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It Takes a State

Educating the School's students is a statewide effort.

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DEAN'S LETTER

Building on



After the close of 2012, I thought it would be instructive to look back at what we accomplished this past year, and look ahead to what we have on tap for 2013. It is always useful to compare goals with achievements, and so I've looked back to my January 6, 2012, E-News column to see what expectations I set for the School for 2012. In that column, I outlined goals regarding people, programs, and facilities. For people at the School, I had hoped that we would have filled all four of the then-vacant senior leadership positions at the School-associate dean for Student Affairs and Admissions, founding chair of the basic sciences department, founding director of the Master of Public Health (MPH) Program, and the Dr. Eva Gilbertson Chair of Geriatrics. So the School (and I!) get a mixed grade on this one-we've recruited Dr. Joy Dorscher, an outstanding associate dean for Student Affairs and Admissions, and Dr. Raymond Goldsteen, an equally outstanding director of the MPH Program. On the other hand, the searches for the other two positions are ongoing, albeit (hopefully!) near their successful culmination.

Conversely, I think our grade on the *programs* agenda is unequivocally positive.

The MPH program is off to a great start, with 27 students currently enrolled, and plans in place for class size expansion this year as student interest in the program grows. The integrated longitudinal clerkship for third-year medical students on the Northwest (Minot) campus also is off to a great start. The MILE program (Minot Integrated Longitudinal Experience) emphasizes cross-discipline learning and patient care. MILE is one of the ways in which we will be able to accommodate an expansion in class size, which incidentally also is off to a great start. Eight additional medical and 15 additional health sciences students started this past summer, and the additional residency slots funded by the North Dakota Legislature are being filled by grateful students.

Other programmatic issues that I stressed a year ago included preparations for our medical school reaccreditation visit that is scheduled for March 2014, and preparations for the North Dakota Legislative Assembly beginning this month. Medical schools are accredited by the Liaison Committee on Medical Education (LCME), and the School sponsored an LCME Reaccreditation Kickoff Event on November 26–27, during which we were pleased to welcome the LCME Secretaries to our campus. And for the upcoming Legislature, we have completed a Facility Space Study that concluded that the School needs additional facility space, especially if we are to continue our class size expansion in support of enlarging the health care workforce in North Dakota. There has been strong support for full implementation of the Health Care Workforce Initiative (HWI), which calls for additional expansion of the health provider education pipeline. The HWI has been included in Governor Dalrymple's Executive Budget, as has funding for a major addition to the current physical plant of the School. The Executive Budget will be presented to and considered by the upcoming Legislature.

Your Support

Finally, on the *facility* front, the School again gets an A+ grade, especially Associate Dean Randy Eken, Southwest (Bismarck) campus Associate Dean Dr. Nicholas Neumann, Bismarck Family Medicine Program Director Dr. Jeff Hostetter, and their colleagues, who oversaw the successful planning, construction, and opening of the magnificent Center for Family Medicine building in Bismarck. Please let the staff in the building know if you are in the area and would like a tour; they would be delighted to arrange one. It is a wonderful facility that addresses two core needs-an appropriate setting in which to deliver primary care to the people of the Bismarck area and also a venue in which we train students and residents who eventually will become part of the health care workforce delivering care to all of North Dakota.

The goals for 2013 are an outgrowth of the activities in 2012, and include the following:

- Successfully complete the recruitment of the founding chair of the basic sciences department, and successfully integrate the four existing departments into one unit with research clusters that draw on the expertise of our world-class scientists.
- Successfully complete the recruitment of the Dr. Eva Gilbertson Chair of Geriatrics, and get the UND Geriatrics program up and running.
- Garner legislative support for full implementation of the Health Care Workforce Initiative (HWI), especially the necessary class size and residency expansion, and then begin to implement the full HWI.
- Garner legislative support for additional facility space to accommodate the HWI.
- Continue to build educational, research, and service programs of distinction as we serve the people of North Dakota and the region.

