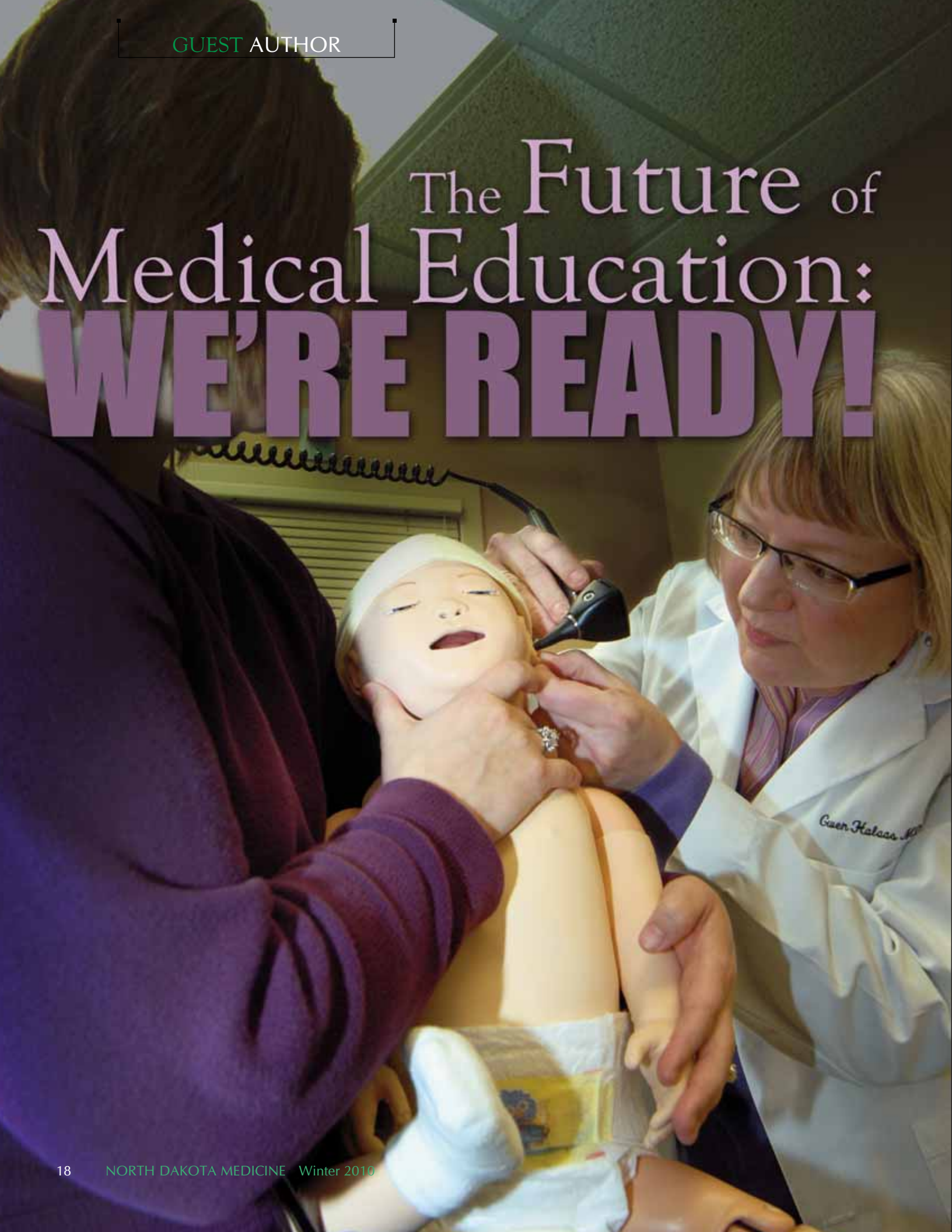
-Juan Pedraza

We were the first
undergraduate athletic
training program in the
country to be located in a
medical school.

WEB EXCLUSIVE:
For more advice, visit:
www.ndmedicine.org



The Future of Medical Education: **WE'RE READY!**



AS A MEDICAL STUDENT, I LEARNED about the Abraham Flexner report of 1910 that transformed medical education. One hundred years later, the Carnegie Foundation for the Advancement of Teaching has sponsored a report that will be published in May 2010 as *Educating Physicians: A Call for Reform of Medical School and Residency*. This study included 14 site visits (including The University of North Dakota (UND) School of Medicine and Health Sciences) as well as many interviews and focus groups. Recommendations were presented in Boston at the December 2009 Association of American Medical Colleges meeting.*

Flexner was concerned about the mediocrity of many medical schools and made recommendations to produce better physicians who think critically to improve patient care in a professional manner. In the past 100 years, the science and the practice of medicine have changed exponentially. Medical knowledge is exploding through research, technology has produced many new options for treatment, and health care delivery has become more complex with increasing expectations. In that same period, medical education has changed very little, and some would say that Flexner would be disappointed to see that many of the same issues remain unaddressed.

In this new report, Drs. Irby, Cooke, and O'Brien propose four recommendations for the future of medical education. *Integration* comes through connecting the knowledge learned through lecture and texts to experiential learning from cases. *Habits of inquiry and improvement* are

Medical knowledge
is exploding through research
technology
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has become more complex
with increasing expectations.

developed in students by engaging them in solving authentic problems that relate to patients and patient care. *Standardization and individualization* mean being flexible and able to teach based on the student's prior experience and expertise so that we can be efficient and maximize a student's potential. *Identity formation* is the development of professionalism learned

through role modeling, coaching, feedback, and team interactions within a community of practice.

The School of Medicine and Health Sciences is well down the road to meeting these recommendations. Our patient-centered learning curriculum integrates basic science knowledge with clinical cases from the first day of medical school and encourages active inquiry. The Clinical Education Center allows students

early exposure and practice in a safe simulated clinical environment. Family Connection and our Behavioral curriculum give students the chance to discuss complex issues and practice reflection. Our Rural Opportunities in Medicine program is an integrated longitudinal, community-based experience.

While our curriculum is successful, there is always opportunity for improvement. We are reviewing new teaching methodologies to further integrate the curriculum and produce better lifelong learners. We will use the new Simulation Center to practice more advanced medical skills and team skills. We have a communication grant for improving our learner's communication skills, and we continue to seek more opportunities for interprofessional education. This is an exciting time in medical education and The UND School of Medicine and Health Sciences is at the forefront!

