

NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES



Dear Friends,

IT IS WITH A HEAVY HEART THAT I write my final column to you as dean of the UND School of Medicine and Health Sciences. After 14 exciting years, I'm handing over the reins, doing some traveling, and starting a new position as dean of the University of Kansas School of Medicine in Wichita, effective July 1. It has been an amazing, life-changing, thought-provoking journey and, for that, I share my appreciation.

I'd first like to thank **former UND President, Kendall Baker**, for hiring me, and **former UND president, Charles Kupchella**, for his long-standing support for me and the School of Medicine and Health Sciences.

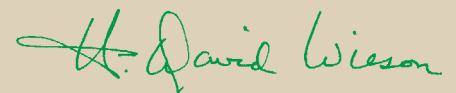
My sincere and heartiest thanks to current and former faculty and staff; together, we have built a terrific school for many generations to come. Together, we changed the name of the school, instituted a unique and modern curriculum, propelled the research mission, strengthened rural health and preventive medicine, and added new research, education and clinical facilities. For all of that, I'm very proud.

Finally, to our students and alumni, I am so proud of you. As successful health care professionals in communities across North Dakota and the United States, you embody the school's mission of preparing students for service and advancing knowledge through research.

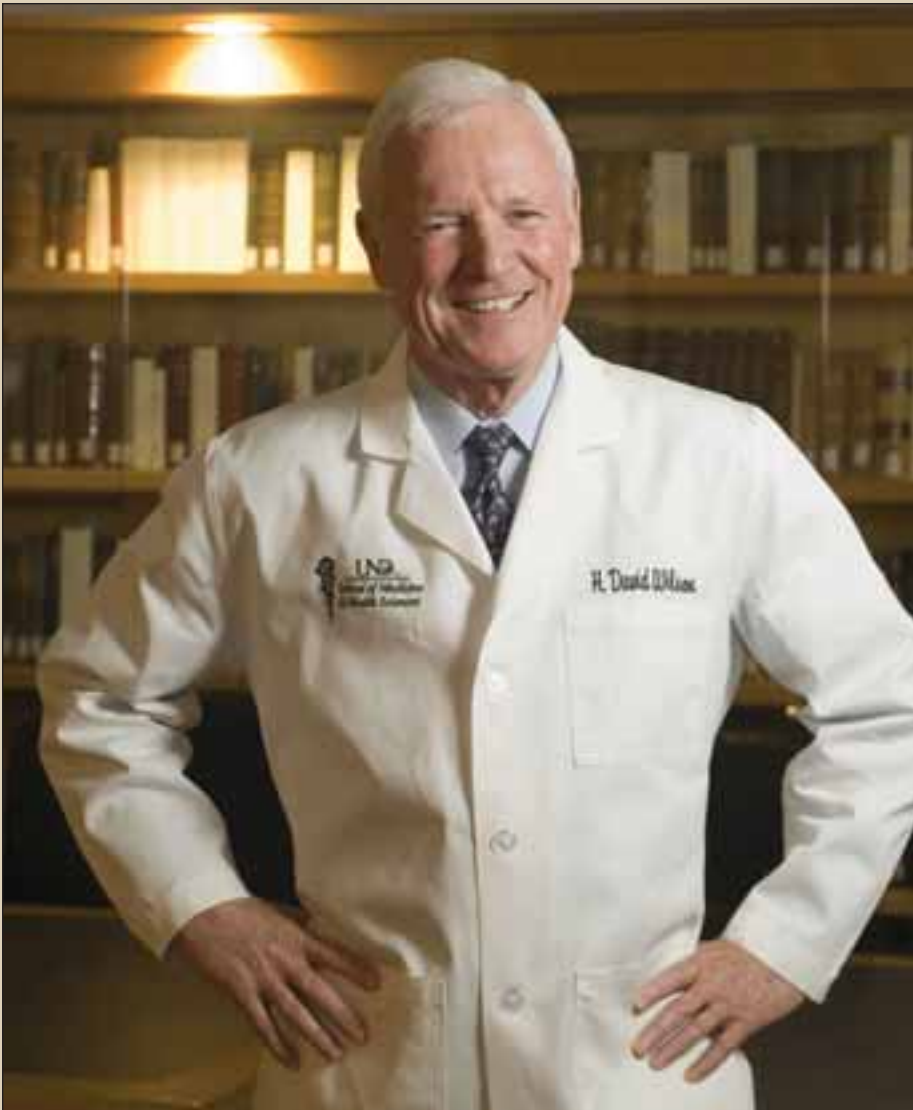
The reputation of this institution is held in high esteem across the country. This is evident by our recent ranking as a top school for rural medicine by *U.S. News & World Report*. It has been the highlight of my professional career and a great honor to serve as your dean. Many thanks, as I leave you with this old Irish blessing:

*May the road rise up to meet you,
may the wind be always at your back,
may the sun shine warm upon
your face,
and the rain fall softly on your fields.*

Until we meet again,



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





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UNIVERSITY OF NORTH DAKOTA
SCHOOL OF MEDICINE AND HEALTH SCIENCES

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EACH YEAR, THOUSANDS OF STUDENTS complete their studies and earn degrees from the University of North Dakota. They begin working in the vocation they aspire to or go on for further advanced education and training in their chosen field.

In this issue of *North Dakota Medicine*, we introduce a few outstanding students who've earned (or will complete this year) degrees in programs offered by the UND School of Medicine and Health Sciences. In many cases, they came to UND with a dream and, with guidance and encouragement from gifted faculty members, their dreams are achieved.

Sunitha Bollimuntha (PhD, Biochemistry and Molecular Biology)

Like gold in the hands of an artistic goldsmith, students are molded by talented teachers into competitive, self-reliant researchers, says **Sunitha Bollimuntha**, a PhD

she emphasizes, noting especially Chairman and Professor **Gene Homandberg, PhD**, who "does an excellent job and is always there for students."

Motivated by "a passion to do research," she works with her mentor, **Brij Singh, PhD**, associate professor, whom she describes as "extremely supportive and encouraging... friendly, easily approachable, and *always* there" when she needs advice and guidance.

Bollimuntha, who plans to finish her doctorate in August, is investigating the role of TRPC3, a calcium channel, in regulating neuronal function with an emphasis on neurosecretion.

The opportunity to attend Gordon conferences and other scientific meetings, where she's presented posters on her research, is a bonus that offers valuable networking and is "very important for grant writing," says Bollimuntha, who received support for her doctoral dissertation from the

Nurtured to Serve

candidate in biochemistry and molecular biology.

"We are privileged to be in this department," she says. "It is the research training and the one-to-one interaction that guide us to be innovative and rational thinkers. In realizing our career endeavors – not only to become independent researchers but also to evolve as ideal teachers – the *faculty members* play an exemplary role. We are what we are because of them."

On her first visit to the United States, the day she arrived at UND, the India native found a "home away from home," she recalls, giving the faculty, staff and students "all the credit for making me feel that way... I was blown away by the people and the warmth the department has shown me.

"It was overwhelming."

The faculty "are the real treasures of the department,"

North Dakota EPSCoR (Experimental Program to Stimulate Competitive Research).

Bollimuntha intends to use the knowledge and skills she acquired at UND to pursue a post-doctoral fellowship, extending her experience in neuroscience, in an academic setting where she can teach and continue to conduct research.

Susan Austin (PhD, Pharmacology, Physiology and Therapeutics)

As a nurse assistant working at a Monticello, MN, nursing home during college, **Susan Austin** saw "the devastation caused by Alzheimer's disease, not just to the patient but the family," she recalls. "It's traumatic for them to go through."

In that experience seeds were sown that, with time, grew into a fascination with the brain and a drive to learn

how it functions – and what goes terribly wrong when Alzheimer’s gains a foothold.

“The brain is fascinating,” she says, clearly struck by seeing “how much you can lose because of this disease,” and how quickly.

After earning a Bachelor of Arts degree in medical science at St. Cloud (MN) State University, she worked in a clinical lab, married Chris Austin and became a mom to daughters, Cailin and Anna, now 10 and 8, respectively. She wanted to continue her education and considered going to medical school, but decided that research, “with a medical aspect and lab-oriented,” was her true calling.

Because of the heavy emphasis on neuroscience in the Department of Pharmacology, Physiology and Therapeutics, UND was “a strong pull,” she says. She enrolled in the PhD program in 2004, seven years after college, her desire fueled by a determination to understand Alzheimer’s and

where she moved with her family. Her project is aimed at “trying to stop the microglia, the inflammatory cells of the brain, from becoming active. We want to stop them from secreting toxic substances into the brain,” leading to the loss of neurons, which contributes to the development of AD.

She also is interviewing for positions at laboratories that conduct research that matches her interests, and hopes to begin work after her fellowship is completed in August.

Thanks to Combs and the PPT faculty, she feels very well-equipped for her career as a researcher, she says. “I have a strong foundation in how to do science, the right way to set up experiments and analyze data, how to write and speak well about the experiments and do some teaching. I am well-rounded in the sciences.”

She gives high praise to Combs who “has been absolutely amazing, giving me experience in writing papers, presenting my research, writing a CV and how to



Grads are Nurtured to Follow Their Hearts into Health Care and Research

contribute to finding improved treatment.

“There’s got to be a way to stop this (disease), or make this get better” she’s convinced. Under the guidance of her mentor, **Colin Combs, PhD**, associate professor, she has homed in on the inflammation process in neurodegenerative (brain) disease.

Studying a theory that’s new to Combs’ lab, Austin is analyzing the link between atherosclerosis and Alzheimer’s disease (AD), she says. “We found a lot of similarities in the endothelial cells, the innermost part, of the blood vessels.” In the human AD tissue, she found the same changes in the vessels as what occurs in atherosclerosis, leading her to “strongly believe there’s a vessel issue” involved in AD.

The quality of Austin’s investigations led to a year-long fellowship at the Harvard Neurodiscovery Center in Boston

approach labs that I may want to join...

“His love of science is inspiring. I’ve never seen anyone so excited about their research. He’s just full of ideas” — ideas that fed her curiosity, creativity and resolve to find better answers to the puzzle that is Alzheimer’s disease.

Becky Hansmeier (Master of Occupational Therapy)

A TV show about a gunshot victim receiving treatment sparked **Becky Hansmeier’s** curiosity and interest in occupational therapy, she recalls. She was in high school at the time. Fast-forward to May 2009: she’s completed her Master of Occupational Therapy degree and heading for a job in acute care at the Dallas Medical City Hospital in Dallas, TX.

Four years ago, she chose UND because she was “really impressed with the (OT) program,” she says, especially

the fieldwork options, which took her to an outpatient pediatric setting in Chaska, MN; an acute psychosocial forensics experience in suburban Tacoma, WA; and an acute care facility at Sanford University of South Dakota Medical Center in Sioux Falls, SD.

As a student, she was pleasantly surprised to find “a strong relationship with faculty and classmates” as well as an emphasis on leadership development and personal growth, she says. The education equips students to teach the skills patients need for everyday living.

“Knowing your professors and classmates allows you to be more open in the learning environment and take

working with kids, because of the creativity I got to utilize in every therapy session. It’s fun to see the world through their eyes.”

In the future, she’ll see the world through the eyes of a faculty member in occupational therapy: her long-term goal is to earn her doctoral degree in the field.