As a community-based school (one without our own teaching hospital), we depend on so many people outside the School to help us carry out our mission:

- The North Dakota Legislature.
- The North Dakota University System led by Chancellor Hamid Shirvani, PhD.
- The State Board of Higher Education under the leadership of President Duaine C. Espegard.
- Colleagues from across the UND campus, and on other campuses in our system, especially at North Dakota State University.
- The leadership team at UND, headed by President Robert Kelley.
- The nearly 1,000 clinical (voluntary) clinicians across the state who help educate our students.
- The many generous donors to the UND Foundation, who give to the School in support of our programs and especially our students.
- Most of all, the people of North Dakota.

I like to say that the SMHS is a community-based school, and our community is all of North Dakota. So to all of you, thank you for your time, effort, and support. We couldn't do it without you!

My wife Dr. Susan Farkas and I hope your holiday season was wonderful. Warmest wishes for a healthy, happy, peaceful, and productive New Year!

Josh Ulyune

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

Your grandchildren are what you eat

Your overeating or cigarette smoking today might have an effect on not only you but also your grandchildren. Trying to understand the potential links between environmental exposures to various chemicals and the development of human diseases later in life is the focus of an effort by University of North Dakota biomedical researchers who have received a fiveyear, \$1.5 million grant from the National Institutes of Health, which is the nation's medical research center and is the largest source of funding for medical research in the world.

Assistant Professor Joyce Ohm, PhD, in the Department of Biochemistry and Molecular Biology at the UND School of Medicine and Health Sciences is the principal investigator for the research project. She will lead a collaborative endeavor that draws on the expertise of scientists from throughout the SMHS.

During the project, titled "Environmental toxins and stem cell epigenetic/epigenomic remodeling," UND biomedical researchers will study how the epigenome, the biochemical elements in the cellular neighborhood around DNA, may direct the expression of the genetic code for good or for ill and how epigenetic changes to DNA may be passed to offspring and their children.

DNA was once thought to hold one's destiny chiseled in stone, the sole determinant of who you are or will be. However, scientists have recently found that DNA is text that is editable by the epigenome, and this fluidity plays a pivotal role in whether one develops a disease based on the effect of exposure to toxins and if one might pass this susceptibility to future generations.

"Abnormal epigenetic regulation has been implicated in a variety of human diseases," Ohm said. "Those diseases include

cancer, obesity, diabetes, infertility, and neurodegenerative disorders such as Alzheimer's disease or Parkinson's disease." In 2009, Ohm completed a postdoctoral fellowship in oncology with an emphasis in cancer and stem cell epigenetics at the Johns Hopkins University School of Medicine.

UND scientists will use two types of adult stem cells to study how environmental toxins affect your



Joyce Ohm

epigenome: The first are induced pluripotent stem cells, or iPSCs, adult stem cells whose calendars have been turned back by scientists to their pluripotent state, meaning the cells are not limited as to the type of cell they can become. The second are mesenchymal stem cells, which are derived from the bone marrow of adults.

Working with Ohm will be Professor Brij Singh, PhD; Associate Professor John Shabb, PhD, from the Department of Biochemistry and Molecular Biology; and Associate Professor John Watt, PhD, from the Department of Anatomy and Cell Biology.

Because analysis of the data for the human epigenome dwarfs the effort that took place to map the human genome, they will rely on Assistant Professor Kurt Zhang, PhD, in the Department of Pathology, an expert in bioinformatics, the interdisciplinary field that uses the power of computers and statistics to analyze the wealth of information generated by the research.

10th Annual American Indian Health Research Conference: Indigenous Research Across the Lifespan

The 10th Annual American Indian Health Research Conference took place on October 19 at the Alerus Center in Grand Forks. The conference offered opportunities to discuss research directions, partnerships, and collaboration in health research focusing on American Indians. The conference featured Diane J. Willis, PhD, professor emeritus of pediatrics and medical psychology in the Department of Pediatrics at the University of Oklahoma Health Sciences Center, who provided the conference's keynote address titled "Futility, Timidity, Stagnation, or Comfort: Making Research Fun, Meaningful and Relevant."

Willis devoted much of her career to developing programs for children with developmental disabilities and advocating for services for child victims of abuse and neglect. At the Oklahoma Health Sciences Center, she was instrumental in establishing clinical programs and clinics to help developmentally disabled or abused children.