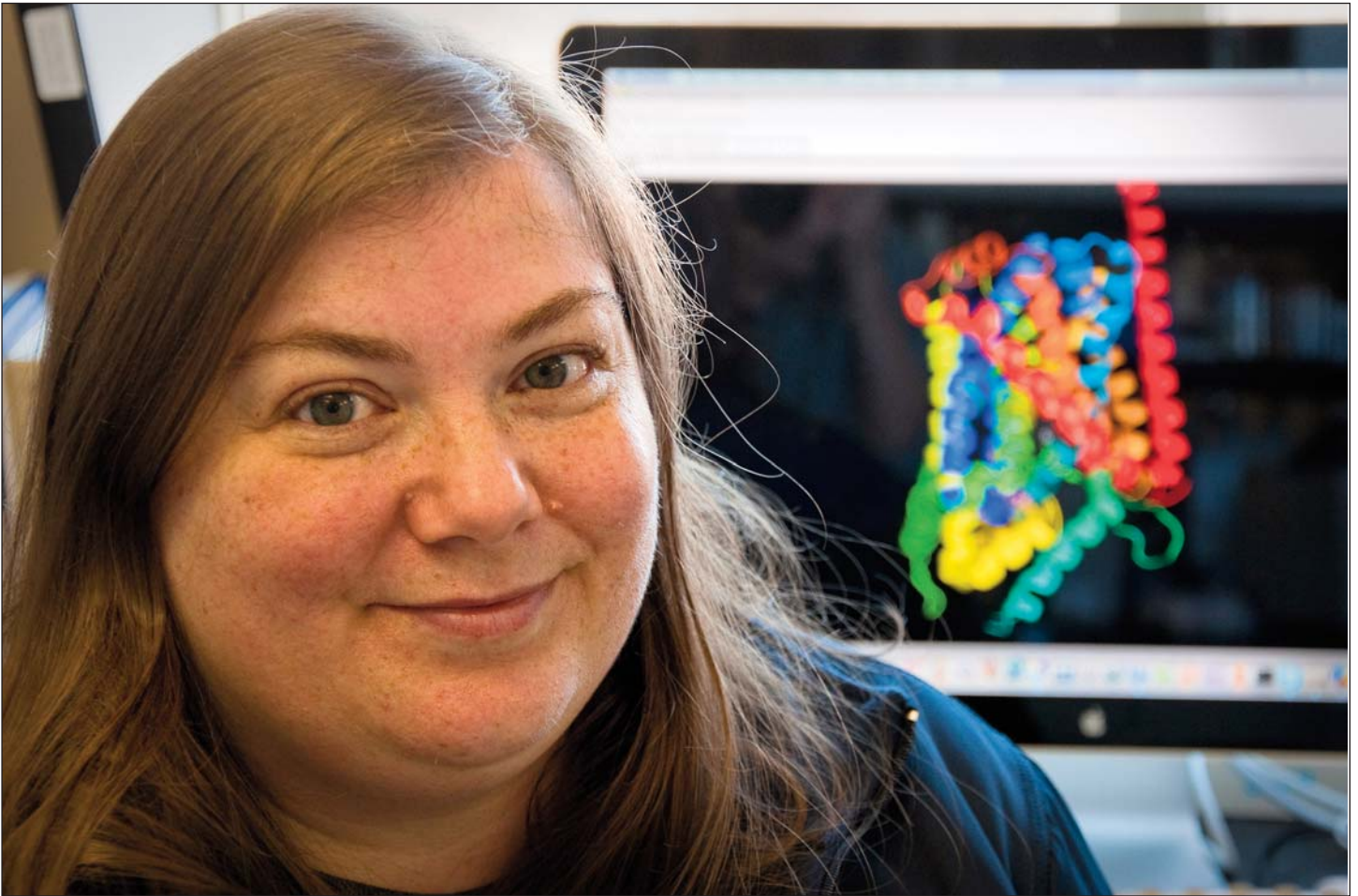


Gwen Wagstrom Halaas, MD, MBA, Associate Dean for Academic and Faculty Affairs, The University of North Dakota School of Medicine and Health Sciences

*Cooke, M., Irby, D., & O'Brien, B. (2009). *Educating physicians: A call for reform of medical school and residency*. PowerPoint presentation accessed 12/23/09 at http://www.carnegiefoundation.org/sites/default/files/Carnegie_AAMC_2009.pdf

Getting Better All the Time

PhD candidate seeks to improve drugs through pharmacological research



Vanessa Armstrong, along with primary investigator L. Keith Henry, PhD, uses computational modeling to help visualize the elusive structure of neurotransmitter transporters.

PhD Candidate, Class of 2013
Hometown: Blackduck, MN
Parents: Christy & Eldon Dietel

VANESSA ARMSTRONG HAS, AS the Judy Collins song goes, “looked at life from both sides now.” Her fascinating career in pharmacology has progressed from helping mentally ill patients manage their drug intake, all the way to groundbreaking research on how those same drugs could be made to work even better.

Spend time with this second-year PhD candidate in Pharmacology, Physiology, and Therapeutics (PPT) and her zeal for research quickly becomes apparent. “I enjoy helping people, but the research is just a little more exciting

because you never know what will happen. You get something: what you expect, but always a bit *more*.”

The arc of her unique story began in Bemidji, Minn., where, in her 20s, she and her husband inherited a board and lodging home with a special services license. That meant taking care of adults with mental disabilities. The eight-bed home quickly became a 24-hour, 7-days-a-week challenge for Armstrong, but it also gave her valuable experience in the pharmacy business. She credits a local pharmacist, **Richard**

Chernugle, with helping her connect with her life's work. "At the home, we had a huge number of medications to keep track of. He was extremely helpful, and that's what really got me interested in pharmacy."

Of course, Armstrong needed schooling. The home was sold, and they landed at the University of Minnesota–Crookston. "UMC interested me because they were a smaller school and were able to tailor my education." To make ends meet, she worked as a bus driver while taking classes. More significantly, she also got her first exposure to the world of research, something that galvanized her from the start. "It was just ... addictive. I loved being in the lab and doing experiments." While at Crookston, she did research with **Pamela Elf, PhD**, a biology professor associated with UND, and **Brian Dingmann, PhD**, a microbiologist. She credits the pair as her primary mentoring influence. Armstrong graduated in the newly launched Health Sciences program, with concentrations in both pharmacy and biology.

For her next step, Armstrong took direct aim at something that had fascinated her for years: the drugs that helped those with psychiatric illness. She joined UND's PPT department and, along with primary investigator **L. Keith Henry, PhD**, began doing research on the invisible levers that actually affect mood disorders like depression, obsessive-compulsive disorder, and post-traumatic stress syndrome. Dr. Henry was a specialist in computational modeling, and his work gave Armstrong tantalizing glimpses into the structure of these levers, called neurotransmitter transporters.

As she explains it, the transporters play a crucial role in brain function by regulating the magnitude and duration of signals from one nerve cell to another. Dysfunction of these proteins can be manifested in these debilitating mood disorders making these transporters important clinical targets for pharmacological treatment.


Using software called Rosetta, Henry and Armstrong are able to use

powerful computers to construct three-dimensional representations of transporters and investigate how drugs interact with the models at the atomic level. The Rosetta program can also provide molecular clues as to how mutations found in the transporters of patients or even mutations created in the lab might affect transporter function. However, while Rosetta is cutting-edge technology, it is not perfect, and the results must be backed up by experiments at the lab bench.

The goal of her research? To put it simply, "If researchers understand how these transporters work, they can help make better drugs. What's interesting for me is that I've been at both ends. I've seen people who have disabilities. They take these medications, endure the side effects, and change for better or worse. I've seen first-hand that the drugs have a long ways to go ... for both effectiveness and specificity."

Even so, Armstrong marvels at how far we've come. "What fascinates me about pharmacology is the number of medications that work so well, given how little we know about the actual mechanisms involved. That's what is so exciting: there's just so much potential. Most people don't realize this is a work in progress."

She also credits UND's research department for taking on other degenerative diseases like Alzheimer's. "They study disorders that need medications terribly. I mean, there are just not many effective medications for Alzheimer's. That's a common theme here: we have a lot of potential to do a lot of things."

Even though her experience—and goal-oriented nature—make her a prime candidate for Big Pharma, Armstrong says that she feels a strong local pull. "I love the area; I love the people. I hate to say it, but I actually like the snow. It's what I grew up with as a kid: the ice-fishing, the skiing, and skating." She laughs. "This has just been a huge progression over time." 

- Gary Niemeier

“I enjoy helping people, but the research is just a little more exciting because you never know what will happen. **You get something: what you expect, but always a bit more.**”



You could be the smartest student with the highest scores, **but without people skills,** your patients will suffer.

LaVonne Fox, PhD, OTR/L, assistant professor, Department of Occupational Therapy, promotes a holistic approach to patient care.

360-Degree Worldview

A YOUNGER LAVONNE (POITRA) FOX, PHD '03, picked up a brochure on occupational therapy while taking a health care class in high school, but little did she know she was thumbing through the pages of her future.

"I was intrigued by the idea of working with people as their whole being." This concept of caring for both the physical and psychological needs of patients connected with her on a cultural level, which carried through as she later developed a multicultural course in The University of North Dakota (UND) Department of Occupational Therapy.