Kayla Friedt (BS, Clinical Laboratory Science)

“I literally stumbled into it,” **Kayla Friedt** says of her journey toward clinical laboratory science (CLS). After earning her bachelor’s degree in biology at UND, she opted to take an extra year to complete a bachelor’s



Sunitha Bollimuntha



Susan Austin

risks that you would not normally take,” she observes. All the OT faculty members “are instrumental in students’ personal and professional growth by not only helping us develop our clinical strengths but also address our weaknesses.”

She “highly recommends” the OT program due to “the strong emphasis on hands-on experience and self-directed learning, and being involved *outside* the classroom,” she says. “We learn to be strong leaders, to advocate for the client and communicate effectively with other professionals on the interdisciplinary team.”

She plans to eventually focus her career on pediatrics, she says. “I loved

degree in CLS. She was advised to enroll in a course that happened to be offered, under the same name, by two departments; she accidentally clicked on the medical school course which, it turned out, gave her much more hands-on experience.

Call it the luckiest computer error she ever made.

She “came to UND with a dream” of going to medical school, she says. And in her fifth year, “I’ve learned more and been busier... than previous years... CLS “is a perfect fit for me,” she says, noting that the course was “immediately hands-on – that’s what attracted me to it.”

The Mott, ND, native is thrilled that the experience she's received in CLS prepares her well to reach her ultimate goal of becoming a physician. She's worked for nine months in Grand Forks' Altru Hospital, "with patient contact every day, seeing every test that a doctor would order,... nurses taking values," learning to draw blood samples and, in the big picture, gaining appreciation for why physicians need accurate test results fast.

She's rotated through various areas of a clinical laboratory: chemistry and urinalysis, transfusion service, microbiology, and hematology and hemostasis – all of which she finds "very interesting," she says. "I really do

David Lo (PhD, Anatomy and Cell Biology)

"To this day, I am forever grateful for his patience and everything he's done for me," says **David Lo**, a PhD candidate, about his mentor, **John Watt, PhD**, associate professor of anatomy and cell biology, Grand Forks. "He's an amazing mentor, a very good scientist; he definitely taught me a lot.

"I attribute a lot of my success to him," says the Minot native whose ultimate goal is to teach and conduct research as a college professor. "I'm learning the skills to be a successful scientist."

He's well on his way. In Watt's lab, his investigations have centered on how



Becky Hansmeier



Kayla Friedt

enjoy" clinical laboratory science and her studies in the past year "makes me really appreciate the lab."

Friedt cites the faculty as extraordinarily effective. CLS Program Director **Ruth Paur, PhD**, "is a great instructor; she will explain it, rip it apart and break it all down for you 'til you understand it," she says, noting with gratitude that **Mary Coleman, MS**, assistant professor of pathology, "is always there" for students.

With the program's relatively low student/teacher ratio, "it's a lot easier to get to know the instructors; they know your name," Friedt says.

"It's been a great experience."

the brain tries to repair itself after a traumatic injury. He analyzes processes that are neuroprotective and restorative. Using a rat model, he's looking at the inner workings of a specific molecule, and how cells on one side of the brain "sprout" and compensate for cells that are damaged on the other side.

If scientists can determine how exactly this protection works, "we could develop drugs that could imitate the neuroprotective response," he says.

After completing his doctoral degree later this year, he's been accepted into a research fellowship program at the prestigious Salk Institute in San Diego, CA. He plans to study genetically

modified bone marrow stem cells for the treatment of multiple sclerosis.

"The Salk Institute is among the most prestigious research institutions in the nation, with international recognition for excellence," says Watt. "In such a highly competitive environment, the ease with which David obtained his fellowship appointment speaks volumes about the quality of his dissertation research, his passion for science and his promise as a young investigator.

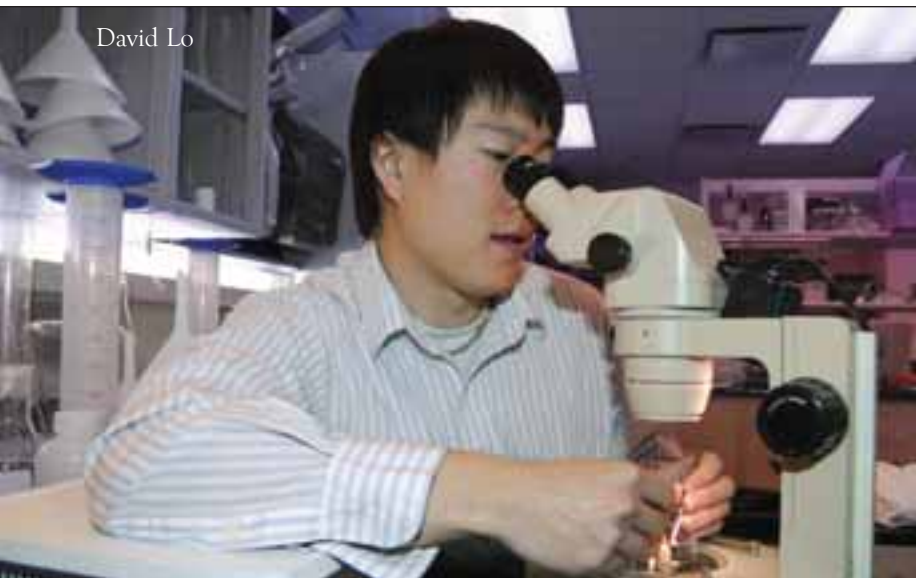
"I am immensely proud of David and all he has accomplished at UND."

The son of Mary and **Lim-Che Lo, MD**, an anesthesiologist who holds an

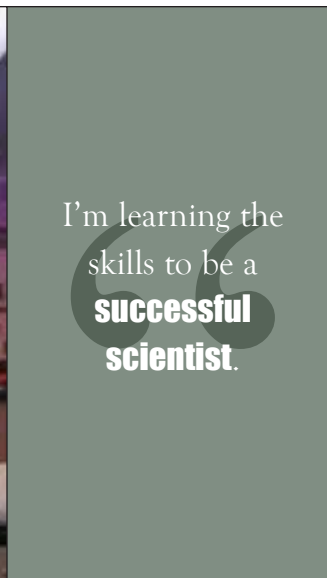
excellent place. All the faculty members have been really effective (in conveying) how to teach, how to be a good role model. It takes a lot of work. I see these people, and they work countless hours."

Watt "has always been a good motivator, he gives me a lot of encouragement, which is a central part of building your confidence..." Lo adds. "He's *always* available; he always makes time to talk about everything. He's really busy, but he always makes time for his students."

"I really have enjoyed my time here," Lo says. "I'm excited to go to a new place but, at the same time, I'm kind of saddened to be leaving these people."



David Lo



Karissa Larter

academic appointment in UND's Department of Surgery, Bismarck, was encouraged to pursue medicine as a career, but his heart was in biomedical research. As an undergraduate student at Concordia College in Moorhead, MN, he "was really inspired by my professors," he says.

In the UND anatomy department, "everyone's been just great," providing constructive feedback on presentation and teaching skills, he says. "Being around these people really solidified my aspirations to go into academia."

"It's been long; it's been hard. I don't regret any of it..." he concludes. "The Department of Anatomy is an

Karissa Larter (BS, Athletic Training)

As one of the very few programs in the country based at a medical school, UND's Athletic Training Program stands head and shoulders above the rest.

"That's a huge benefit," says **Karissa Larter**, who earned a bachelor's degree with majors in athletic training (AT) and biology in May. The school's culture of research promotes an atmosphere of searching, stretching, growing.

The instructors "*want us to learn*," she says. "If you have the *tiniest* question, they sit (with you) until you understand it."

During her years at UND, Larter has received several scholarships including the Pacesetter, Bremer and John Quick,

the latter given only to an AT student.

At the Center for Sports Medicine, an outpatient clinic at UND's Hyslop Sports Center, AT students learn from physical therapists and other trainers who work with athletics daily. Between 500 and 600 student-athletes receive care at the Center.

While AT is a very time-consuming program – what with attending practices and games – “you learn time-management really fast,” she says. Most importantly, students benefit from the valuable, hands-on experience of working with athletes.

“We do all the evaluations, and we set up the rehabilitation,” Larter says. “It’s a very good program, and I loved it.”

she’s studying “something you can’t see with the naked eye – it’s not something that’s ‘every day.’”

At UND her cytotechnology class of six is a “good size,” she says, fewer students means more one-on-one with the teachers, **Katherine Hoffman, MM**, program director and assistant professor of pathology, and **Kimberly Droog**, instructor in pathology and education coordinator. Courses such as physiology, while difficult, convinced her that she “could handle grad school.”

In May, she began the clinical portion of her education at the UND-affiliated St. Cloud (MN) Hospital/CentraCare lab. Finishing that experience later this



It’s a very
good program
and I loved it.



Kelsey Naze

She finds it especially “rewarding to see the athletes all the way through, from the initial injury to seeing them make that basket or that touchdown, and know that I helped that athlete recover.”

Kelsey Naze (BS, Cytotechnology)

Since the age of six, **Kelsey Naze** has “always liked microscopes,” she says. She lost her grandfather to cancer when she was young. These circumstances likely ignited the early embers of interest in science, and helping people. Later in life, her sister, a nurse, steered her toward the field of cytotechnology.

A native of Adrian, ND, near Jamestown, Naze likes the fact that

summer, she’ll receive the Bachelor of Science in Cytotechnology in August.

Naze plans to attend graduate school to become a pathology assistant.

“I like to be around the staining process,” she says. “The pathology assistant does a lot of troubleshooting. You want to give the pathologist the best sample (to make an accurate diagnosis), so you’ve got to know what the pathologist is looking for and wants.”

She would “definitely” recommend the cytotechnology program, she says, describing it as “really good, especially for taking the GRE (Graduate Record Examination). I’m very well-prepared.”

Elizabeth Olson (Doctor of Physical Therapy)

"I expected to work really hard," says **Elizabeth Olson**, who earned the Doctor of Physical Therapy degree in May. "I knew, going in, that it would be really strenuous. UND is highly thought-of. I knew I'd get a really good education."

"Our grads end up all over the country. (Employers) want more (grads) from UND."

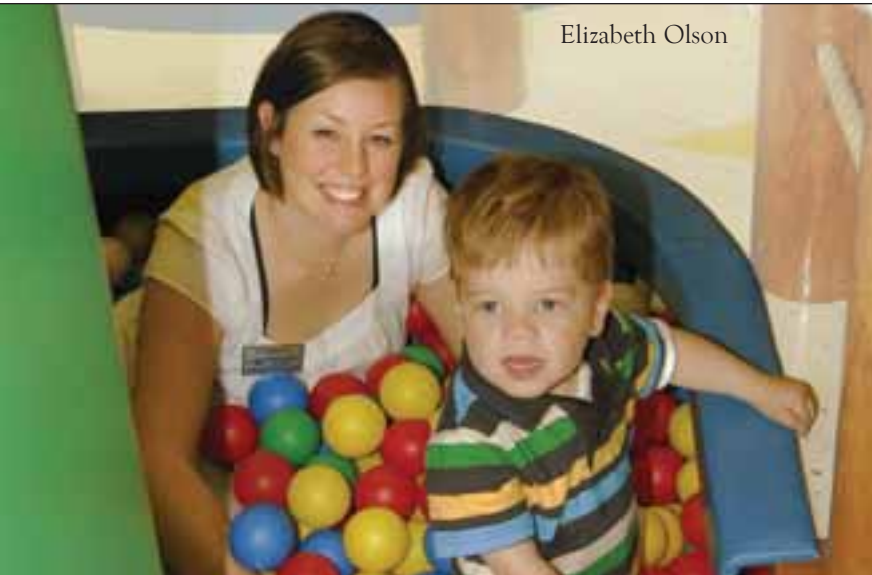
Working in the medical field was "something I've always wanted to do," says the Fargo native who, as an athlete with Fargo North High School, had some minor injuries that put her in contact with physical therapists.

faculty, but singles out **Peg Mohr, PhD**, associate professor, as "extremely encouraging; she never once told me it wouldn't be a good choice. She helped me to feel good about my decision."