She has written and taught extensively at a national level, helped to encourage better research on mental health services for American Indians, and has testified before the U.S. Congress on several occasions about the mental health needs of American



Indians. She was named Indian Woman of the Year by the Oklahoma Federation of Indian Women in 2000. She is an enrolled member of the Kiowa Tribe.

Numerous posters and exhibits were on display at the conference along with sessions that focused on health risk and health promotion among Native American communities.

The 10th Annual American Indian Health Research Conference was sponsored by the North Dakota IDeA (Institutional Development Award) Network of Biomedical Research Excellence, UND Center for Rural Health, UND Seven Generations Center of Excellence in Native Behavioral Health, and the UND Chapter of the Society of Indian Psychologists.

Nielsen and Polansky earn state Occupational Therapy honors

Sarah Nielsen, PhD, OTR/L, assistant professor in the Department of Occupational Therapy at the University of North Dakota School of Medicine and Health Sciences, was honored as the 2012 Occupational Therapist of the Year by the North Dakota Occupational Therapy Association. Rebecca Polansky, a University of North Dakota graduate student in occupational therapy, was named 2012 Occupational Therapy Student of the Year by the NDOTA.

Nielsen received her Bachelor of Science in Occupational Therapy from UND in 2000. She was a staff occupational therapist for Trinity Health in Minot from 2001 to 2011, where she provided OT services for the Trinity Child and Adolescent Partial Hospitalization program. She joined UND in December of 2011 as an assistant professor of occupational therapy. Nielsen earned a Master of Management degree from the University of Mary in 2002. In 2009, she received the University of Mary's Kathy Perrin Fieldwork Educator of the Year Award. Nielsen received her PhD in Institutional Analysis and Adult and Occupational Therapy from North Dakota State University in 2011.

Nielsen's research on OT fieldwork has been published in the American Occupational Therapy Association's journal OT *Practice*, and she contributed two chapters on OT interventions for children and youth in the AOTA publication Occupational Therapy in Mental Health: Considerations for Advanced Practice. She is involved in OT professional organizations at the state as well as national level, where, since 2009, she has served as an accreditation evaluator for the Accreditation Council for Occupational Therapy Education. ACOTE accredits occupational therapy education programs in the United States.

Rebecca Polansky has an outstanding academic record and is a member of Pi Theta Epsilon, the occupational therapy



Rebecca Polansky and Sarah Nielsen

honor society. Pi Theta Epsilon honored her with its Leadership Award in 2011. In 2011 and 2012, she received the Department of Occupational Therapy's Scholarship Award. Polansky serves as a teaching assistant in the senior-level anatomy, neuroscience, and muscle function courses.

She participates in Fellowship of Catholic University Students Bible studies and participates in the annual Newman Center Bike Race and several intramural sports. She is a student employee for UND, where she was named Student Employee of the Year in 2011. She earned Student Employee of the Year for North Dakota in 2011.

UND and NDSU host statewide undergraduate research symposium

The fourth annual North Dakota INBRE Undergraduate Research Symposium was held on October 18 at the Alerus Center in Grand Forks. ND INBRE is the North Dakota IDeA (Institutional Development Award) Network of Biomedical Research Excellence. The goal of ND INBRE is to build biomedical research capacity by serving research universities, baccalaureate institutions, and tribal colleges within the state. The focus of this year's program was to encourage the development of collaborations and interactions between investigators in North Dakota and those at Sanford Health in South Dakota.

Research conducted under the ND INBRE program focuses on health and the environment. ND INBRE lends significant financial support to research projects at predominantly undergraduate institutions in the state. Information about the INBRE program can be found at http://ndinbre.org/

The statewide INBRE network is administered by the University of North Dakota School of Medicine and Health

Sciences in collaboration with North Dakota State University. Donald Sens, PhD, a professor in the Department of Pathology at the UND School of Medicine and Health Sciences runs the program at UND, and Donald Schwert, PhD, a distinguished professor of geology and director of the Center for Science and Mathematics at North Dakota State University, serves as the program coordinator there.

The morning session of this year's symposium was devoted to a series of presentations by scientists from Sanford Health, who outlined their research programs and areas for potential collaboration. The session was chaired by Dr. David Pearce, vice president of research at Sanford Health and director of Sanford Children's Health Research Center.

