

NORTH DAKOTA MEDICINE

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

Growing ~~Pains~~ Gains

Rural communities look to the future
with confidence

Synergy

**It's a Really
Small World After All**

What's Up Post-doc?

Playing Patient



"IT'S POSSIBLE TO LIVE IN NORTH Dakota and not be *familiar* with the School of Medicine and Health Sciences – it's just not possible to live in North Dakota and not be positively *affected* by the school in some way!"



It's a statement I use from time to time, and its truth becomes more apparent as the years go by...

This past December was another example of the impact the medical school can have on benefiting this rural state. **Eva Gilbertson, M.D., (B.S. Med. '39)**, a radiologist in Seattle, WA, (originally from Maddock, ND) established the ***Eva L. Gilbertson, M.D. Distinguished Chair in Geriatrics*** with her gift and pledge in excess of \$5.2 million.

Dr. Gilbertson knew what many know – that the aging population in our society is growing at an alarming rate and this special segment of our population requires specialized care. The nation is not training enough geriatric specialists to prepare for the pace the population is aging. This is a national concern, but Dr. Gilbertson decided to do something about it!

Dr. Gilbertson's gift will spin-off \$350,000 next year and in the years to come to support a faculty chair's position, providing the resources for the school to hire a nationally recognized geriatric specialist who will teach our students and residents, conduct research and serve as an area clinician. Dr. Gilbertson passed away only weeks

before her generous gift was announced, but how fortunate we were to have known such a forward thinking physician who cared so much for her alma mater and for her home state.

We're excited to share a story with our readers that hit the heart of our mission of *service* at the school. The medical school is proud to be an economic driver in the state – in fact, we're one of the *leading* economic engines. In this edition we will tell you about an exciting medical project where we share a partnership with the Schools of Engineering at both UND and NDSU as well as with private industry in Minnesota and the economic development corporation in Minot, ND, (see page 8).

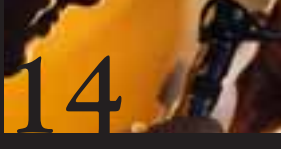
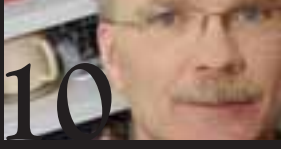
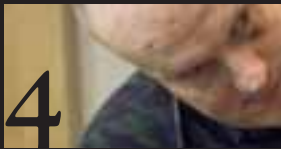
Investing in YOUR medical school!

When I addressed the Legislature last year I told them a return on the investment to the medical school could be found in every community in North Dakota. We do more than just prepare excellent physicians! Some noteworthy projects are:

- School children working with the CATCH (Coordinated Approach to Children's Health) project which educates youth about obesity and making healthy diet and exercise choices;
- Allied health professionals prominent in every hospital and nursing home across the state;
- UND medical students leading the *Tar Wars* project to discourage smoking in elementary school children, and most significantly,
- 1,200+ physicians across the state who work diligently with UND medical students to assure they become caring and competent physicians.

The UND School of Medicine and Health Sciences belongs to North Dakota and is proud to serve the citizens of the state! Thank you.

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



NORTH DAKOTA MEDICINE

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SCHOOL OF MEDICINE AND HEALTH SCIENCES

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~~Growing Pains~~ Gains



Chuck Breen, M.D. '90, examines 90-year-old William Meyer at the Hillsboro (ND) Medical Center. The Center is undergoing a major, \$12.5 million renovation project to expand and update the hospital and nursing home and add a new assisted living facility



“BELIEVE ME, WE COUNT our blessings every day,” says **Patricia Dirk**, administrator of the Hillsboro (ND) Medical Center. “We are very fortunate to have *home-grown* doctors here.”

She’s referring to **Charles “Chuck” Breen, M.D. ’90**, and **Tim Luithle, M.D. ’91**, who’ve been providing health care services for patients in the Hillsboro area for many years. They are central to the reason the community has moved forward with its ambitious building plans.

The people of the Hillsboro area benefit, too, from health care services provided by other UND medical school alumni: **Ann Owens, MPAS ’05**, a nurse who went on to complete her degree in physician assistant studies, and **Nancy Brustad, B.S.P.T. ’75**, who provides physical therapy services.

In May 2007, Hillsboro Medical Center announced a \$12.5 million building project, the largest campaign the community has ever undertaken.

The project calls for:

- construction of 16 new, one-bedroom assisted living units adjacent to the nursing home and hospital facility;
- construction of a new, two-story, 36-bed skilled nursing facility, adjacent to the hospital, and
- partial demolition and renovation of the existing nursing home and hospital facility (expansion of swing-bed capacity, expansion and modernization of laboratory and physical and occupational therapy space, modernization of radiology, addition of cardiac rehab space, addition of decontamination area, and expansion and modernization of the emergency room).

The assisted living and nursing home facilities are expected to be completed by July 2008, and the remodeling project should be completed by July 2009. “Hillsboro has not had an assisted living facility,” Dirk says, “a factor that has

drawn elderly away from the community, and away from their support network of family and friends.”

“I think it’s critical to have physicians whom you know and who are dedicated to the community and are there for the long haul,” Dirk says. “It’s more comfortable for the community to invest in their health care system. It makes a big difference. It helps with the campaign; it helps with everything – having that level of confidence.”

According to **Curt Kaufman**, chair of the Hillsboro Medical Center board of directors and president of Goose River Bank, Hillsboro branch, “We are just so fortunate to have these physicians and Ann Owens, as well... Without them, we wouldn’t even think of doing what we’re doing.”

Kaufman says both Drs. Breen and Luithle are “very much involved in the community, serving on school boards, various foundations and committees, and their churches.” Breen is the second generation of physician to provide medical care in Hillsboro; his late father, **Donald Breen, M.D. (B.S. Med. ’58)**, practiced family medicine there for many years.

The residents of the nursing home are so excited to move in to the new facility, Kaufman added. “And as for the assisted living unit – I think our waiting list is full already.”

Hettinger’s West River Health System forges ahead with multi-million-dollar expansion

Based in Hettinger, in the southwest corner of North Dakota, West River Health System (WRHS) plans a construction and renovation project totaling \$8.5 million. The “Investing in Tomorrow, Today” campaign “is the most significant building project undertaken by the WRHS since its inception in 1946,” says **Jim Long**, WRHS chief executive officer and administrator.



Gracie Woroniecki visits with her nurse Tera Knutson at the West River Health System in Hettinger, ND

“Hillsboro has not had an **assisted living facility**, a factor that has drawn elderly away from the **community**, and away from their **support network** of family and friends.”

Funds will be used to renovate and expand the hospital and clinic, improving physical access to medical services for area residents. Plans call for a new clinic, a modern surgical services suite and a more efficiently designed eye center. The new structure will comprise 23,000 square feet in new construction and another 23,000 square feet of existing space will be remodeled.

The WRHS System is comprised of a 16-physician, multi-specialty group practice providing professional services in a progressive, acute care rural hospital. With facilities in Hettinger, Lemmon, Mott, New England, Bowman, Scranton and Dickinson, WRHS serves an area covering 25,000 square miles.

Many of the physicians in the WRHS System are graduates of the UND medical school. They are: **Robert Grossman, M.D. (B.S. Med. '71); Thomas Jacobsen, M.D., (B.S.**

Med. '63); John Joyce, M.D. '78 (Family Medicine Residency '81); William Elder, M.D. (B.S. Med. '68); Kent Hoerauf, M.D. '81 (Internal Medicine Residency '84); Terrance Mack, M.D. (B.S. Med. '70), and Joseph Mattson, M.D. (B.S. Med. '63). Mid-level practitioners include: **Rose Bergquist, PA '00; Randy Christensen, FNP '80; Jodi Moore, PA '04, and Teresa Nielsen, FNP '91.**

Graduates of the UND medical school “are the core of our physician group and services,” Long says. “About two-thirds of our medical staff has UND connections... A solid and stable medical staff is critical to any hospital’s provision of services. It’s critical to our services and critical to this (building) project.”

“West River Health Systems has a long-standing relationship with the UND medical school,” says **Allen McIntyre**, fund development officer at the WRHS Foundation. “It’s been key

to bringing physicians to this area.”

“We’ve had the good fortune of having a board of directors that’s been willing to gamble, or ‘live on the edge,’ so to speak, in this wilderness area, and put money forward to purchase the type of technical equipment that physicians require,” he says. Such investments allow WRHS “to provide the modern-day health care such as people in urban areas expect.”

“The ambitious building renovation and expansion project is critical to not only retaining patient numbers, but also to keeping the physicians we have and to our ability to recruit new physicians,” McIntyre says.

“Decades ago, the medical school really got us off and running with this medical system,” he says. “We’ve been able to maintain what we have and build on it. If not for the UND medical school, we wouldn’t have been able to achieve the level of success that we have.”

Million-dollar renovation advances emergency care in Harvey

A project to renovate the emergency room and invest in state-of-the-art equipment at St. Aloisius Hospital, Harvey, ND, received tremendous support from people in the area, says

Rocky Zastoupil, CEO and president of St. Aloisius Hospital.

“The community recognized the huge need to upgrade facilities and equipment,” he says, by supporting a major, \$1 million fund-raising effort. The nearly completed project includes the addition of digital x-ray and CT scan equipment.

With these advancements “we can perform more tests *here*,” Zastoupil says, and “we can keep people here who should stay here, and we can send those away who should receive care” at larger centers.

Considering today’s “world technology, it really doesn’t matter anymore where the facility is located,” he says. For example, a radiologist can read an x-ray “on-line, 24/7 and we can have the results within a half-hour. That’s huge.”

Zastoupil credits **Charles Nyhus, M.D. ’79 (Family Medicine Residency ’82)**, who has practiced in Harvey for 25 years, and **Julie Keller, PA ’94**, who has cared for patients there for many years, along with **Alan Lindemann, M.D. ’77**, as helping to provide the “critical” services that sustains health care in their rural community. 🌿

- Pamela D. Knudson

“We’ve had the **good fortune** of having a board of directors that’s been **willing** to gamble, or ‘live on the edge,’ so to speak, in this wilderness area, and put money forward to **purchase** the type of **technical equipment** that physicians require.”



New construction of Hillsboro’s assisted living center

SYNERGY: Partnership Paves Way to Biomedical Device Industry

Centers of Excellence Commission invests **\$2.5 million** to begin **biomedical device research** and commercialization

A TINY DEVICE HOLDS GREAT promise to destroy blood clots *and* create the beginnings of a whole new biomedical technology industry for the state of North Dakota.

