THE BUILDING THE SHELL SCIENCES

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

Unexpected Reformer

Remembering Tom Clifford

Connecting You with *i*

A Life-Changing Experience

The Value of LEND

Spring 2009 VOLUME 34, NUMBER 1 www.ndmedicine.org



As the University of North Dakota community mourns the recent death of former **President Tom Clifford**, I am reminded of Chapter 5 in the medical school's centennial book, *North Dakota, Heal Thyself*, called "Clifford's Gamble." It chronicles the school's difficult transition from a two-year to a four-year institution, and President Clifford's pivotal role in making the transition happen successfully.

"It was the first thing on my agenda when I took office," says Clifford. "One of the first letters I received from the American Medical Association said, 'you can either change or go out of business.' That news was difficult to accept because we had a very good two-year school, great research, and great acceptance of our students. It was hard to think that all that would come to an end and yet that was exactly what the letter was telling me. We had to go into unchartered waters and we started immediately." (p. 127)

An astute politician and visionary, President Clifford recognized the value and importance of in-state medical education. Our school may not even exist today had it not been for his leadership. He left an unbelievable legacy.

As my tenure at the medical school draws to a close after 14 wonderful years, I often think of my own legacy. What will I be remembered for? I'd like to be associated with the projects that brought me great joy—the incorporation of patient-centered learning, the focus of research on issues that affect North Dakotans, and the increased emphasis on prevention activities through our education and programming.

And now I ask you, my friends, what will your legacy be? Like President Clifford, you can also have a lasting impact on the UND School of Medicine and Health Sciences. With medical school debt approaching a staggering \$150,000 and other programs straining under similar figures, there is no time like the present for you to create an endowment that funds student scholarships. I encourage you to contact **Diane Walters**, our new development officer (profiled on page 29), and she'll walk you through the process. We all thank you for your consideration.

Until next time,

H. David Wilson, M.D.

Vice President for Health Affairs and Dean













UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE AND HEALTH SCIENCES

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On the cover: John Fischer, MD (BS Med '65), of Gunnison, CO, a neuroradiologist and interventional radiologist, believes strongly that Americans must take control of their own health and that more focus should be given to a wide array of effective and safe treatment modalities. Cover and story art provided by John Fischer, MD (see page 4).

Correction: In the article, Beyond the Book (Winter '09), Jonathan Thompson was misidentified as Jonathan Trapnell. We regret the error.

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Unexpected

'65 Alumnus Commits Major Gift to Build Integrative Medicine



An avid outdoorsman, John Fischer, MD (BS Med '65), of Gunnarson, CO, is supremely health-conscious; since 1976, his diet has been derived almost entirely from what he has hunted, caught or trapped. Through his major gift to establish an integrative medicine program at UND, he wants to see medical students "exposed, at a very practical level," to basic modalities of complementary and alternative treatment, he says, that are "equally efficacious, safer and better for the patient than drugs."

Reformer

into Education of Health Professionals at UND

S A HARVARD-TRAINED neuroradiologist and interventional radiologist, John Fischer, MD (BS Med '65), has "climbed to the top of the high-tech medical mountain," he says.

"There is no good health at the top of the mountain; only disease. Disease and enormous costs."

The physician who spent his career performing the most sophisticated, high-tech procedures is an unlikely, yet passionate, advocate for a growing movement in medicine that emphasizes a broad, holistic approach to patient care, focusing on wellness and encompassing a wide variety of proven and even ancient practices that American doctors have been reluctant or unwilling to adopt.

In the United States, "we don't have a health care system; we have a disease care system," he maintains. "We focus on disease care; there is little interest in health."

Fischer has come "full circle," he says, back to the opposite end of medicine which espouses less reliance on expensive high-tech procedures, surgeries and medications and embraces the fundamentals of good health: basic nutrition, exercise and a good, healthy lifestyle.

Ineffective, expensive, potentially dangerous

The use of "high-tech medicine has rarely made anyone healthy," he says, acknowledging that, with it, "we've been able to ameliorate some disease, extend a few lives. But it certainly doesn't give you good health."

He's deeply concerned about the American health care system and that, as a country, "we can't afford this hightech medicine that produces so few benefits. The runaway cost of health care is financially catastrophic. It is time to focus on good health instead of disease. We need to keep people out of the disease care system."

Further, "physicians are slaves to drug companies. If you take away our prescription pads, we're impotent," he asserts. "There's more to medicine than peddling pharmaceuticals, some of which are very toxic, even lethal... Others do more harm than good."

When society surveys the alarming evidence of medical errors and the serious side effects of the drugs physicians prescribe, he observes, "doctors are dangerous to your health."



Health is a function of nutrition, lifestyle and exercise.

He notes that 89 percent of people over 60 years old are taking at least one prescription medication, and most are taking several. "The good physician of the future will be judged by the number of drugs they get people off of."

While not condemning drug companies, Fischer recognizes that their "sole motive is profit," and that physicians' dependence on pharmaceuticals is rooted in their medical training.

"I want to change that," he says. "Medical students should be exposed

to alternative treatment methods early on, so they become comfortable with them and knowledgeable in their use. Then, they will be able to combine the best of pharmaceutical medicine and alternative medicine in their treatment of patients. It does not have to be 'either/or.' It can be 'both.'"

The goal is to "naturally incorporate alternative medicine into their practices," he says. "There's so much more out there that physicians can use – good therapies that would help them in their practice and that patients would love to use" instead of drugs.

Gentler, more benign approach

Fischer is convinced that part of creating a health care system in our country includes patient care that encompasses naturopathy, homeopathy, biological approaches such as herbs, vitamins and supplements, therapeutic massage and manipulation, traditional Chinese medicine, Ayurveda as well as mind-body medicine involving patient support groups and meditation.

"There are gentler, more benign ways of treating disease than they learn in medical school," he says. "I want

to blend the best of both worlds – the allopathic with the alternative."

"We don't have drug deficiencies, we have *lifestyle* deficiencies," he says. "People have to take control of their own health. The two pillars of good health are diet and exercise. Doctors cannot give you good health. They can point the direction, but only you can give yourself good health. It is not a gift; it is a choice."

Charles Christianson, MD, associate dean for clinical education and associate professor of family and community medicine, Grand Forks, who is spearheading the school's efforts concerning integrative medicine, echoes this viewpoint, noting, "Our students need familiarity with these modalities.

"Students who understand these modalities are non-judgmental and comfortable getting history from patients" that includes their use of alternative treatments, he says. Studies show that Americans make more visits to complementary and alternative health providers than to primary care physicians.

"We intend to take what's *proven* in the field of complementary and alternative medicine and integrate it into the practice of allopathic medicine."

Weil Grant Expands Integrative Medicine at UND

THE UND CENTER FOR FAMILY MEDICINE-MINOT HAS received a \$15,000 grant from the Weil Foundation to plan a formal program to teach integrative medicine to medical students and physicians-in-training.

Integrative medicine is a healing-oriented approach to medicine that takes into account the whole person – mind, body and spirit – including all aspects of lifestyle, says **Neena Thomas-Eapen, MD, FAAP (Family Medicine Residency '02)**, director of the project and assistant professor of family and community medicine, UND Center for Family Medicine-Minot. It emphasizes the therapeutic relationship between the patient and the doctor, and makes use of *all* appropriate therapies, both conventional and alternative.

The grant will be used to explore a collaboration with the **Arizona Center for Integrative Medicine** at the University of Arizona which may lead to development of a fellowship program or extend training in integrative medicine. Thomas-Eapen is a senior graduate fellow of the Program in Integrative Medicine. In 2007 she completed the Residential Fellowship Program in Integrative Medicine, founded by **Andrew Weil, MD.**

"Because of this grant, patients who see me at the clinic will receive more health-, wellness- and preventive-oriented, whole-person care," Thomas-Eapen says. "They will have the freedom to discuss and explore their

options from all aspects, like nutrition, botanicals, mind-body techniques including clinical hypnosis, spirituality and alternative and complementary therapies in addition to everything that happens in a conventional primary care setting.

"We hope that the education of the doctors and residents will lead to better whole-person care



Neena Thomas-Eapen

for the patients and help the patients to discuss their options with doctors more openly, both conventional and alternative."

The Weil Foundation is a not-for-profit organization founded by Weil as a long-term funding mechanism for the advancement of integrative medicine through training, research, the education of the public, and policy reform.

Christianson is also keenly interested in "the mechanisms, the biologically active agents, that make something work in the body," and foresees that aspect as part of a potential research prong in the school's incorporation of integrative medicine.

"It will really impact teaching in the clinical setting," he says. "We will be engaging our faculty, in a positive way, around how we teach our students."

Major financial commitment

Fischer is so passionate about the need for complementary and alternative medical education that he's made a major contribution to the UND medical school to establish the John R. Fischer, M.D., Professorship in **Integrative Medicine**. He's committed to encouraging young doctors to leave behind their dependency on the drug industry and gain exposure, early on, to integrative medicine.

The UND medical school's orientation to family medicine and primary care is "a good setting" for this initiative, he says. Its "patient-centered learning" approach to medical education is "the perfect way to introduce alternative methods that are equally efficacious, safer and better for the patient than drugs.

"The sooner they're exposed to it, the more comfortable thev'll be."

Fischer, who attended medical school at Harvard with Andrew Weil, MD, has sought his classmate's advice on prospects to fill the Professorship in Integrative Medicine. A prolific author, Weil is considered a pioneer in the progression toward a naturalistic approach to health and wellness. He established the Arizona Center for Integrative Medicine at the University of Arizona, the first in the country to offer training in integrative medicine.

"We don't have to re-invent the wheel," Fischer affirms, "but we can change the shape of the wheel, and personalize the program in North Dakota to fit North Dakota.

"Students will benefit in the short run. The people of North Dakota will benefit in the long run."

- Pamela D. Knudson

The Dr. Verrill J. and Ruth Fischer Endowment

DR. IOHN FISCHER IS THE SECOND MEMBER OF HIS family to contribute a major gift to establish an endowed professorship at the UND School of Medicine and Health Sciences. In 1998, his parents established The Dr. Verrill J. and Ruth Fischer Endowment to fund the first major professorship at the UND medical school: The Dr. Verrill J. and Ruth Fischer Professorship in Family Medicine. Robert Beattie, MD (BS Med '89), chairman of the Department of Family and Community Medicine, Grand Forks, holds that title.

Verrill Fischer, MD (BS Med '35), earned the Doctor of Medicine degree from Rush Medical College at the University of Chicago in 1937. He opened his first practice in Pine City, MN, where he performed the first Caesarean section delivery, and later practiced in Towner, ND.

During military service with the U.S. Army, he jumped with the paratroopers of the 101st Airborne Division on D-Day, June 6, 1944 in France. After World War II, he returned to North Dakota where, along with several physician colleagues, he founded the Medical Arts Clinic which opened in Minot in 1958.