INBRE provides a broad range of benefits in biomedical research and science education encompassing research universities, baccalaureate institutions, and tribal colleges across North Dakota.

NEWS BRIEFS

Nissen receives Emerging Leader Award

Kylie Nissen, senior project coordinator for the State Office of Rural Health (SORH) program at the University of North Dakota Center for Rural Health (CRH), received the Emerging Leader Award from the National Organization of State Offices of Rural Health (NOSORH). Nissen received this national award in October during NOSORH's annual conference in Madison, Wisconsin.



Kylie Nissen

Each year, the organization presents the Emerging Leader Award to an individual State Office of Rural Health staff member who has demonstrated new leadership, initiative, involvement, and commitment to the mission of NOSORH or State Offices of Rural Health. The recipient may be a new staff member or existing staff member who has newly demonstrated exemplary communication, passion or understanding of an issue to enhance education advocacy or partnerships to improve rural health. Recipients for this award are chosen from a pool of nominations submitted from peers and are selected by a national panel.

According to Lynette Dickson, CRH associate director, "Kylie is a young professional who leads by example with vision, drive and creativity. She thrives on being actively engaged and contributing in her own state, in the region, and nationally through NOSORH always with a can-do spirit and positive attitude."

She is an active committee member in NOSORH work such as planning regional and annual meetings, and most recently is serving on the NOSORH Board as cochair of the communication committee. She is a committee member of the Center for Rural Health's wellness, communication, and technology committees. She also serves as the executive director of the North Dakota Rural Health Association and provides consistent guidance to the board in order to keep the organization moving forward.

"It is an honor to receive this award from NOSORH," Nissen said, "They are an amazing group to be a part of. Being able to go to work each day and love and feel passionate about what I am doing is a true gift. The mentorship and support from coworkers at the Center for Rural Health has inspired me and taught me that what we do really can make a difference."

NOSORH was created in 1995 to serve as an influential voice for rural health concerns and promote a healthy rural America through state and community leadership.

Biennial Report available online

The Second Biennial Report: Health Issues for the State of North Dakota 2013, compiled by the UND School of Medicine and Health Sciences Advisory Council, is now available online at http://bit.ly/YbnHan.

Training students to care for those who serve



Jamie Lombardo

Second-year medical student Jamie Lombardo was featured in the November 2012 *AAMC Reporter*. During the year that Jamie Lombardo spent dispatching helicopters in Iraq in 2005, enemy mortar rounds hit her air base, 75 miles north of Baghdad, an average of four or five times a day. She was never injured, but many of her fellow veterans from that conflict and the one in Afghanistan returned home with physical injuries, psychological scars, or both. Read more at http://bit.ly/Q5Flb0.

-By Stephen G. Pelletier, special to the Reporter

UND medical students receive scholarships for 2012–2013

A total of \$366,737 in scholarships has been awarded to 135 medical students at the University of North Dakota School of Medicine and Health Sciences for the 2012–2013 academic year. Funds for the scholarships are given from various private sources, endowments and scholarship funds. Please visit the following link for a complete list of scholarship recipients: http://bit.ly/TxcSYH.

SMHS sponsors Joining Forces Wellness Week

In recognition of Veterans Day, the University of North Dakota School of Medicine and Health Sciences sponsored Joining Forces Wellness Week, November 12–16, in conjunction with the AAMC (Association of American Medical Colleges) to heighten awareness about the health needs of the nation's veterans, service members, and families, and elevate the role that medical schools and teaching hospitals play in serving this community.

"We are honored to participate in the White House Joining Forces initiative to address the health care needs of military service members and veterans and their families," said Joshua Wynne, MD, MBA, MPH, UND vice president for Health Affairs and dean of the School of Medicine and Health Sciences. In the 1970s, Wynne served as a member of the United States Army Medical Corps and was stationed for two years in the Republic of Korea.

The UND School of Medicine and Health Sciences joined more than 100 AAMC member institutions that have committed, through Joining Forces, to help the next generation of doctors and researchers ensure that returning veterans receive the care worthy of their service. Participating institutions are educating and training the nation's physicians to meet the unique health care needs of veterans and their families.