The device is the focus of a project that is the result of a successful partnership which links the University of North Dakota School of Medicine and Health Sciences with the engineering schools at UND and North Dakota State University (NDSU), the City of Minot, and Enova Medical Technologies (EMT), a biomedical device manufacturing firm based in White Bear Lake, MN.

The project is funded by a \$2.5 million grant from the state of North Dakota's Centers of Excellence Commission. It is one of six projects funded last fall by the Centers of Excellence Commission (CEC), and the first involving the UND medical school. The first \$20 million in CEC money was distributed in 2005.

The three-year project aims to develop and commercialize a device that will dissolve and suction out clots from blood vessels in the brain and limbs. The plan calls for the engineering schools to design and miniaturize the device, for which a prototype has been created by Enova; the UND medical school will oversee testing through animal and clinical trials, and the

manufacturing of the device would be based in Minot. If successful, the partnership has the potential to create a new manufacturing operation with 200 or more employees in Minot by 2012. Additional funds have been committed by the city of Minot, a community in north-central North Dakota. Enova executives are seeking investors to support the project.

"The grant covers two major aspects that are complementary," says **Joshua Wynne, M.D., M.P.H., M.B.A.**, executive associate dean at the UND medical school. "The development, testing, commercialization and manufacture of a biomedical device complement the development of a master's degree in biomedical engineering. None of the members of the North Dakota University System can do this by themselves."

UND has long wanted to create such a degree program, according to **John Watson, Ph.D.**, dean of the UND School of Engineering and Mines, but funding hasn't been available until now.

Once the center is established, researchers and students will begin developing and commercializing other technologies, either internally or in cooperation with other corporate partners.

Jerry Chavez, president and CEO of the Minot Area Development Corporation



Joshua Wynne, M.D., M.P.H., M.B.A., executive associate dean at the UND School of Medicine and Health Sciences



John Watson, Ph.D., dean of the UND School of Engineering and Mines



Stepping in to a new and developing industry

"The new center will greatly enhance the state's involvement in an exciting and rapidly developing industry," says Watson. "The initial thrombectomy device project will benefit from the collaboration of academic, industry and community partners, and is highly focused on utilizing the collective resources for economic development in North Dakota.

Jerry Chavez, president and CEO of the Minot Area Development Corporation, says, "It's an opportunity to build an educational platform for biomedical engineering and a platform for creating devices (for the biomedical technology industry).

Other strengths of the proposal are the business model, which outlines strategies and goals, and the fact that it paves the way to develop a new and emerging industry in the state.

"It's a means to place North Dakota on the minds of other (established) companies that are considering expansion," he says. "We can leverage our research capabilities and access to graduates in the university system. As a state, we want to continue to create jobs for our grads... (and) knowledge-based companies are looking for human resources to accomplish their goals.

"It's a tremendous advantage that we are close to the Twin Cities, which is a hotbed for biomedical engineering devices," he adds.

Mission of the Center for Biomedical Device Development and Commercialization: To serve the state by providing a research-development-commercialization resource for a range of biomedical devices. Over time, the center will conduct multiple, concurrent projects for various biomedical companies and cities, thus providing the potential for economic development throughout the state and region.

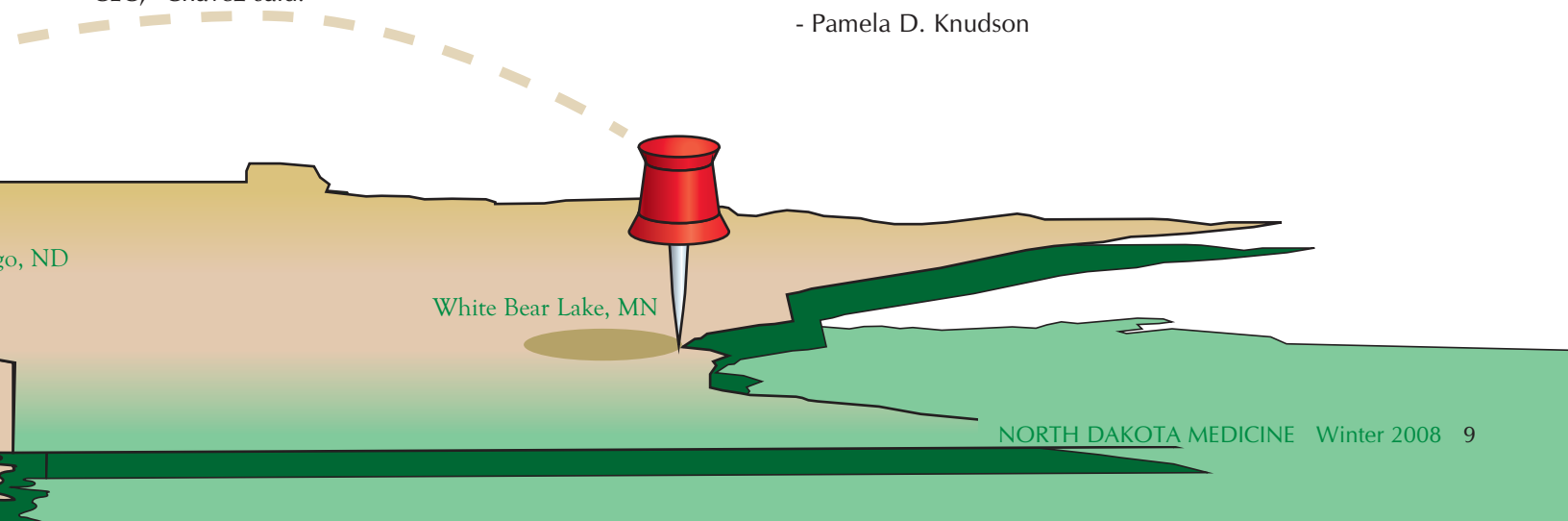
"It also represents an example for other biomedical device manufacturing businesses to begin looking to North Dakota for this kind of expertise," he adds. The proposal, which received the highest level of Centers of Excellence funding in this biennium, showcases the talent available at the state's largest research universities.

The variables that made this opportunity stand out were collaboration between the research institutions (UND, NDSU) in eastern North Dakota and the collaboration with Minot. "These elements are unique relative to other opportunities presented to the CEC," Chavez said.

"This particular device... will ultimately have to go through the FDA (approval process) and all that gets accomplished through the expertise of the medical school," he says. "This could be, clearly, an application for the Neurodegenerative Research Facility at the medical school. There are some true synergies between Enova and the research that's conducted in that facility."

The whole approach is rather unique in terms of regional economic development, because it's creating an economic platform that's basically available to any community in North Dakota, Chavez says.

- Pamela D. Knudson



It's a Really Small World After All



Kevin Young, Ph.D., Professor of Microbiology and Immunology

WELCOME TO KEVIN YOUNG'S microscopic world, a world of puzzles in which the complex is simple and the simple can be frustratingly complex.

Young, a Ph.D. and professor in the UND medical school's Department of Microbiology and Immunology, studies a single-cell organism, the *Escherichia*

coli bacterium, commonly known as *E. coli*. What he's learned about *E. coli* could one day lead to the development of more effective antibiotics that precisely target infectious bacteria, especially those that have developed immunity to penicillin.

While most tend to associate *E. coli* with food poisoning, the disease-causing strains aren't what interest Young, who's quick to point out that *E. coli* plays a vital role in human health.

"The natural flora of *E. coli* is just a normal gut organism that helps us digest food and produces certain vitamins," he explains. "Natural *E. coli* help prevent getting the bad sorts of *E. coli*."

There's a good reason that Young uses *E. coli* in his research.

"It's a very simple model and we know more about this organism than we know about any organism on the earth," he says. "It's easy to manipulate by using genetics, so we can get answers very quickly."

What goes on inside of this simple, singled-celled organism is what Young finds most intriguing.

Understanding *E. Coli*

"What we work on is very basic," he says. "We want to know how the cell wall of *E. coli* is created and why the bacterium is shaped the way it is.

"*E. coli* has a really boring shape," he notes, comparing it to a little sausage. However, complex questions arise out of this seemingly mundane detail.

"Nobody knows why this bacterium is this long. Why isn't it longer? Why isn't it shorter?" Young asks.

"There are other bacteria that are different widths. Why is this? And even if it's a certain width, why is it the same width all down the line? It's very uniform. Why doesn't *E. coli* branch?

Instead of two ends, why not three or four or more? We cannot explain any of those very simple questions," he says.

So why should anyone care about the size and shape of bacteria?

"We should care because the bacteria care," Young responds. "Every bacterium has a particular shape. When they divide, they give their daughter cells all these same exact shapes. So there's some machinery that puts a cell together in a certain way. What we're trying to figure out is what that machinery is and how it operates."

Inside each *E. coli* is a spiral-shaped structure Young compares to the scaffolding that bricklayers use to construct walls around a building. In this case, the bricklayers and the workers who support them in erecting the cell wall are enzymes, and the bricks they use are proteins and chains of sugars.

"What we want to know is: how do these proteins find the scaffold and stick on to it? What are all the proteins involved in the process? What are all the individual enzymes that need to be there?" Young says. "We also want to know what the reactions are and exactly how they put the bricks into the wall."

By better understanding how the cell wall of *E. coli* is built, researchers can apply that knowledge to develop antibiotics that specifically target virulent bacteria or control their harmful behavior. In addition, reducing adverse side effects that antibiotics sometimes cause might also become possible.