A skilled doctor and visionary, Dr. Fischer had a long and illustrious career as a physician, surgeon and leader in Minot. He delivered more than 5,300 babies, which is believed to be more than any other doctor in the state,

and performed almost 20,000 surgeries. He held several leadership positions including chief of staff at Trinity Hospital, a member of the State Board of Medical Examiners and a Fellow of the International Academy of Proctology, and was involved in numerous civic boards and organizations.





Verrill and Ruth Fischer

Verrill and Ruth Ann (Frey) Fischer are survived by their children: John Fischer, MD (BS Med '65), Gunnarson, CO; Margaret Ann Moe, Minneapolis, MN, and Mark Fischer, MD (BS Med '77), Dothan, AL.

Remembering a great leader

THOMAS J. CLIFFORD

March 16, 1921 — February 4, 2009

PERHAPS NO OTHER INDIVIDUAL is more responsible for the existence of the four-year medical education program at the University of North Dakota than the president who served at one of the most important junctures in its history.

In the early 1970s, when President Thomas Clifford was new to his post, he faced the challenge of closing the medical school, which offered a two-year, basic science education, or building it into a four-year Doctor of Medicine (MD) degree-granting school. From its inception in 1905, the school had transferred its students to other schools to complete the final two years of medical education to earn the MD degree. Most never returned to practice in North Dakota.

President Clifford decided that young people in his home state should continue to have the



opportunity to pursue a career in medicine (since other public medical schools generally do not accept out-ofstate applicants and private medical education is cost-prohibitive). He committed himself to the daunting task of convincing other key leaders in the state to make that dream a reality.

Among the first who put their shoulders to the wheel were John Vennes, PhD; Robert Eelkema, MD, DVM (BS Med '59); Gary Dunn, and Wallace Nelson, MD.

"I had the great pleasure of serving as his dean for two years," remembers Vennes, interim dean emeritus and retired associate dean for academic affairs and professor and chair of microbiology and immunology, Grand Forks. "He was a great guy to work with in terms of being very progressive and supportive of the development of the medical school."

President Clifford "was critical to the development of the school," Vennes says. "Of the 40 years I (served) the school, he was president for 21. It was my great good luck to have him in that position."

In the early '70s, President Clifford; Vennes; Eelkema, chairman of the Medical Affairs Committee; Dunn, and Nelson, associate dean for students. charted the course for creating a complete medical education program in North Dakota. Each had a role in securing funding, executing the plan and convincing the legislature and the medical community of the need for it. savs Eelkema who landed the federal grant to start the school. "There was a lot of selling we had to do" to create a community-based school.

"If you have the right people, when certain events occur, interesting things can happen," concludes Vennes.

President Clifford "exemplified tremendous leadership qualities and ingenuity" to help build support for the MD degree-granting program, recalls Clayton Jensen, MD (BS Med '56), emeritus professor and chairman of family medicine, Detroit Lakes, MN.

"I learned more from him about how to approach legislators than anyone else," he says. "He had a lot of

knowledge and a grasp on each and every legislator," and how best to communicate with them.

During formal meetings with legislators, the president would let faculty and administrators present ideas and plans, "and then he'd wrap it up in a neat package," Jensen says. He was very receptive "to ideas you may have about involving faculty members, how to teach students and deliver medical education, and also how to motivate people to go into primary care. He was great in that regard.

As UND's eighth president and first native North Dakotan to serve in that post, Tom Clifford provided dynamic leadership in the early 1970s to enhance medical education, thus improving the quality of health care in the state. He worked closely with Robert Eelkema, MD, DVM (BS Med '59), chair of the Medical Affairs Committee and the school's first chair of community medicine.



UND file photo.

"And so knowledgeable about the medical school... He knew the potential of a four-year medical school."

lensen left his medical practice in 1974-75 to help establish the UND Department of Family Medicine, the fourth-year curriculum, and the family medicine residency programs in Minot and Fargo. He was the first director of the Fargo program and, from 1987 to 1996, served as department chair.

"So many people, both in the school and the state - Brynhild Haugland, Bryce Streibel, Earl Strinden," contributed to the effort, recalls **Tom Iohnson**. MD. who served as medical school dean from 1977 to 1988. President Clifford had the necessary political acumen to make it happen; "he knew the state."

"One of his greatest strengths was that he gave you all the rope you wanted. He let you do what needed to be done."

- Pamela D. Knudson

Connecting you with i

Creating the Health Workforce Information Center



IT'S FOUR WEEKS BEFORE THE project launch. Despite their hastily assembled office quarters, digital librarians are working with the precision and speed of an Indy 500 pit crew, steadily tagging, coding and adding information to "the database." Web and design experts have been laboring for weeks over how to organize "the database's" massive amounts of information into a website

that is easy to navigate. A cross-country communications team has been strategizing promotion of this new project, including the biggest national press conference they've ever worked on. And one soft-spoken, red-headed leader is orchestrating every strategic move.

This is a behind-the-scenes look at what it took to launch the Health Workforce Information Center – the nation's first online clearinghouse for information and resources related to health workforce professions and industry.

Seeing the need

This story actually begins seven months earlier in June 2008, when **Kristine Sande, MBA,** a project director at the University of North Dakota medical school's Center for Rural Health, Grand Forks, was browsing grants.gov for funding opportunities.

"I ran across a posting from the federal Health Resources and Services Administration (HRSA), looking for someone to produce a digital library on health workforce information, and knew we were the right team for the job," said Sande. "We created a similar online resource six years ago – the Rural Assistance Center – that has received over three million Web visits and has a strong

reputation nationally for being 'the place to go."

While much of the nation is experiencing a lack of job openings, health care job vacancies are at crisis levels. With critical shortages of physicians, nurses and allied health personnel, solutions to address the vacancies can come none too soon.

"We were looking for a way to more easily provide the wealth of valuable workforce information out there to health leaders across the country," said Elizabeth Duke, PhD, former HRSA administrator. "We thought that having the information in one easy-to-access resource would save them time and help them find things like educational programs and ways to retain health workers and ultimately increase and maintain staffing."

Four weeks after finding the grant opportunity, a swiftly-pulled-together team of experts, and one 80-page grant proposal later, the team waited, if somewhat impatiently, for a response. It arrived two months later: HRSA had selected the Center for Rural Health from a very competitive pool of applicants to establish the Health Workforce Information Center (HWIC).

health providers, educators, researchers and policy-makers around the nation develop strategies to meet future workforce demands.

Visitors have a broad range of publications and other resources at their fingertips. The site also offers free, customized assistance from information specialists who search databases on workforce topics and funding resources, furnish relevant publications, and connect users to workforce experts and federal programs, among others.

"Many people in government and private and nonprofit organizations need timely, easy access to the types of resources the center makes available," said Maren Niemeier, MLIS, HWIC's information architect. "Accurate information on health workforce will be vitally important in the ongoing health care debate, and we provide a way for individuals to get it from a single, trusted source."

An established reputation

The project capitalizes on Center for Rural Health expertise in producing and managing national information clearinghouses. The Center is one of the premier rural health organizations

At the end of the day, we're going to want to know that there is a doctor, a nurse or a pharmacist in the house when we need one.

The North Dakota team flew into a flurry of activity, adding seven staff members to help support the \$3.75 million endeavor and effectively outgrowing the Center's fourth-floor home at the UND medical school. With meticulous planning and an aggressive production schedule, the project was slated to launch February 5, 2009.

What is it?

HWIC provides information on health workforce resources in one centralized and easy-to-access online location—the first resource of its kind to do so, effectively saving visitors enormous amounts of time. Resources available through HWIC's website help

in the country, home to the oftenreferenced Rural Assistance Center (RAC), a gateway to rural health information, and a similar, soon-to-bereleased project for rural veteran information.

HWIC joins a long list of superstar projects that bring national attention to the generally quiet, reserved Northern Plains state. With the power of technology, HWIC doesn't need to be based in a major metro area like Washington, D.C., New York or Chicago. HWIC experts can live and work in North Dakota, but seamlessly connect people with experts and resources across the United States.



HWIC by the numbers

The HWIC website currently features:

- 85 professions
- 53 topics
- 1,318 organizations
- 1,524 resources, including publications, websites, databases, and other tools
- 102 events
- 214 funding programs
- 169 news stories

In one month:

- 12,885 visits
- 72,969 page views
- 51 information requests
- 467 subscribers to newsletter

Most popular pages:

- states
- topics and professions



Jim Bentley, PhD; Darrell Kirch, MD; Elizabeth Duke, PhD, and Kristine Sande, MBA, at the HWIC press conference in Washington, D.C.

"Connecting the nation to health workforce information now starts in North Dakota - at UND's doorstep. This initiative provides information that will be used to make well-informed decisions – whether in hospitals, universities or at our nation's Capitol," said Sande, HWIC director.

"Sharing information ranging from cutting-edge training initiatives to state policy strategies at one central location, HWIC is an efficient way for individuals to obtain timely and relevant workforce information," she continued.

Ready to roll

Thousands of hours of work, fueled by more caffeine than anyone dares admit, came to a head on February 5, 2009 when the new HWIC website debuted to a national audience of more than 75 reporters, organizational leaders, decision-makers and workforce specialists at the historic National Press Club in Washington, D.C.

Representatives from influential organizations such as the American Association of Family Practitioners and the National Association of

Community Health Centers lauded HWIC's time-savings benefit, provided by locating workforce-related information in one location.

"As our nation grows and changes, we face serious challenges to provide timely, effective and efficient care to people," said Jim Bentley, PhD, senior vice president for strategic policy planning at the American Hospital Association. "Whether market-based solutions or workforce planning, we need to have one set of accessible, shared facts that we can all work from."

Others talked hopefully about the collaboration that may occur, as users learn of model programs and connect with experts.

"This is just the beginning of us working together as a comprehensive system," said **Darrell Kirch, MD,** president and chief executive officer of the Association of American Medical Colleges. "So while this is a critically important tool, at the end of the day, every one of us is going to be in that bed someday and we're going to want to know that there is a doctor, a nurse or a pharmacist in the house when we need one."

Just getting started

The HWIC traveling team sat reflectively at Reagan National Airport in Washington, D.C., waiting to board a flight back to North Dakota. Physically and mentally drained by the intensity of HWIC's launch, they basked for just a moment in the wake of completing a successful and significant milestone in the project's short history. But the moment didn't last long. Anxious to learn how the first thousands of visitors were using the new resource, members pondered aloud how to refine the project even further. Back in North Dakota, the emails and phone calls poured in from curious and anticipating people across the country, getting right down to the business of searching for long-awaited health workforce information.

And so it began, the connection of people and information, in a big step toward improving the nation's health workforce system.

 Wendy Opsahl and Amanda Scurry



Dr. Mary Wakefield is new HRSA Administrator

February 20, 2009

President Obama today announced the appointment of one of the nation's top rural health care professionals as Administrator of the Health Resources and Services Administration (HRSA). Dr. Mary Wakefield, Director of the Center for Rural Health at the University of North Dakota, will oversee this critical agency, which helps to deliver health care to those who are uninsured and underserved by our current health care system.