Medical schools and teaching hospitals that are participating in Joining Forces—including the UND School of Medicine and Health Sciences—are working together with the AAMC to make sure physicians are aware of the unique clinical challenges and best practices associated with caring for these individuals. Broadly, an increased emphasis to include conducting new research on post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI) to better understand and treat these conditions; sharing information and effective practices; and growing the body of knowledge that leads to improvements in health care and wellness for the nation's military service members, veterans, and their families. Leading the Joining Forces effort at the School is Eric Murphy, PhD, associate professor in the Department of Pharmacology, Physiology, and Therapeutics.

At the UND SMHS, efforts are focused not only on medical student education but also on engaging students in other programs of study in the health care delivery system. Medical students viewed the award-winning documentary "Restrepo." Following the movie, UND SMHS students who are veterans participated with their peers in a discussion session led by a retired military clinical psychologist.

Later in the year, national experts in PTSD and TBI are scheduled to come to UND to speak with students during the day and in the evening with veterans and the public.

About Joining Forces

First Lady Michelle Obama and Dr. Jill Biden created Joining Forces to bring Americans together to recognize, honor, and take action to support veterans and military families during their service to our country and throughout their lives. The initiative aims to educate, challenge, and spark action from all sectors of society to support veterans and active military.

About the AAMC

The Association of American Medical Colleges is a not-for-profit association representing all 141 accredited U.S. and 17 accredited Canadian medical schools; nearly 400 major teaching hospitals and health systems, including 51 Department of Veterans Affairs medical centers; and nearly 90 academic and scientific societies. Through these institutions and organizations, the AAMC represents 128,000 faculty members, 75,000 medical students, and 110,000 resident physicians. Additional information about the AAMC and U.S. medical schools and teaching hospitals is available at http://www.aamc.org/newsroom.



It Takes a State

Educating the School's students is a statewide effort.

By Juan Pedraza



Julie Boyer, a North Dakota State University pharmacy student from Barney, N.Dak., who is interning at the Altru Family Medicine Residency in Grand Forks, is examined by Stephanie Foughty, MD, program year I family medicine resident, while Roger Schauer, MD, (left) and Greg Greek, MD, (center) proctor.

odern medicine coddles us with alphabet soup technology: CAT scans, MRIs and much more. Medical and health sciences students are soon swathed in the technical jargon of the health sciences.

But here at the University of North Dakota School of Medicine and Health Sciences, there's a distinctly low-tech, downto-earth ingredient in the mix of medical education: shoe leather.

"It takes a lot of shoe leather—and windshield time—to meet the people I need to talk with," said Roger Schauer, MD, BS Med '69, director of the School's ROME (Rural Opportunities in Medical Education) program. "Calls don't work."

Those folks are the preceptors, the clinical—that is, volunteer—faculty vital to the education of the next generation of health care providers. And getting them to join up—and stay

on-the SMHS list of faculty takes personal conversations.

So Schauer, also director of predoctoral education in the Department of Family and Community Medicine, drives to communities across North Dakota and northwestern Minnesota, connecting with UND medical students and their all-important preceptors. The personal contact obviously works—about two out of three physicians in North Dakota are members of the School's clinical faculty.

Community-based approach

"There are 141 medical schools in the country of which 27, including ours, are what we call community-based medical schools," said Joshua Wynne, MD, MBA, MPH, UND vice president for health affairs and SMHS dean.

How do those 27 differ from all the other 114 schools?

"The noncommunity based schools have their own hospital—in some cases more than one—that they either own or control," said Wynne, a graduate of the Boston University School of Medicine who completed his internal medicine residency and cardiology fellowship at Peter Bent Brigham Hospital, Boston, and Harvard Medical School.

That means they employ the physician faculty who teach students. In the case of the bigger schools, there may be 1,000 or more faculty physicians on staff.

"But like the other 26 community-based medical schools, we neither own nor operate our own hospital," said Wynne. "Instead, we have affiliation agreements with all five major hospital systems in North Dakota. "Because we don't have our own hospital, we rely on clinicians who are not employed by the UND SMHS to do a lot of the teaching of our medical students, especially in their third and fourth years, their clinical years."