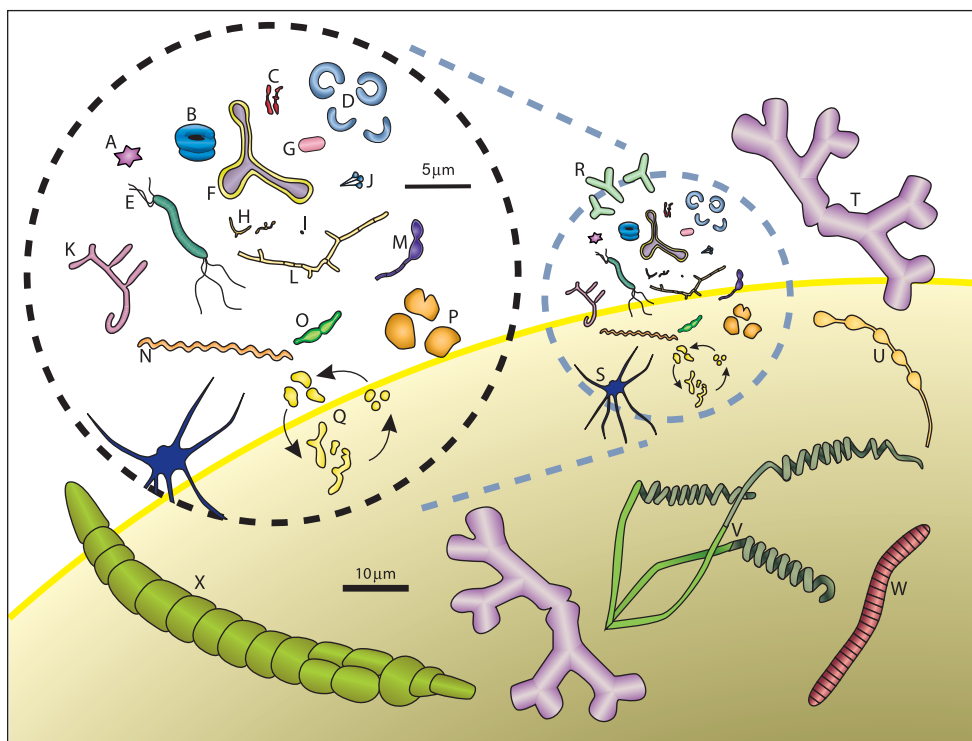
"In the long term, we want to manipulate organisms with antibiotics that are more precisely directed," Young says. "If we can understand the mechanisms behind how the cell wall is made, we can make better antibiotics."

Young's research on mutant *E. coli* that form different shapes and the mechanics of cell division is bringing that day closer.

"I like to say that research is 'practicing medicine' 20 to 30 years from now," he says. "In research, we hope that what we study today will translate into medicine that's practiced in the future."

- Patrick C. Miller

"If we can **understand** the mechanisms behind **how** the cell wall is made, we can make **better antibiotics**"

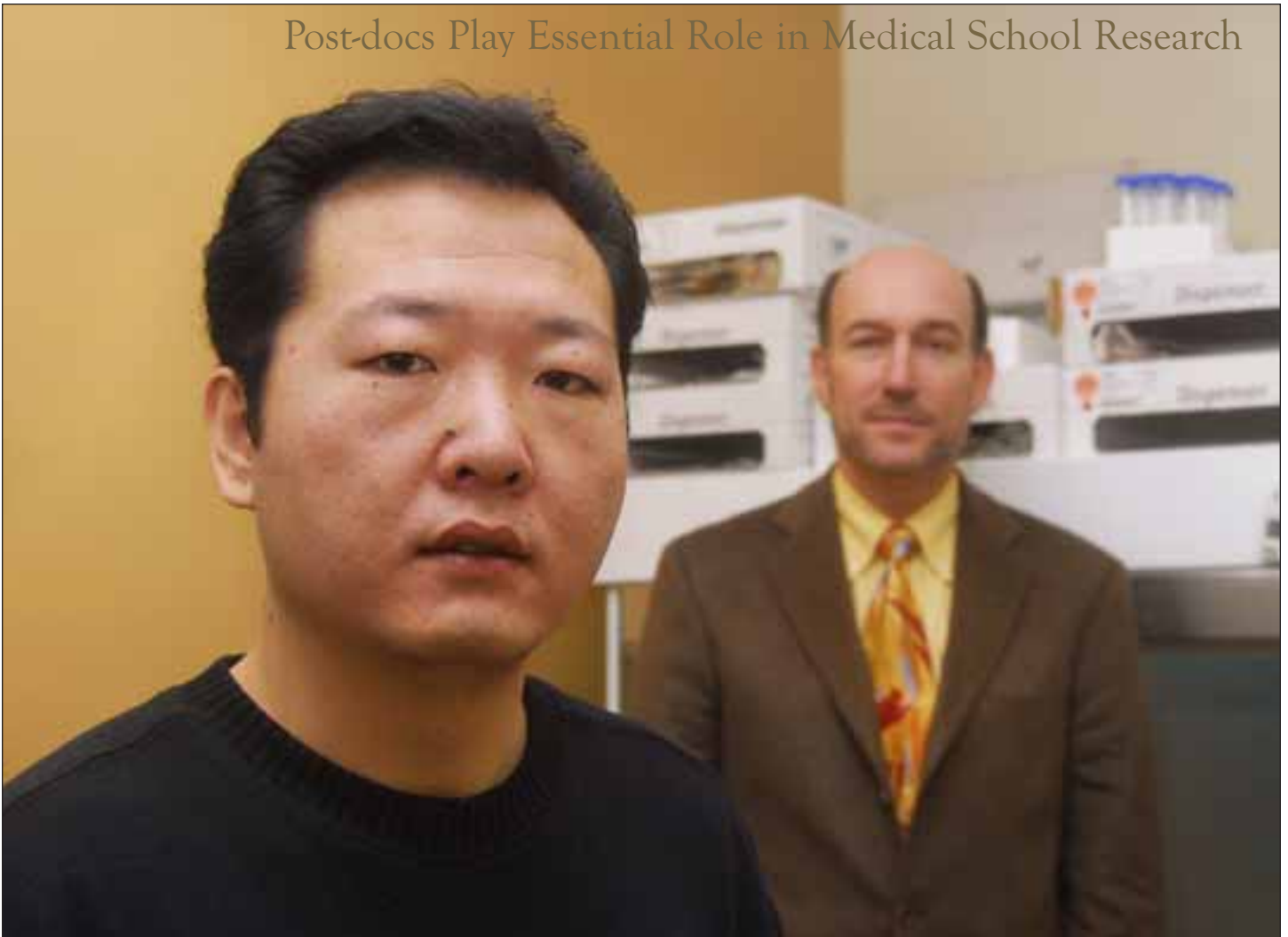


Prokaryote Shapes

- A *Stella* strain IFAM1312
- B *Microcyclus flavus*
- C *Bifidobacterium bifidum*
- D *Clostridium cocleatum*
- E *Aquaspirillum autotrophicum*
- F *Pyrodictium abyssi*
- G ***Escherichia coli***
- H *Bifidobacterium* sp
- I Ratoon stunt-associated bacterium
- J *Planctomyces* sp
- K *Nocardia opaca*
- L Ratoon stunt-associated bacteria
- M *Caulobacter* sp
- N *Spirochaeta halophila*
- O *Prostheobacter fusiformis*
- P *Methanogenium cariaci*
- Q *Arthrobacter globiformis*, cycle
- R Marine sponge α -proteobacterium
- S *Ancalomicrobium* sp
- T *Nevskia ramosa*
- U *Rhodomicrobium vanniellii*
- V *Streptomyces* sp
- W *Caryophanolatium*
- X *Calothrix* sp
- Background partial outline:
Yellow *Thiomargarita namibiensis*

What's Up Post-doc?

Post-docs Play Essential Role in Medical School Research



Jonathan Geiger, Ph.D., values the work performed by postdoctoral fellow, Xuesong Chen, Ph.D., in his lab

Research is the process of going up alleys to see if they are blind.

– Marston Bates

IF THIS QUOTATION IS ACCURATE, then those most often exploring the “alleys” of medical research within the UND School of Medicine and Health Sciences are the post-docs who work in the labs.

To be sure, principal investigators and senior researchers are responsible for launching and leading research “expeditions,” but they rely heavily on the skills, talent and dedication of postdoctoral fellows (post-docs for short) to carry the research load in the lab.

“Post-docs are absolutely critical to the entire mission of the School of

Medicine and Health Sciences,” says **Jonathan Geiger, Ph.D.** professor and chair of the Department of Pharmacology, Physiology and Therapeutics.

“There is recognition that post-docs are invaluable, not only for getting our research done as proposed and funded by our grants, but also for all the aspects of our mission – research and scholarly activities, service, and teaching/education,” he says.

So just what is a post-doc? As the title implies, the person is usually a recent recipient of a doctorate degree. As defined by the Association of American Universities (AAU), a postdoctoral fellowship entails:

- A temporary appointment (usually two to five years);
- Freedom to conduct full-time research;
- Preparation for a full-time career in academic or industry research;
- Working within a university department or research institution under the supervision of a senior scholar or researcher; and
- Publication of research results during the time of the appointment.

“A good post-doc makes your entire research program go,” says **Donald Sens, Ph.D.**, professor in the Department of Pathology. “They not only produce good research, but they’re also great mentors for graduate and undergraduate students.

“The entire operation works better with a good post-doc, mainly because graduate students are tied up with exams, research proposals and course work,” he notes. “Post-docs are full-time in the lab with no teaching duties, which is the norm.”

At the same time post-docs give principal investigators a valuable person in the lab to spearhead their research programs, they also receive important training and experience that enables them to advance their research careers and enhance their reputations as independent investigators, often leading to a position as a university faculty member.

Xuesong Chen, Ph.D., a post-doc under Geiger, received his master’s degree in China before coming to UND

where he earned a Ph.D. As a graduate student, he focused on vasculature research related to hypertension. But as a post-doc he’s conducting neuroscience research on how caffeine can help prevent Alzheimer’s disease and toxin-induced Parkinson’s disease.

“I’ve been a post-doc for a year and a half, so there’s more I need to learn and develop for my future research,” Chen says. “The experience is very good and Dr. Geiger gives me a lot of freedom. I can do something I really like and that’s what I do full-time. It gets tougher later on when you have to teach and apply for grants. This is the best time for doing research.”

Archana Varma, Ph.D., is a post-doc in the Department of Microbiology and Immunology. She and her husband, **Brij Singh, Ph.D.**, also a faculty member and researcher in the medical school, came from India to work at the National Institutes of Health in Washington, D.C., before coming to UND.

Varma works in the lab of **Kevin Young, Ph.D.**, who conducts research using *E. coli* as a model to develop more effective antibiotics.

“It’s been wonderful and he’s a very good mentor,” she says. “This experience has been very rewarding for me.

“I have presented my work in various international conferences and have been invited to lecture at one of the most important conferences in the world,” she adds. “So it has given me a name and a reputation. The research project I’m involved in is a tremendous help in enhancing my career for the future.”

Geiger and Sens both agree that post-docs are essential to a well-run research project.

“If you have someone who’s really committed and excellent at what they do, that person – in effect – runs the day-to-day operation of the lab,” Geiger says.

“Post-docs can interact on a professional level with the principal investigator and also the graduate and undergraduate students,” Sens notes. “They’re a very positive force in the lab.”