Recently, Olson started a job at Altru; she'll focus on pediatric physical therapy, working with children who have conditions such as cerebral palsy, spina bifida, developmental delay, and torticollis.

She is "totally prepared to enter the field," she says. "I know I'll gain a lot through work experience, but I have been completely prepared, with a good solid foundation to build on."

Earning the DPT degree at



Elizabeth Olson

I knew I'd
get a really
good education



Maninder Sidhu

A summer volunteering for Grand Forks' Altru Health System's KIDS Camp was "really fun," she recalls. "I thought: I could do physical therapy with kids." That led to part-time weekend employment at Altru working with physical therapists.

"I was drawn to pediatric physical therapy because you can make treatments fun while still accomplishing their goals," she says. "Also, you can make a huge impact on their lives – learning to crawl, walk, run and other things that all kids want to be able to do."

Olson is very impressed with the capabilities and knowledge of the PT

UND "was a lot of fun, a lot of work, but totally worth it," she says. "If it's what you *love* doing, it doesn't seem like work."

"I'm totally, 100 percent happy I went through it. It's just a great, solid program."

Maninder Sidhu (PhD, Microbiology and Immunology)

"Immunology is the most intriguing area of research right now," says **Maninder Sidhu**, who is completing her PhD degree in microbiology and immunology. "We don't know a lot about our own immune system yet. There's a lot of potential for research."

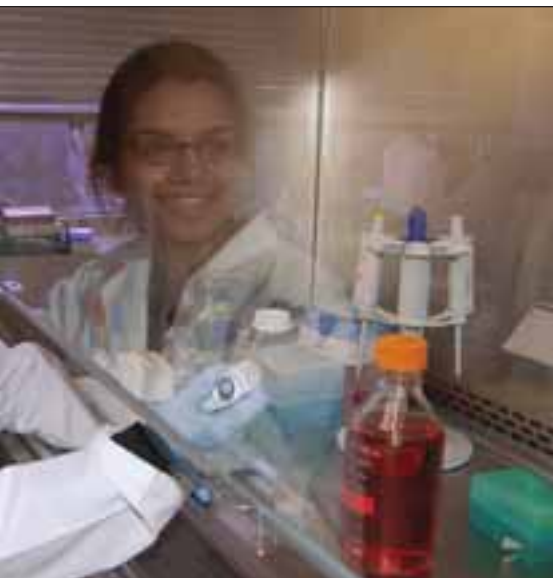
A native of India, Sidhu became interested in the immune system and how the body fights disease while working on a master's degree in microbiology at a medical school in Pune, India. In her journal club, students reported on the latest research; arthritis sparked her interest. After earning her degree there, she worked for a year as a research assistant in a microbiology lab at the National AIDS Research Institute in Pune, gaining valuable experience in her chosen field.

While seeking a doctoral program, she learned about the immunology and microbiology program from the UND website, and was particularly interested

by "the study of pathogenesis in the body and what the body does in response, how it fights" these agents and clears out the infection.

"The most exciting part of the research is the vaccines that could be developed. It's really important to me," she says, because, as valuable as basic science research is, "eventually it has to get to the doctors to use in treating patients."

Bradley has been "very encouraging, very supportive... and open to discuss and problem-solve," Sidhu says. "I am lucky to have Dr. Bradley as my teacher and mentor."



The most **exciting** part of the research is the **vaccines** that could be **developed**



Marissa Upton

in the arthritis research findings of **David Bradley, PhD**, associate professor and interim chair of microbiology and immunology.

She began her doctoral studies in the fall of 2004 at Grand Forks, her first home in the United States.

She's intensely working on arthritis research that holds promise for developing "a therapeutic strategy to control the disease or reduce the inflammation, thereby increasing the quality of life for the patient," she says.

Clearly, she is fascinated by the immune system and "how the body fights disease, the different mechanisms it uses," and is absorbed

Marisa Upton (MD '09)

Four years ago, driving to Grand Forks, car packed full and her baby daughter and seven-year-old son in tow, **Marisa Upton** knew she would return some day to Minot, her hometown, to practice. Today, that dream is realized. She begins residency training at the UND Center for Family Medicine-Minot next month, after earning the Doctor of Medicine degree in May.

"I'm excited; I love the Minot area. The faculty here has been awesome," she says, reflecting on her senior year on the school's Northwest Campus. "They've been great to us."

She's especially keen on the

prospect of taking family medicine training from the exceptional physician-educators at the Center for Family Medicine-Minot, headed up by **Kim Krohn, MD '96 (Family Medicine Residency '99)**. "You can just tell by talking with them – they are glad to have us here, and they love to teach... We have a hidden treasure here."

Struggles and setbacks

Upton remembers the challenges coupled with her doubts that nearly derailed her goal of becoming a physician. When she wasn't accepted to medical school on her first try (a common occurrence), she questioned whether it was really meant to be. Her family encouraged and urged her on; their support gave her the boost to try again.

"I had wanted to do it for so long, and I took all those difficult classes," to prepare for medical school, she recalls. When she was admitted, she also had

"They have so many social concerns... I can probably make an impact" in their lives, she says. As an active gymnastics coach and former high school teacher, "I've been around that group so much, I get them" and can listen without being judgmental.

In medical school, while keeping an open mind about what field to pursue, Upton saw the specialties, but she's positive that "primary care is a perfect fit for me... Nothing was as appealing as family medicine," she says, citing the diversity of patients, the continuity of care and building relationships that matter.

"A lot of decisions are based on what you know about the patient."

Looking back, she has greatly appreciated the UND faculty who "are so helpful, they will make time for you, anytime; they'll stay after hours to help you if you don't understand something. You don't find that at larger universities."

Senior Medical Students' Successful Match

More than half of UND's 59 members of the Doctor of Medicine (MD) Class of '09 are going on for training in primary care fields. 31 graduates (52.5 percent of the class) will train in family medicine, internal medicine, pediatrics and obstetrics-gynecology residency programs this summer.

Senior medical students at UND joined other medical students throughout the country in simultaneously opening their envelopes on March 19 to find out where they had matched for residency training. The matches include 12 medical/surgical specialties in programs in 22 states and the District of Columbia, according to **Judy DeMers**, associate dean for student affairs and admissions, Grand Forks.

Visit www.med.und.nodak.edu/studentaffairs/ and click on residency match in the left column for a complete listing.

A total of 24 students (40.7 percent) matched to the

primary care specialties of family medicine, internal medicine and pediatrics, DeMers said.

Family medicine and general surgery each matched nine seniors, followed by eight in internal medicine, and seven each in obstetrics-gynecology and pediatrics. Four students chose residencies each in emergency medicine, neurology and radiology while two matched to anesthesiology and two to psychiatry. Orthopedic surgery, pathology and a transitional program each had one match.

North Dakota has about one-fourth of the class members (15) remaining in-state for the first year of residency. Minnesota with six matches and Florida, Michigan and Nebraska with four each were the next most popular. California and Utah with three each, and Iowa, New Mexico and South Dakota with two each followed.

learned she was pregnant, so she requested, and received, a year's deferment.

During medical school, "Mom was a lot of help – I couldn't have done it without her – and my friends were awesome," she says. "I took Sydney (her daughter) to the histology lab. Here was this two-year-old running around the lab..." More than once, she wondered if she was doing the right thing, if she would get through it.

Medical school "was the hardest thing I had ever done... but it all worked out," the young physician emphasizes. Being a doctor "is the job I want to do. I can see myself doing it for forever. I'm totally happy with it.

"It sounds like a cliché, but it really is rewarding to help people. To use your knowledge and ability to help people, it's a privilege," she says, noting that, as a woman and mother, she brings a perspective and understanding to her practice that her patients, especially adolescent girls, will appreciate.

She's also very grateful to **Associate Dean Judy DeMers**, "and all the people around her" in the Office of Student Affairs and Admissions, she says. "Judy is so open; you can talk to her about anything... She does a lot for students, advocating for them behind the scenes. I don't think people realize how much she does for students."

Upton; her husband, Michael, a teacher and coach at Minot's Magic City High School, and their children, Caden, 11, and Sydney, 4, have weathered the challenges and have much to celebrate. Minot too; it has a new, homegrown doctor back in town.

- Pamela Knudson

WEB EXCLUSIVE: For Commencement '09 photos, award recipients and more, visit: : www.ndmedicine.org



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FROM PAGO PAGO TO MAINE, OVER 3,800 health care heroes serve on the front lines to bring essential medical care to four million people in underserved communities that span the United States and its territories. These caring health professionals practice in interdisciplinary teams where the need is greatest — inner cities, small towns, mountain villages and migrant communities.

The National Health Service Corps (NHSC) comprises a dedicated group of primary health care clinicians who choose to work where others will not: America's frontier, rural and urban communities. NHSC clinicians provide quality health care to all Americans, regardless of their ability to pay. In exchange for a two-year service commitment, the NHSC will pay clinicians up to \$50,000 to repay their outstanding qualifying student loans. Participants also receive a salary and benefits from their NHSC-approved community employers.

Two physicians who are serving on the home front in North Dakota are **Amit Kulkarni, MD**, in Bottineau and **Todd Schaffer, MD '02**, in Carrington.

They have answered the call of national service and the call of family.

Kulkarni is an NHSC Scholar who chose to practice in Bottineau so he could be close to his wife's parents and his son's grandparents in Winkler, Manitoba, an hour-and-a-half drive from Bottineau. Born in Pune, Maharashtra, India, he is a 2004 graduate of the Medical College of Wisconsin in Milwaukee.

"For us, it has been huge," explained **Joan Mortensen**, clinic manager for St. Andrew's Health Center in Bottineau, when asked to describe the effect of the NHSC program. "Dr. Kulkarni has developed a good practice and is highly respected in the community."

Above:

Major Todd Schaffer, MC (MD '02),
Commander 814th Medical Company,
North Dakota Army National Guard
in Iraq



Amit Kulkarni, MD, St. Andrew's Health Center, Bottineau, ND

Dr. Kulkarni is an **excellent** fit for our **organization** and our **community**

"I wanted to practice in an underserved area that had a wide variety of patients," said Dr. Kulkarni. "The Bottineau schools are great for my son, and I enjoy my work."

Jodi Atkinson, CEO of St. Andrew's Health Center, said Kulkarni "is an excellent fit for our organization and the community. He filled a much-needed position we had for a physician, and he has a high patient-satisfaction rating. The NHSC program is a definite asset to the state."

Created in 1972, the NHSC collaborates with rural areas and inner-city neighborhoods alike to develop and expand health care for underserved populations. The NHSC recruits and retains caring and culturally competent health care professionals through a combination of programs, including educational loan repayment and scholarships. More than 27,000 health clinicians have served with the NHSC since its inception.

The NHSC helps communities recruit health professionals from across the spectrum of health sciences: primary care physicians, nurse practitioners and physician assistants; certified nurse midwives; dentists and dental hygienists, and mental and

behavioral health professionals.