"As a community-based medical school, we truly could not provide the necessary educational experience for our students without these volunteer faculty members," Wynne said.

Thus is the need for shoe leather that Schauer must rely on to keep the School in close touch with these volunteers.

Rural Opportunities in Medical Education—connecting students, preceptors

A key factor in the SMHS community-based approach is the ROME program, initiated in 1998.

"ROME is a 24-to-32-week, interdisciplinary experience in a rural primary care setting, open to third-year students at the SMHS," Schauer said. "Students live and train in nonmetropolitan communities under the supervision of physician preceptors. ROME students experience health care delivery in rural areas throughout the state of North Dakota, where providing access to health care is sometimes challenging."

Students learn about problems commonly encountered in primary care, from routine health maintenance to medical emergencies and rare and unusual diagnoses.

Each primary preceptor, or volunteer faculty member, is board-certified in family medicine, but students also will work with board-certified surgeons, internists, pediatricians, and other specialists available in the community.

An SMHS study concluded that third-year medical students who participated in ROME and the family medicine clerkships, with an alternative, rural-based curriculum emphasizing continuity of care, scored at least as well in national examinations as students who took the traditional curriculum.

ROME students spend 24 to 32 weeks of their third year in a rural community, such as Devils Lake, Hettinger, Jamestown, or Williston. Under the supervision of practicing physicians, they see a variety of patients and follow them through their treatment, providing continuity of care. Conversely, in the traditional format, students learn medicine in increments, devoting several weeks or more to the study of individual medical specialties.

"The approach used with ROME, in which students learn medicine in an integrated manner, emphasizing continuity of

care, provides a rich experience as students get to know patients and family—and the community—over a longer time period," Schauer said.

Central to the success of ROME has been the volunteer mentoring and teaching by community physicians and the support of hospitals and clinics in Devils Lake, Hettinger, Jamestown, and Williston.

It's logical for North Dakota's needs

This community-based approach is a logical way of educating physicians and other health care providers as well as providing health care for North Dakota.

"It isn't necessarily that one educational system is 'better' than another," Wynne said. "What's important is that the model that's used for health care education matches the needs of the community and the state. Thus what works well in Boston does not work well in Beulah, N.Dak."

"Being a very community-oriented state, where regional issues are very important, it's logical to have a dispersed educational model, including our large contingent of volunteer faculty," Wynne said.

Schauer noted that community-based teaching and learning provide students with real-world medical experience, more patient contact, a wider variety of patient problems, and one-to-one mentoring, among other benefits.

Why they teach

For Robert Beattie, MD '89, chair of the SMHS Department of Family and Community Medicine, the experience with his volunteer residency preceptor from Hettinger cemented his choice to become a family physician in a rural setting.

"My preceptor and I walked through the West River Hospital in Hettinger during my job interview, and it was amazing," said Beattie, who practiced medicine in Hettinger for 15 years before coming to the SMHS as an administrator.

"I thought to myself that it was a small town in the middle of nowhere," he said. "But this hospital, though small, was very urban in style with up-to-date equipment. When I was interviewing at different places, I had a checklist in my head: on-call limits (one night/week); family was important because I was moving there with five kids, kind of down that line. And as I'm walking through the hospital in Hettinger, interviewing with those guys in Hettinger, I started checking off my checklist."

A key part of his experience as a rural physician was joining the ranks of volunteer teachers.

"I started teaching shortly after starting at Hettinger," said Beattie, who still sees patients. "It was all about having received a very strong example from my own preceptors. Most med students have had a practicing, volunteer preceptor, and I think that is one of the key strengths of a community-based school like ours. Large schools have them, too, but along with the preceptor, you're likely to be seeing a senior resident, other residents, and four or five medical students. There's a real hierarchy—you might see the preceptor once in a while, you might not. Generally the community-based approach is much more personal, more



Rob Beattie, MD

... Our voluntary faculty members are an **essential component** of our educational team. relational, with that preceptor."

"My rural patients also like being part of that student's education," Beattie said. "The students ask hard questions, keep you on your toes. You're always learning—it's kind of like raising kids, being a preceptor doesn't come with an owner's manual."