“A good post-doc makes your entire research program go. They not only produce good research, but they’re also great mentors for graduate and undergraduate students.”

WEB EXCLUSIVE:
Learn how to become a
standardized patient at
www.ndmedicine.org



- Patrick C. Miller

Playing Patient



Don Gullicks, second-year medical student, examines Kevin Dean as part of his training with “standardized patients”

I’VE BEEN KNOWN BY MANY NAMES – Tom Saunders, Scott Lucas, Dennis Galloway, Ben Goldman and Rob McDaniel. I’ve suffered from tuberculosis, depression, prostate cancer, a torn rotator cuff and impotence. But I go home every night to the same house, have dinner with the same wife and I feel just fine. That’s because it’s all an act. I don’t really have any of those maladies and

no, I don’t have multiple personalities. I’m known as a *standardized patient* and I take my job of shaping future doctors very seriously.

For the past 10 years, I’ve played the part of different patients with different ailments to give medical school students at the University of North Dakota (UND) the chance to hone their interpersonal communication skills. It may sound simple, but to make the scenario as

realistic as possible, I sometimes need to play it up a bit. In truth, it's a lot of work – and some days I go home physically and emotionally drained.

With some students, the test is simply the “office visit” to gather information, while with others, an actual exam takes place. I was never happier to see on the instruction sheet given to the student doctor in large black letters that read “rectal exam NOT necessary.”

My favorite memory is of the time my alter ego was a patient waiting to get the word on a recent prostate biopsy. As with all the scenarios, we're given some guidelines about how to react. But we're also given the opportunity to draw from our own personal relationships. Sure enough, the student doctor had to tell me that the results showed that “Rob” indeed had cancer – and that's when I kicked it into high gear. I asked the typical questions about death and dying, along with queries into treatment and side effects. And then, I asked the question about whether I would be around to walk my daughter down the aisle the next summer at her wedding. Ironically, my daughter WAS getting married the following year, and all I had to do was think about the possibility of not being there and the tears

began to flow. A couple of times, I was sobbing so hard I could barely speak.

My performance got all sorts of reactions. One student became so flustered he just stopped talking. Another hugged me. Yet another started to cry herself. Several offered me a tissue to dry my eyes and wipe my nose. But by far the best was the student who, as she left the room remarked, “that guy needs to be paid more money – he's really good!” Personally, I hope I never have to be that patient again – I'm pretty

well wiped out by the end of the day.

I've seen a wide range of abilities and maturity among the students who have poked, prodded or interviewed me over the years. Some are incredible – if I didn't know they were students, I'd have readily believed they were young doctors just starting out in their careers. Others are extremely methodical in their technique, relying on mnemonics to prompt their line of questioning. But sometimes the encounters are nothing short of painful. The students are nervous, ill-prepared or close to hyperventilating the moment they enter the room. Some forget to introduce themselves, others neglect to wash their hands or in the case of one poor soul, washed his hands twice because as he mentioned aloud, “I can't remember if I did this or not.”

Many future doctors don't realize how important gathering information can be to making a proper diagnosis. If you don't ask the right questions, it won't lead to the right answers and that can create major problems for both patients and doctors. Med students know they're being tested and as a result are often nervous. I don't blame them. I'd be nervous too, but as I often tell students after the exercise is complete “remember who is in control.” It's the doctor's job to seize that all-too-brief opportunity to gather the necessary information. That means asking what may seem like very personal or sometimes very blunt questions about symptoms or situations.

We in the Upper Midwest – and specifically in northeastern North Dakota – claim a proud connection to a Scandinavian heritage. That mindset normally lends itself to people who don't usually complain and don't often ask for help – the worst kind of patient for an up-and-coming doctor to try to obtain accurate and complete information. I've enjoyed playing some of those patients and at times I want to scream out the answers the students need, but refrain because of my role. Patients should be active, engaged participants in their own health care but med students at UND have learned that sometimes



“These future **doctors learn** it's more than just asking questions – **listening to** what the **patient** says and how they say it, is sometimes even **more important.**”

Kevin Dean, with medical student Don Gullicks, presents various conditions and symptoms in his role as a “standardized patient” for the medical education program

you have to pull the information from standardized patients, because that’s exactly what they’ll be dealing with in clinics and hospitals in the real world.

The exercise is intended to show students how important communication is in the medical field. Hopefully these future doctors learn it’s more than just asking questions – listening to what the patient says, and HOW they say it, is sometimes even more important. They



need not to be afraid to stray from their regular line of questions if a red flag comes up. One time a student asked me if I was allergic to anything. I said, “just narcotics, but I stopped using them a long time ago.” She said, “OK” and went right on with the next question – never bothering to ask me anything further about what could have provided some valuable clues to my diagnosis.

Contributing to the communication shortfall is the pressure under which many doctors will find themselves. In this era of tight finances and managed care, a study in the 2002 *New England Journal of Medicine* shows that primary care physicians will see an average of 20 patients every day. This places working fast at a premium. The study goes on to say a doctor typically interrupts a patient after an average of 18 seconds. That’s why the standardized patient interviews and exams at UND are so important. If the students can learn to take the time necessary to listen carefully to their patients and ask the questions that will elicit responses, they’ll be more likely to provide a proper course of action. Most people trust their personal physicians more than anyone else – you’ll tell things to your doctor that you won’t tell your spouse or family member. We want our doctor to ask us for details and most often we will provide it if asked.

Student doctors have the chance to learn that they’re not being nosy when they ask personal information or delve deeply into someone’s habits or lifestyle.

I hope the past 10 years of allowing student doctors to sharpen their communication skills with my other “identities” has helped make a difference. Don’t forget that we’re all human, we all get nervous from time to time and we all make mistakes. Just remember to wash your hands – once is probably enough. 🌿

- Kevin Dean

When he’s not a standardized patient, Kevin Dean is the public information officer for the City of Grand Forks.

Facilitation Training Program

by Richard C. Vari, Ph.D.

WITH THE ADVENT OF THE NEW Patient-Centered Learning (PCL) Curriculum in 1998, the UND medical school was faced with several challenges, but none more daunting than that of faculty development. Our basic science and clinical faculty had, up until that time, minimal if any training or experience in problem-based learning and tutoring, or “facilitating” in small groups - the very cornerstone of the PCL curriculum.

A team consisting of **Ann Flower, Ph.D.** (Microbiology and Immunology), **Kathy Sukalski, Ph.D.** (Biochemistry and Molecular Biology), **Ken Ruit, Ph.D.** (Anatomy and Cell Biology), and I attended an intensive training workshop at the University of New Mexico and brought back ideas for the creation of our faculty development program.

The Office of Medical Education constructed two PCL training rooms that enable faculty trainers to help prepare faculty for this different teaching style, and today, every faculty member is required to complete the program, consisting of a workshop and a week of observation of an actual PCL group in action prior to teaching in the PCL curriculum.

How the Training Works:

The workshop begins with a general discussion of problem-based learning pedagogy and roles of the faculty and students. The faculty trainees, typically four per group, then go through an actual case with the trainer in the role of the small group facilitator. This part of the workshop gives the faculty member an actual feel of the case from the student perspective and an opportunity to observe facilitation skills of the experienced facilitator.

The next session involves the trainees assuming the role of facilitator,

going through the same case with 5 to 8 undergraduate and/or graduate students. The trainees, one at a time, go into a room equipped with a one-way mirror and facilitate the case with the student group. The remaining trainees are in a room with the trainer opposite the mirror observing the facilitator and students, and are given real-time feedback about their performance in the group.

The process also lets the trainees learn from the strengths and weaknesses of others. When the first session is over, the students do research on specific topics and then return several days later for the final session. It concludes with the trainees gaining experience while giving constructive feedback to the students. The students are paid for their research time and, as is always a good idea, the workshop ends with pizza for everyone! Finally, the trainees are required to observe a PCL group in action for a week and follow-up occurs about their observations either with the facilitator trainer or me.

Roxanne Korynta in the Office of Medical Education coordinates all logistical aspects of the workshops and has done an outstanding job in making the program a huge success.

PCL training has been provided to 150 faculty members since November of 1997 in 35 separate training sessions. We have also trained 35 faculty members for the Interprofessional Healthcare Course since 2005 including 21 nursing faculty, three occupational therapy faculty, five communication disorder faculty, four social work faculty, one physical therapy faculty member, and one Center for Rural Health faculty member.

The feedback from both the students and the faculty has been extremely positive.



Richard C. Vari, Ph.D.,
Associate Dean for Medical Education,
Professor of Physiology



Detecting Depression



Tom Arnold, M.D. '84, clinical assistant professor of obstetrics-gynecology, Dickinson, ND, created a universal screening tool to detect depression in women. The screen is used by physicians throughout the state.

IN HIS DICKINSON, ND, practice **Tom Arnold, M.D. '84**, has a patient who, once a year – at the same time of year, suffers from a period of depression. Her husband refuses to let her seek treatment, saying, she should “just get over it.”

On a daily basis, Arnold sees women of all ages and varying circumstances, all trying to find balance and cope with the challenges in their lives. Some are dealing with depression or are at risk of developing a mental illness.

“This is really unfortunate,” says Arnold, an obstetrician-gynecologist, because now there are very good medications and good counseling approaches that have proven to be effective in treating depression in women.

Depression and other mental illnesses are not adequately addressed by the American health care system, Arnold maintains. “We need to provide a *pathway*, from identification to diagnosis to treatment, to solve this problem and help women get the care they need.”

Persistent barriers block this path to wellness, however, Arnold adds. Among them, patients don't want to admit they have a mental health problem, health care providers are sometimes uncomfortable with diagnosis, and often times there's not adequate insurance reimbursement for these conditions.

Several years ago, Arnold took on the task of responding to this issue. He became involved in a Primary Care Health Policy Fellowship, a training program

that included four intense weeks of working in Washington, D.C., with other professionals, including family physicians, pediatricians, nurse midwives and nurse practitioners.

"We were challenged to create health care policy and present it to **Donna Shalala**," then-secretary of Health and Human Services, Arnold says.

His group developed a tool to universally screen for depression in women. Based on the DSM IV, the handbook which health care professionals use to diagnose mental illnesses, the tool provides the means to screen for depression "and the clinical guidelines on how to implement that screen," he says. "We felt it was part of the review in treating patients."

They made the screening tool "as easy as possible to implement," he says. It shows who's at risk for depression but may not *have* depression.

"For many people, it's easier to admit they're depressed on *paper*, rather than face-to-face," he explains. For those who answer "yes" to five or more of nine questions, the screening tool identifies a referral path so the provider can recommend appropriate, seamless care for the patient.