Fox hails from the Turtle Mountain Reservation in north-central North Dakota and is the oldest of seven children. At age nine, tragedy struck LaVonne and her

family when her father died in a car accident; his vehicle was struck by another driven by a drunk driver. This left her mother the single parent of seven children, and the statistics were already stacked against her and her family. Rather than contributing to those statistics, however, their mother stressed the importance of education, and five of the children now have college degrees. "My mother is my greatest mentor and role model," Fox said.

Even with her family's support, however, she faced many obstacles. "It wasn't easy, and contrary to popular myths, we do not go to school for free." Fox said she experienced a great deal of discrimination throughout her education.



After earning her AAS degree in OT at North Dakota State College of Science in Wahpeton, Fox obtained her bachelor's degree at UND in OT. She worked for over a year in Dickinson, North Dakota, later returning to Grand Forks, where she worked at UND and at East Grand Forks Technical College as a lecturer. She later began working full time at UND while commuting to St. Catherine University (formerly the College of St. Catherine) in St. Paul, Minnesota, where she obtained her master's degree in OT. Still teaching full time at UND, Fox started working on her PhD in Higher Education and Leadership, which she completed in 2003.

During her sixteen years at UND, Fox has helped develop the OT program while highlighting the importance of multicultural awareness, and she created

and continues to teach a course on the subject: Multicultural Competency in OT. The course is "designed to help students develop an understanding of, and appreciation for, cultural and ethnic diversity," according to the syllabus. "Through self-disclosure, individual experiences, and project presentations, students will gain knowledge of themselves and others in relation to multicultural competency." Moreover, it teaches the concept of therapeutic use of self, and the idea that in order to treat patients without bias, occupational therapists must know themselves.

Fox is passionate about the course and its messages. "The healthcare profession needs to know that they aren't working with only a diagnosis; they are working with a person, and the person should come first."

The course and department as a whole emphasize personal and professional development. Fox explains, "You could be the smartest student with the highest scores, but without people skills, your patients will suffer." Fox has certainly found her place in UND's OT department. "It is an awesome department and professional program, and we work as a team to become stronger professionally and stronger educators."

Since 1997, Fox has been a member of national panels with Multicultural Diverse Networks, a group of educators and professionals that meets to discuss diversity and multicultural awareness. In 2008, Fox was awarded the first-ever Grand Forks ATHENA Young Professional Award, which recognizes women who work toward meaningful contributions to their communities as well as for dedication to their field, all the while serving as leadership role models for other women. One of the major points she emphasizes in her panels and classes is that "everyone is diverse; it isn't just racial." 

- Alexander Cavanaugh



Recent Publications and Presentations

by the Department of Internal Medicine

Rekha Kallamadi, MD, first-year internal medicine resident, had the article "Inferior pancreaticoduodenal artery aneurysm in association with celiac stenosis" published in *Seminars in Interventional Radiology* in September 2009.

At the 47th annual meeting of the Infections Diseases Society of America held in Philadelphia on October 29 through November 1, 2009, **Paul Carson, MD '86**, associate professor of medicine, and **Stephanie Borchardt, PhD**, presented the poster "West Nile Virus seroprevalence and estimated proportion of infections resulting in neuroinvasive disease in North Dakota." **Paul Carson, MD '86**, associate professor medicine; **William Newman, MD, BS Med. '72**, professor and chair of medicine; **Avish Nagpal, MD**, third-year internal medicine resident; and **Jody Thompson, MD '97 (Internal Medicine Residency '00)**, clinical assistant professor of medicine presented the poster "Vancomycin MIC distribution for methicillin-resistant staphylococcus aureus (MRSA) isolates in a community hospital setting as measured by E-test vs. automated reporting."

Stephen Spellman, MD, presented "Overview of colorectal cancer: incidence, mortality, survival rates, and screening guidelines," **Preston Steen, MD**, clinical professor of medicine, presented "Linking improved colorectal cancer outcomes to clinical trials," and **Shelby Terstriep, MD**, clinical assistant professor of medicine, presented

"Support for colorectal cancer survivors" at the Merit Care 2009 Oncology Symposium held in Fargo on October 30, 2009.

Thomas Moraghan, MD '89, presented "Diabetes mellitus: What have patients taught us?" at the MeritCare 2009 Diabetes Symposium held in Fargo on October 20, 2009.

Srikanth Gogineni, MD, third year internal medicine resident, and **Gopal Chemiti, MD**, clinical assistant professor of medicine, were awarded \$250 for their winning poster "Successful treatment of calciphylaxis with sodium thiosulfate" at the North Dakota Chapter of the American College of Physicians meeting held in Grand Forks on September 18, 2009. Also at the meeting, **Nicholas Neumann, MD**, assistant dean, Southwest campus, presented "Asthma and COPD," **Ralph Levitt, MD**, clinical professor of medicine, presented "Screening for cancer," and **Joshua Wynne, MD, MBA, MPH**, interim vice president for health affairs and interim dean, presented "Heart failure"

The following posters were presented at the Frank Low Research Day, which was held in Grand Forks on September 17, 2009.

Purnima Teegavarapu, MD, third-year internal medicine resident, and **William Newman, MD, BS Med. '72**, professor and chair of medicine, presented "Thyroglobulin (TG)I131 scan results in patients with differentiated thyroid cancer"

Mohan Vupadhyayula, MD, second-year internal medicine resident, and **William Newman, MD, BS Med. '72**, professor and chair of medicine, presented "Acute kidney injury (AKI) in hospitalized diabetic patients: assessment with risk, injury, failure, loss, and end-stage renal disease (RIFLE) criteria"

Khandurao Khot, MD, third-year internal medicine resident, and **William Newman, MD, BS Med. '72**, professor and chair of medicine, presented "Confidence intervals and triglyceride data presentation: Is there a difference by calculation technique?"

Prathima Prodduturi, MD, third-year internal medicine resident, and **William Newman, MD, BS Med. '72**, professor and chair of medicine, presented "Hemoglobin alterations associated with androgen deprivation therapy (ADT)"

Stephanie Borchardt, PhD, and **Tze Shien Lo, MD**, associate professor of medicine, presented "Epidemiology of West Nile Virus Disease in the highly epidemic state of North Dakota, 2002-2007"

For more information on any of these publications or presentations, please contact Mary Larson, administrative secretary, Department of Internal Medicine, mlarson@medicine.nodak.edu, 701-239-4136.

Murphy, Rosenberger, Combs and Picklo Reappointed as Editors of *Lipids*



Eric Murphy



Thad Rosenberger



Matthew Picklo



Colin Combs

Four faculty members in the Department of Pharmacology, Physiology, and Therapeutics at The University of North Dakota School of Medicine and Health Sciences were recently reappointed as editors of *Lipids* by the governing board of the American Oil Chemists' Society (AOCS). Founded in 1909, AOCS is an

international scientific society with more than 4,000 members in over 90 countries.

Eric Murphy, PhD, associate professor, was reappointed to a five-year term as editor in chief; **Thad Rosenberger, PhD**, assistant professor, was reappointed as a senior associate editor; and **Colin Combs, PhD**, associate professor, and **Matthew Picklo, PhD**, adjunct associate professor, were reappointed as associate editors.

Lipids focuses on publishing high-quality, peer-reviewed papers and invited reviews in the general area of lipid research, including chemistry, biochemistry, clinical nutrition and metabolism. In addition, *Lipids* publishes papers establishing novel methods for addressing research questions in the field of lipid research.

Ghribi and Geiger Appointed as Editors of the "Journal of Alzheimer's Disease"



Othman Ghribi



Jonathan Geiger

Othman Ghribi, PhD, assistant professor in the Department of Pharmacology, Physiology, and Therapeutics at The University of North Dakota School of

Medicine and Health Sciences, was named a senior editor for the Journal of Alzheimer's Disease (JAD). **Jonathan Geiger, PhD**, Chester Fritz Distinguished Professor and chair of the Department of Pharmacology, Physiology, and Therapeutics, has been named a handling associate editor for the JAD.