"As a nurse, a Ph.D., and a leading rural healthcare advocate, Mary Wakefield brings expertise that will be instrumental in expanding and improving services for those who are currently uninsured or underserved," President Obama said. "Under her



Mary Wakefield, PhD

leadership we will be able to expand and improve the care provided at the Community Health Centers which serve millions of uninsured Americans and address severe provider shortages across the country."

In addition to Community Health Centers across the country upon which millions of uninsured

Americans depend for coverage, HRSA oversees many programs that the federal government runs to bring health care providers to underserved areas throughout the nation. In addition, HRSA will administer \$2.5 billion allocated in the Recovery Act to invest in our health care infrastructure and train health care professionals.

Dr. Wakefield's Bio:

MARY WAKEFIELD, PHD, WAS MOST RECENTLY THE Associate Dean for Rural Health at the University of North Dakota School of Medicine and Health Sciences, where she was a tenured professor and director of the Center for Rural Health. Wakefield has expertise in rural health care, quality and patient safety, Medicare payment policy, workforce issues, and public policy. She has authored many articles and columns on health policy and is on the editorial board of a number of professional journals.

Wakefield previously served as director of the Center for Health Policy, Research and Ethics at George Mason University in Fairfax, VA. She also served as the chief of staff for United States Senator Kent Conrad (D-ND) from January 1993 to January 1996 and as legislative assistant and chief of staff to Senator Quentin Burdick (D-ND).

Wakefield has served as a member of the Medicare Payment Advisory Commission and the Department of Veterans Affairs' Special Medical Advisory Group. She served as chair of the Institute of Medicine (IOM) Committee on Health Care Quality for Rural America and of the Catholic Health Initiatives Board of Trustees, and was a subcommittee chair for President Clinton's Advisory Commission on Consumer Protection and Quality in the Health Care Industry.

Wakefield received her M.S. in nursing and her Doctor of Philosophy degrees from the University of Texas at Austin and her B.S. in nursing degree from the University of Mary at Bismarck, ND. She is a fellow in the American Academy of Nursing, and is a recipient of numerous awards including the American Organization of Nurse Executives (AONE) 2006 Nurse Research Award and the 2008 Nursing Economics Margaret D. Sovie Writer's Award.

Alife-changing Research impacts lives in many different ways



The pre-eclampsia research project, run by Lyle Best, MD, at Turtle Mountain Community College, not only provides opportunities for students, but also has enabled him to expand and improve the capabilities of the school's lab.

SOMETIMES WHAT COMES OUT OF A RESEARCH PROJECT can go beyond advances in scientific knowledge. Sometimes it can change lives in ways nobody envisioned.

Melanie Nadeau, a member of the Turtle Mountain Band of Chippewa, didn't know how much her life would change when she decided to get involved with a research project at Turtle Mountain Community College (TMCC) in Belcourt, ND.

Lyle Best, MD, an instructor at the college and a family physician, conducts research exploring the causes of preeclampsia – also called toxemia – under a grant from the North Dakota IDeA Network of Biomedical Research Excellence (INBRE). INBRE, a program of the National

Institutes of Health (NIH) National Center for Research Resources, is administered by the UND School of Medicine and Health Sciences.

About six percent of pregnancies are complicated by pre-eclampsia. The symptoms include high blood pressure and abnormal protein in the urine. The mother can develop strokes, seizures and even die from various complications. If the condition becomes severe, the baby must be prematurely delivered, either through Caesarean section or inducement.

"No one really knows what causes pre-eclampsia," Best said. "It's been a medical enigma for at least a couple hundred years.

"We think there may be a genetic component, even though we know that's not the whole explanation," he continued. "If we could understand a little bit more about some genetic components, then maybe that would shed some light on what causes it."

Nadeau, who earned a bachelor's degree in psychology from UND, had been working as a manager at a telemarketing firm in Belcourt when she started taking classes at TMCC. Her goal was to attend medical school and become a psychiatrist. In 2004, after she took Best's genetics class at the college, he hired her as a research technician on the INBRE project and agreed to be her mentor.

with training in lab techniques to analyze the samples, as well as opportunities to attend science conferences and other educational events.

"Usually when students take Dr. Best's class, they don't drop out," said Larry Henry, MR, TMCC academic dean. "He gets the kids involved in research and headed toward secondary science degrees. Some of them go on to other basic research programs at UND and NDSU. It gets their interest going and keeps them going."

Best has enlarged his lab and acquired new, more sophisticated equipment through a U.S. Department of Defense grant that enables him and his students to analyze more samples,



Melanie Nadeau

Every time I can do something for my people, it feels good and it feels right.

"As I started working with him, my view of things began to change," Nadeau recalls. "I was interested in behavioral and social problems, but I realized that I could probably have a bigger impact doing research at the community level rather than treating people one-on-one."

Last year, she was awarded the Bush Leadership Fellowship and admitted to the University of Minnesota where she's completing the first year of a master's degree in public health with an emphasis on community health education. In the fall, she plans to apply to the university's PhD epidemiology program and hopes to return to the Turtle Mountain reservation to apply her education and experience.

"Eventually, I would like to develop culturally appropriate interventions that are designed to lower the prevalence of disease in my community," she said.

Best's project not only emphasizes getting students interested in research, but also relies heavily on community involvement. More than 400 women have provided blood samples, DNA and medical information for the project. Students are certified to work with human subjects before they begin collecting samples. INBRE provides them

more quickly.

"I've tried from the beginning to make sure that the laboratory work is done here on the reservation," Best said. "I think that's the only way people here are going to get the full benefit of understanding the technology. They gain the experience and gain the initiative or interest to go on to get a PhD or do other medical work."

Nadeau, whose life changed as a result of taking Best's college class in genetics, is a shining example of what that approach can accomplish and highlights the potential benefit to the community.

"Everything that I've ever done in my life has been with the best interests of my community in mind. It's what drives me," she said. "That part of me hasn't changed.

"A lot of it has to do with being American Indian," she explained. "Being raised with all the health problems that impact my community, my mother and father always wanted me to make things better for our people. Every time I can do something for my people, it feels good and it feels right."

- Patrick C. Miller

The Value of LEND:

Taking Education to the Student

Laboratory Education from North Dakota (LEND) Provides Online Curricula Nationwide

UND's Clinical Laboratory Science Education:

Quality

Cutting-edge

Convenient

X Cost-effective

THE CLINICAL LABORATORY SCIENCE (CLS) PROGRAM AT the UND medical school is one of the first in the nation to

offer online education in *molecular* diagnostics, a new and increasingly necessary area of study for professionals who work in clinic and hospital laboratories. Clinical laboratory scientists analyze tissue and fluid specimens to obtain information physicians use to make accurate disease diagnoses.

The Molecular Diagnostics Seminars give clinical laboratory scientists throughout North Dakota, and indeed the whole

AT country, the knowledge they need to prepare for the national examination to become board-certified as technologists in molecular pathology or to fulfill

continuing education requirements.

The program equips laboratory professionals with new tools to identify disease organisms "very accurately and faster" than conventional methods, says **Ruth Paur, PhD**, assistant professor of pathology and director of the Clinical Laboratory Science Program, Grand Forks. "A significant amount of diagnostic testing will be done using these new molecular techniques."

DNA-based testing helps the clinical laboratory scientist identify the organism itself, its genetic material, she says, and "can apply to one organism after another," including tuberculosis, West Nile fever and influenza, to name a few.

The quality and convenience of the Molecular Diagnostics series, which offers 25 hours of continuing education units, attract participants across the country, says Paur. "We have students from many states" who appreciate the opportunity to learn at their own pace, whenever it fits their schedules, day or night.

The Molecular Diagnostics series is the newest offering of the Laboratory Education from North Dakota (LEND) program, administered through the Department of Pathology. The Clinical Laboratory Science (CLS) program, initiated in 1977, provides 30 hours of online, traditional laboratory continuing education each year.



Widely recognized, respected speakers who deliver presentations for the CLS program "are from around the nation," says Chris Triske, MSCLS '07 (BSCLS '03), coordinator for the LEND program and instructor of pathology in the CLS program, Grand Forks. "They are experts in their areas... We get a good mix of people and topics."

Triske scans the professional horizon for outstanding speakers and timely topic ideas, and welcomes suggestions from laboratory scientists and members of the LEND advisory board. With today's technology, limits have vanished in terms of involving faculty members; "the entire country is our resource," he says. When the invitation has been accepted, Triske sends a recording packet and microphone to capture exemplary speakers' presentations.

The Molecular Diagnostics and CLS programs are accredited by PACE (Professional Acknowledgement for Continuing Education), a newer option which signals high quality education to the prospective student, Paur says. "It's an extra endorsement" of a superior curriculum in the field.

Learning online keeps lab personnel up-to-date

For many professionals and managers in the field, LEND fills a critical need for low-cost, affordable education for clinical laboratory scientists who need to maintain their certification. for licensure, by earning at least 10 continuing education units annually.

In a field stressed by severe workforce shortages and budgettrimming, the LEND program is a welcome option for laboratory personnel who have limited funding available to attend continuing education seminars, or require crosstraining to cover lab service areas that are insufficiently staffed.

"On a scale of one to ten, I'd rank the LEND program at 11," says Jim Svihovec, laboratory manager at Mercy Medical Center in Williston, ND. "It's good quality material (and) more beneficial for us out in the west; it's a nice avenue for us to get continuing education without having to travel."

"It's very affordable for our facility," he notes. Without LEND, "I would need an educational budget that's ten times what we have... The online capability is a lot nicer for the staff, they can do it in the evening... our staff members do rely on LEND heavily."

"We can't say enough about (LEND) in our facility," he says. "We need it; it's necessary, and they're getting better and better presenters."

The LEND program "is very important for us," says Jan Trythall, bioterrorism state training coordinator in the North Dakota Department of Health, Division of Laboratory Services, Bismarck. "It's convenient -- people can arrange their work schedule around their training...

"There's been a lot of changes (in clinical laboratory science) and LEND has been able to keep pace with those changes... It's a great program, organized by very talented people."





Introductory, intermediate and advanced explanations of molecular biological techniques, as well as nomenclature and instrumentation which will help to foster a comprehensive understanding of clinical molecular diagnostics. For more information, please contact:

> Chris Triske, MS, MT(ASCP) 701-777-2634 or -3575 ctriske@medicine.nodak.edu

> > Or call: 701-777-4050

Or visit the LEND website: www.medicine.nodak.edu/lend



Jan Trythall



Jim Svihovec



Chris Triske



Gene Homandberg, PhD (standing), mentors students who assist with research studies as part of their pursuit of an advanced degree, such as Lei Ding, MD (right), who earned the PhD degree in his laboratory, which is supervised by Danping Guo, MD (left).