To implement the tool in North Dakota, Arnold assembled a committee of professionals from around the state. Members included: **Jack Kerbeshian, Ph.D.**, psychiatrist and clinical professor of clinical neuroscience, Grand Forks; **Susan Helgeland, M.S. (Ph.B. '65)**, executive director of Mental Health America of North Dakota, Fargo; **Toni Vetter, RN**, North Dakota Health Department, Bismarck; **Margaret Nordell, M.D. '82**, obstetrician-gynecologist and clinical assistant

professor of obstetrics and gynecology, Minot; **Rup Nagala, M.D.**, family physician and clinical assistant professor of family and community medicine, Oakes, ND, and **Marlene Miller, B.S. '99, M.S.W. '01**, UND Center for Rural Health.

"We took the product on the road," says Arnold, who, along with other committee members, presented it to obstetricians-gynecologists and to health care professionals at meetings and conferences. Funding support came from the American College of Obstetricians and Gynecologists' (ACOG) Providers Partnership Project and the GlaxoSmithKline pharmaceutical company.

"I think the tool has been helpful in detecting one's *potential* to have depression," Arnold says, noting that "14 percent of our postpartum patients have been shown to have depression to some degree, while the national average is 10 percent."

"Depression continues to be under-recognized, under-diagnosed and under-treated," says Helgeland.

"Because of Arnold's efforts, more women are being screened for depression and awareness of the need for screening for depression has been increased," she adds.

- Pamela D. Knudson

"Depression and other mental illnesses are **not** adequately **addressed** by the American health care system."

For more information or to receive a copy or CD of the depression screening tool, please call: Tom Arnold, M.D., MedCenter, Dickinson, 701-456-6000, or Susan Helgeland, Mental Health America of North Dakota, 701-255-3692 ext. 102 or visit www.mhand.org

For information, referral and crisis management services, visit www.211nd.org

‘We Came Here, to Learn’



Somali students Fardosa Ahmed (left), Mahad Sanweyne and Sara Gabere

“IN THE BACK OF MY MIND, I consider myself a *trailblazer*,” says **Fardosa Ahmed**, a junior in the Clinical Laboratory Science (CLS) Program at the UND School of Medicine and Health Sciences. “I’m doing this *not* just for me, but for my family and my community.”

Ahmed is one of 20 Somali students pursuing bachelor’s degrees in clinical laboratory science at UND. Most have come from Minneapolis-St. Paul, MN, but their journey really began a half a world away, in East Africa.

From her native Somalia, Ahmed moved as a child with her family to Kenya and, later, to the United States, where she settled first in San Diego,

CA, and later in the Twin Cities. She and other Somali students tell a similar story of fleeing their homeland in the early 1990s when their country was embroiled in civil war.

In 1991, “people fled Somalia to many other places,” says Ahmed, who was only six when she and her family resettled in Kenya. In 2001, she went to live with relatives in California.

But friends in the Twin Cities kept urging her to come to Minnesota where “they promised a good life,” she recalls, so she ventured to another new area, the Upper Midwest. Today, she is grateful to them, she says, although she found cold weather “is a challenge”

and she's "very homesick."

Sara Gabere was only five years old when her family fled Somalia for a new life in Ethiopia. After high school, she moved to Sacramento, CA, where she studied at Sierra College, the first of many schools she's attended, and later moved to Minneapolis.

At the University of Minnesota, when she applied too late to enter the CLS program there this past year, a counselor recommended other good programs she might consider.

"She said UND's was the best program," Gabere recalls.

She and Ahmed decided to visit UND, and talk with **Ruth Paur, Ph.D. (MSMT '93)**, director of the CLS program, who "really analyzed" the students' situation "in a good way," Ahmed recalls.

"She helped me to see that I'd be able to do it. I felt more comfortable; I felt at home... I felt welcome to attend."

Mahad Sanweyne, a native of Somalia who lived in Uganda before coming to the U.S. in 2004, was also planning to attend the University of Minnesota when "somebody special to me found out about UND and advised me to come here," he says. He did, and he's happy with his decision.

Prior to officially applying to the program, he called **Janna Schill, MSCLS '04, BSCLS '01**, instructor in pathology, "lots of times (with) lots of questions," he says.

"I like the program," he notes. And Grand Forks "is a nice place to be; it's quiet. Before coming here, I didn't think it would be as nice as it is."

The students speak highly of the CLS faculty, and appreciate the quality of the teaching "in terms of materials, equipment, knowledge – everything is accessible," Ahmed says. "It's worth all our time. We came here to learn."

"Faculty members have opened my mind to all the areas available in clinical laboratory science," she adds.

"I think we're learning a lot — really practical things," Gabere says. "We're applying knowledge and theory to the practical. All those sciences we took — now we know *why*...The faculty does a great job."

The students also see the critical importance of the clinical lab scientist's work.

"Doctors are heavily relying on the clinical lab scientists," Gabere says, "the people behind the doors whom the patients never see, but whose correct analysis is essential for diagnosis and patient care."

In an area of the country which attracts relatively few Somalis, the students have adjusted. They appreciate that their teachers have made accommodations for them to observe the Muslim religious customs, including the periods of fasting that mark the celebration of Ramadan.

"The faculty has been really understanding," Gabere says.


"The Somalis are an interesting group of students, really a lot of fun," Schill says. "They are hard workers, family-based and community-based, and overall very friendly..."

Also, "they're more openly appreciative of us (teachers), more willing to ask questions and seek clarifications if they don't understand something," she notes. At UND, "they'll grow, they grow a lot."

As they look to their futures, the students say returning to Somalia to advance its health care system is a possibility they're considering, as well as furthering their education.

"I will most likely work in a hospital or a lab for several years. If I really like it, I may go on for a master's degree," Ahmed speculates, noting too that becoming a doctor or a physician assistant are attractive options.

Gabere says her brother, a businessman, is building a hospital in Addis Ababa, Ethiopia, and "he really wants me to become a physician, to come back and help him."

Sanweyne is planning to go on for a master's degree in clinical lab science, with a focus on hematology, at UND. He's confident he'll achieve his goals, he says, because "I'm willing to work hard." 

- Pamela D. Knudson

"The **Somalis** are an interesting group of students, really a lot of **fun**... **hard workers**, family- and community-based."

Norwegian Students Experience Medical Education in North Dakota

"The best thing is the way they treat us and help us here," says **Line Holmen**, an exchange student from Trondheim, Norway, who spent last semester in North Dakota in a program offered by the UND medical school. "The way we are made to feel so welcome here – I think that is unique. That has been so nice and we appreciate it."

Holmen, who's originally from Bergen, and **Jarle Solberg**, who grew up on a farm near Lillehammer, Norway, were seeking a location where they could practice speaking English and "improve our medical English," Solberg says. "We talked to students who had been here before, and they were extremely pleased."

"They were so happy, and couldn't say enough about their experience here," Holmen says.

Both students were excited about being able "to do more yourself, such as in the emergency room, like suturing and other procedures," Holmen says. "We really learn a lot from that."

The opportunity to work one-on-one with the teaching physicians is a great advantage, Solberg says. In Norway, "the doctor can explain things to us, too, but usually we're in a lot bigger group."

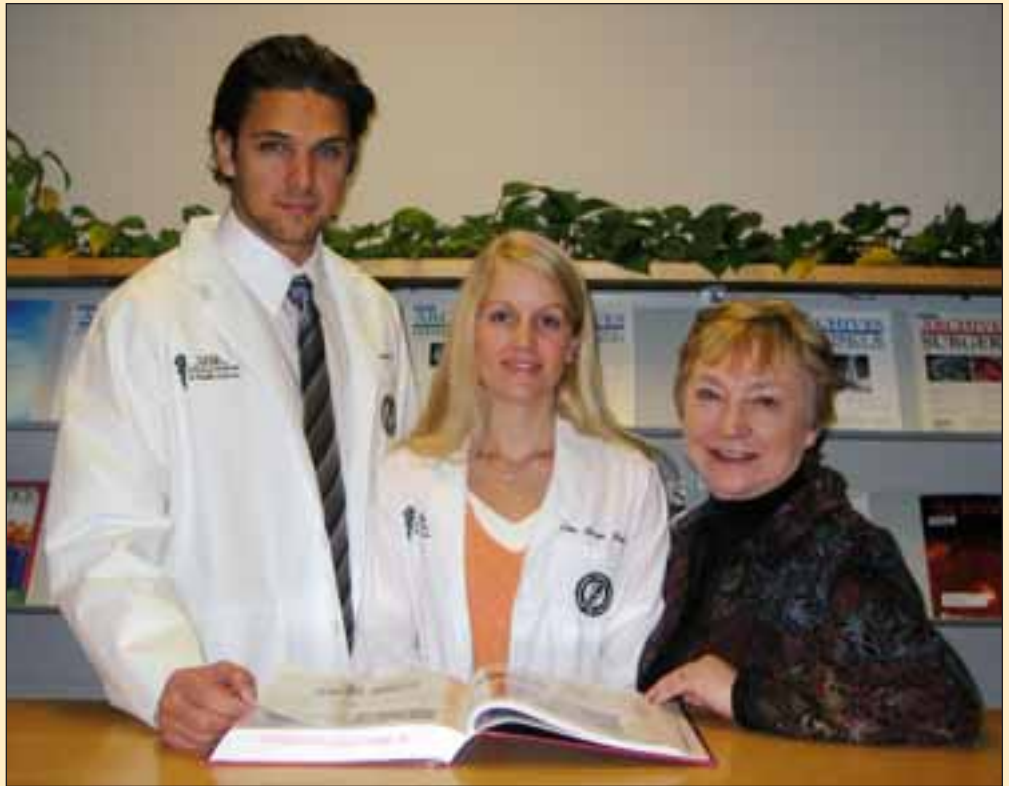
As part of their exchange program, they spent time learning about Native American health care by spending a week with **Monica Mayer, M.D. '95**, at the Trinity Clinic in New Town, ND.

"We learned a lot about Indian history," Holmen says. "We saw what a good physician like her means to the community and what she can do for them," Solberg says. "I think she means more to them than physicians in other larger cities."

CME Director Bruce Resigns



Wayne Bruce, Ph.D., professor of pathology and director of the Office of Continuing Medical Education and Outreach, has resigned and accepted a new position at the Northern Ontario School of Medicine in Thunder Bay, Ontario, Canada. He had been with the school for 32 years.