Ghribi and Geiger were selected based on their acts of service for the JAD: publishing articles, book reviews, commentaries, or guest editing special issues.

The JAD is an international multidisciplinary journal with a mission to facilitate progress in understanding the etiology, pathogenesis, epidemiology, genetics, behavior, treatment, and psychology of Alzheimer's disease. Drawing from worldwide resources, the JAD aims to bring to the forefront the latest in Alzheimer's disease research.

Spencer named National Rural Health Association Fellow



Kathleen Spencer

The National Rural Health Association (NRHA) named **Kathleen Spencer**, an information specialist in the Rural Assistance Center at The University of North Dakota Center for Rural Health, as a 2010 Rural Health Fellow. After the completion of a competitive review process, seven fellows were selected to participate in this yearlong, intensive program aimed at developing leaders who can articulate a clear and compelling vision for rural America.

"We are very pleased to announce this new class of fellows as this program enters its fourth year. Once again, this class represents various levels of rural health care expertise. With the successes achieved by the previous three classes, we look forward to continuing the tradition of building rural health care leaders through this valuable program," said Alan Morgan, NRHA CEO. Fellows will gain valuable insights and build critical skills in three primary domains: (1) personal, team, and organizational leadership; (2) health policy analysis and advocacy; and (3) National Rural Health Association governance and structure.

The University of North Dakota School of Medicine and Health Sciences is the home for the Rural Assistance Center, which is a collaboration of The University of North Dakota Center for Rural Health, the Rural Policy Research Institute and the federal Office of Rural Health Policy at the U.S. Department of Health and Human Services. Funding comes from ORHP and stems from the U.S. Department of Health and Human Services' Rural Initiative, which seeks to create a more integrative framework for the Department's rural portfolio—a portfolio including some 225 programs.

WEB EXCLUSIVE:

For see a complete list of 2010 Rural Health Fellows, visit: www.ndmedicine.org



Rural hospitals receive grants through UND Center for Rural Health program

Fifteen rural North Dakota communities will benefit from grants provided to rural hospitals through the North Dakota Medicare Rural Hospital Flexibility (Flex) Program administered through the Center for Rural Health (CRH) at The University of North Dakota School of Medicine and Health Sciences.

This year the North Dakota Flex Program distributed approximately \$269,000 through 20 grants to help rural hospitals across the state improve emergency services, purchase diagnostic equipment, train staff and volunteers, educate community members, update health information systems, and improve the delivery of health care. Some hospitals will use the funds, for example, to provide critical training to emergency services staff and volunteers, purchase new equipment for emergency pediatric care or diagnostic scanners, enhance cardiac rehabilitation, conduct health screenings, educate students about health careers, or develop plans to upgrade facilities.

The North Dakota Flex Program, funded through a grant from the federal Office of Rural Health Policy (Health Resources and Services Administration), is a state-based partnership that works with and assists rural hospitals to stabilize and sustain their local health care infrastructure. In addition to grants, the CRH also uses North Dakota Flex Program funds to provide technical assistance to rural providers for community assessments, staff surveys, and strategic planning.

The CRH administers the North Dakota Flex Program, which also includes formal partnerships with the North Dakota Department of Health, the North Dakota Healthcare Review, Inc., and the North Dakota Healthcare Association.

WEB EXCLUSIVE:

To find out which facilities received grants from the Flex Program, visit: www.ndmedicine.org



Amundson garners two board appointments

Mary Amundson, MA, assistant professor at The University of North Dakota School of Medicine and Health Sciences, was elected to serve as a member of the Program Directors Constituency Group for the National Area Health Education Center (NAO) at their annual meeting November 4–6 in Washington, DC. NAO is the national organization that supports and advances the Area Health Education Center network that works to improve the health of individuals and communities by transforming health care through education.



Mary Amundson

On December 14, Amundson was appointed to serve on the board of director's for the new Essentia Institute of Rural Health, which will begin work on January 1, 2010. Headquartered in Duluth, Minn., the institute is affiliated with SMDC Health System, Innovis Health and Essentia Community Hospitals and Clinics and is a multi-state, not-for-profit health care system. Essentia Health is a leader in the development and advancement of business and clinical models for regional health care delivery. Essentia Health's strengths are in physician group practice, acute care delivery, and rural and critical access hospitals.

Unique UND–Casper College partnership seeks to ease the pain of arthritis

"The best remedy for arthritis is to stay active, exercise, and keep moving," according to occupational therapist **Carla Wilhite**, professor at The University of North Dakota–Casper College Master of Occupational Therapy Program. However, there are many simple devices and daily living aids that can ease some of the pain of arthritis, as well as conserve energy and protect joints during activity, says Wilhite.

On October 1, 2009, the Wyoming Assistive Technology Resources Program at the University of Wyoming's Wyoming Institute for Disabilities and Casper's University of North Dakota Student Occupational Therapy Association collaborated in opening an assistive technology and device demonstration center, with a technology demonstration changing every six weeks.

Funding, program support and devices are provided by Wyoming Assistive Technology Resources. The assistive technology and device demonstration center will be open each week from 4:00 p.m. to 6 p.m. Occupational therapy students will be available to demonstrate the devices, assist people who try the devices and give information about where the devices can be obtained. The program does not sell devices or represent sellers or vendors.

Since 2005, Wyoming Assistive Technology Resource's aim has been to increase access to and acquisition of assistive technology that helps increase the capability and independence of people who live with conditions of disability.

The University of North Dakota at Casper College Occupational Therapy Program has been in existence for 16 years and represents a unique partnership between Casper College and The University of North Dakota to provide graduate education in occupational therapy.

UND School of Medicine and National Allies Educate Future Physicians in Fight to Stem Substance Abuse

The rigors of medical training sharpen a doctor's ability to diagnose and treat a wide variety of human afflictions. However, drug abuse and addiction are often insufficiently covered in medical school curricula, despite the fact that drug use affects a wide range of health conditions and drug abuse and addiction are themselves major public health issues.

To improve drug abuse and addiction training of future physicians, the National Institute on Drug Abuse (NIDA), part of the National Institutes of Health, today unveiled a series of new teaching tools, through its Centers of Excellence for Physician Information Program (NIDA CoEs), at the Association of American Medical Colleges 2009 Annual Meeting's "Innovations in Medical Education" Exhibit in Boston.

The NIDA CoE program was created through a partnership with the American Medical Association's medical education research collaborative, Innovative Strategies for Transforming the Education of Physicians and includes The University of North Dakota School of Medicine and Health Sciences, University of Massachusetts Medical School, Tufts University School of Medicine, Boston University School of Medicine, the Harvard Medical School/Cambridge Health Alliance, Creighton University School of Medicine, the University of Pennsylvania School of Medicine and Drexel University College of Medicine.

"Physicians can be the first line of defense against substance abuse and addiction, but they need the resources and the training," said NIDA Director Dr. Nora D. Volkow. "Our long-term goal is for doctors to incorporate screening for drug use into routine practice like they currently screen for other diseases; to help patients that are abusing to stop; and to refer more serious cases to specialized treatment."

For example, several CoE resources address prescription drug abuse among chronic pain patients, which presents special issues for physicians, who must balance adequate treatment with the risks of addiction.

"Our goal is to improve the quality of pain treatment and the safety of prescribing opioids by increasing the knowledge and skills of medical providers early in the educational process," emphasized Dr. Jeffrey Baxter of the University of Massachusetts Medical School, developer of one of the CoE resources.