EVERY YEAR WHEN I, AS CHAIR, AM asked to introduce the Department of Biochemistry and Molecular Biology and what we teach to the incoming medical students, I have to decide how to not scare them. I typically

acquiesce and admit that it is we biochemists who teach all those boring, silly pathways of one molecule dancing with another molecule until eventually we somehow get energy. Every year this gives me a chance to ponder why I should feel apologetic. As I stand at that podium, many thoughts go through my head. I remember at that point that when I learned those pathways the first time,

we were told we had to learn it because our instructors had to learn it and the last medical class had to as well, and they are still alive. However, those are not the best justifications since the '50s and '60s have passed.

So I then consider another explanation: you will use the information later and appreciate it, but now is a good time to lay that foundation. This leads me to wonder, besides the information in the pathways that I hope will be used later by our graduates when they wonder why my creatinine is high, are there other benefits to this trivia? It is then that I realize that students who really try to understand pathways start seeing connections, not only

with the body but also from textbook to real life. Most students do start realizing that there are connections between molecules and pathways, just as they understand in physiology and anatomy the connections between systems.

There are also connections with reality. One of my connections I use when I lecture is that because I did not have a donut with my coffee this morning, my fat is being digested but, because I am also missing the sugar coating, the Kreb's cycle is not turning to help me burn fat, so the fat turns into acetone on my breath. Did I read this in my textbook? No. In my attempt to make connections, I figured this out. So perhaps besides providing content with pathways, we are also encouraging students to think about connections.

How do we make connections and what is the driving force? We likely make connections because it helps us understand the reality of the world and where we stand. But to make these connections we must know the basic facts. So we must know these pathways before we can understand why, when we eat a

heavy-protein meal, we become sleepy. Then as I look out at the students, wondering why I have a blank expression on my face, I turn even more inward and ask why I enjoy teaching pathways.

I realize that all these potential connections make me curious about what I know and don't know. If instead of one donut, I eat three, how quickly will my body figure out that I must be in the land of plenty and should start putting on fat for a rainy day? What happens if I skip my lunch? Does my body retreat into a famine stage and delay storing my donuts? So ultimately I become as interested in these pathways as my students.

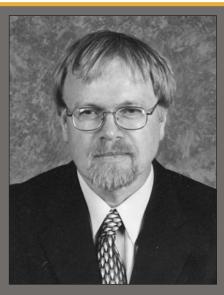
At that moment I realize that my own research in cartilage metabolism is a study in pathways, how one molecular event causes another and how one system communicates with another. I understand that what I know of cartilage damage is probably true of cancer, pulmonary disease, hemostasis disorders, etc., and I remember the connections of my own research and how what I learn there has implications far beyond.

I then turn to the students who now are really bewildered and wonder if I should explain that we teach pathways because they are all about us and make us better thinkers and physicians. Instead, I realize that that understanding itself is part of

This leads me to wonder.

besides the information in the pathways that I hope will be used later by our graduates when they wonder why my creatinine is high.

are there other benefits to this trivia?



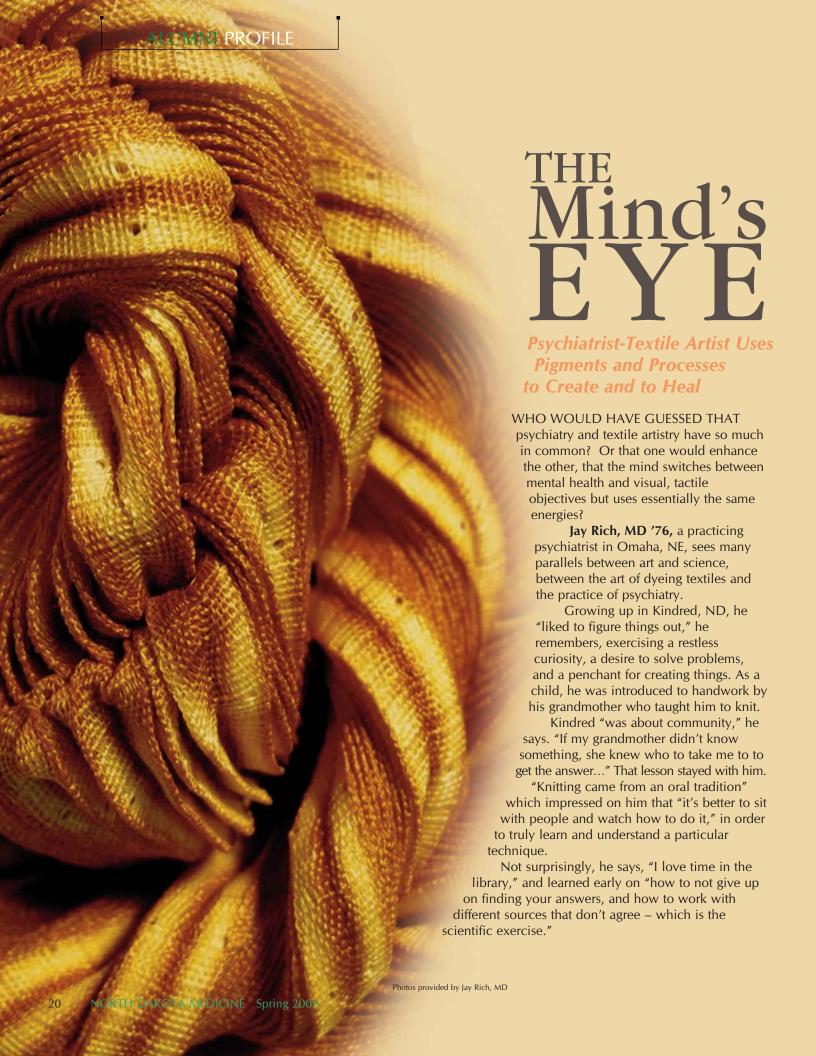
Gene A. Homandberg, PhD The William E. Cornatzer Chair in Biochemistry and Professor Department of Biochemistry and Molecular Biology

Then as I recall that, as part of my little speech, I must also explain to students what kind of research my department does; I panic trying to think about transitions between what we teach and what we study. How do I tell my students that I study cartilage degeneration as it relates to osteoarthritis and not metabolism as they would deduce from my lectures.

discovery and their own "eureka moment" and that I should not deprive them.

So I tell them, biochemistry is about pathways and knowledge is good.

- Gene A. Homandberg, PhD



As a student at UND, he also worked with clay and did some weaving. He enjoyed "hanging around with creative people," he recalls, noting it provided a way to "balance the tasks of daytime," a way to cope with the academic stresses of medical school.

"We all learned, early, the intensity of working hard." When it came to choosing a career path, psychiatry "looked to me like a specialty in which you could spend time and get to know the patient and solve problems," he says. He had an opportunity to study for several months at the Jung Institute in Zurich, Switzerland, which presented him with a broader model to apply to psychiatric practice.

The experience showed him "how we need to view people in a broader way," he says, noting similarities with creativity. He sees correlations of "connecting people and the idea" and "sharing ideas about pigments and processes."

Artistic expression

His continuing search for answers led him to study and experiment with resist-dye techniques and surface design, on a broad range of surfaces, that results in sculpture. Some techniques date back thousands of years; it intrigues him, for example, that people living 5,000 years ago figured out how to extract indigo blue from plants and dye cloth "without a recipe."

He explains that "it takes huge volumes of woad plant material to get the pastel, or French blue, which has the integrates with his keen interest in pigments and processes.

"I earned my first degree in pharmacy, so I'm not frightened by chemistry," he notes, adding that he approaches the processes as a scientist.

Rich creates unique textiles using "shibori," a collective term in Japanese for a resist-dye method, including tie-dye, stitch-dye, fold-dye, pole wrap-dye, among others, he says.

It's translated into English as shaped-resist dyeing, because no comparable embracing term exists.

His expertise has attracted interest internationally. The editor of the Surface Design Association newsletter asked him to write a column on technical and safety issues related to surface design, the first of which was published in January. In November, he presented a paper, "Kyokechi: Carved board clamp resist in Japan, China, Tibet, India," at the Seventh Annual International Shibori Symposium in Paris. He's been invited to teach a workshop using this technique in the Netherlands in August.

Creativity and psychiatry

Rich benefits from his artistic avocation and the "whole journey that brings you to different things," some of them unexpected, he says. Mingling various pigments and dyeing processes, "you really don't know what's going to happen."



Rich maintains a working textile studio, Contemporary Fiber Artists indigo molecule in it." His descriptions of ocher, iron oxides Collective, at the Hot Shops Art Center, a former warehouse near downtown Omaha, where he spends each Friday exploring and creating textile art. The name "Hot Shops" stems from the founding artists who worked with molten glass, bronzing and clay. The center has grown to include 50 studios and about 80 artists. He is working with other artists there to combine textile, clay and glass techniques for a show in conjunction with the Textile Society of America conference in Nebraska in October 2010.

> Like the practice of psychotherapy, working with textiles "not only calms me but opens me up; you get rid of preconceived ideas," which is important when caring for patients... especially in psychiatry, they're not going to tell you directly (what's going on), but they tell you indirectly.

"The psychiatrist needs to be intuitive," he says. "You need to ask yourself quietly, 'what else is going on?'" beyond the readily apparent.

"Sometimes the events of the day get pretty complicated," he says. Experimenting with textiles is restorative. "The way I explain it now is, when you work hard, you have to figure out a way to play hard."

- Pamela D. Knudson

WFB FXCI USIVE: To see more artwork by Jay Rich, MD '76, visit: www.ndmedicine.org



North Dakotan to Serve on National Advisory Council Mary Amundson, MA, assistant professor at the Center for Rural Health at the University of North Dakota medical school, Grand Forks, has been appointed to the National Advisory Council on the National Health Service Corps (NHSC). The Council advises the Secretary of



Mary Amundson

Health and Human Services on issues related to implementation of NHSC and related programs. The NHSC is committed to improving the health of the nation's underserved by providing primary care health professionals to adults and children in the communities of greatest need.

Amundson is an expert in the area of recruitment and retention of health care providers, student interdisciplinary service learning programs, and access to health care in underserved and frontier areas. She speaks to local, regional and national groups on those topics and has produced several publications. She served as a member of the National Frontier Definition Committee to issue regulations to define the concept of "frontier" area. She also served on the National Advisory Committee on Interdisciplinary Community-Based Linkages, which advises Congress on Title VII programs related to educational training for health professional students. She is the director of the new Area Health Education Center in North Dakota. She also works with health workforce policies and programs within North Dakota.

Created in 1972, the NHSC collaborates with underserved rural areas and inner-city neighborhoods 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.

Batko Earns CRM Certification, One of Four in North Dakota

Jennifer Batko, a records and information management specialist in the Records and Information Management Program at the UND medical school, Grand Forks, has earned the Certification Records Manager (CRM) designation through the Institute of Certified Records Managers (ICRM).