About 65 million people in the United States have limited access to primary health care because of financial, geographic, cultural or language barriers. They live in areas designated by the U.S. Secretary of Health and Human Services as health professional shortage areas (HPSAs): communities where individuals have little or no access to medical, dental and mental health care, or the medical services they need are located at a great distance. Eighty-one percent of North Dakota is designated as a primary care HPSA.

According to the Health Resources and Services Administration, the United States needs more than 16,000 additional health care professionals to provide adequate primary care to people living in HPSAs. Under the American Recovery and Reinvestment Act of 2009, the NHSC received \$240 million to provide scholarships and loan repayments.

"Four thousand positions could be filled through this use of stimulus funds," according to **Mary Amundson, MA**, assistant professor at the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences. Amundson, who specializes



Todd Schaffer, MD '02,
Carrington Health Center, Carrington, ND

in health workforce issues, also serves on the National Advisory Council of the National Health Service Corps.

Mariann Doeling, CEO of Carrington Health Center, said, "We have been very successful for over 10 years using the National Health Service Corps as a recruitment tool for not only physicians but nurse practitioners, physician assistants, as well as registered nurses.

"As rural health care providers, we often have difficulty recruiting the 'right fit' for our patients. Health care professionals who sign up for the NHSC loan repayment program seem to have a better understanding of what rural health care is truly about. It is a great program, and I would encourage all hospitals to check into this additional recruitment opportunity for North Dakota," she said.

Schaffer answers his country's call to duty as a family practice and obstetrics specialist for Carrington Health Center and as commander of the 814th Medical Company for the North Dakota Army National Guard. He is a veteran of two tours in Iraq. On his first

tour, Major Schaffer was battalion surgeon for the 1st-303rd Armored Battalion, and on his second tour he worked primarily as an outpatient family practice physician taking care of soldiers on the base at Tallil, Iraq.

"I find my practice in Carrington to be professionally satisfying. Obviously, a rural practice is much fuller. You get to see a lot more; you get to do a lot more; you have a lot more responsibility for your patients' care versus an urban practice. We see more here than most family practice doctors do in a career," Schaffer said.

"A lot of it came down to wanting to practice in a rural community."

He and his wife grew up in Carrington, and they wanted to provide that experience for their children.

"Carrington is an underserved area, and the decision was easy to join the National Health Service Corps, not only to be in Carrington to help out, but also the financial reimbursement of school loans."

Schaffer will continue to answer the call of duty and family in Carrington. For Kulkarni, his commitment to the NHSC expires in September, but he has found his calling in Bottineau:

"I will definitely be staying." 

- Denis MacLeod

We see more here
than most
family practice doctors
do in a career

For more information on NHSC scholarship and loan repayment program, contact:

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NHSC Ambassador and AHEC Director
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*Photos provided by Dr. Kulkarni and Dr. Schaffer.



CheckUp

New report finds wide differences in health and health care in North Dakota

FOR ALL OF THE AWESOME HI-TECH developments in health nowadays – from wireless heart monitors that can be checked by docs across the country to real-time health news streaming to your iPhone – the simple fact remains that we are sitting atop a struggling health care system. We rely on this system to save lives, deliver babies, clear sinuses, administer vaccinations and everything in between, yet it remains a plagued operation, especially fragile in tough economic times.

In North Dakota, the state of health and health care varies widely, according to a new report issued by the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences and commissioned by Dakota Medical Foundation. The environmental scan report is the first of its kind in the state, and a rarity across the country, to comprehensively assess the health and health care of North Dakotans.

are without health insurance. Limited access to health services is a challenge due to geographic distances, health professions shortages, and, for uninsured and underinsured, lack of adequate insurance coverage.

The report, *An Environmental Scan of Health and Health Care: Establishing the Baselines for Positive Health Transformation*, by Center for Rural Health experts **Boris Volkov, PhD; Brad Gibbens, MPA;** former director **Mary Wakefield, PhD**, and other Center contributors, provides an overview of selected health and health care issues in North Dakota, along with measures, performances, rates and rankings. The report also features a comprehensive list of programs in North Dakota that address selected health issues. Information was drawn from a range of sources, including reports, websites, databases, queries of agencies and organizations and perspectives of key leaders in the health field.

The **best** of North Dakota—a **cooperative** and **collaborative** spirit, a **can-do** attitude, **concern** for neighbors, and **clear recognition** of the link between North Dakotans' health and the economic health of their **communities**—can be brought to bear directly on transforming the state of **health** and **health care**.

The message that emerges from the environmental scan is that the best of North Dakota—a cooperative and collaborative spirit, a can-do attitude, concern for neighbors, and clear recognition of the link between North Dakotans' health and the economic health of their communities—can be brought to bear directly on transforming the state of health and health care.

North Dakota performs well on several health-related measures, including a decrease in smoking, all-time high rate of seat belt use, better-than-average hospitals and nursing homes and high-quality and efficient health care services (13th in the country).

However, the state also suffers from a large overweight and obese adult population (64.9 percent), the second-highest rate of binge drinking in the nation, and 8.2 percent of its people

The report compares North Dakota to benchmarks on a wide variety of topics, and notes that, because there is limited information on some topics, from outpatients to Native Americans, there is a pressing need for better data to inform community, state and tribal health policy reform efforts.

“In looking at our state as a whole, we found that, while there are areas of excellence, there are definitely areas for improvement,” said co-author **Boris Volkov, PhD**. “This environmental scan points to the need to make more information available and to improve population health and the health care system, especially in rural areas. By assembling a database of organizations across the state working on health-related topics, we are hoping people can leverage current efforts and collaborate to share resources and ideas.”

Quality of care among top scorers

The state's health care systems perform better than many others in providing consumers with relatively high-quality and efficient health care services (the 13th highest in the country). Nevertheless, there are clear opportunities for quality improvement. Enhancing networks and communications, and sustaining and strengthening primary care are pivotal to quality health care.

Other findings include

Environmental challenges. With urban clusters and a small, geographically rural and frontier population, the state faces a unique set of challenges and opportunities that confront the population's health, the types of health care services needed and the financial viability of health care systems.

We need to **invest** our time, money and other resources now to ensure a **healthy future**

The state's growing elderly population, expanding minority population (up 13.8% from 2000 to 2006), and the significant decline in the number of youth (a 15% decline from 2000 to 2005), have direct implications

for health care services.

Around 12 percent of the state's population lives in poverty. Rural poverty is greater than urban, and rural income is, on average, lower than urban income levels. Poverty and income levels have direct implications for public programs such as Medicaid, the financial status of providers and the public's access to care.

Financing health services. Health expenditures in North Dakota increased annually by 6 percent from 1991 to 2004. North Dakotans spend more on hospital care, drugs and nursing home care than found for the overall United States. However, North Dakotans spend less on physician and other professional services, home health care, and other personal health care compared to the U.S. population.

Chronic diseases. North Dakota's performance on measures of chronic disease-related conditions tends to be better than national averages and most states. Cardiovascular disease and cancer are the leading causes of death in North Dakota (49 percent of all deaths).

Health care status. Public and private insurers tend to purchase health care services at low cost compared to other states. However, an imbalance between reimbursement levels and cost of providing care is driving some health care facilities to decrease services or at least consider cutbacks in infrastructure, salaries and staffing.

Infrastructure. Supply of health workforce, aging physical plants, reimbursement levels, demographic changes and the prospect of increasing numbers of uninsured associated with deteriorating economic conditions are systemic issues facing health care facilities, both urban and rural alike. Public health, home health, and EMS are, in many cases, challenged to continue their current activities across their current service areas. Decreasing or delaying access to these services can have direct implications for patient outcomes.

Fourth- and fifth-graders at Viking Elementary School in Grand Forks learn about the dangers of tobacco use from UND medical students.



Access. Access to health services in North Dakota is influenced by geographic, economic and other factors. Payment methods, workforce supply and even area population fluctuations influence the availability of services.

Health insurance. With an uninsured prevalence of 8.2 percent (approximately 51,900 people), the number of uninsured North Dakotans varies across geography, race, income and other factors. Specific groups that are more likely to be uninsured include rural residents, young adults, Native Americans and workers of small employers.

Workforce. The state faces emerging challenges to ensure access to an adequate workforce, ranging from primary care shortages to shortages of dentists. Total reported health care provider vacancies in North Dakota indicates a need for 271 physicians, nurses, clinical laboratory scientists, mental health professionals and X-ray technicians.

Utilization of services. Health care costs are directly tied to utilization of health services. The state has higher admission rates (9th highest in the nation) and longer lengths of stay than the national average (8.8 days compared to 5.7 days).

Moving forward


The *Environmental Scan* report points to the need for action in key areas:

- Invest in prevention-related activities;
- Generate a comprehensive approach to building the health workforce pipeline;
- Assess insurance coverage across vulnerable groups;
- Close information gaps regarding chronic diseases and other common health problems;
- Track access measures and viability factors to plan for minimizing access-to-care problems;
- Research the reasons behind utilization patterns to inform strategies to further decrease health care spending in the state;
- Evaluate potential and actual decreases in service areas or closures of health facilities to determine their effect on local communities;



First Care Health Center in Park River is one of 35 critical access hospitals in North Dakota

- Create a multi-stakeholder approach to selecting priorities and devising solutions with corresponding measures to track progress;
- Build networks, and use telemedicine to strengthen health care services and extend these services to hard-to-reach populations; and
- Promote public policy to strategically address specific problem areas, targeting resources to better meet objectives.

“The health of North Dakotans is essential to our state’s success. This environmental scan highlights areas that are at risk,” said **Pat Traynor**, Dakota Medical Foundation President. “We need to be more strategic with our resources to help create the healthiest state in the country.” 

- Wendy Opsahl

WEB EXCLUSIVE:
To read the full report,
visit www.ndmedicine.org





Two Schools are Better Than One

Mayville State research collaborations spawn success

Above: Thomas Gonnella (center) engages in research collaborations that enable students Janelle Berthold and Travis Leedahl to gain laboratory experience

EIGHT YEARS AGO WHEN THE National Institutes of Health launched a program to help North Dakota and 22 other states attract more funding for biomedical research, collaborations between research universities and primarily undergraduate institutions were strongly encouraged.

Centered between UND in Grand Forks and NDSU in Fargo, Mayville State University is making the most of its unique position in the Red River Valley Research Corridor.

Two grants from the NIH National

Center for Research Resources (NCRR) have not only enabled MSU to create collaborations among researchers, but also to steer students toward careers in health sciences, add faculty, expand and improve laboratories, and attract funding for new research projects.

"Without this program, these opportunities just wouldn't be here," says **Gary Hagen**, MSU president. "I'm excited about it. It's been great for us."

The UND School of Medicine and Health Sciences in 2001 received the first grant under the NCRR's Biomedical

Research Infrastructure Network (BRIN). The second phase of the program came in 2004 as the IDeA Network of Biomedical Research Excellence (INBRE), expected to be renewed this year.

"INBRE has definitely allowed us to set up some truly meaningful collaboration with UND, NDSU and surrounding research labs," says **Thomas Gonnella, PhD**, MSU associate professor of chemistry. "We're forming collaborations where there is a significant exchange of research talent between the institutions."

Under BRIN and INBRE, UND and NDSU formed partnerships with North Dakota's four baccalaureate institutions and the five tribal colleges within the state with the objective of creating a pipeline of biomedical researchers by providing undergraduates with research experience.

Gonnella initially began collaborating under BRIN with an adjunct professor at NDSU to commercialize an analytical technique he developed. His research uses specialized lasers in novel fluorescence methods for biomedical applications.