Norwegian medical exchange students Jarle Solberg (left) and Line Holmen with Linda Olson, Ph.D., director of special projects in the Office of Medical Education at the UND medical school

They found it very interesting, too, to compare the country's health care systems, noting that there are pros and cons in each system.

Fritz Distinguished Professor Melvold Retires

Roger Melvold, Ph.D., chair and Chester Fritz Distinguished Professor of Microbiology and Immunology, Grand Forks, retired Dec. 31.

A native of Henning, MN, Melvold earned a bachelor's degree in biology from Minnesota State University-Moorhead in 1968 and the doctoral degree in biology and genetics from the University of Kansas in

1973. He taught and conducted research at Harvard Medical School and Northwestern University before joining the UND School of Medicine and Health Sciences in 1997.

Last May, he was named Chester Fritz Distinguished Professor, UND's highest honor for faculty members. His talents as a teacher have generated numerous honors and praise from colleagues and students. He is internationally recognized as a leader in the field of mouse genetics and immunology.



Researcher Receives NIH Funds to Continue Osteoarthritis Investigation with U of Iowa



Gene Homandberg, Ph.D., chair and professor of biochemistry and molecular biology at the University of North Dakota School of Medicine and Health Sciences, Grand Forks, has received funds to conduct research on osteoarthritis in collaboration with the University of Iowa (UI).

Homandberg's work is part of a \$7.5 million grant awarded to UI by the National Institute of Arthritis and Musculoskeletal and Skin Diseases, a branch of the National Institutes of Health (NIH). The project, "New Approaches to Assess and Forestall Osteoarthritis in Injured Joints," is directed by **Joseph Buckwalter, M.D.**, an internationally recognized orthopedic surgeon with expertise in injury-induced osteoarthritis at UI, and involves researchers from all over the world.

The goal of the grant is to discover the basic mechanisms that lead to post-traumatic osteoarthritis (PTOA) and target those mechanisms to prevent the development and progression of the disease.

The portion of the grant for which Homandberg is an investigator is co-directed by UI's **James Martin, Ph.D.**, who is well-recognized for his work on in-vitro models of PTOA.

"To be included in this grant represents major recognition for the quality of the investigations we have done here at the UND medical school," Homandberg says. "It is a tremendous honor to be working with scientists who have earned an outstanding worldwide reputation."

The collaborative project, which focuses on a major pathway of cartilage damage, is evidence of significant recognition for work conducted by Homandberg who discovered the pathway and who has guided research on it at the UND medical school by his associates, **Danping Guo, Lei Ding** and **Chang Liu**. Ding, who recently earned the Ph.D. degree under the mentorship of Homandberg, joined the UI research team last summer.

Homandberg's work will involve a basic science project exploring how cells within a joint respond to injury and investigating the mechanisms by which an injury releases molecules that cause further damage. A better understanding of these biologic processes may help researchers devise interventions to prevent or alleviate PTOA.

HRSA Administrator Duke Visits Center for Rural Health

Elizabeth Duke, Ph.D., administrator of the Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services, Washington, D.C., visited the University of North Dakota Center for Rural Health in December.

Duke directs a \$7 billion agency, one of the largest in the federal Department of Health and Human Services (HHS). Over the past five years, HRSA has competitively awarded more than \$15 million to the Center for Rural Health to support a range of projects reaching over 170 rural North Dakota communities as well as communities across the nation.

Duke was visiting Grand Forks to recognize the success and fifth-year anniversary of one of the HRSA-funded projects at the Center for Rural Health, the Rural Assistance Center, which has brought more than \$4.4 million to UND and employs nine people. Also in attendance was **Alan Morgan**, chief executive officer of the National Rural Health Association, Washington, D.C.

The Rural Assistance Center (RAC) is a national resource designed to meet the substantial rural health and human services information needs of rural communities. RAC provides rural communities with access to a full range of available programs, funding and research that can enable them to provide quality health and human services.

In December 2002, RAC launched its web site and took its first information request by telephone.

"In five short years, the Rural Assistance Center has built a national reputation as a premiere source of timely, high

quality information on rural health and human services," said **Kristine Sande (B.B.A. '95, M.B.A. '00)**, RAC project director.

Sande noted in November 2007, the RAC web site (www.raconline.org) passed the 1.5 million mark in visits, with over a half-million coming in the last year. In addition, RAC has responded to almost 5,000 specific information requests from people in all 50 states and over 20 foreign countries.

"The Health Resources and Services Administration is delighted to be celebrating a five-year partnership with the Rural Assistance Center, which provides a one-stop location for people seeking information about health and human services in rural America," said Duke. "The RAC is a key part of HRSA's efforts to improve the delivery of health and social services in rural areas."

RAC coordinates and streamlines information. Its comprehensive web site includes an online clearinghouse of news, documents, maps and success stories; a calendar of events; a directory of rural contacts and organizations; state resource pages, and a searchable database of funding opportunities. Information Guides provide in-depth information focusing on rural aspects of an issue or topic. RAC's electronic updates on rural health and human services keep more than 5,000 subscribers abreast of new information and resources and free customized assistance on topics related to rural health or human services.

Contact RAC at 1-800-270-1898 or info@raconline.org to request this service.

Health Care Facilities Selected to Participate in Electronic Medical Records Network



Joshua Wynne, MD, MBA, MPH, Executive Associate Dean, looks on as Elizabeth Duke, Ph.D., HRSA Administrator, signs a \$1.6 million grant to the Center for Rural Health

A \$1.6 million federal grant from the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA) will be used to develop an electronic network across seven health care facilities in the Red River Valley.

Federal officials, including **Elizabeth Duke, Ph.D.**, HRSA administrator, were in Grand Forks at the Center for Rural Health Dec. 11 to announce the selected facilities which serve **Grand Forks, Northwood, Park River and Cavalier**.

The facilities, all in the Red River Valley, participating in the network are: Pembina County Memorial Hospital, Cavalier, ND; Wedgewood Manor, Cavalier, ND; Northwood Deaconess Health Center, Northwood, ND; Valley Community Health Center, Northwood, ND; First Care Health Center's Hospital and Clinic, Park River, ND; and Altru Health System, Grand Forks.

"HRSA is very pleased to be part of solutions for maintaining access to quality care for rural Americans through the adoption of electronic health records," Duke said. "Networking is a key component for rural health providers in providing care to patients. This pilot project will help pave the way through the development of an e-highway for North Dakotans."

The federal grant, obtained through the Center for Rural Health at the University of North Dakota, was one of 16 competitively funded across the nation.

The network will develop and connect electronic medical records across all of the participating facilities. Altru Health System will serve as the electronic hub, able to send and receive patient information through a secure and confidential electronic highway.

Electronic medical records are an important tool to help health care providers avoid medical errors, strengthen quality of care and improve the accuracy and security of patient information. Additionally, when patients are referred between facilities, electronic medical records provide health care clinicians with immediate and up-to-date information, such as medications, x-rays, and lab results.

"Electronic medical records are an important investment for hospitals," said **Lynette Dickson**, project co-director at the Center for Rural Health. "We're excited about successfully competing for a grant of this size and bringing it in to North Dakota to benefit rural communities."

In 2004, President George W. Bush set a goal that most Americans should have electronic medical records by 2014.

Family Medical History Tool Offered by UND Medical School

A new tool to help families capture and record their health history is now available through the Division of Medical Genetics at the University of North Dakota (UND) School of Medicine and Health Sciences.

The Family History form is a web-enabled program to help people organize family health history information which can be printed out for the family's doctors. It also helps users save that information as a computer file and share it with other family members.

Family history is considered one of the most important elements in assessing risk factors for health problems such as heart disease, stroke, diabetes, cancer and certain psychiatric disorders.

For more information, or to obtain a paper version of the Family History form, contact the Division of Medical Genetics at the UND School of Medicine and Health Sciences, 701-777-4277, visit www.heartlandfamilyhistory.org or call Heartland Regional Coordinating Center at 1-888-881-8852.

Helping in Haiti



UND faculty, Mary Ann Laxen and Annette Larson with PA students on an International Clerkship in Jeremie, Haiti, Dec. 2007

UND Faculty members of the Physician Assistant (PA) Program have been bringing students to medical missions in Haiti for several years. The UND contingents work with the Haitian Health Foundation (HHF), a not-for-profit health and

human services organization to serve poor people in the isolated western portion of Haiti. The foundation is a volunteer, grass roots humanitarian organization that provides outpatient medical care, eye and dental care, pre and postnatal and pediatric care for the poor of the city of Jeremie and the surrounding villages.

Mary Ann Laxen (FNP/PA '91), associate professor and director of the UND PA Program, has worked with the organization since 1991 and started planning clinical experiences for UND PA students when she came to UND in 1999. Laxen and **Annette Larson (FNP/PA '79)**, assistant professor in the PA program traveled with ten UND students, December 1 - 9, 2007.



IN MEMORIAM

Lester Shook, M.D. (B.S. Med. '45) died November 23, 2007 at MeritCare Medical Center, Fargo, ND. He was born to Lester and Corienne (Eberhardt) Shook March 18, 1921 at Anamoose, ND. He graduated from high school in Drake, ND, and went on to graduate from Jamestown (ND) College in 1942. He attended UND and the University of Illinois School of Medicine, earning an M.D. degree in 1947. He worked as a chemist during World War II from 1942 to 1943. He served in the Army, Navy and the Marines. He was an instructor of physics at Jamestown College from 1943 to 1944. He interned at Bethesda Hospital in St. Paul, MN, from 1947 to 1948. He finished his radiology residency in Kansas City, MO, in 1953. He was a physician in Riverdale, ND, from 1948 to 1950. From 1950 to 1955, he served as a physician at Camp Pendleton, Oceanside, CA. He worked as a radiologist at the Fargo Clinic. He taught radiology technologists and medical students for many years and was a fellow in the American College of Radiology.

He married Ann Bergeson on December 26, 1942. She died February 8, 2006.

Dr. Shook loved woodworking, photography, music, basketball, football and track. He was an active member in many professional and community organizations. He served on the boards of Red River Human Services and Red River Dance.

He was preceded in death by his parents; wife, Ann and sister.

He is survived by three sons, one daughter, eleven grandchildren and five great-grandchildren.

Eva Gilbertson, M.D. (B.S. Med. '39), died November 16, 2007 at her home in Seattle, WA, after complications from cancer surgery. She was born near Maddock, ND, December 23, 1916 to Henry and Anna (Brandrud) Gilbertson. She attended the Bondeli School just across the coulee from the Gilbertson farm in Benson County.