By pairing substance abuse expertise with innovations in medical education, these curriculum adjuncts can enhance substance abuse medical education, help to remove the stigma associated with substance abuse, and ultimately improve patient care. The NIDA CoE program is part of NIDAMED—NIDA's ongoing commitment to the medical community to provide scientifically accurate and useful resources for addressing substance abuse in their patients. NIDAMED offers a variety of tools, including an online interactive screening tool to help doctors accurately assess their patient's substance use.

Lacher and Hostetter Attend Statewide Diabetes Summit at United Tribes

The Dakota Diabetes Coalition's annual Diabetes Summit was held October 16, 2009, on the campus of Bismarck's United Tribes Technical College, which cosponsored the event.

Participating in the conference were **Brenda Lacher, RN**, diabetes education coordinator at The University of North Dakota (UND) Center for Family Medicine—Bismarck, UND Southwest Campus, and **Nancy Hostetter**, UND School of Medicine



Brenda Lacher



Nancy Hostetter

and Health Sciences, continuing medical education and outreach coordinator in Bismarck. The Coalition has more than 100 members across North Dakota. The daylong gathering brought together people with a variety of backgrounds from around the state. The theme of this year's Summit was "What Works in Diabetes." Conference participants worked on the North Dakota Department of Health's state plan for diabetes and discussed important issues and the best ways to reduce North Dakota's diabetes epidemic.

WEB EXCLUSIVE:

For more information on the coalition, visit:

www.ndmedicine.org



7th Annual American Indian Health Research Conference Focused on Health Care Reform

The 7th Annual American Indian Health Research Conference was held Friday, October 23, 2009, at the Canad Inns Hotel and Destination Center in Grand Forks. In addition to offering opportunities for researchers, students and community members to discuss research directions, partnerships and collaboration in health research focusing on American Indians, the conference featured distinguished speaker Leo Nolan.

Nolan currently serves as Senior Policy Analyst for External Affairs at the Indian Health Service in Rockville, Maryland. He has been with the Indian Health Service in various capacities since 1986 and is well-versed in issues facing American Indians, especially in the realm of health care. His keynote address, "Health Care Reform and Indian Country," was followed by an interactive discussion with participants.

Along with sessions focusing on health risk and health promotion among Native American communities, numerous posters and exhibits were on display.

The 7th Annual American Indian Health Research Conference was sponsored by The University of North Dakota Center for Rural Health, American Indian Programs Council, School of Medicine and Health Sciences Dean's Office, School of Medicine and Health Sciences Associate Dean of Research, and Vice President of Research and Economic Development.



Markland Wins 2009 Distinguished Librarian of the Year Award

Mary Markland, librarian for the Southeast Clinical Campus of The University of North Dakota School of Medicine and Health Sciences in Fargo,



Mary Markland

N.D., won the 2009 Distinguished Librarian of the Year Award from the Midwest Chapter of the Medical Library Association (MLA) at its annual conference on October 5 in Columbus, Ohio.

In granting the award, the chapter recognizes Markland's outstanding professional contributions to health sciences librarianship and the chapter. Criteria used to evaluate Markland included leadership, advocacy, scholarship, research, publications, presentations, teaching, training, mentoring, outreach, professional activities, and meaningful and measurable service to the chapter.

The purposes of the Midwest Chapter are to stimulate and foster interest in health sciences libraries and librarianship; increase the knowledge of its members by sponsoring educational programs and courses; encourage development of and cooperation among health sciences libraries; provide a forum for the exchange of ideas and the discussion of mutual problems and concerns; and acquaint persons interested in health sciences libraries and librarianship with the MLA. The Midwest Chapter includes the states of Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, North Dakota, Ohio and Wisconsin.

Markland just finished a three-year commitment as president-elect, president and immediate past president of the Midwest Chapter.

Medical Students' Clinical Research Projects Presented and Published

Fourth-year medical students **Miran Blanchard**, **Kelsey Hoffman** and **Justin LeBlanc** presented their abstract, "The Association of Distance from Cancer Center and Season of Diagnosis with Receipt of Optimal Therapy for Breast Cancer," at the American Society of Clinical Oncology (ASCO) Conference held in San Francisco, Calif., on October 8–10, 2009.

Through their research, the students found that distance from cancer center has a detrimental effect on the receipt of optimal breast cancer radiotherapy and chemotherapy. In addition, diagnosis during the fall and winter season has a detrimental effect on optimal receipt of radiotherapy. A physician's choice of therapy may play a role in suboptimal pursuit of radiotherapy.

"ASCO is the world's leading professional organization representing physicians who treat people with cancer," said **Abe Sahnoun, PhD**, assistant professor, internal medicine, at The University of North Dakota (UND) School of Medicine and Health Sciences' Medical Education Center in Fargo, N.D.

On September 10–11, Blanchard was the only UND medical student who, along with six doctors from the Mayo Clinic, presented an abstract at the Neuro-Oncology 2009: Current Concepts Conference in Cleveland, Ohio: "Intracranial Non-Germinomatous Germ Cell Tumors: An

Update of a Prospective Institutional Protocol with Comparison of Local Radiotherapy to Extensive Radiotherapy." The research, conducted at the Mayo Clinic, found that children receiving more local radiation had similar survival outcomes as those who received more extensive radiation for intracranial non-germinomatous germ cell tumors except in a subset of patients with elevated levels of alpha-fetoprotein in their cerebrospinal fluid. It also found that those with spinal recurrence usually had elevated alpha-fetoprotein levels in the cerebrospinal fluid at their original diagnosis.

Fourth-year medical students **Erica Martin**, **Megan Miller**, and **Lacey Krebsbach** had their paper "Serum calcium levels are elevated among women with untreated postmenopausal breast cancer" recently accepted for publication in *Cancer Causes and Control*, a highly visible journal in cancer epidemiology. The research, conducted at MeritCare Hospital, found a small, but significantly higher mean serum calcium level among postmenopausal Caucasian women with newly diagnosed, untreated breast cancer. These findings are consistent with an effect of early breast tumors on calcium homeostasis. The lack of association between serum calcium levels and tumor size or stage supports the hypothesis that subclinical hyperparathyroidism may increase the risk for breast cancer.

"There are only few medical students in this country who complete a clinical research project during their third year and have it presented at a prestigious conference and publish in specialized journals," said Dr. Sahnoun.

"We should expect The UND medical education program to continue to produce high caliber doctors in the future."

Uriell Receives AmeriCorps Education Award

Matthew Uriell, a first-year medical student from Lakota, N.D., received a \$4,725 AmeriCorps Education Award for his work in AmeriCorps' City Year program. Uriell completed 1,700 hours of volunteer work, from September 2008 to June 2009, tutoring a 2nd-grade class in the Washington, D.C., public school system.

"What I remember best from my year was the extraordinary improvements made by some of the students in my class," said Uriell.

AmeriCorps is a program that supports the engagement of nearly 75,000 Americans in service to meet critical needs in education, the environment, public safety, homeland security, and other areas of community need.

"A couple of the students I worked with consistently made literacy jumps of almost two grades, and others made significant improvements, bringing them to or closer to grade level. Considering that approximately only one in five students in my class were at or above grade level at the start of the year, I felt our efforts were substantial," he said.

'00s



Ann Hoff, MD '06

Ann Hoff, MD '06, has joined Trinity Medical Group's Emergency/Trauma Center in Minot, N. Dak. A Bismarck native, Dr. Hoff joins Trinity's team as an emergency physician. Hoff completed her residency training in emergency medicine at the Mayo School of Graduate Medical Education in Rochester, Minn. She has conducted considerable research into the best methods for treating stroke in an emergency department setting. Dr. Hoff is certified in advanced trauma, cardiac, and pediatric life support, as well as the fundamentals of critical care surgery. She is a member of the American College of Emergency Physicians.

Nell Suby, MD '06, is currently at Maine Medical Center in Portland in the ObGyn residency program. She also matched in a Gynecologic Oncology Fellowship at the University of California–Davis in Sacramento.