Under INBRE, Gonnella worked the past three years with the UND medical school using his fluorescence technique to study the enzymes responsible for ridding the body of reactive oxygen species. These species, produced as a consequence of oxidative stress, can be linked to medical conditions such as inflammation, aging and carcinogenesis.

Gonnella began collaborating with researcher **Matthew Picklo, PhD**, who recently left the medical school's Department of Pharmacology, Physiology and Therapeutics to become a research leader with the Grand Forks Human Nutrition Research Center. He is also an adjunct assistant professor in the UND Department of Chemistry.

"Tom's work very nicely allowed us to get an insight into the biochemistry of these enzymes," Picklo says. "It was a good melding because I understood the biochemistry, but the technology he utilized allowed us to look at these mechanisms even more in depth."

Gonnella describes his work with Picklo as a true collaboration.

"One thing that INBRE has enabled us to do is set up collaborations where both sides are bringing something to the table," he notes. "Matt wanted to study these enzymes and we have a unique method by which to study their activity. We've made observations about the enzymes that other people have not been able to make."

In the past, Picklo's lab produced the enzymes and then Gonnella drove to Grand Forks to pick them up. Because the enzymes were unstable, he and his students had to conduct marathon lab sessions to analyze them. But that will soon change as MSU obtains the technology to produce the enzymes itself.

"It's a good example of technology transfer from UND to Mayville State," Gonnella says. "It's definitely something Mayville State would not have if we hadn't set up this collaboration and mentoring through INBRE."

Gonnella is currently exploring another collaboration with the medical school under the next phase of INBRE.

Funding from INBRE enabled MSU to hire another faculty member, **Khwaja Hossain, PhD**, assistant professor of biology. An expert in plant genomics, Hossain operates a lab, a greenhouse and has three research projects involving collaborations with NDSU and at Minot State with INBRE researcher **Chris Keller, PhD**, biology department chair.

"Our students are cross-trained to work in both labs," Gonnella adds. "It helps significantly to have a few different projects on campus. The students aren't just learning one area of research, but multiple areas of research."

Janelle Berthold, a senior biology major from Larimore who's worked on research projects in Gonnella's and Hossain's labs, sums it up by asking, "Who would have known that at Mayville State we'd be contributing to something like this?"



Thankful for two NCCR grants, Gary Hagen, MSU president says, "Without this program, these opportunities just wouldn't be here"

- Patrick C. Miller



JOY FROELICH DIDN'T TAKE THE easiest path to becoming a medical doctor, but she hopes her life experiences will make her a better physician.

She graduated from the UND School of Medicine and Health Sciences in 2008 and is a first-year resident at the UND Center for Family Medicine in Bismarck.

Froelich, who grew up on a ranch near Selfridge on the Standing Rock Sioux Reservation, is the oldest of four children of **Rod and Kathryn Froelich**.

"I was essentially my dad's hired man," she remembers. "I helped him with the cattle and farming. That was a good experience to teach me how to work hard."

A Long and Winding Road

After high school, she attended the University of Mary in Bismarck and graduated in 1996 with a nursing degree. In the next eight years, she worked as a nurse on the Standing Rock reservation in home health care, in the local school, in the emergency room for the Indian Health Service (IHS) and in the kidney dialysis unit at the Fort Yates hospital.

During that time, she cared for people with no running water or electricity in their homes, young adults with diabetes and children from poverty-stricken homes who were coping every day with basic health issues ranging from lack of sleep to teen pregnancy.

"It was really an eye-opening experience because even though I grew up on Standing Rock, I didn't realize all that was happening there," she says. "I think a lot of people in the United States don't understand what it's like on the reservation."

In addition to her desire to improve health care on Standing Rock, Froelich was also bothered that many doctors who worked on the reservation didn't stay long.

"One of my biggest motivators was that I really wanted to be able to provide consistent care for patients," she explains. "I thought that there had to be some other way I could help. That's when I started thinking about going to medical school."

By the time Froelich was admitted to medical school at UND in 2004, she had three children, ages 12, 7 and 6, and had lost her husband in a snowmobile accident when she was 23. Her mother's Arikara and Blackfoot heritage enabled Froelich to enroll in the Indians into Medicine (INMED) program.

"When I decided to go to medical school, my family was quite worried about me because they had some insight on how much work it was going to be," she recalls. "And I did too, but I

cared more about the end result rather than how much work or how tough it would be. I had a goal in mind."

It wasn't easy, but today Froelich credits the close bonds she developed with her classmates, assistance from UND's faculty, support from INMED and her family for helping her make it through.

"There were times when big tests came up in my life and at the end of the day I'd say, 'I quit! I'm done! I'm not doing this again!' I would call my sister and she'd say, 'Okay, you can quit today, but you have to go back tomorrow.'"

Judy DeMers, associate dean for student affairs and admissions, remembers Froelich's perseverance.


"She saw this goal in medicine, and although she had a successful career as a nurse, she really lined everything up so that she could accomplish it. She was bright and determined, energetic, likeable and put her whole heart and soul into it," DeMers says.

INMED Director **Gene DeLorme** describes Froelich as "a woman who's very intentional in her direction and very willing to put in the hard work.

"At the same time," he adds, "she's filled with North Dakota values, a sense of community, a sense of home, a sense of purpose."

Froelich will finish her residency in Columbia, MO, where she's moving to be with her fiancé, **Rylie Brantl, MD '08**, who's from Thompson, ND. They began dating in medical school. He is in the neurosurgery residency program at the University of Missouri.

"I tell everybody that we're leaving, but we're both from North Dakota, and we'll be moving back," Froelich says.

"I went into medicine because I wanted to work where I grew up," she continues. "I want to do what I can to give back to the community because there's a real need." 

I want to do what I can to **give back** to the community because there's a **real need**.

- Patrick C. Miller

UND Ranks #1 Nationally for Percentage of Grads Choosing Family Medicine

The University of North Dakota School of Medicine and Health Sciences is the best in the country for producing family medicine physicians, according to rankings released by the American Academy of Family Physicians (AAFP).

Ranking first among 126 medical schools in the country, UND earned the Achievement Award from the AAFP, which recognizes outstanding efforts to foster student interest in family medicine and produce graduates who enter the specialty.

Based on a three-year average, for the period ending October 2007, 20.3 percent of UND's graduates have entered an accredited family medicine residency program. The overall U.S. match rate for family medicine this year is 7.4 percent, according to the AAFP.

"We are very pleased to be recognized as the nation's most effective medical school in encouraging students to pursue the specialty of family medicine," said **Joshua Wynne, MD, MBA, MPH**, senior executive vice president for health affairs and executive dean of the UND medical school, Grand Forks. "We are working hard to address North Dakota's need for physicians and other health care workers, especially those in the field of family medicine."

According to **Robert Beattie, MD '89 (Family Medicine Residency '92)**, chair of the school's Department of Family and Community Medicine, Grand Forks, "The AAFP Achievement Award recognizes the results of the quality education and training our students receive from exceptionally talented family physicians throughout the state."

This honor recognizes the efforts of UND and our practicing physician-faculty members to present family medicine as a fulfilling career. It's particularly important because family physicians are critical to the provision of quality health care services, especially in the rural areas of North Dakota," said Beattie, who accepted the award May 1 at the Society of Teachers of Family Medicine annual spring conference in Denver.

The UND medical school has several unique programs designed to educate students about the benefits of family medicine. The nationally recognized Rural Opportunities in Medical Education (ROME) program places third-year medical students in several rural communities in North



Alum to Alum

At the spring conference of the Society of Teachers of Family Medicine, **Dan Ostergaard, MD (BS Med '71)**, vice president of professional activities for the American Academy of Family Physicians (AAFP), left, presents **Robert Beattie, MD '89**, associate professor and chair of family and community medicine, the 2009 Top Ten Award for the highest percentage of medical school graduates who enter the field of family medicine. UND ranked first in the nation for this recognition, with a three-year average of 20.3 percent of its MD grads choosing family medicine.

Dakota for a seven-month rotation. Over 60 percent of ROME students select primary care residency training after earning their medical degree, compared to 36 percent of students in the traditional program.

For more than 15 years, the Student/resident Experiences and Rotations in Community Health (SEARCH) program has provided health profession students an opportunity to spend a month working in interdisciplinary teams in rural North Dakota communities.

The AAFP Top Ten Achievement Awards recognize medical schools for their exceptional role in advocating for the specialty of family medicine. These awards were created to promote the goal of having more U.S. medical school graduates enter family medicine each year.

Three-year residency training in family medicine prepares physicians to provide a broad range of health care services for people of all ages, with a focus on wellness of the family.

U.S. News & World Report Ranks UND a National Leader in Rural Medicine

U.S. News & World Report has ranked the University of North Dakota School of Medicine and Health Sciences as one of the best in the nation for its commitment to rural medicine.

The ranking, released in the 2010 edition of America's Best Graduate Schools by U.S. News & World Report, is based on results of a survey of deans and senior faculty members at 126 U.S. medical schools and 20 schools of osteopathic medicine.

UND offers medical students a third-year experience in rural communities through its Rural Opportunities in Medical Education (ROME) Program. Its faculty and staff also conduct research on rural health care issues. A community-based medical school, UND's third- and fourth-year students receive education and training from practicing physicians who volunteer to teach them in nearly 30 cities and towns throughout North Dakota.

The ranking also recognizes the school's Center for Rural Health, one of the nation's leading resources for

information on rural health issues, policy and research. The Center is home to the Rural Assistance Center, an international clearinghouse for health and human services information, and also provides national expertise in the areas of rural health communications and Native American and veteran rural health issues.

In the Best Graduate Schools survey, the UND medical school ranked with the University of Washington and the University of New Mexico. In past years, UND has been recognized repeatedly by U.S. News & World Report, usually ranking in the top five in rural medicine.

The magazine also reports the rankings of the top medical schools in areas such as research and primary care, and demonstrated commitment to women's health, family medicine, AIDS, drug and alcohol abuse, geriatrics, internal medicine and pediatrics.



WEB EXCLUSIVE: To see all medical school rankings, visit: www.ndmedicine.org



The Spirit of North Dakota

UND School of Medicine and Health Sciences students rallied to help their teachers and others whose homes were threatened by Red River flooding this spring in Grand Forks and Fargo. Students and faculty worked together building a wall to protect the property of Tom Hill, PhD, professor and director of medical education, and Ann Flowers, PhD, associate professor, microbiology and immunology, north of Grand Forks.



Altru Hospice of Cavalier and 'Faith in Action' Honored as Outstanding Rural Health Program

Altru Hospice of Cavalier, ND, in partnership with Faith in Action received the 2009 Outstanding Rural Health Program Award, presented to programs that deliver services in innovative ways, highlight coordination among providers, or improve the quality of care to rural residents.

Altru's Hospice has worked together with Faith in Action to provide hospice care to the Cavalier area since March 2006. To date, they have served 56 families in Pembina County. Five registered nurses, a medical director, a social worker, an office worker, a certified nurse's aide, and 11 trained volunteers compose the partnership's staff.

The core belief of the program is that each person has the right to die pain-free and with dignity, and that families will receive the necessary support to allow that person to do so. Altru Hospice and Faith in Action staff have received

numerous written expressions of gratitude from patients' family members, which lent support to granting the award.

The award is presented annually as part of the Dakota Conference on Rural and Public Health, which is facilitated by the Center for Rural Health at the UND School of Medicine and Health Sciences. This year's conference, scheduled for April in Mandan, was canceled because many of the conference's participants were providing support during the statewide emergency from flooding and severe weather.