Graduating as valedictorian, she was offered a scholarship to Concordia College in MN. She transferred after one year to the University of North Dakota, and during her junior year became the only woman accepted to her medical-school class.

Supporting herself by washing test tubes for 20 cents an hour, Dr. Gilbertson transferred to Temple University, in Philadelphia, PA, to complete the last two years of medical school. While attending Temple, Eva became intrigued by the ability of X-rays to help doctors diagnose patient illnesses. She obtained her medical degree from Temple in 1941.

During her residency at the Mayo Clinic in the 1940s, Dr. Gilbertson became the first woman to complete the radiology program.

After an internship in Portland, OR, Dr. Gilbertson opened her own radiology practice — the first woman to do so in Seattle, WA. Dr. Gilbertson worked as a radiologist in Seattle for more than 30 years.

Eva is survived by her brother Dr. Ward Gilbertson, and sister-in-law Carolyn Gilbertson, of East Grand Forks, MN.

Mary Sinclair (BSOT '68) died October 26, 2007 at Emmanuel Nursing Home, Detroit Lakes, MN. She was born November 23, 1939 in Jamestown, ND to Christoph and Florence Gardner Leonhard. The family moved to Bismarck, ND, where she received her education, graduating from Bismarck High School. She attended Cottey College in Nevada, MO, and North Dakota State University before graduating from the University of ND with a degree in occupational therapy.

On August 11, 1962, she married James Sinclair. They made their home in St. Paul, MN, until moving to Detroit Lakes in 1967.

She loved spending time with her family, especially her grandchildren. She is survived by a son, James (Deanna) Sinclair, of Detroit Lakes, MN; one daughter, Jennifer (Jeff) Flansburg, of Ramsey, MN; three grandchildren, Stephen and Lauren Sinclair, Jace Flansburg; mother, Ellen Oman and a sister, Barbara (Bart) Proper.

John Goven, M.D. (B.S. Med. '55) died December 15, 2007 at MeritCare Hospital in Fargo, ND. John Goven was born January 29, 1929 on the family farm near Turtle Lake, ND, the son of Edward and Olive (Reber) Goven. He graduated from Turtle Lake High School, and attended Carroll College in Helena, MT. He received his B.S. Med. degree at the UND medical school, Grand Forks, ND, and his M.D. in 1955 at Bowman Gray Medical School, Winston Salem, NC.

He was united in marriage to Carol Simonson. He did his internship in Flint, MI, and practiced family medicine in Valley City, ND, from 1958 until retiring in 1994, and was honored as the North Dakota Physician of the Year. Carol passed away on April 5, 2005.

He was a member of St. Catherine Catholic Church and many community organizations. Dr. Goven was a retired colonel with the Army National Guard and served in the Army and the Army Reserves. He was awarded the Legion of Merit for his military service.

Dr. Goven, the Valley City State University team physician, was inducted into the Athletic Hall of Fame. He was active in the North Dakota Medical Association and the UND Medical Center Advisory Council and admissions committee, and served on the Mercy Hospital Board. He taught many emergency medical technician courses.

Dr. Goven is survived by his son, Tom, attorney and municipal court judge, and daughter, **Gigi Goven, M.D. '90**, both of Valley City. He is also survived by two brothers, five sisters and a special sister-in-law.

He was preceded in death by his parents, wife, brother and sister.

Lois Thorson (BSMT '57) died November 30, 2007 in her home from pancreatic cancer. Lois was raised in Glenburn, ND, and graduated from Glenburn High School and earned a degree in medical technology from UND.

She married Dick Thorson on Aug. 23, 1957. They made their home in Sioux Falls and Huron, SD, where she was employed as a medical technician as well as in Chicago and Hartford, CT, prior to moving to Minot in 1965. While residing in Minot she was a full-time mother and wife and served as the property manager of the family real estate holdings. In addition, she and Bonnie Brekke established the first Minot day care in the basement of First Lutheran Church. Mr. Thorson died in 2003.

Mrs. Thorson was a member of the First Lutheran Church and its Altar Guild, the Deaconess Board and church circle. She was a member of PEO Chapter AL, the Art Club and Women's Symphony League and the Minot State University's Board of Regents. She was an active volunteer for the Norsk Høstfest, Minot Meals on Wheels, Domestic Violence Crisis Center and a supporter of the Taube Art Museum.

She is survived by her children, three grandchildren, sister and nephew.

Clifford Klein, M.D. (B.S. Med. '46), died December 1, 2007, at Sheyenne Care Center in Valley City, ND. He was born Oct. 24, 1921, at Worthington, IA, the son of George and Anna (Fiedler) Klein. He moved with his family to the Eckelson, ND, area where he grew up and attended school. Clifford received his undergraduate degree from Jamestown College. He worked for DuPont Chemical Company, Birmingham, AL, as a chemist. He served with the United States government and worked on the Manhattan Project in Oak Ridge, TN. He married Elizabeth O'Hara in 1944. He attended medical school at UND in Grand Forks, and received his MD from Loyola in Chicago, IL.

Dr. and Mrs. Klein moved to Valley City in 1952 where he started his medical practice and the couple raised their family. Elizabeth died in 1973. Dr. Klein married Marion Krueger in 1973 in Valley City. He retired in 1986. He later returned for another five years part-time practice before retiring again. Marion died in 1991. He was a member of St. Catherine Catholic Church.

Dr. Klein was a dedicated physician who had a passion for the care and welfare of his patients. He served on many professional boards and committees after retirement. He continued with his medical care by serving as president on the Valley City Youth Tobacco Coalition, an organization aimed at educating young people on the dangers of smoking. He had many extraordinary interests, including aviation, photography and creating stained glass. Dr. Klein is survived by his children, step-children, brothers, 20 grandchildren and 12 great-grandchildren. He was preceded in death by his wives, Elizabeth and Marion; two sons; parents; three brothers; and one step-daughter.

The following is a listing of communities in North Dakota with current openings for *all* specialties. Please contact the site directly or **Mary Amundson, M.A.**, at the Center for Rural Health, University of North Dakota School of Medicine and Health Sciences for more information about these opportunities at 701-777-4018 or by email at mamundson@medicine.nodak.edu

Ashley

Ashley Medical Center
Kathy Hoeft, CEO
701-288-3433
khoeft@primecare.org
Family medicine, internal medicine

Belcourt

Quentin N. Burdick Memorial Health Care Facility
R. Lancelot Azure, Administrator
701-477-6111
lancelot.azure@ihs.gov
Family medicine, internal medicine, nurse practitioner, physician assistant, pediatrics, obstetrics/gynecology, registered nurse, x-ray technician

Bottineau

St. Andrew's Health Center
Jodi Atkinson, CEO
701-228-9300
jodia@standrewshealth.com
Family medicine

Bowman

Southwest Healthcare Services
Darrold Bertsch, Administrator
701-523-3214
dbertsch@swhealthcare.net
Family medicine, registered nurses, licensed practical nurse, physical therapist

Cavalier

Pembina County Memorial Hospital
K. S. Sumra, 701-265-8461
sumra@polarcomm.com
Internal medicine

Altru Clinic – Cavalier
Kerri Hjelmstad, Physician Recruiter, 701-265-8338
khjelmstad@altru.org
Family medicine

Cooperstown

Cooperstown Medical Center
Greg Stomp, Administrator
701-797-2221
gstomp@coopermc.com
Family medicine, registered nurse, licensed practical nurse, physical therapy, medical laboratory technician

Devils Lake

Altru Clinic-Lake Region
Kerri Hjelmstad, Physician Recruiter or Elonda Nord, Administrator, 701-662-2157
khjelmstad@altru.org or enord@altru.org
Family medicine, internal medicine

Dickinson

Dickinson Clinic/Medcenter One
Rod Mitzel, Administrator or Tim Loch, Recruiter
701-456-6000 or 701-323-8180
rmitzel@mohs.org or tloch@mohs.org
Family medicine, internal medicine, general surgery

Elgin

Jacobson Memorial Hospital & Care Center
Jim Opdahl, Interim Administrator, 701-584-2792
opdahl@westriv.com
Family medicine, nurse practitioner, registered nurse, licensed practical nurse

Harvey

St. Aloisius Medical Center
Rocky Zastoupil, Administrator
701-324-4651
rockyz@staloisius.com
General surgery, registered nurse, clinical laboratory science technician, x-ray technician

Hazen

Sakakawea Medical Center
Jim Marshall, CEO
701-748-7240
jmarshall@sakmedcenter.org
Family medicine with OB

Hettinger

West River Regional Medical Center
Jim Long (Physician Recruitment) or 701-567-6183 (Jim)
jiml@wrhs.com or bobm@wrh.com
Family medicine, internal medicine, general surgery

Indian Health Services: Belcourt

Aberdeen Area Indian Health Service
Kim Lawrence or Jody Kirkie-Orozco, 605-226-7532 or 605-226-7503
kim.lawrence@ihs.gov / jody.kirkie@ihs.gov
Family medicine, general surgery, pediatrics, nurse practitioner, physician assistant, registered nurse, x-ray technician

Fort Totten

Aberdeen Area Indian Health Service
Kim Lawrence or Jody Kirkie-Orozco, 605-226-7532 or 605-226-7503
kim.lawrence@ihs.gov / jody.kirkie@ihs.gov
Nurse practitioner, registered nurse

New Town

Aberdeen Area Indian Health Service
Kim Lawrence or Jody Kirkie-Orozco, 605-226-7532 or 605-226-7503
kim.lawrence@ihs.gov / jody.kirkie@ihs.gov
Nurse practitioner, registered nurse

Jamestown

Dakota Clinic/Innovis Health
Connie C. Long, Director of Physician Recruitment
1-800-882-7310, 701-364-6141
Pager #: 701-364-8181, #1273
clong@dakcl.com
Family medicine, internal medicine, obstetrics/gynecology

Jamestown Hospital
Martin Richman, CEO
701-952-1050 or (800) 281-8888
mrichman@jamestownhospital.com
Orthopedics, gastroenterology

MeritCare Health System
Jill Gilleshammer, Physician Recruiter, 701-280-4851
jillgilleshammer@meritcare.com
Family medicine (with obstetrics), internal medicine

North Dakota State Hospital
Lyle A Grove, (701) 253-3015
grovel@nd.gov
Registered nurse, licensed practical nurse, forensic psychologist

Langdon

Cavalier County Memorial Hospital
Lawrence Blue, CEO
701-256-6180
ccmh@utma.com
Family medicine, internal medicine

Lisbon

Family Medical Clinic, PC
Lynn Otterson, Clinic Manager
701-683-4711, lotter@drtel.net
Family medicine, internal medicine

McVille

Nelson County Health System
Cathy Swenson, CEO
701-322-4328
cswenson@gondtc.com
Family medicine, registered nurses, clinical laboratory science technicians, x-ray technologists

Minot

St. Alexius Medical Center
Carol Lindsey, Physician Recruiter
701-530-7172; (800) 472-7923
clindsey@primecare.org
Family medicine, internal medicine

UND Center for Family Medicine
Brian Berg, Business Manager
701-858-6765
brianb@medicine.nodak.edu
Family medicine

Northwood

Valley Community Health Centers
Sharon Ericson, 701-587-6000
sharon.ericson@valleychc.org
Family medicine, nurse practitioner, physician assistant, licensed practical nurse, dentist, dental hygienist, dental assistant

Oakes

Southeast Medical Center
Theresa Kelly, administrator
701-742-4113
terri@semed.com
Internal medicine, family medicine, nurse practitioner

Park River

First Care Health Center
Louise Dryburgh, Administrator
701-284-7500 or 701-284-4538 (Recruitment)
stald@polarcomm.com
Family medicine

WEB EXCLUSIVE: To view more health field opportunities, visit: www.ndmedicine.org



'00s

Christopher Podoll, DPT '07, Grand Forks, has joined the Altru Health System's Rehab Therapy Services' outpatient department. He provides physical therapy services at Altru Rehabilitation Center in Grand Forks.