Laura Lizakowski,
MD '05

Laura Lizakowski, MD '05, has joined Altru Health Systems in Grand Forks as a hospitalist and palliative medicine physician. Dr. Lizakowski completed her internship and residency in internal medicine as well as her fellowship in palliative medicine at the Marshfield Clinic in Marshfield, Wis.

Todd Officer,
MD '04

Todd Officer, MD '04, has joined the family medicine department at Innovis Health in Park Rapids, Minn.

John Moore, MD '03, has joined the Medical Associates Clinic West Campus in Dubuque, Iowa, as an allergy physician specializing in the treatment of respiratory allergies, including hay fever and asthma, as well as illnesses caused by allergic reactions. He completed an internal medicine residency at Penn State College of Medicine, and acquired fellowship training in allergy and immunology at the University of Iowa Hospitals and Clinics. He is board-certified in internal medicine.



Deb Geier, MD '01

Deb Geier, MD '01 (Family Practice Residency '04), has joined MeritCare Jamestown, N. Dak., as an internal medicine specialist. At MeritCare, Geier diagnoses and treats adults with a wide range of medical problems. She completed her residency at the Fargo Residency Program. Before joining MeritCare, Geier practiced at Medcenter One in Jamestown.

Byron Velander,
MD '00

Byron Velander, MD '00, has joined Aurora Clinic in Grand Forks. A rural Mandan native, Dr. Velander completed his residency at the University of Illinois College of Medicine at Peoria. His specialties are internal medicine and pediatrics, and he enjoys focusing on the care of adults and children. Dr. Velander practiced in Chicago area hospitals for five years, specifically internal medicine, critical care, and neonatal care.

Heather Tvedt
Davis, MD '00

Heather Tvedt Davis, MD '00, has returned to Trinity Medical Group's pediatric team. Dr. Davis completed her residency in pediatrics at Phoenix Children's Hospital/Maricopa Medical Center in Arizona. She's been serving pediatric patients at River Falls Medical Clinic in western Wisconsin for the past three years. She's a member of the American Academy of Pediatrics.

'90s



Valerie Fox, MD '97

Valerie Fox, MD '97, has joined the Bemidji, Minnesota MeritCare Clinic's family medicine team. Before joining MeritCare, she practiced at the Oshkii Manidoo Center in Bemidji.



Demaris Fitzpatrick, PA-C '96

Demaris Fitzpatrick, PA-C '96, has joined Trinity Medical Group as a primary care provider at Health Center-Medical Arts in Minot. She provides a broad range of health care services to people of all ages, including diagnosis and treatment of acute illnesses, infections, and injuries, treating chronic diseases such as diabetes and high blood pressure, prescribing appropriate medications, and educating patients on self-care skills and lifestyle changes to prevent disease. Fitzpatrick practiced at Trinity Community Clinic in Velva, N. Dak., for 13 years.



RaNae Doll, MD '92

RaNae Doll, MD '92, has joined Innovis Health's pediatric department at its clinic in Park Rapids, Minn. She also provides consultative services in internal medicine.



David Carlson, MD '91

David Carlson, MD '91, was presented an award recognizing the Fargo Department of Veterans Affairs Medical Center for its outstanding achievement in service for homeless veterans. Carlson is the director of the Fargo Veterans Affairs Mental Health Service Line. Veterans Affairs Secretary Eric Shinseki presented the award to Carlson at a summit meeting on the homeless in Washington, D.C.



Chuck Breen, MD '90

Chuck Breen, MD '90 (Family Practice Residency '93), has been chosen to be the senior vice president for regional physicians and clinics for Sanford Health-MeritCare. He will also be the chief medical officer for the MeritCare Health Network in North Dakota and Minnesota.

'80s



Craig Lambrecht, MD '87

Craig Lambrecht, MD '87, has been selected as Medcenter One's new president and CEO. Dr. Lambrecht was Medcenter One's chief operating officer. A native of Wishek, N. Dak., Dr. Lambrecht has worked for Medcenter One for 18 years. Dr. Lambrecht has three business and management master's degrees, is a member of the American College of Healthcare Executives and has served in leadership positions with the N. Dak. National Guard for 26 years, including medical commander. He also serves as state surgeon. Dr. Lambrecht will be the first physician to serve as president and CEO of an integrated health system in Bismarck.



Brenda Norby, FNP '84

Brenda Norby, FNP '84, has joined the family medicine department at Innovis Health in Park Rapids, Minn. She previously practiced in Windom, Minn., for 19 years.

'70s

Gregory Peterson, BS Med '79, recently attended the North American Spine Society (NASS) annual meeting. NASS is a multidisciplinary medical organization dedicated to fostering the highest quality, evidence-based, and ethical spine care. The annual meeting promoted new spine-related education, research, and advocacy. Dr. Peterson is a physical medicine and rehabilitation physician at Medcenter One. NASS has more than 5,000 members from several disciplines, including orthopedic surgery, neurosurgery, physiatry, neurology, radiology, anesthesiology, research, physical therapy, and other spine care professions.

'70s



Rup Nagala, FP Res
'78

Rup Nagala, MD (Family Practice Residency '78), has received his board certification in the specialty of phlebology. This certification comes from the American Board of Phlebology, which is an independent, non-profit organization founded in 2007 for the purpose of certifying physicians who have met a defined standard of education, training, and knowledge. He is also board certified in family practice, geriatrics, and sports medicine. Dr. Nagala is the founder and physician of the Southeast Medical Center in Oakes, N. Dak., and had recently donated his time and attention to helping the medically disadvantaged people of Honduras while continuing his work in phlebology under the auspices of the Hackett Hemwall Foundation of Madison, Wisc.



Timothy Mahoney,
BS Med '73

Timothy Mahoney, BS Med '73, has received the North Dakota Medical Association's 2009 Physician Community and Professional Services Award, recognizing his professional and community work spanning over 35 years in North Dakota. He practices medicine at Innovis Health in Fargo, and is the chief medical officer for divisions and strategy. He also played an instrumental role this past year as deputy mayor in the flood fight in Fargo. Mahoney also serves on the Fargo Economic Development Board, Fargo Family HealthCare Center Board of Directors and Finance Committee, the board of Fargo-Cass County Public Health, the Greater Fargo Moorhead Economic Development Commission, Fargo-Moorhead Metropolitan Council of Governments, Metropolitan Flood Management Work Group, and the Fargo Native American Commission.

Maurice Wicklund, BS Med. '41, of Canton, Mich., died Saturday, September 19, at Arbor Hospice in Ann Arbor, Mich. He was 94.

He was born May 25, 1915, in Williston, N. Dak., the son of H. E. "Ed" Wicklund and Blanche Decker. He married Charlotte Montgomery on November 14, 1942, in Montreal, Quebec. She died November 6, 1970. He then married Waneta Christiansen on May 6, 1972. She died in October 1991. He married Betty Jane on July 17, 1993, in Waterloo. They moved to Canton, in July of 2005.

Dr. Wicklund obtained his undergraduate degree from The University of North Dakota in 1941. He then enrolled at McGill University in Montreal and graduated as a Medical Doctor Master of Surgery in 1943. He was ordered to active duty in the United States Army on December 28, 1943 and later assigned as a neuropsychiatrist with the 82nd Field Hospital during the battle of Okinawa. Dr. Wicklund was awarded the Asiatic Pacific Service Medal with one Bronze Star, the American Theater Service Medal, and the World War II Victory Medal. After active duty, he was commissioned in the Army Reserves. He completed his residency in radiology at St. Vincent's Hospital, Erie, Pa., and earned a Doctor of Radiology degree from the University of Pennsylvania on July 19, 1949. Dr. Wicklund retired in 1950 as a major from the Army Reserves. He subsequently moved to Waterloo and practiced at Allen Hospital until his retirement in 1981.