As a CRM, she has achieved a well-respected and prominent position Jennifer Batko in the records and information management field, and is one of only four active CRMs in

North Dakota, according to the ICRM, based in Syracuse, NY. Her achievement is commendable; she joins more than 900 CRMs charged with setting the highest standards and best practices for the profession.

Susan Carlson, director of the Records and Information Management Program at the medical school, Grand Forks, also holds the CRM designation.

Grants Encourage Use of Technology To Improve Rural Health Care Delivery

Eleven grants have been awarded to facilities that have shown the initiative to utilize information and communication technology to improve health care delivery in rural communities.

Over \$375,000 was awarded through Blue Cross Blue Shield of North Dakota's (BCBSND) Rural Health Grant Program, which is administered by the Center for Rural Health at the UND medical school.

Kenmare Community Hospital will use the grant funds to implement a telepharmacy project that will provide an alternative solution to restore and retain pharmacy services that will produce the same quality as the traditional method of pharmacy practice. This will lead to improved access, improved patient care and safety, and improved efficiency.

Altru Health System of **Grand Forks** will use the grant to help establish a secure and reliable medical imaging computer network between its regional critical access hospitals and rural hospitals. The network would enable physicians in rural hospitals and emergency rooms to immediately access patients' digital images from procedures such as CT, MRI, ultrasound and computed radiography. The imaging network will allow Altru physicians and support personnel to provide timely, cohesive and consistent medical care to patients whether patients are at an Altru critical access hospital or a rural hospital.

Southwest Healthcare Services of **Bowman** will use the grant to implement a computed radiography system. The system would improve care for patients and increase operational efficiencies while lowering the financial burden of implementing new and improved technology. By improving access to electronic medical images, Southwest Healthcare Services can reduce the time it takes for physicians and support personnel to receive a final report from days to hours.

Tioga Medical Center will use the grant to enhance the quality of care for patients requiring diagnostic imaging services by converting the current radiographic film system to a computed radiography system that will enable a faster turnaround time for radiography interpretations by the consulting radiologist.

Nelson County Health System of **McVille** will use the grant to implement a computed radiography and picture-archiving and communication system in an effort to support and improve quality diagnostic services, and provide

efficiencies of care and service. The system will also improve and expand collaboration of rural health services and patient care between a variety of health care providers, which will increase utilization of existing services and programs. In addition, a computed radiography and picture-archiving and communication system decreases health care risks to patients, personnel and the environment.

Northwood Deaconess Health Center will use the grant to improve response time for radiology services from diagnostic X-ray services through a computed radiography and picture-archiving and communication system. By implementing the system, Northwood Deaconess Health Center will be able to support and improve quality diagnostic services and efficiencies of care and service. The system will also improve and expand collaboration of rural health services and patient care between a variety of health care providers, and increase utilization of existing services and programs.

Presentation Medical Center of **Rolla** will use the grant to aid in the purchase and installation of computed radiography for the radiology department to produce films in a digital format. Computed radiography technology will significantly improve the availability of radiologists' reports so that providers can proceed with appropriate and timely patient treatment. This technology will help Presentation Medical Center improve the quality of care to patients and improve the cost-efficiency of providing that care.

Heart of America Medical Center of **Rugby** will use the grant to establish a health-information-technology network and implement computed radiography within their facility. Radiographic images will be in a digital format, which can be instantly sent to larger hospitals that have specialized services. Improving access to radiographic images will help specialists make a more timely decision on the course of care, cutting the wait time from days to minutes, and help reduce duplicate tests. Computed radiography will give health care providers the ability to derive a timely course of treatment and save patients' lives.

Mountrail County Health Center of **Stanley** will use the grant to implement a computed radiography system that will improve patient care, increase health information between facilities, lower health care costs and boost productivity. Patients will benefit from improved image quality and will have reduced radiation exposure by eliminating repeat X-rays due to poor image quality.

McKenzie County Healthcare Systems Inc. of **Watford City** will use the grant funds to implement computed radiography technology. Computed radiography will provide digital images, instead of film, that can be retrieved from McKenzie County Healthcare Systems' picture-archiving and communication system. Acquiring computed radiography technology would enhance access to care, improve the quality of care and reduce costs.

St. Andrew's Health Center of **Bottineau** will use the grant funds to obtain a computed radiography (CR) system. The CR system will give St. Andrew's the ability to transmit all of its diagnostic images—CT scan, ultrasound, MRI and nuclear medicine—to St. Andrew's partner hospital so its radiologist can read the images and help provide a diagnosis. This project will allow St. Andrew's to increase its efficiency and help it to keep up with technological upgrades in the health care field.

"Many of North Dakota's health care facilities are moving forward with the necessary, but very expensive endeavor of implementing health information technology," said Lynette Dickson, the grant program's director at the Center for Rural Health, Grand Forks. "This transition from paper to technology is fundamental to facilitate the access and exchange of health information for their patients in order to provide the most comprehensive and safe care.



Lynette Dickson

"These BCBSND grants are a valuable resource contributing to making the vision of an interconnected, efficient, quality-based health care system a reality for North Dakota."

In an effort to strengthen the rural health delivery system in North Dakota, BCBSND initiated a new rural health grant program in 2001. Developed and administered by the Center for Rural Health, the purpose of the grant program is to support communities who demonstrate an effective plan to successfully transition to new models of rural health care delivery.

For more information about the BCBSND Rural Health Grand Program visit:

http://www.med.und.nodak.edu/depts/rural/sorh/bcbs

Plan now to attend! Homecoming 2009 September 28 thru October 3

Faculty and Departments Recognized for Excellence in Teaching, Research and Service

Three faculty members and two departments of the medical school received awards for excellence in teaching, research and service during UND's annual Founders Day banquet in February.

The Department of Occupational Therapy received the UND Foundation/McDermott Award for Departmental Excellence in Teaching. The award honors a department which demonstrates collective excellence and/or innovation in classroom and laboratory teaching, advising and/or curriculum development.

The Department of Physical Therapy earned the Fellows of the University Award for Departmental Excellence in Service. The award honors an academic department which makes a commitment to service as an important faculty role and collectively makes significant contributions in the areas of academic citizenship, professional and disciplinary service, and service to the community.

Michael Atkinson, PhD, associate professor of occupational therapy, Grand Forks, received the UND Foundation/Lydia and Arthur Saiki Award for Individual Excellence in Teaching. He holds a joint appointment in the departments of Occupational Therapy and Anatomy and Cell Biology. He received the award for excellence in undergraduate teaching in the OT department. The award honors a faculty member who meets a high standard in effective teaching, inspires enthusiasm for learning, arouses curiosity, and stimulates independent and critical thinking.

Patrick Carr, PhD, associate professor of anatomy and cell biology, Grand Forks, received the UND Foundation/Thomas J. Clifford Award for Graduate or Professional Teaching Excellence. The award honors a faculty member who effectively guides students in the kinds of research and/or creative activity expected of them as professionals and provides a positive role model for young scholars in the discipline.

Eric Murphy, PhD, associate professor of pharmacology, physiology and therapeutics, Grand Forks, received the UND Foundation/Thomas J. Clifford Faculty Achievement Award for Excellence in Research. The award honors a faculty member for the publication of significant, original and high-quality research, scholarly and creative contributions in nationally recognized, peer-reviewed professional journals. The award also recognizes overall scholarly activities, such as service as a reviewer of research proposals for federal agencies or other funding sources, service as a referee or editor for professional journals, and contributions to training students in research, scholarly and creative endeavors.

WEB EXCLUSIVE:

For more Founders Day award photos of physical therapy and occupational therapy departments and other recipients, visit: www.ndmedicine.org





Outstanding faculty members of the UND School of Medicine and Health Sciences were recognized during the annual Founders Day celebration in February at UND. From left: Michael Atkinson, PhD, associate professor who holds joint appointments in the departments of Occupational Therapy as well as Anatomy and Cell Biology; Eric Murphy, PhD, associate professor of pharmacology, physiology and therapeutics, and Patrick Carr, PhD, associate professor of anatomy and cell biology, all of Grand Forks.



During the White Coat Ceremony for the newest enrollees in the Physician Assistant Program, students recite the Physician Assistant Professional Oath. Seated (from left) are: Joseph Benoit, PhD, dean of the Graduate School and professor of pharmacology, physiology and therapeutics; Robert Beattie, MD '89, chairman and professor of family and community medicine; The Reverend Raymond Courtright of the Newman Center, and The Reverend Kathy Fick of the Christus Rex Lutheran Center; all were speakers during the program.

Physician Assistant Program Admits 'Most Diverse' Group Ever

The Physician Assistant (PA) Program recently admitted "the most diverse class we've ever had," said Mary Ann Laxen, MAL, PA-C, MAB (FNP '91), program director, Grand Forks, noting that some students are originally from Nigeria, Brazil, British Guyana, Vietnam, Laos and the Middle East. Various ethnic groups, such as American Indian, are also represented.

Sixty-two health professionals began the clinical portion of their studies in January to earn the Master of Physician Assistant Studies degree at the UND medical school.

The PA program admits health professionals who have years of experience working as nurses, clinical laboratory scientists, paramedics, respiratory therapists, dietitians, military health care providers and related professions. The group averages 11 years of professional experience. This is the second class admitted since the program opened the application process to non-nurses.

Enrolled students come from throughout the United States, "from Alaska to Florida, Rhode Island to Washington," Laxen said. They range in age from 24 to

59 years, with an average age of 38, and include 33 men and 29 women

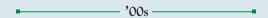
During the White Coat Ceremony for this class in January, H. David Wilson, MD, vice president for health affairs, presented the keynote address, with welcome remarks by Robert Beattie, MD '89, chair of the Department of Family and Community Medicine, and Joseph Benoit, PhD, dean of the Graduate School, all of UND.

"The presentation of the white coat is symbolic of the new profession the students are entering," said Laxen. These coats are worn by students through the clinical phase of their training.

Students spend their first four weeks in Grand Forks before returning to their home communities where most of their training takes place under the supervision of physician-preceptors. Over the next two years, they will return to UND for several weeks at different junctures for education and training.

For more information on the PA program, visit: www.med.und.edu or call 777-2344.

ALUMNI NOTES



Justin Reisenauer, MD '08, married Alison Joy Bowman on Sept. 6, 2008 at Bowman, ND. Reisenauer is a resident in emergency medicine at Kalamazoo Center for Medical Studies/Michigan State University Program in Kalamazoo.

Danial Padgett, MD '05, has joined the staff at Trinity Medical Group in Minot. Prior to enrolling in medical school, he worked as a respiratory therapy technician in Williston, ND. After graduating from UND medical school, he went on to complete residency training at the UND Center for Family Medicine-Minot in 2008.