The Dakota Conference is a joint effort by Altru Health System of Grand Forks; North Dakota Public Health Association; North Dakota Rural Health Association; UND College of Nursing, and the UND School of Medicine and Health Sciences' Center for Rural Health and Department of Family and Community Medicine.

Faculty Members Receive First ‘North Dakota Spirit’ Awards

Several medical school faculty members, all biomedical research scientists, have received the first North Dakota Spirit Faculty Achievement Award. The award, funded by the UND Foundation, was established to recognize significant contributions by faculty in teaching, research and service.

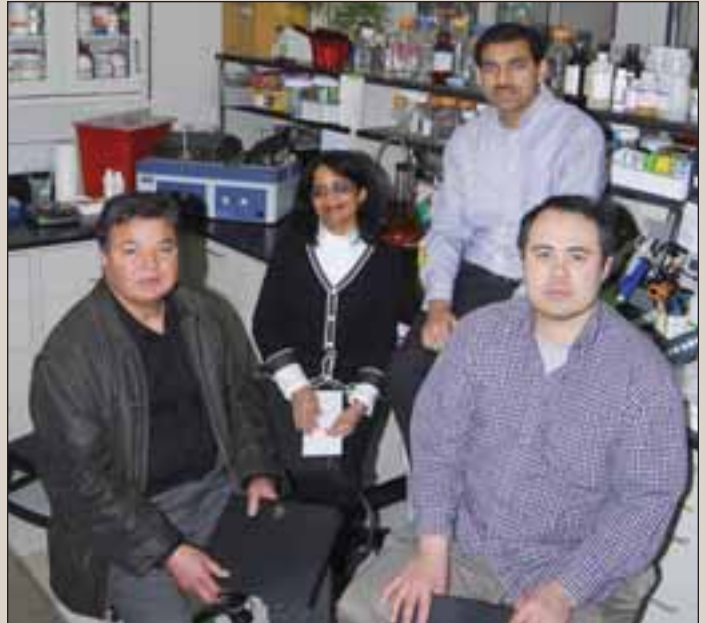
Recipients, who were recognized during the annual UND Founders Day banquet in February, are

Colin Combs, PhD, associate professor of pharmacology, physiology and therapeutics, received a four-year, \$700,000, R01 grant from National Institutes of Health (NIH), National Institute on Aging, to study a specific mechanism in the brain that could play a role in the progression of Alzheimer’s disease (AD). R01 grants are very difficult to obtain and are awarded to relatively few researchers.

Othman Ghribi, PhD, assistant professor of pharmacology, physiology and therapeutics, studies the role that diet and the environment play in the development of AD. He received a five-year, \$1.5 million, R01 grant from the NIH to study the links between high cholesterol levels and AD. This is the largest individual grant awarded to a UND researcher for the study of AD.

Brij Singh, PhD, assistant professor of biochemistry and molecular biology, conducts research on calcium mechanisms in the body that can, if not working properly, lead to diseases such as cancer, Parkinson’s disease and Sjögren’s syndrome, a salivary gland dysfunction. His work is focused on how and why calcium, one of the most important biochemical regulators in the body, works at the cellular level.

Seema Somji, PhD, assistant professor of pathology, investigates heavy metal environmental carcinogens in the



North Dakota Spirit Faculty Achievement Award recipients (from left): Othman Ghribi, PhD, Seema Sonji, PhD, Brij Singh, PhD, and Colin Combs, PhD

development of bladder cancer and the discovery of new diagnostic or prognostic markers of bladder cancer. Recently keratin 6a was discovered as a potential marker in heavy-metal-induced bladder tumors; Somji is focused on the mechanisms of induced oncogenic expression as well as the assessment and use of this potential marker in bladder cancer diagnostics.

MeritCare Network Earns ‘Making a Difference’ Award

MeritCare’s Regional Critical Access Hospital Network, Fargo, received the 2009 North Dakota Medicare Rural Hospital Flexibility Program’s Making a Difference Award.

The award has been designed by the North Dakota Medicare Rural Hospital Flexibility (Flex) Program for critical access hospitals that are able to demonstrate that a program or service originally funded or supported with Flex funds is still making a difference to the community and service areas. As a part of the award, the MeritCare Network received a \$12,000 grant to enhance the network’s efforts. The Flex Program is funded by the federal Office of Rural Health Policy, which is located in the Health Resources and Services Administration, in the U.S. Department of Health and Human Services.

MeritCare’s network has grown since 2002 from seven hospital memberships to nineteen, covering both North Dakota and Minnesota. The network serves approximately 186,000 rural residents. This network laid the foundation for the development of the now statewide North Dakota

Critical Access Hospital Quality Network. The MeritCare network’s accomplishments are many, including focused efforts around coordinating patient care with experts and hospitals, education, and improved care of cardiac and trauma patients. The Flex program interprets this award as a formal acknowledgement of a “best practice.”

The Flex Program is administered by the Center for Rural Health at the University of North Dakota (UND) School of Medicine and Health Sciences together with the North Dakota Healthcare Review, Inc.; the North Dakota Department of Health, and the North Dakota Healthcare Association.

The award is presented annually as part of the Dakota Conference on Rural and Public Health, which is facilitated by the Center for Rural Health. This year’s conference, scheduled for April in Mandan, was canceled because many of the conference’s participants were providing support during the statewide emergency from flooding and severe weather.

Students Receive Allery Awards for Outstanding Research



Sonia Marrone

University of North Dakota students **Sonia Marrone** and **Elizabeth Luger** are the first recipients of the 2009 Alan Allery Graduate and Undergraduate Awards. The awards honor outstanding American Indian graduate and undergraduate student health researchers. Selection criteria for the awards include quality, impact and significance of research, types of research experience, and contribution to the research projects under consideration.

Marrone is the 2009 Alan Allery Graduate Award winner. A clinical psychology doctoral candidate, she is completing her pre-doctoral internship at Duke University Medical Center in Durham, NC. She completed her Bachelor of Arts (Honors) degree at the University of Winnipeg in Winnipeg, Manitoba.

Her research interests include health promotion and disease prevention as well as health disparities among American Indians. A native of Winnipeg, she is of Métis descent with ancestors from the Turtle Mountain Band of Chippewa Indians. Her mentors are **Jacque Gray, PhD**, assistant professor, Center for Rural Health, UND medical school, and **Jennifer Muehlenkamp, PhD**, assistant professor of psychology, UND, both of Grand Forks.

Luger is the 2009 Alan Allery Undergraduate Award winner. A fourth-year undergraduate student, she plans to graduate in 2010 with a double major in Indian studies and psychology, followed by graduate school for clinical psychology. Luger is a member of the Turtle Mountain Band of Chippewa and a graduate of Red River High School in Grand Forks. Her mentor is **Van Doze, PhD**, associate professor of pharmacology, physiology and therapeutics, Grand Forks.

UND students **Sierra Abe** and **Jenna Parisien** were recognized as Alan Allery Undergraduate Health Researchers of Promise. Abe is a junior studying psychology with minors in non-profit leadership and political science. Of Hidatsa and Arikara descent, she is originally from



Jenna Parisien receives Alan Allery Undergraduate Health Researchers of Promise award from Jacquie Gray, PhD (left)

Hazen, ND. Parisien, a senior studying pre-medicine, is a member of the Turtle Mountain Band of Chippewa originally from Belcourt, ND. Abe's mentor is Gray; Parisien's is **Julia Zhao, PhD**, assistant professor of chemistry, UND, Grand Forks.

The awards are named in honor of the late **Alan Allery, PhD**, a fallen member of the Turtle Mountain Band of Chippewa. Actively involved on the UND campus, he was an adjunct clinical assistant professor at the Center for Rural Health, director of the National Resource Center on Native American Aging, and director of Student Health Services. His experience included 30 years of work with American Indian people.

The awards are presented annually as part of the American Indian Health Research Conference,

sponsored by the UND Center for Rural Health, North Dakota IDEa Network of Biomedical Research Excellence, UND School of Medicine and Health Sciences and American Indians Programs Council. This year's conference, scheduled for March 27 in Grand Forks, was canceled due to flood complications around the region.

Dr. Alan J. Allery Undergraduate and Graduate Awards



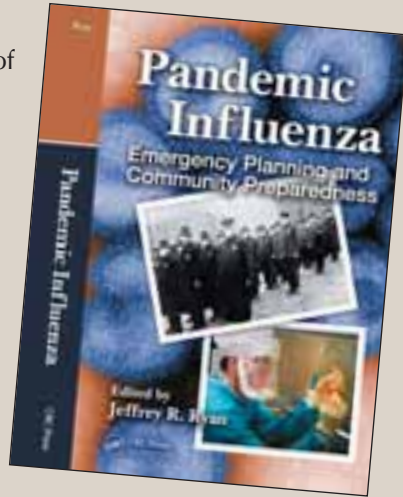
Alan J. Allery, PhD (MEd, MHA), was a member of the Turtle Mountain Band of Chippewa and adjunct clinical assistant professor at the Center for Rural Health, principal investigator and director of the National Resource Center on Native American Aging, and director of Student Health Services at the University of North Dakota. His experience included 30 years of work with American Indian people, including 15 years with the Indian Health Service in various capacities and 15 years with UND developing numerous projects. He died July 14, 2007 in Bemidji, MN.

WEB EXCLUSIVE: To read about award recipient Sonia Marrone, visit: www.ndmedicine.org



Pandemic Flu Expert Provides Insight for Graduating Medical Students

Jeff Ryan, PhD, assistant professor at the Institute of Emergency Preparedness, Jacksonville, AL, State University, and **Linda Olson, EdD**, associate professor of family and community medicine and director of special projects, Office of Medical Education, UND medical school, signed books in May at the University Bookstore. The book, *Pandemic Influenza: Emergency Planning and Community Preparedness*, is written by Ryan and includes a chapter on the Spanish influenza outbreak of



1918, by Olson.

Ryan, a retired U.S. Army lieutenant colonel with extensive background in preventive medicine, epidemiology, clinical trials and diagnostics development, also presented a talk and exercise for members of the MD Class of '09 during their Dean's Colloquium in the week before medical school commencement. He has written more than 40 scientific, peer-reviewed journal articles and was the lead instructor and co-developer of the Pandemic Influenza Planning and Preparedness course taught at the Center for Domestic Preparedness in Anniston, AL.

Also author of the textbook, *Biosecurity and Bioterrorism: Containing and Preventing the Biological Threat*, Ryan is a leading authority in biosecurity, biodefense, medical aspects of emergency management, homeland security planning and preparedness, and terrorism studies.

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presented by **Jeffrey Ryan, PhD**

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Awards Honor Rural and Public Health Providers

Rural and public health providers, volunteers and organizations were recognized recently with awards.

The North Dakota Public Health Association presented the

- Public Health Worker of the Year to **Debbie Swanson**, Grand Forks Public Health Department, Grand Forks, and
- Outstanding Service to **Heidi Heitkamp**, Mandan.

The North Dakota Medicare Rural Hospital Flexibility Program's Making a Difference Award went to the **MeritCare Critical Access Hospital Network, Fargo**.

The Dakota Conference on Rural and Public Health planning committee presented three awards:

- Outstanding Rural Health Professional to **Sharon Ericson**, CEO, Valley Community Health Centers, Northwood;
- Outstanding Rural Health Program to **Altru's Hospice in Partnership with Faith in Action**, Cavalier;
- Outstanding Rural Health Provider to **Gwen Witzel**, Cavalier County Memorial Hospital, Langdon, and
- Outstanding Rural Health Volunteer to **Sarah Heitkamp**, Petersburg.