Jeremiah Penn, M.D. (Family Medicine Residency '05), Mayville, ND, was among four alumni of Jamestown (ND) College to receive the school's Journey to Success Medallion. A native of Buffalo, SD, he graduated from Jamestown College in 1998 with a major in biology and went to the University of South Dakota where he earned a doctor of medicine degree in 2002. He completed family medicine residency training at the UND Center for Family Medicine-Bismarck. He practices family medicine with MeritCare Health System in Mayville.

The presentation of the medallion was held in conjunction with the announcement of the Journey to Success, a 21st Century national model in education.

Amy Kalbrener, M.O.T. '05, has joined the staff at Altru's Outreach Therapy. Kalbrener represents Altru's Outreach Department in Langdon and Park River, ND.

Bonnie Nostdahl, DPT '05, has joined the physical therapy department at Sakakawea Medical Center (SMC) in Hazen, ND. She is the first employee at SMC to hold a doctorate degree in physical therapy.

Brad Wehe, DPT '05 (MPT '93), Grand Forks, has been named administrative director of the Altru Health System's Regional Development Division. He oversees Altru's regional services including Altru Specialty Services, Retail Pharmacy, home care, hospice and outreach therapy.

An employee of the Altru Health System since 1989, he served as manager of occupational health and medicine from 1999 to 2003. He also was manager of outreach therapy from 1999 to 2007. He earned a bachelor's degree from Mayville (ND) State University in 1987 and a degree in physical therapy from Mayo Clinic, School of Medicine, in Rochester, MN, in 1989, before earning advanced degrees at the UND medical school.

Rebecca Caillier, M.D. '03, recently joined MeritCare Neuroscience Center in Fargo. She completed a residency in neurology at the University of Iowa, Iowa City. Dr. Caillier is originally from Minot, ND. Her specialty is diseases that affect the brain, spinal cord, nerves and muscles.

'00s

Jean Larson, PA '03, Albany, GA, was selected to receive the 2007 Physician/PA Partnership award, one of the highest honors bestowed by the Georgia Association of Physical Therapists (GAPA). The selection by the GAPA Board of Directors is based on recommendations by physician assistant (PA) peers. The award honors a physician-PA team that exemplifies the unique relationship of trust, collegiality and mutual respect that is essential to the PA profession.

Todd Schaffer, M.D. '02, and **Michael Page, M.D. '97**, practice family medicine at the Foster County Medical Center in Carrington, ND.

Page, originally from Carrington, completed family medicine residency training at the UND Center for Family Medicine-Minot in 2000.

Schaffer, also a Carrington native, completed a family medicine residency at the UND program in Grand Forks where he served as chief resident in his final year. In 2005, he was selected as one of the top residents in family medicine in the country by the American Academy of Family Physicians.

They recently opened the Carrington Aesthetics Center.

Melissa Henke, M.D. '02, has joined Medcenter One in Bismarck. A Hazen, ND, native, she completed her residency training at the University of Kansas Medical Center.

'90s

Eric Thompson, M.D. '99, Bismarck, was recently accredited in Advanced Wilderness Life Support by the Wilderness Medical Society. The Wilderness Medical Society is an organization of physicians and health professionals that are trained in prevention, recognition and treatment of medical problems encountered in wilderness situations. Thompson, board-certified in family medicine, practices at Medcenter One Family Medical Center North in Bismarck.

Kristi Midgarten, M.D. '97 (Family Medicine Residency '00), of Park River, ND, has joined Aurora Family Medicine Associates in Grand Forks.

Gary Matthys, M.D. '94, has opened Matthys Orthopaedic Center in Fargo. A native of North Dakota, Matthys has practiced in the area since 2000, specializing in multiple areas of orthopedics. He took residency and hip/pelvis training at the University of Southern California in Los Angeles; fellowship training in joint reconstruction/replacement at Harvard Medical School in Boston, and a shoulder/elbow fellowship at Baylor University in Texas.

'90s

Condetta Ness, FNP/PAC (PA '92), Larimore, ND, has been named assistant medical director at Valley Community Health Centers. Ness attended a week-long medical director training program conducted by Harvard University for Bureau of Primary Health Care for grantees such as Valley Community Health Centers. Ness provides medical care in both Larimore and Northwood, ND, in addition to serving on the medical staff of Northwood Deaconess Health Center.

'80s

Craig Lambrecht, M.D. '87, was WebMD's Health Hero for 2007. A North Dakota National Guardsman for 24 years, Lambrecht is no stranger to answering the call of duty. But on his most recent deployment to Iraq last year, the father of five found himself battling a new health crisis.

The U.S. Army-operated Smith Gate Clinic — the only pediatric burn unit for Iraq — was treating up to 700 children per month, and the waves of patients were taking their toll. Supplies were low and couldn't be restocked fast enough.

That's when Lambrecht, 46, placed a call to his home hospital, Medcenter One in Bismarck. "I told them we need help, we need supplies, we need money," he says. Within weeks, support poured in from across the country.

To date, Lambrecht and his team have raised about \$100,000 in cash and more than \$500,000 in supplies. Lambrecht's work didn't stop there, though. Now back in the United States, the pediatric ER surgeon has made it his new mission to aid Iraqi children who need care beyond the scope of Iraqi hospitals.

So far, he has helped two children come to America for surgery, paid for by donations, with four more on the way. "Treating these kids doesn't have any political barriers," Lambrecht says. "There's a universal understanding that, as a parent, you'll do whatever it takes." — *Meredith Stanton*

Robert Thompson, M.D. '85, Grand Forks, has been elected president of the North Dakota Medical Association. Named Altru's Executive Medical director in 2005, he oversees Altru's care management team, medical specialty and clinical support divisions. Thompson, who grew up in Velva, ND, practices in the areas of allergy and immunology and internal medicine at the Altru Clinic in Grand Forks. Thompson earned his medical degree from UND and completed an internal medicine residency and an allergy/immunology fellowship at the University of Iowa. Thompson is a clinical associate professor of internal medicine at the UND medical school.

Duane Strand, M.D. '85, created a 39-page photo booklet featuring Wahpeton's family-friendly sites. Strand uses the booklet as a recruitment tool to showcase the area. He entered it in the Wahpeton Breckenridge Area Chamber of Commerce art exhibit entitled "Artists with Lens."

'70s

Don Kosiak, M.D. '79, was recognized with the Schafer Excellence in Healthcare Award at the Sixth Annual Schafer Institute for Excellence in Healthcare on Nov. 8, 2007. This award is given to individuals who have contributed to even greater possibilities in the field of health care for the citizens of North Dakota.

Kosiak currently practices at the Medcenter One Walk-In Clinic in Bismarck and is a clinical instructor for the UND family medicine program. He was honored for his more than 25 years of selfless dedication to meeting medical needs in North Dakota and beyond — including his service with the North Dakota National Guard in Iraq, which earned him the Army Commendation Medal, the Army Achievement Medal, and two Meritorious Service Medals — as well as his many contributions to the development of rural North Dakota communities. He and his wife, Francine, are the proud parents of four children and eight grandchildren.

Alan Lindemann, M.D. '77 (BS Med '75), recently joined the staff at Central Dakota Clinic in Harvey, ND. Lindemann specializes in general medicine and obstetrics. Dr. Lindemann is a native of Kathryn, ND. He received his Bachelor's Degree at UND in 1971 before beginning medical school in 1974.

Michael Vandall, M.D. '76, has joined Northern Valley Obstetrics and Gynecology in Grand Forks, last August.

Vandall, an obstetrician-gynecologist, who has practiced in Grand Forks for the past year-and-a-half. He earned his undergraduate degree from UND and his medical degree from the UND School of Medicine. He completed his residency at St. Joseph's Hospital Medical Center in Phoenix, AZ.

Vandall specializes in preventive care, normal and high-risk obstetrics, urinary incontinence, PMS and menopausal symptoms.

'60s

Jon Berg, M.D. (B.S. Med '63), chief medical officer for Valley Community Health Centers, Northwood, ND, attended a week-long medical director training program conducted by Harvard University for Bureau of Primary Health Care grantees. He is a clinical assistant professor of family and community medicine at the UND medical school.

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PARTING SHOTS

Charles Christianson, M.D., (right) associate professor of family and community medicine, talks with a visitor during the Association of American Medical Colleges' annual meeting this past fall in Washington, D.C.



During the UND winter commencement ceremony, Christopher Knudson is hooded by Patrick Carr, Ph.D. (right), associate professor of anatomy and cell biology, and Greg Weisenstein, Ed.D., vice president for academic affairs and provost at UND. Originally from Bismarck, Knudson earned the Ph.D. degree



Heather England of Fargo receives her hood from David Relling, Ph.D. (Pharmacology, Physiology and Therapeutics '03, BSPT '91), assistant professor of physical therapy, during a ceremony conducted in December. Looking on are husband, Ryan and daughter, Rayne



Three examples of the talent on display during the January 14 Medical School Talent Show





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