Debra Bell, MD (Family Medicine Residency '04), a physician at Riverview Family Practice and Integrative Medicine Center in Crookston, MN, has been certified by the American Board of Integrative and Holistic Medicine (ABIHM). One of only 1,160 physicians to be certified by the ABIHM, she has more than 24 years of experience and extensive education in both conventional medicine and complementary and alternative medicine.

Catherine Fischer, MD '04, a board-certified pathologist, has joined Medcenter One in Bismarck. After graduating from UND medical school, she completed pathology residency training and a fellowship at Mayo Clinic in Rochester, MN.

David Kuylen, MD '04, who practices emergency medicine at St. Joseph's Hospital and Health Center in Dickinson, ND, has successfully fulfilled the certification requirements of the American Board of Emergency Medicine (ABEM) and has received the designation of diplomat of the board. Founded in 1976, ABEM develops and administers the emergency medicine certification examination for physicians who have met ABEM credentialing requirements.

Linda Regan, PA-C (PA '04), a staff member of Innovis Health Jamestown (ND), specializes in family practice with a focus on women's health.

Brandon Helbling, MD '03, a general surgeon with Mid Dakota Clinic in Bismarck, recently passed the general surgery certification examination administered by the American Board of Surgery (ABS). Certification by the ABS is a voluntary process meant to recognize individuals who have met a defined standard of education, training and knowledge specifically in the field of surgery.

Helbling completed a general surgery residency at Michigan State University/Kalamazoo Center for Medical Studies. He is a member of the American College of Surgeons, the American Medical Association, and the Society of American Gastrointestinal Endoscopic Surgeons.

Diane Kjelstrup, MD '03, has joined MeritCare Health System and practices at the Professional Building in Fargo. She specializes in child and adolescent psychiatry.



Melody Hof, PA-C (PA '97) and Stephanie Natyshok, PA-C (PA '03) met Deborah Steinbar (FNP '80), during the "Casino Night" welcoming ceremony of the Society of Dermatology Physician Assistants (SDPA) Sixth Annual Fall Conference last November at Tampa, FL. Steinbar lives in Bemidji, MN; Natyshok in Herrin, IL, and Hof in Carbondale, IL. All work in the dermatology field.

"It was great to meet up with another past graduate," Natyshock says.

Rachel Ness, MD '03, has joined Dermatology Associates in Fargo. She will provide care for skin, hair and nails, and will offer procedures including sclerotherapy, Botox and facial fillers.

Ryan Holzwarth, MD '02, a dermatologist, has joined the staff at MeritCare Wahpeton (ND), and provides medical and surgical care for skin, hair and nails. He completed his residency in dermatology at the University of Michigan at Ann Arbor.

Jodi Grossman, MD '01, married Paul Brehm on July 19, 2008 at Belgium, Wl. She is a surgeon with the Wheaton Franciscan Medical Group in Milwaukee, Wl.

'90s

Joel Baumgartner, MD '99 (Family Medicine Residency

'02), practices sports medicine at St Cloud, MN. He and his mother, Ellen Baumgartner, have written a book, "The Gift," about the true meaning of Christmas. Ellen is the author; Joel illustrated the book; his illustrations provide a unique perspective of the events of the story, Mrs. Baumgartner told the Dickinson (ND) Press. She and her husband, James Baumgartner, MD (BS Med '70), lived 20 years in Dickinson where he practiced



shoulder.

Joel Baumgartner

internal medicine at Great Plains Clinic. They moved to Minnesota four years ago to be near their children.

Jeffrey Sather, MD '98, Minot, is a key member of Trinity Health's switch to a system of computerized provider order entry (CPOE) for physicians and midlevel providers. As few as 10 percent of health care organizations nationwide are on such a cutting edge of the digital revolution.

CPOE is the electronic entry of provider instructions, such as prescriptions, lab tests, radiology orders, and directives for various therapies, which are communicated via computer network to respective departments and clinical staff. Replacing the traditional standard of handwritten orders, it highly reduces the risk for error due to illegible handwriting or transcription error.

The system was built from the ground up by Sather and his colleague, **Scott Knutson**, **MD** (Family Medicine Residency '04).

Marc Nielsen, MD '97, was named the 2008 Physician of the Year by the administration, staff and volunteers at Mercy Medical Center in Williston, ND.

Shantell TwoBears, MD '96 (Family Medicine Residency '99), has joined LilyCare, a family practice clinic in West Fargo, ND. She is a board-certified family physician specializing in women's health issues and families. TwoBears previously worked at Red River Family Medicine in Fargo.

Paula Bercier, MD '92 (Family Medicine Residency '95), has joined the staff at Trinity Medical Group in Minot. Prior to joining Trinity, she worked for 11 years at the Quentin Burdick Memorial Health Care Facility in Belcourt, ND, managing the full range of illnesses of people of all ages, including women's health, pediatric care, and minor surgery. She specializes in family medicine.

Timothy Rittenour, MD (Family Medicine Residency '91), a family physician, recently joined Altru Health System in Warroad, MN. A graduate of Loma Linda University in Loma Linda, CA, he is board-certified in family medicine.

Joseph Carlson, MD '89, practices at The Bone and Joint Center, Bismarck, in the area of general orthopedics and orthopedic surgery, specializing in video arthroscopy, joint replacement, ligament reconstruction and sport-related injuries. He has special interest in surgery of the knee and

· '80s -

Carlson is board-certified in orthopedic surgery and was named a "Best Doctor in America" for 2007-08.

Gregory Culver, MD (Family Medicine Residency '88), has successfully completed the recertification examination of the American Board of Family Medicine (ABFM). Board certification confers a standard of excellence in knowledge and practice to physicians who not only certify via the examination process, but who also work diligently on the maintenance of these skills during the seven-year cycle between examinations.

Anthony Tello, MD '87, an internist, has been promoted to corporate medical director at Medcenter One in Bismarck, taking over responsibilities held by Craig Lambrecht, MD '87.

Tello, who has worked at Medcenter One for more than 20 years, will maintain his medical practice part-time.

Alumnus Delivers Last Baby at Valley City Hospital

Bradley Braunagel, MD '87 (Family Medicine Residency '90), a family physician, delivered the last baby born at Mercy Hospital in Valley City, ND, on Dec. 28, 2008. The hospital's obstetrics ward was closed three days later.

Braunagel said the closure leaves him worried about the effects distance and severe weather may have on expectant mothers, according to an Associated Press story (Jan. 4, '09).



Bradley Braunagel

"I'm sad, and disappointed that things didn't work out to where we could make things work," he said. Expectant mothers will be able to receive prenatal care at local clinics, but will have to be referred to a doctor in Jamestown or Fargo for the final three or four appointments and delivery.

The North Dakota Healthcare Association said last fall that 10 of the state's 43 licensed community hospitals deliver babies, the AP reported. Officials say the number has dropped because of a decline in births, and because services have become more complex.

ALUMNI NOTES

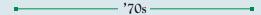
Karen Gayton, MS (BSOT '86), a registered occupational therapist, has been hired by the Center for Neurological Services in Bismarck. She has extensive advanced training in manual therapy techniques and specializes in many areas, including treating headaches, TMJ, multiple sclerosis, Parkinson's disease and sciatica.

Mark Paulson, MD '85 (Family Medicine Residency '88), has been elected to the board of trustees of the MeritCare Health System. Paulson is board-certified in family medicine and has been a family medicine physician at MeritCare since 1988. He serves as managing physician partner in Perham, MN.

Dale Klein, MD '82, Mandan, ND, was one of nine committee members appointed by **Governor John Hoeven** to the Tobacco Prevention and Control Advisory Committee. The committee will develop a plan for a comprehensive statewide tobacco prevention and control program.

Jean Nygaard (FNP '81), has hung up her stethoscope after 29 years of service. After hip surgery in December 2008, she no longer provides health care services at the Crosby (ND) Clinic or St. Luke's Hospital in Crosby, but will return to work in the office.

"I will have the best of both worlds," she said.



David Engstrom, MD '76 (Internal Medicine Residency '79), was recently named to the Breckenridge (MN)-Wahpeton (ND) Endowment Fund Board.

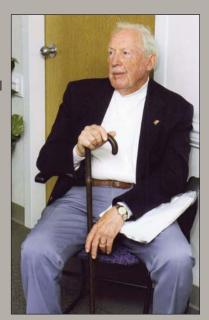
After graduating from the UND medical school and training in internal medicine at Fargo, he joined the UND/VA staff in Fargo. He worked in medical practice, medical education, and medical administration.

He is retired from his position of assistant dean and associate professor of medicine at Michigan State.

'44 Alumnus Honored for Leadership in Psychiatry

Wendell Pile, MD (BS Med '44), psychiatrist, has been honored by the board of directors of Riverside Behavioral Health Center in Hampton, VA for his years of service, leadership, commitment and guidance. The board passed a resolution as part of the Center's celebration of its 25th anniversary at its current site.

current site. In 1960 Pile was founder of the former Bayberry Hospital, the



first private psychiatric facility on the Peninsula, which later was renamed the Riverside Behavioral Health Center. The Pile Conference Room at Riverside Behavioral Health Center has been named in his honor.

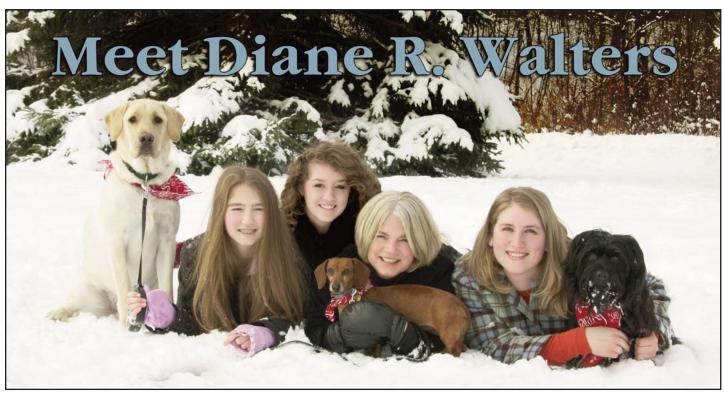
"I thought you might want to know how much the UND medical school has succeeded in contributing to the foundation of success in another one of its students."

In the resolution, he is lauded for helping the Center become "the most highly recognized and one of the finest behavioral health facilities in the Commonwealth of Virginia." The resolution continues, "his devotion to excellence in health care... has been a guiding principle to leadership; well-respected by peers, who continue to follow his philosophy to this day." He is commended for "bringing together a dedicated and compassionate team achieving high standards of patient satisfaction," according to the resolution.

Pile has been diplomate of the American Board of Psychiatry and Neurology for more than 50 years. He earned the Doctor of Medicine degree from the University of Illinois-Chicago Health Sciences Center.

Got news? We want to hear from you!

Please send your news item for the next issue of **North Dakota Medicine** to Shelley Pohlman: spohlman@medicine.nodak.edu **or** call 701-777-4305.