The awards are presented annually as part of the Dakota Conference on Rural and Public Health, which was canceled because many of the conference's participants were providing support during the statewide emergency from flooding and severe weather.

'00s

Tara Keshavarz (MPAS '08), a physician assistant, has recently joined MeritCare Neuroscience Center in Fargo.

Audrey Bercier (MPAS '07), Belcourt, ND, has been honored by UND for her professional achievements. She is one of seven Native Americans featured in a poster campaign, titled "Beyond Beads and Feathers," the second such effort by UND to address stereotypes and pigeonholing, and to celebrate the aspiration and abilities of Indian people. The posters will be displayed across campus and around the country.



Audrey Bercier with a patient at Belcourt, ND

A member of the Turtle Mountain Band of Chippewa and a former nurse, Bercier is one of seven American Indians honored by the University for seizing educational opportunities and moving into fields of their interest, their passion and shattering stereotypes. She works at the Quentin M. Burdick Memorial Healthcare Facility in Belcourt.

Bret Danielson (MPAS '06) physician assistant, has joined RiverView Urology Clinic, based in Crookston, MN. He joins Steven Schultz, MD, urologist, and Kari Anderson, family nurse practitioner, and sees patients at RiverView Urology Clinic in Grand Forks and the Family Clinic in Crookston.

Danielson received his undergraduate and Master of Physician Assistant Studies degree from UND. He comes to RiverView from St. Luke's Hospital in Duluth, MN.

Kristin Sonderland (MOT '06), and Dan Hauschild were married May 2 at Fargo. She is a 2000 graduate of Shanley High School, Fargo, and works as an occupational therapist at Lake Region Therapy Services in Dilworth, MN, and MeritCare Health System in Fargo. Her husband, a '94 graduate of Wahpeton (ND) High School, is operations manager at Bergseth Bros., Fargo.

'00s



Joshua Hamilton (DPT '04), has joined Diamondback Physical Therapy in Gilbert, AZ, where he provides outpatient care in orthopedic physical therapy and sports medicine. He worked for four years for Welch Physical Therapy in Chandler, AZ.

Diane Hill (PA '04) has joined Alicia Roberts Medical Center (ARMC) staff in Klawock, AK. In addition to providing physician assistant services at ARMC, she will also work at Thorne Bay Health Center. A longtime Alaskan, Hill earned an associate's degree in nursing from Anchorage (AK) Community College. Before moving to Prince of Wales Island, she spent 25 years at Fairbanks (AK) Memorial Hospital, including the last 20 years as an emergency room nurse.

Hill is certified as a physician assistant by the National Commission on the Certification of Physician Assistants. A registered nurse, she holds a certified emergency nurse credential from the Emergency Nurses Association. She served as a certified sexual assault nurse examiner from 1996 to 2005.

JoEllen Kohlman, MD '04, married Jeremy Petrick on Nov. 29, 2008 at Minnetonka, MN. She is a '95 graduate of Williston (ND) High School and earned an undergraduate degree from Iowa State University. She practices cardiology. Her husband, a graduate of Minot State University, is a clinical field representative for Boston Scientific.

Brandon Helbling, MD '03, practices with Mid Dakota Clinic, based in Bismarck. He specializes in general surgery, vascular surgery and weight-loss surgery, and sees patients in Bismarck and Minot. He took surgical training at Michigan State University in Kalamazoo, MI. Certified by the American Board of Surgery, he is a member of the American College of Surgeons, the Society of American Gastrointestinal Endoscopic Surgeons and the American Medical Association.

Kevin Wentworth, MD (Family Medicine Residency '03), has joined Innovis Health West Fargo (ND). He earned the Doctor of Medicine degree from the University of Minnesota Medical School and completed residency training at the UND Family Medicine Program in Grand Forks. He is board-certified in family medicine.

Judy Bellanger Dahl (PA '01), has joined St. Mary's Innovis Health in Detroit Lakes, MN. She previously worked at the Perham (MN) Memorial Home and Roseau (MN) Area Hospitals and Homes.

Northwood Physician Named Outstanding Trio Program Alumna

Roxanne Jonas, MD '00 (BSCLS '93, BS Psychology '95, Family Medicine Residency '03), Northwood, ND, has been selected to receive the 2009 Outstanding UND TRIO Alumni Award.

Jonas practices at Valley Community Health Care (VCHC), a non-profit clinic that's part of the Community Health Care Association of the Dakotas (CHAD), and was recently honored with the 2008 Outstanding Rural Health Program award by organizers of the Dakota Conference on Rural and Public Health.

In addition to her medical degree, Jonas earned a Bachelor of Science in Clinical Laboratory Science degree with a minor in chemistry in 1993 and a BS in Psychology in 1995. In 2003, she completed family medicine residency training at the UND medical school's program in Grand Forks and earned board certification in family medicine.

Jonas, who refers to the clinic as "a little gem on the prairie," offers well-baby checks, yearly exams, immunizations and other services. For the community and surrounding area, she is planning to add activities that promote children's health, including a kids' health fair, and a monthly talk on health topics such as osteoporosis, vitamin D deficiency and women's issues.



The VCHC clinic is a vital part of the community and the surrounding area, according to a recent article by Kim Miller in the local newspaper, *The Northwood Gleaner*. It provides discounted services based on patients' income level and family size, with a sliding fee scale; no one is turned away.

'90s



Vicki Gorder, PA-C (MPAS '96), recently had a case study published in the March '09 issue of *The Journal of the American Academy of Physician Assistants*. The study, titled "Treatment of restless legs syndrome with iron infusion therapy," dealt with evaluating a patient with symptoms of restless leg syndrome.

Gorder, a physician assistant with Altru Health System's Internal Medicine Department in Grand Forks, is a member of the American Academy of Physician Assistants and the North Dakota Academy of Physician Assistants.

Susan Kuntz, PhD, assistant professor of family and community medicine, Grand Forks, assisted with editing the case study and helping to get it published in the journal. She is a faculty member with the Physician Assistant (PA) Program at the UND School of Medicine and Health Sciences.

Jon Norberg, MD '96, Fargo, has been inducted as a fellow of the American Academy of Orthopedic Surgeons. He practices with the Advanced Hand and Upper Extremity Center in Fargo, specializing in hand, elbow and upper extremity conditions and surgery.

The Academy is the largest medical association for musculoskeletal specialists. Its fellows have completed medical school, plus at least five years of specialty study in an accredited residency program, passed a comprehensive oral and written exam, and have been certified by the American Board of Orthopedic Surgery.

'90s

Kelli Ostermann, MD '96, has joined Wheaton Franciscan Medical Group in Racine, WI. A primary care physician, she is board certified in pediatrics. She completed a residency program in pediatrics at Iowa Methodist Medical Center/Blank Children's Hospital in Des Moines, Iowa.



'90s

Daniel Ostlie, MD '94, has joined Innovis Health, based in Fargo. He works in the sports medicine department and provides specialized care in sports medicine for all ages, seeing patients in Fargo and Jamestown, ND. He specializes in medical orthopedic and sports medicine care for patients of all ages, treatment for sprains, strains, fractures and arthritis; sports physicals, performance enhancement and concussion management.

Ostlie is certified by the American Board of Family Medicine and a fellow of the American College of Sports Medicine.

Rance Hafner, MD '92 (Family Medicine Residency '96), Green Bay, WI, has received the Certificate of Added Qualifications (CAQ) in Hospice and Palliative Medicine from the American Board of Medical Specialties (ABMS) in the certificate's first offering.

Ten member boards of the American Board of Medical Specialties, including the American Board of Family Medicine and American Board of Internal Medicine, are co-sponsoring the certificate to recognize excellence among certified physicians who emphasize the care of seriously ill patients with life-limiting illnesses and dying patients in their practice. The field of hospice and palliative



medicine is based on expanding scientific knowledge about symptom control when a cure is not possible and appropriate care during the last months of life.

Hafner is medical director at Unity, a not-for-profit leader in hospice and palliative care and the result of a partnership of Green Bay's three not-for-profit hospitals – Bellin Health, St. Mary's Hospital Medical Center and St. Vincent Hospital. He has been employed by Unity since June 2001.

Unity provides community-based hospice and palliative care, residential hospice care and grief support in 12 counties in northeastern Wisconsin. It is a member of the National Hospice and Palliative Care Organization (NHPCO).

At Unity, Hafner oversees the end-of-life patient care programs, working with the nursing staff, social workers, chaplains, grief counselors and volunteers to deliver the highest quality care possible to patients and their families.

Hafner, a graduate of the UND Family Medicine Program in Grand Forks, is certified by the American Board of Family Medicine (ABFM) and American Board of Hospice and Palliative Medicine (ABHPM). He is a member of the American Academy of Family Physicians (AAFP), the American Medical Association (AMA), the Medical Society of Wisconsin and the American Academy of Hospice and Palliative Medicine (AAHPM); and served as the 2008 chair of the Wisconsin Cancer Council.

He and his wife, Kristin, and their children Samuel, Maxwell, Jacob and Kathryn, live in Green Bay.

Workshop Highlights Research and Opportunities in OT

Occupational therapy students and faculty in UND's satellite program at Casper, WY, gathered for a two-day workshop in April to share research studies and emerging opportunities in their field. Organized by the UND Casper Student Occupational Therapy Association, highlights included presentations ranging from animal-assisted therapy to helping patients who've experienced brain injury. Well-attended by alumni and students, the event offered provocative workshops covering a range of topics. **Sonia Zimmerman, PhD (MA '89), OTR**, assistant professor of OT at UND, Grand Forks, and **Sarah Nielsen (BSOT '00)**, adjunct OT faculty member, Minot, conducted a three-hour workshop, "Psychosocial Aspects of School-age Children and OT's Role." The growing field of "AgrAbility" was the focus of a presentation by **Carla Wilhite, MNM, OTR/L**, assistant professor, and **Sarah (Freeburn) Perry (MOT '03), OTR/L**, who described the need and effectiveness of the role of occupational therapy in helping injured farmers and ranchers to not only return to the land and continue to farm and ranch but, more importantly, to perform the work that is their calling and their way of life, says **Diane Walters**, director of development for the UND medical school, who attended the event along with **Janet Jedlicka, PhD, OTR/L**, chair and associate professor of the Department of Occupational Therapy at the UND medical school.



John Birdzell, MD (BS Med '33), passed away March 1, 2009 in Crown Point, IN, after a brief illness. He was 98. A native of Grand Forks, he attended UND and Northwestern University School of Medicine, where he earned the Doctor of Medicine degree in 1936. He served in World War II in the Army Air Corps from 1942 to 1945 as a flight surgeon with the 806th Air Evacuation and Tactical Squadron, 9th Air Corps, stationed in England. He was awarded the Bronze Star and attained the rank of major prior to discharge.

In 1938, he joined a medical practice in Crown Point and, with the exception of military service, practiced there for nearly 40 years. He retired from practice in 1977.

During his career, Dr. Birdzell delivered more than 2,000 babies, performed more than 5,000 surgical procedures and made more than 20,000 house calls. He was a fellow of the American College of Surgeons, a member of the American Medical Association and the Indiana State Medical Society.

Peter Geiser, MD (BS Med '43), died Feb. 6, 2009 in Alexandria, MN. He was 88.