He is survived by his wife, Betty Jane; his daughters, Sandra Miller of Canton, Mich., and Deborah Williams (Charles) of Minneapolis, Minn.; his sons, Dr. Brian Wicklund (Dr. Dale Jarka) of Kansas City, Mo. and Bill Miller (Shirley) of Phoenix, Ariz.; daughter-in-law, Benjawan Miller of Oxford, Mich.; nine grandchildren; three great grandchildren; brother-in-law, Wesley Larsen of Oak Harbor, Wash.; brother and sister-in-law, Richard and Marge Bartrop of Cerro Gordo, N. Car.; numerous nieces and nephews; and his loved Westie, Gussie.

He was preceded in death by his father and mother; his sisters, Elaine Larsen and Joanne Evans; his brother, Donald Wicklund; and his son, Randall R. Miller.

Neil Macdonald, BS Med. '44, died Nov. 17, 2009, after a short illness. He was 89 and a resident of Sheyenne Care Center.

He was one of four children born to Dr. A. C. and Mabel Macdonald. Following high school, Neil pursued an undergraduate degree from The University of North Dakota. He then went on to play two years of semipro hockey before going to medical school at the University of Illinois, Chicago. Upon completing medical school, the next two years were dedicated to active duty in the Army, stationed at Heidelberg, Germany. As a veteran of World War II, Neil was awarded numerous medals including the Victory and Good Conduct medals. The end of active duty turned into 40 years of service with the Army National Guard where he retired as a colonel, and he was able to begin his medical practice, which included many years of sharing a clinic with his father, Dr. A. C. Macdonald. His years of serving as a physician and surgeon between 1949 and 1987 included

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house calls, numerous years as Barnes County coroner, eight years on the North Dakota Board of Medical Examiners, and on the Board of Directors for BlueCross Blue Shield.

Neil is survived by two daughters, Loree (Scott) Macintosh and Jodee (Keith) Gruebele, along with five grandchildren: Tark Katzenmeyer, Kelsee Macintosh, Daniel (Erica) Macintosh, Alexander Server, and Ryan Server. He is also survived by a sister, M. J. Scott; one sister-in-law, Geraldine (Lee) Frost; and numerous nieces and nephews and their children.

He is preceded in death by his mother, father, and his wife, Betty (Rutherford), to whom he was married for 63 years.

Virginia “Ginny” Larson, BSOT ‘67, died Saturday, September 26, 2009 at the age of 64.

Virginia “Ginny” Larson was raised on a farm near Royal, Iowa, by her parents, Loren and Mary Maxine Kruse. She was a graduate of The University of North Dakota with a Bachelor of Science in Occupational Therapy. This profession was practiced until her children were born. Raising her family then became her career. Ginny also had a passion for cooking, and she recently fulfilled her dream and published a cookbook titled *Ginny’s Kitchen: A Collection of Family Recipes and Personal Favorites*.

She is survived by her husband, Lyle Larson; her three children, Brent (Tiffany) Larson of Chandler, Ariz., Alicia (Jeremy) High of Bloomington, Ill., and Kimberly (Marshall) Meyer of Phoenix, Ariz.; two grandchildren, Kendall and Alex Larson; and two sisters and three brothers.

Warren Jensen, BS Med. ‘52, of Hazen, N. Dak., died Saturday, Oct. 17, 2009, at his home surrounded by his family. He was 80. He was buried at the North Dakota Veterans Cemetery in rural Mandan, N. Dak.

Warren Robert Jensen was born May 31, 1929, to Nels Peter and Sophia Ann Marie Jensen. On June 2, 1948, Warren and Betty Lou Kruckenberg were married. He attended Bismarck State College and graduated with an Associate of Arts in Biology. Warren received his Bachelor of Science in Bacteriology from North Dakota State University. He attended The University of North Dakota School of Medicine and Health Sciences, graduating with top honors in pathology. He transferred to Northwestern University Medical School in Chicago, Ill. Warren graduated and enlisted in the U.S. Army.

His surgical residency was taken in Fargo, at the St. Luke’s Hospital. After finishing his residency, he and his family moved to Valley City where he practiced medicine for 34 years. He served as public health doctor, chief of staff, chair of United Way, and as a board member to the ARC of Valley City and Kiwanis Club.

Warren is survived by his wife, Betty Lou Jensen; children, Jan (Tom) Moore, Wahpeton, N. Dak., Jill (Hans) Kandel, Moorhead, Minn., and Gaylen (Pam) Jensen, Hazen; eight grandchildren, Anna, Kristina, Jessie (Jacob), Joren (Jill), Jedidah, McKayla, Benjamin, and Anneke; and siblings

David (Ruby) Jensen, Grace (Lyle) Benz, and Hilda Jensen.

He was preceded in death by his parents and seven siblings: Kenneth, Curtis, Raymond, Forrest, Orrie, Neal, and John.

Elaine Barth VanDeVoorde, MD ‘88, of Rochester, Minn., died unexpectedly Monday, Oct. 26, 2009 at the age of 47.

Elaine Marie Barth was born on Nov. 2, 1961, in Buffalo, N.Y., to Dr. Eric and Phyllis (Byrnes) Barth. In June 3, 1989, she married Bob VanDeVoorde in Fargo, N. Dak. Mr. VanDeVoorde is a project manager at IBM Rochester.

Elaine was a graduate of the University of Notre Dame in 1984 and received her medical degree from The University of North Dakota School of Medicine and Health Sciences in Grand Forks in 1988. She completed her residency in psychiatry at the Mayo Clinic in Rochester, Minn., and worked as a psychiatrist and medical director at Zumbro Valley Mental Health Center for many years.

Elaine’s love for children and passion for teaching young people led her to leave the medical profession to pursue and obtain her teaching degree. She worked with students at St. Francis Catholic School in Rochester for a number of years and served her community as a cantor at Resurrection Catholic church for 20 years.

She is survived by her husband, Bob; three children, Kathleen, age 17, Megan, age 16, and Michael, age 14, all at home; parents, Dr. Eric and Phyllis Barth of Park Rapids, Minn.; five siblings, Lisa (Dan) Polachek of St. Paul, Minn.; Eric Barth of Anoka, Minn.; Robert Barth of Kansas City, Mo.; William (Nicole) Barth of St. Paul; and Colleen (Kevin) Vanderkolk of Pewaukee, Wis.; and 16 nieces and nephews.

Timothy Rogler-Brown, MD ‘93, died on November 13, 2009. He was an emergency room physician at Kenedy Hospital in Kenedy, Texas. He is survived by his two children, Charles and Briana Rogler-Brown. He will be remembered as a loving father and a grateful alumnus of The University of North Dakota School of Medicine and Health Sciences.

Amy Lind of Grand Forks died Wednesday, October 28, 2009, in Valley Memorial Homes Eldercare Center, Grand Forks at the age of 92. Amy Lind was born January 22, 1917 at the farm home of Charles and Agnes (Naseth) Lind, 12 miles north of Melville, Saskatchewan, Canada. In 1936, she earned her teacher’s certificate at Teacher’s College, Regina, Saskatchewan. She taught school in Saskatchewan for five years, and attended summer school at the University of Saskatchewan.

In 1941, Amy was in the second group of women who enlisted in the Royal Canadian Air Force, and in the second group to train as aircraft recognition instructors. She graduated with the rank of Sergeant and was posted to training schools in Manitoba, Saskatchewan, and Alberta, where she taught air crews. Amy attended the University of Toronto from 1945 to 1947, receiving her diploma in occupational therapy. She continued her education at McMaster

University, Hamilton, Ontario, to complete requirements for her BA. She was employed as director of Occupational Therapy at Mountain Sanatorium in Hamilton until 1955.