Billy (yellow lab), Jane, Anne, Angel (Dachshund), Diane, Katie, Oliver (Scottie-Dachshund cross)

Photo by Peterson Portraits
Minneapolis, MN

MEET DIANE WALTERS, the new director of development – health sciences, for the UND Foundation. Diane is responsible for all advancement activities in the SMHS and the College of Nursing. Previously, Diane was a development officer at the University of Minnesota.

Q: You are originally from Grand Forks. What brought you home?

A: Even though you may leave North Dakota, North Dakota never leaves you. We truly are unique; we take for granted that which makes us North Dakotans ... hard work, pioneer spirit, respect and honor.

Q: What are your first impressions of the School of Medicine and Health Sciences?

A: The faculty and staff commitment to the people of North Dakota is inspiring. On more than one occasion when I have met school faculty they tell me they are here to serve the people of North Dakota by making sure they educate top-caliber health care professionals who ultimately positively impact lives. I'm inspired by the number (42 percent) of North Dakota doctors who come from the School, not to mention the breadth of the therapy and allied health programs.

Q: How can donors affect the School's impact?

A: The bottom line is financial support. For the SMHS to continue its excellent standard of service and training it needs private funds for faculty, students, programmatic support, and everyday technical needs.

Q: As a development officer, you travel frequently connecting with alumni and friends. How soon are you going to hit the road?

A: Well, I already have planned trips to Southern California, Wyoming, Minneapolis, Rochester and Bismarck. I am looking forward to visiting and sharing the SMHS stories with many alumni and friends and I am especially looking forward to hearing your stories about what you are doing today and the impact the SMHS and North Dakota have had on your lives.

Q: What do you like to do when you're not working?

A: Being a single mom of three daughters I spend most of my time working and taking care of my family. I read, but not as much as I would like. I do love being outdoors, walking with my dogs. I get a strong feeling of peace when I am outdoors. That's why I'm here. North Dakota was calling me home.

Contact

Diane R. Walters, Director of Development (800) 543-8764 (701) 777-4281 dianew@undfoundation.org



IN MEMORIAM

Vernon Vix, MD (BS Med '47), 80, of Nashville, TN, died Sept. 22, 2008 in his home.

A native of Sawyer, ND, he earned his medical degree from the University of Pennsylvania School of Medicine in 1949.

Dr. Vix interned at Tulane University in New Orleans, LA, and took his residency in internal medicine at the University of Minnesota (U of M). During the Korean Conflict, he served as a medical officer in the Air Force in Anchorage, AK.

He practiced in Worthington, MN, from 1955 to 1961 when he and his family moved to Minneapolis, MN, where he completed radiology residency training at the U of M. During his career, he served on the faculty at Vanderbilt University School of Medicine from 1966 to 1974 and, from 1974 until his retirement in 1994, was professor of radiology and medicine at Indiana University School of Medicine in Indianapolis.

Ruben (Jack) Rutten, MD (BS Med '52), 81, of Goleta, CA, died Jan. 6, 2009.

A native of Devils Lake, ND, he grew up in Langdon, ND, and left high school early to join the U.S. Navy. He served during World War II and the Korean Conflict. After graduating from the University of California at Los Angeles in 1947, he attended UND, graduating in 1951 with a degree in physics.

Dr. Rutten completed his internship and obligation to the U.S. Navy at Balboa Hospital in San Diego, CA. In 1955 he became the first general practitioner in Goleta, CA. Dr. Rutten regularly made house calls, anytime, day or night.

In 1971 Dr. Rutten joined the Santa Barbara (CA) Medical Clinic where he designed and implemented the clinic's first computer-based multi-phasic health testing program, while continuing to see patients. The federal government asked him to serve on a top-secret project in 1973 and, in 1976, he was invited to serve the government providing medical care for foreign-based personnel. He took a two-year tour-of-duty as a regional medical officer based in Tehran, Iran, inspecting medical facilities and administering medical care in the field to Americans and their dependents in Afghanistan, Sri Lanka, Bangladesh, India and Pakistan. He and his wife served the U.S. government in Panama, Australia and Zaire before returning home to Goleta.

Dr. Rutten wrote two books about his overseas and government experiences.

James "Jim" Lantz, MD (BS Med '63), 68, died Dec. 20, 2008 at Innovis Hospital in Fargo.

Born in Fargo and raised in Moorhead, MN, he completed undergraduate studies at UND and received his medical degree from the University of Minnesota. In 1965 Dr. Lantz and his wife moved to Duluth, MN, where he completed his medical internship. He then joined the Food and Drug Administration in Washington, DC, and took residency in obstetrics-gynecology and anesthesia at Mayo Clinic in Rochester, MN. In 1971, they moved to Fargo where he served as the first anesthesiologist at Dakota Hospital.

In 2004, Dr. Lantz retired from Innovis Hospital where he had worked alongside his sons, **Leo Lantz** and **Steve Lantz**, **MD '98**, an orthopedic surgeon.

Memorials to: The UND Foundation, c/o The Dr. James P. Lantz Scholarship Endowment, 3100 University Avenue, Stop 8157, Grand Forks, ND 58202-8157.

Debra Jill McPherson (BSMT '71), 59, of Grand Forks, died Nov. 24, 2008 at her home. A native of Bagley, MN, Debra Horner moved with her family in 1964 to Larimore, ND.

After receiving her medical technology degree from UND, she worked in the clinical chemistry lab of the UND biochemistry department.

In May 1980, she and her husband, Allen McPherson, purchased Dale's Diamond Center, renaming it McPherson's Jewelry, and worked together until her retirement in February 2003.

Dorothy Johnson (FNP '73), 73, a member of the first class of the Family Nurse Practitioner (FNP) Program, died Feb. 18, 2009 in Phoenix, AZ.

A native of Rugby, ND, she graduated as salutatorian of her class at St. Mary's Academy in 1953 at Devils Lake, ND, and from the Mercy School of Nursing in Valley City, ND, in 1956. During her nursing career, she worked at Mercy Hospital in Valley City; the North Dakota School



Dorothy Johnson

for the Deaf, Mercy Hospital and Lake Region Clinic in Devils Lake, and Gallaudet University in Washington, DC. She was active in the American Nurses Association and the North Dakota Academy of Physician Assistants and, for several years, coordinated the Diabetes Youth Outreach Program for eastern North Dakota.

In 1972, Ms. Johnson began her training in the FNP program, sponsored by Lake Region Clinic. She worked as a family nurse practitioner at that clinic from 1972 until her retirement in 1995. She and her husband, Vernon (deceased, 1999), moved to Phoenix in 1996 to be near their children and grandchildren.

IN MEMORIAM

Jeffrey Schlameus, MD (BS Med '73), 58, of Edmonds, WA, died May 7, 2008. He was a family practice physician for 32 years.

A native of Great Falls, MT, he graduated from the George Washington University School of Medicine in Washington, D.C., in 1975. That year he joined Edmonds (WA) Family Medicine Clinic as one of its founders. Today, the practice is among the largest independent primary care clinics in south Snohomish County, with 120 employees and 45,000 patients.

Dr. Schlameus was a team doctor for area high school football teams and a volunteer coach of soccer, baseball, basketball and softball for a youth club. He helped to establish golf teams at high schools throughout the Edmonds School District.

Bryan "Bud" Baldwin, 83, of Grand Forks, ND, died Dec. 1, 2008 at Altru Hospital in Grand Forks.

Born and raised in Jamestown, ND, he enlisted in the U.S. Army on his 18th birthday in March 1943. He served in World War II in the South Pacific, receiving the Bronze Star and the Purple Heart. In 1946 Mr. Baldwin married Lois Bingley of Jamestown, ND. They later lived in Bismarck and Grand Forks. In 1950 he began a distinguished career in the North Dakota National Guard, including service in Korea.

In 1985 Mr. Baldwin retired, having received many awards and commendations. Early in his retirement, he was a collaborator on Jerry Cooper's book, "Citizens as Soldiers: A History of the North Dakota National Guard." Mr. Baldwin also worked as a fiscal affairs officer for the INMED (Indian Into Medicine) Program at the UND medical school and served as a volunteer at the North Dakota Museum of Art. Guenther Hans Heidorn, MD, 84, of Minot, ND, a former clinical professor at the UND medical school, died Jan. 2, 2009.

Dr. Heidorn was born in Germany. He immigrated with his parents to the U.S. in 1928 and was raised and educated in New York City and New Jersey. In 1943 he received a degree in biological sciences from Rutgers University and served in the U.S. Army from 1943 to 1946 and during the Korean Conflict from 1950 to 1952. In 1948 he graduated from Temple University School of Medicine and earned a master of medical science degree in research from the University of Pennsylvania.

After specialty training at Hahneman University School of Medicine and the University of Pennsylvania, he earned board certification in internal medicine, and was elected as a Fellow of the American College of Cardiology and as a Fellow of the American College of Physicians. His research in Philadelphia and at the Western Foundation for Clinical Research resulted in many articles in major medical publications. He served as a director of the Cardiovascular Diagnostic Clinic of the Pennsylvania Railroad from 1955 to 1958.

In 1958 Dr. Heidorn and his family moved to Minot where he practiced internal medicine and cardiology and served as chief of staff and a member of the board of directors of St. Joseph's Hospital. After study at Oak Ridge National Laboratory, he was the first to use diagnostic radioisotopes in North Dakota in 1963. He organized the first complete coronary care unit in North Dakota in 1967.

Dr. Heidorn was a member of the local, state and national medical associations as well as Physicians for a National Health Plan. He was the first governor for the American College of Cardiology, North Dakota chapter. He retired in 1989.