A native of New England, ND, he graduated valedictorian in 1938 from St. Mary's High School in New England. After graduating from the UND medical school, he received his MD degree from Bowman Gray School of Medicine at Wake Forest College in Winston-Salem, NC, in 1944.

Dr. Geiser served his internship and residency at St. Mary's Hospital in Minneapolis. He enlisted and served in the U.S. Army from 1943 to 1947 as a captain in the Medical Corps. In 1948 he and his wife, Dorothy, moved to Alexandria, where he established his medical practice. He retired in 1985 after delivering thousands of babies in his 37 years at the Alexandria Clinic.

Throughout his life Dr. Geiser belonged to a number of organizations, including the Minnesota Medical Association, American Academy of Family Practice, and the American Medical Association.

George ("Jim") Schunk, MD (BS Med '44), 87, died from cancer on Feb. 14, 2009 at his home in Salem, OR.

A native of Lakota, ND, he graduated from Bismarck High School and Jamestown (ND) College. His enthusiasm and partnership with other physicians led to the founding of the Salem Pediatric Clinic. He practiced pediatrics for 34 years in Salem. He also worked in a drug and alcohol treatment facility, plasma center and urgent care, and as a pediatrician in Woodburn (OR) for three years.

His energy and dedication to teaching parents, students, nurses and other doctors was limitless. The profession benefited from his teaching as a clinical professor at the University of Oregon medical school. He volunteered in migrant camps; served aboard the ship, *Hope*, in Brazil, and established education rounds at the Salem Hospital. He also served as an examiner for the American Board of Pediatrics for eight years.

Dr. Schunk held two patents, one for accurately measuring the length of babies and another for giving them medicine safely. He retired in 2000.

Myron Talbert, MD (BS Med '44), 85, of Redlands, CA, died March 8, 2009.

A native of Omaha, NE, he was the son of Katherine and **Dr. George Talbert**, a physiology professor who taught for many years at the UND medical school. In 1924, his family moved to Grand Forks where he graduated from high school in 1940.

In 1946, Dr. Talbert received his MD degree from Temple University School of Medicine, Philadelphia. He joined the Army Specialized Training Program as an orthopedic surgeon and was assigned to McCormack General Army Hospital in Pasadena, CA. In 1950, he began his surgical residency at Madison (WI) General Hospital and, after completing training, returned to Grand Forks where he opened his first practice.

Dr. Talbert was admitted as a fellow of the American College of Surgeons in 1956 and moved his family to Redlands that same year. Early in his practice he became the physician for the University of Redlands, providing medical care for the Los Angeles Rams during spring training on campus, and was the team doctor for the Redlands High School football team for 20 years. He practiced for 40 years, including 33 years in Redlands before retiring in January 1990.

During his tenure at Redlands Community Hospital, Dr. Talbert was twice elected chief of staff; he also was elected chief of staff of the San Bernardino (CA) County Hospital, now the San Bernardino County Medical Center. For more than 25 years, he taught for the UCLA and Loma Linda medical schools.

John Norton, MD (BS Med '51), 82, of Scottsdale, AZ, died Jan. 2, 2009.

After earning the Bachelor of Science in Medicine degree at UND, he went on to earn the Doctor of Medicine degree at the University of Colorado. He was retired from general practice.



John Swenson, MD (BS Med '52), died April 6, 2009, at age 81, because of kidney failure.

A native of Jamestown, ND, upon graduation from Jamestown High School in 1946, he enlisted in the U.S. Marine Corps. He graduated from Jamestown College in 1950, received the Bachelor of Science in Medicine degree from UND in 1952, and earned

his MD degree from the University of Nebraska in 1954.

At UND, Dr. Swenson is memorialized by the John A. Swenson Student Health Services clinic, named in his honor in 1998. During 18 years as director of the clinic, he

revolutionized its scale and methods, bringing it from a one-nurse infirmary to a full-service medical facility that included many innovations, making care accessible and affordable. His small-town doctoring approach remained constant even as Student Health Services grew to more than 30,000 outpatient visits annually.

Dr. Swenson retired as director of the UND Student Health Services on Dec. 30, 1994.

Lowell Mickelson, MD (BS Med '70), 62, of Detroit Lakes, MN, died Feb. 11, 2009 at his residence.

A native of New Rockford, ND, he received his undergraduate and two years of medical education at UND and earned his medical degree at the University of Washington School of Medicine in Seattle. He began his general practice of medicine on Rosebud Indian Reservation in Winner, SD.

In 1975 he began practicing emergency medicine at St. Luke's Hospital (now MeritCare Hospital), Fargo; United Hospital (now Altru Hospital), Grand Forks, and Heartland Medical Center, Fargo. During his years of practice, he established Lakes Emergency Physicians, providing physician coverage for area emergency departments.

Beverly Brown (BSMT '72), of Alameda, CA, died March 16, 2009 after suffering a brain aneurysm that had struck suddenly on Nov. 2, 2008.

A native of Grand Forks, she became licensed by the American Society of Clinical Pathologists and in California as a clinical laboratory scientist in 1976. She was a highly regarded and valued employee of Kaiser Permanente for 33 years; she worked at Kaiser San Francisco, Kaiser Regional Laboratory in Berkeley and, most recently, with Kaiser's Northern California Laboratory Information System.

Mary Kathleen "Katie" Keogh (MPT '93, BSPT '74), 57, a longtime Williston (ND) resident, passed away at Rochester (MN) Methodist Hospital on April 25, 2009 after a brief illness.

A native of Williston, she was the second of seven children of Kathleen (O' Connor) and the late **Edward Hagan, MD (BS Med '40)**. After graduating from Williston High School in 1969, she attended Gonzaga University in Spokane, WA, for two years, and transferred to UND, where she completed her bachelor's degree. She practiced physical therapy in Oklahoma City, OK, and Phoenix, AZ.

She and her husband, Frank, lived for 10 years in Fargo, where she practiced physical therapy at Dakota and St. Luke's hospitals. The Keoghs welcomed their first child, Erin Kathleen, in 1980, followed by Colleen Hyland in 1981 and Patrick Brooks in 1984. In 1987, the family moved to Williston where she continued her physical therapy career.

She was very active in church and community organizations, including the Roughrider International Art Show, St. Joseph's Altar Society and Catholic Daughters, American Association of University Women, and the Friends

of the North Dakota Governor's Mansion. She chaired the local United Way fund-raising drive and the Mercy Medical Foundation board of directors for several years.

Carl Osmundson, MD '98, Big Lake, MN, died March 21, 2009, at age 44, after a three-year battle with cancer.

A native of Grand Forks, ND, he graduated from Grand Forks Central High School and served as a captain in the National Guard with the 187th Medical Battalion. After graduating from the UND medical school in 1998, Dr. Osmundson went on to complete his residency at the Eastern Virginia Medical School (EVMS) in Norfolk, VA. In 2003, he and his wife, Patricia (Boucher), moved to Big Lake, MN, with their two daughters.

Dr. Osmundson joined the Buffalo Clinic P.A. in 2004, and quickly developed a reputation as a keen diagnostician. He worked in the Monticello (MN) Clinic for a year, doing traditional inpatient/outpatient medicine. He developed the inpatient hospitalist program for the Monticello Clinic at the Monticello-Big Lake Community Hospital. Since 2008, he has served as medical director for the hospitalist and inpatient rehabilitation programs.



Walter Bo, PhD, former faculty member in the Department of Anatomy at the UND medical school, died March 21, 2009 at Winston-Salem, NC. He was 86.

A native of Chisholm, MN, Dr. Bo earned his undergraduate and master's degrees from Marquette University and the doctoral degree from the University of Cincinnati in 1953. He

then began his teaching career at UND and, in 1960, joined the faculty at the Bowman Gray School of Medicine where he remained as a full professor for 47 years.

In 1980, he collaborated on the medical reference book, *The Basic Atlas of Sectional Anatomy*, which continued publication through a fourth edition. He was recognized for outstanding teaching with the Alpha Omega Alpha Robert J. Glaster Distinguished Teaching Award, as well as numerous other awards for excellence in teaching and distinguished faculty awards from the medical school.

At the time of his death, Dr. Bo was a professor emeritus of neurobiology and anatomy at Wake Forest University School of Medicine.



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“I’m going to medical school and raising my family, and I gave up a career in physical therapy to become a physician. It was a big decision. A \$5,000 scholarship has had a big impact on my financial situation and ... reminds me that I’m doing the right thing!”

Chad Hanson, Scholarship Recipient

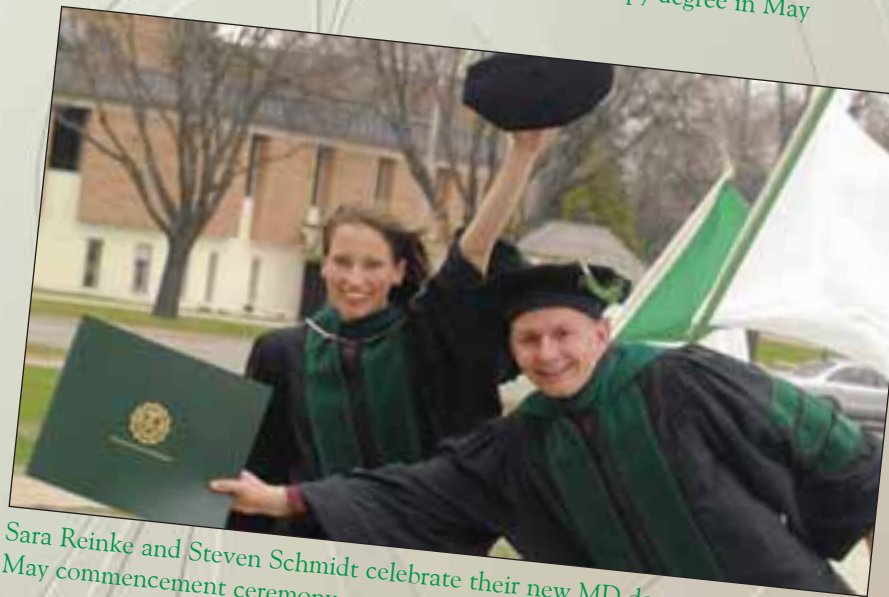
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Occupational Therapy '09 graduates Katie Nagorka and Jennifer Hamre presented a research project on animal assisted therapy at the annual Frank L. Low Research Day earlier this spring



Forty-nine students received their Doctor of Physical Therapy degree in May



Sara Reinke and Steven Schmidt celebrate their new MD degrees at the May commencement ceremony



Jessica Gunville, MSW '09, of the Turtle Mountain Band of Chippewa, receives a quilt from former Dean H. David Wilson, MD (left), and Associate Dean for Student Affairs and Admissions Judy DeMers at the INMED Honoring Ceremony



With foam hockey pucks and a custom jersey, Laboratory Education from North Dakota (LEND) coordinator Chris Triske (left) was a big hit at the Clinical Laboratory Management Association's ThinkLab '09 in Tampa, FL.



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Hands-on Experience Gives Children **Close-up Appreciation of Science**

Giggling, curious, wide-eyed children flooded the medical school to learn more about science and how the body functions at the annual Science Day in April. About 275 fifth- and sixth-graders from throughout the region rotated through various stations where medical students engaged them with hands-on experiences and experiments that demonstrated scientific principles. The kids viewed X-rays, tested tuning forks and reflex hammers, listened to heart sounds with stethoscopes, learned about the digestive tract and studied preserved organs. More than 70 medical students participated in the project that's designed to stimulate children's interest in the biomedical sciences, said **Tyler Brolin**, second-year medical student who coordinated the event.