In 1955, Amy was employed by Saskatchewan Psychiatric Services as consultant in occupational therapy. In January 1957, she became chair of the recently established Department of Occupational Therapy at The University of North Dakota in Grand Forks. She retired in 1981 with the rank of Professor Emeritus, Occupational Therapy, at The University of North Dakota School of Medicine and Health Sciences. She was a volunteer at United and later Altru Hospital in Grand Forks for many years. She was an active member of the First Presbyterian Church, especially in mission activities. She enjoyed traveling, gardening, handicrafts, and reading.

She is survived by relatives in Melville, Saskatchewan, and other parts of Canada.

Michal Buscemi, MD, surgery professor at The University of North Dakota School of Medicine and Health Sciences, died Oct. 22, 2009 at the age of 75.

Michael Frank Buscemi was born Sept. 6, 1934, in Belleville, New Jersey. He graduated from Belleville High School in 1952, Georgetown University cum laude in 1957, and George Washington University School of Medicine in 1962. He studied one year, from 1957 to 1958, as a physiology major at the Columbia University College of Physicians and Surgeons in New York City. He interned at St. Vincent's Medical Center, also in New York City. He did his surgical and urology residency at Mayo Clinic in Rochester, Minn. He served as a lieutenant commander in the U.S. Navy stationed at the U.S. Naval Hospital at Camp Lejeune in N. C. from 1966 to 1968.

He married Ruth Eileen DeJongh in Rochester, Minn. in October 1969, where their daughter, Michele Marie, was born.

He practiced medicine at the Quain and Ramstad Clinic, where he was elected to the board of directors from 1984 through 1986. He performed most of his surgical procedures at Medcenter One hospital, where he was elected chief of staff for the years 1988 to 1990.

While in practice, he lectured medical students and residents as a clinical associate professor of surgery for The University of North Dakota School of Medicine and Health Sciences. He served as editor in chief of a quarterly clinical journal titled *Reports of the Q&R Clinic*.

He is survived by his daughter, Michele (Michael) Schwalbe, and grandchildren Will and Allison Schwalbe, all in Andover, Minn. He is also survived by his brother, Mario (Hank Sadof), New York City; and his sister, Angeline (Alexander) Taglione, Bloomfield, N. J.

He was preceded in death by his parents, Salvatore and Nancy; and his wife, Ruth.

Gene A. Homandberg, PhD, chair of the Department of Biochemistry and Molecular Biology at The University of North Dakota (UND) School of Medicine and Health Sciences, passed away in Grand Forks Monday, December 21, 2009 at the age of 59.

Homandberg has held the respected William Cornatzer Chair in Biochemistry at UND since his appointment as professor and chair in 2002. He was a highly recognized researcher in osteoarthritis and cartilage physiology. In recognition of his work, he was bestowed the Dr. Ralph and Marian C. Falk Professor of Biochemistry endowed chair for six years at Rush Medical College in Chicago before his appointment at UND. In 1999, Homandberg was awarded permanent membership in the Frontiers in Bioscience Society of Scientists, based on his work in the regulation of cartilage metabolism in osteoarthritis.

An Iowa native, Homandberg pursued his education at the University of South Dakota where he earned his B.S. in Chemistry and a PhD in Biochemistry. He served as a postdoctoral research associate in the Department of Chemistry, Division of Biochemistry, at Purdue University, and later took advanced training as a postdoctoral fellow at the National Institutes of Health Laboratory of Chemical Biology in the National Institute of Arthritis, Metabolic and Digestive Disorders, Bethesda, Md.

Homandberg was a member of the American Society of Biological Chemistry and Molecular Biology, the Orthopedic Research Society, the Osteoarthritis Research Society and the American Cancer Society among others. He has written more than 75 research journal articles in addition to invited reviews and book chapters; reviewed manuscripts for prestigious journals and applications to a variety of federal and private funding organizations; and mentored six PhD students and numerous undergraduates and medical students.

His favorite hobbies were hiking, biking, rock climbing, photography, camping, and all things outdoors. He also enjoyed technology and applying it to everything that he did.

Homandberg is survived by his mother, Darleen Homandberg of Sioux Falls, S.D.; four sisters including Becky Richeal (Ron) of Oregon, Wis.; Vicky Gannon of Sioux Falls, S.D.; Connie Homandberg of Sioux Falls, S.D.; and Mary Summey (Todd) of Lennox, S.D.. He is also survived by one brother, Al Homandberg (Beth) of Four Seasons, Mo.

The family requests that memorials be directed to either the American Cancer Society or to The University of North Dakota Foundation—Cornatzer Endowment, 3100 University Ave. Stop 8157 Grand Forks, ND 58202-8157, (800) 543-8764 or (701) 777-2611.



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UNIVERSITY OF NORTH DAKOTA
FOUNDATION



Every week a group of medical students, faculty, and friends take to the ice and engage in mildly competitive games of hockey. **Pat Carr**, who organizes the extracurricular activity, insists that all skill levels are welcome to the team. "It is as 'laid back' as hockey gets," Carr commented. "The team is meant to provide a source of healthful recreation for students that won't interfere with their studies, and the competition is friendly. We hope this also demonstrates and models that fitness and recreation are part of a well-rounded life and such healthful interests can, and should, be pursued as a lifelong habit." Players come and go from the team, and since its conception, there have been

around 100 people participating. "It is in a continual state of flux," Carr concluded. "The only constant is that we have fun."

Team Roster: Pat Carr, faculty; James Foster, faculty; Eric Murphy, faculty; Jon Jackson, faculty; John Vitton, faculty; Mark Christensen, faculty and physician at Student Health; Dave Relling, faculty; Stacy Roers, resident physician at the Family Practice Center; Chris Irmen, student; Mark Antonenko, pilot; David Antonenko, faculty and Altru physician; Jeff Geddes, alumnus & Altru physician; Sergei Kulikov, faculty; Rob Marshall, student; Seth Malikse, student; Justin Mauch, student; Tom Miskavige, student; Josh Pohlman, student; Nick Adams, student; Chris Adams, student; Amanda Dhuyvetter, Nick Harris, student; Mark Detwiller, student; Lance Doeden, student; Eric Schommer, student; Jess Belling, student; Eric Ragland, student; Alex Thompson, student; Ashok Jethwa, student; Josh Maliske, student; Will Longhurst, student; Grant Seeger, alumnus and Altru physician.

The UND School of Medicine and Health Sciences' Student Council members sponsored a Holiday Giving Tree to gather Christmas gifts for the less fortunate in the Grand Forks community.

"This project is an excellent opportunity to brighten the holidays for children and seniors," said **Virginia Keaveny**, a first-year medical student and student council secretary. The project was organized by the Student Council through Northeast Human Services, and involved a Christmas tree with tags attached listing the recipient's age, gender, and gift suggestion.

This was the 11th year that the student council has participated; the project began in 1998 when **Soon Bahrami**, who is now a pathologist, was the student council president.

The participating seniors are in the Foster Grandparent program, which is for low-income elderly in the community to volunteer at local schools and preschools.

"The turnout has been great," Keaveny commented. Over 50 tags were spoken for.



Judy Johnson makes mittens and sells them at the School's food cart in the Fercho Atrium. The money made from her mitten sales goes to the needy either locally or in the Third World. She started her project three years ago when inspired by the generosity of others and her discovery of how little it takes us to feed someone in the Third World. "We have so much," she commented, explaining that it doesn't take much on our end to make a big difference for those in need.



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Upcoming Events

Save these Dates

April 13-15

Dakota Conference on Rural and Public Health
Grand Forks Alerus Center

For more information, call the Center for Rural Health, 701.777.5380

April 22

Frank N. Low Research Day
UND Memorial Union

For more information, call 701.777.6269

May 16

M.D. Commencement:
Doctor of Medicine Class of 2010,
Chester Fritz Auditorium, UND campus, 2:00 p.m.

For more information, call Office of the Dean, 701.777.2514

October 4-10

UND Homecoming

For more information, call Office of the Dean, 701.777.2514

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