Medical School for the Public

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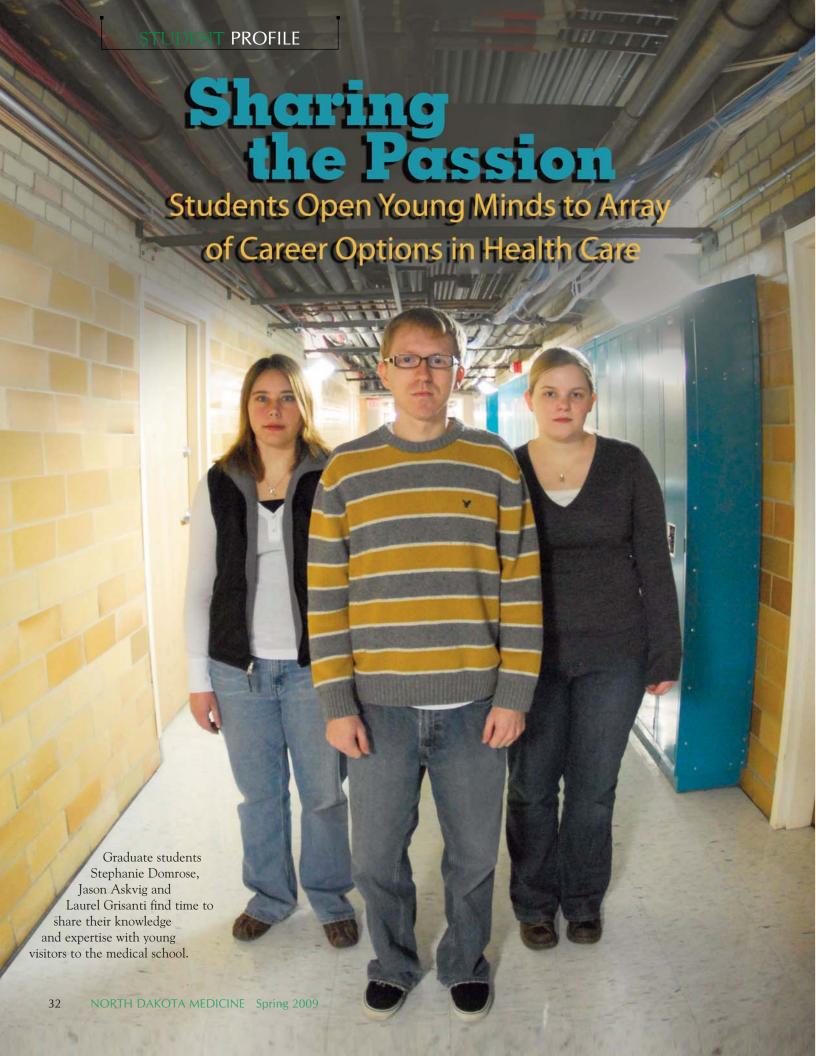
Diabetes Overview presented by Eric L. Johnson, MD

Department of Family and Community Medicine

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EVEN WITH THEIR BUSY SCHEDULES, some graduate students are doing more, and gaining valuable teaching experience in the process. Jason Askvig, Stephanie Domrose, and Laurel Grisanti share their passion for medicine by volunteering to give departmental tours for middle- and high-school students. Not just a chance to share their knowledge, it also provides a way to educate and introduce students to opportunities available in the health care field that they may not have considered.

Askvig, from Des Lacs, ND, became most interested in anatomy and cell biology (ACB) while taking the Anatomy 204 lab as an undergraduate at UND. He particularly enjoyed working with the cadavers and later took a job as a teaching assistant for the lab, a course that is still close to his heart.

"It has been really cool that some of my students in the Anatomy 204 lab have told me that I gave them the Anatomy tour when they were in high school when they came to the medical school for tours," says Askvig who is working toward a doctoral degree in anatomy and cell biology.

He has been giving tours since his first year of graduate school. For the younger groups he teaches about the basics of the organs of the human body, while with high-schoolers he gears the tours towards the medical aspects of the body, especially diseases of the organs. The kids are always excited to see real organs and come up with the most interesting questions, he says.

Askvig graduated from UND with a Bachelor of Science (BS) degree in biology in 2005 and a Master of Science degree in ACB in 2008. He plans to complete his PhD in 2011 and go on to a career in teaching.

Stephanie Domrose, a clinical laboratory science (CLS) graduate student from Bemidji, MN, always wanted to work in the medical field. But after working as a certified nursing assistant (CNA), she realized the nursing field didn't fit her interests and found a two-year lab program at Northland Community and Technical

College in Bemidji. After graduating from the program, she attended UND and received her BS in CLS in 2007.

Planning to graduate with a master's degree next year, Domrose has also been giving tours since she began graduate school. Younger groups can see and touch samples like parasites and bacteria. Highschoolers also see samples and lab demos, plus, in the academic part of the lab program, recruitment is also emphasized since there's a critical shortage of CLS professionals, according to Ruth Paur, PhD (MS, CLS(NCA), MT(ASCP), assistant professor of pathology and director of the CLS program, Grand Forks.

"Clinical laboratory medicine is not a well-known career choice." Paur says. "Student volunteers provide handson exploration of the clinical laboratory and its important role in the diagnosis of disease and maintenance of health. "The volunteer program gives exposure to many young individuals and gives them a glimpse at a fascinating and diverse profession that may be just what they are looking for."

Educating individuals is certainly something Domrose, like the other volunteers, enjoys.

"I like it when the students ask a lot of questions," she says. "It makes me feel as though I have intrigued them and they want more. I think that's why I am drawn to teaching. By giving tours, I'm sharing my interests and giving them another option in their life."

Domrose enjoys volunteering in general, and helps out with other programs like the Special Olympics. Both teaching and working in a lab setting interest her, and she's not sure yet which she'll pursue after graduation.

Laurel Grisanti, a graduate student in pharmacology, physiology and therapeutics (PPT) from White Salmon, WA, wanted to study science as an undergraduate student. After taking physiology and organic chemistry she began to focus on the health aspects, eventually studying physiology, biochemistry and pharmacy while conducting research in microbiology.



Jason Askvig explains the function of the brain and spinal cord to middle school students (from left), Ashley Puente and Tracy Anderson from East Grand Forks, MN.



Katie Svendson, Madison Thibert and MacKenzie Messelt analyze a threadworm and fish and beef tapeworms, the latter is 52 feet long.



Christian Olvera, Alberto Virnig and Ryan Brown check out reagents used in blood-typing.

Name **Jason Askvig**

Class of **2011**

Doctoral Student Anatomy & Cell Biology

Hometown Des Lacs, ND

Parents Donny and Jody Askvig

Name Stephanie Domrose

Class of 2010

Master's Degree Student

Clinical Laboratory

Science

Hometown Bemidji, MN

Parents Christine and John

Fogelquist, Karl and Maryan Domrose

Name Laurel Grisanti

Class of **2011**

Doctoral Student Pharmacology, Physiology & Therapeutics

Hometown White Salmon, WA

Parents Gary and Kathy Grisanti

Tours of the UND medical school are available for groups, middle-school-age and older. Besides the anatomy and cell biology, clinical laboratory sciences, and pharmacology, physiology and therapeutics portions of the tour, groups can request others, such as physical therapy and the skeletal system. Each session runs about 30 minutes.

Please visit: www.med.und.edu/publicaffairs/

Or call the Office of Public Affairs. 701-777-4305

She became interested in PPT because it combines portions of biology and chemistry, she says. It also involves medicine, something she's been interested in since she was young because her mother works in a hospital lab.

"I like how PPT gives the opportunity to be involved in finding and developing therapeutics that may improve the lives of patients," she says. "It's nice to be able to share what I am passionate about with others."

During the tours, Grisanti teaches the group about the heart. She offers a brief overview of the anatomy and physiology of the heart and then talks about electrical conduction with electrocardiograms (EKGs). Everyone in the group can have their EKG taken.

After receiving her Bachelor of Arts degree in biology in 2006 from Willamette University in Salem, OR, Grisanti came to UND for PPT. She is planning to graduate in 2011. After finishing her PhD, she would like to stay in academic research, she says.

Enthusiasm and curiosity

Askvig, Domrose and Grisanti are amazed by the enthusiasm and curiosity of the kids. Of all the groups they lead, they say the younger ones stand out the most because they are full of questions, sometimes surprisingly specific ones. They plan to continue volunteering not only because they enjoy it, but because they want to expose people to careers in medicine beyond that of a doctor. According to **James Porter, PhD**, associate professor of PPT, Grand Forks, they are just right for the job.

"The student-volunteers provide a great way to see students involved in the community. They have the advantage of being closer in age, so the kids see them as more relatable. It's not just another teacher," he said.

The graduate students go "above and beyond," he says. And while educating others is their main focus, these student-volunteers are also learning something themselves.

"One of the most important things we desire for our graduate students is that they develop a sense of professional responsibility for serving their community," says **Kenneth Ruit, PhD**, associate professor, vice chairman and director of graduate education in the Department of Anatomy and Cell Biology, Grand Forks.

"These students volunteer because they love to teach and have a heart for outreach beyond the medical school. They are an important example and a reminder to all of us."

- Andrea Herbst

parting shots



UND students met with legislators and others at the State Capitol to answer questions and describe the quality of education. Among those who participated in the showcase event (from left): Stephanie
Gravning, Nick Milanovich and Matt Soule, fourth-year medical students; Governor John Hoeven; Jeff Hilzendeger, physician assistant student; Justin Gross and Kelsey Hoffman, third-year medical students.



Sarah Cooper and her husband, Jeff Cooper, senior medical student, share a happy moment when they opened their Match Day envelope to learn he is heading to Mayo Clinic, Rochester, MN, to begin pediatric training this summer. Members of the MD Class of '09 receive their degrees during commencement ceremonies set for 2 p.m., May 9 at the Chester Fritz Auditorium.



Dennis Gastineau, MD, (left) spoke on "Cellular Therapy and Regenerative Medicine: Can We Make New Organs?" at UND. He is a mentor of **Chris Pribula**, medical student, who worked in Gastineau's lab at Mayo Clinic before enrolling at UND. Pribula arranged the visit by Gastineau, medical director of the Human Cellular Therapy Laboratory at Mayo.



Tom Miskavige (left) and Michael Greenwood, medical students, belt out the music with their band at the medical school's annual Talent Show, which featured a wide range of talents for an appreciative crowd. Bands lit up the stage and soloists entertained on violin and guitar; a spelling bee challenged contestants on their grasp of medical terminology.

WEB EXCLUSIVE: For more photos of these and other events, visit: www.ndmedicine.org



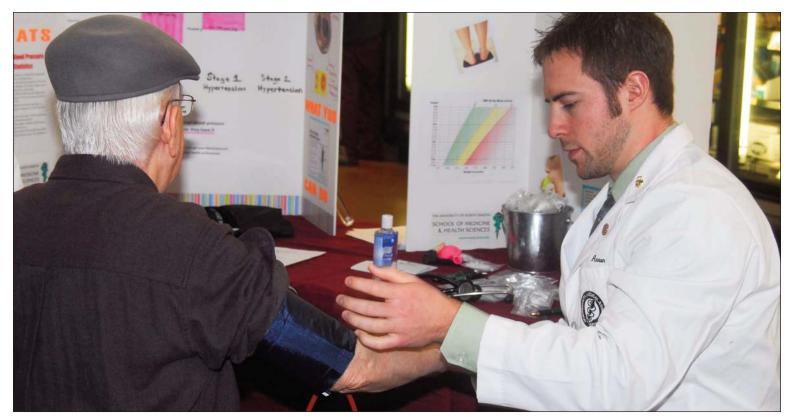


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Helping Hands

Med Students Offer Health Screening and Education for the Public

UND medical students offered health screening to customers during a busy Saturday recently at the Grand Forks Walmart. Students screened many people with tests of blood sugar (glucose), cholesterol and blood pressure. Above, **Aaron Stinton**, second-year medical student, checks a customer's blood pressure. When concerns were detected, people were educated by the students and advised to consult with their primary care physician where appropriate. Feedback to the medical school faculty included praise and gratitude for the students' professionalism, teaching ability, sincere concern, and identifying some significant health issues. Stinton is the son of **Tim and Jenni Krieg** of Fargo.