Greg Greek, MD '85, a family physician, grew up on a diversified farming operation near Mohall, N.Dak., and is now one of the hundreds of preceptors teaching UND medical students.

"I attended the UND School of Medicine 1981 to 1985," he said. "I did my rural rotation in Mayville after my second year here. My preceptor was Dr. Glenn Thorson, who now is mostly retired. I'd chosen family medicine once I decided to go to medical school. I spent four years in Crookston, before I came back to Grand Forks, and I've been at the Altru Family Medicine Residency here ever since. I've been teaching since I got here, and I love it."

Greek said that teaching provides him with a sense of mission and of returning something to the community.

The student perspective

For Stephanie Foughty, MD '12, who grew up on a ranch near Mercer, N.Dak., the pull toward medicine began with her work experience as a certified nurse assistant in the hospital in Turtle Lake. Foughty is completing her residency (usually the final leg on the road to becoming a practicing physician) at the Altru Family Medicine Residency in Grand Forks.

"I liked medicine and knew that I wanted to be more involved in the actual decision-making, so I decided to become a physician," said Foughty, whose maiden name is Lee. "Family medicine was on my radar when I started medical school, and I knew that I wanted to work in a rural setting when I was done with school. I didn't want to end up in something and then decide that I didn't like it, so I shadowed in areas besides family medicine. But I found that none of them interested me as much."

Her preceptor at Devils Lake, where she already has a preemployment contract to work when she's done with her medical training, helped to cinch her decision to stay in North Dakota and practice family medicine in a rural community.

"I really enjoyed my time in Devils Lake," where her husband's family is from, said Foughty, who also plans to get trained in obstetrics before starting her job.

Josh Ranum, MD '08, completed the ROME program in Hettinger, and his wife Carrie Ranum, MD '09, in Devils Lake. Both were recently hired at West River Health System in Hettinger (not too far from where Josh grew up). The Ranums were profiled in the fall issue of *North Dakota Medicine*.

"ROME, including the preceptors who taught the Ranums, is really about the opportunity for the community to educate and mentor students," said Beattie, who was the ROME coordinator there. Now Josh himself has become a teacher, taking third-year UND medical student Jared Marquardt, among others, under his wing.

"I am originally from Bowbells, N.Dak., but I grew up and graduated from high school in Forest River, where my dad is a deputy sheriff in Walsh County," Marquardt said. "The idea right now is family medicine in a smaller rural area; I'm attracted to it probably because I grew up in a small town and like getting to know everyone. I just started clinicals, working closely with Josh. I have two more years in med school and then residency after that."

It's all part of being a community

"I like to say that our community is all of North Dakota because as the only medical school in the state, we really do serve the whole state," Wynne said. "We touch most of North Dakota's communities either through our four campuses—Bismarck, Grand Forks, Fargo, and Minot—or through our ROME program. And with all of our volunteer faculty out there, our students really come to understand how health care is delivered in North Dakota."

"So our voluntary faculty members are an essential component of our educational team," Wynne said. "The medical community in North Dakota is highly engaged in the education of our medical students. The main reward that they get is the sense of satisfaction that they're giving back to the profession, back to the state, and truly back to their communities in support of the next generation of health care providers."

Funding a Cure

Biomedical research that matters to patients is a sound investment at the SMHS.

By Juan Pedraza

\$25,000,000 . \$20,000,000 \$15,000,000 FY 2009 FY 2010 FY 2011 \$10,000,000 FY 2012 FY 2013* \$5,000,000 *As of 9/30/2012 \$0 Cumulative 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter

UND School of Medicine and Health Sciences Research Awards (\$)

The research dollars keep coming, even as the federal government, the major research funding source, cuts spending.

So far this fiscal year (since July 1, 2012), the University of North Dakota School of Medicine and Health Sciences (SMHS) has recorded nearly \$18 million in external research funding, well ahead in just six months of the previous five-year averages for a whole year.

That's the great news.

The better news is that the School is restructuring itself to prepare for a leaner funding environment that is almost a certainty as Washington struggles with a growing budget deficit.

"Where we see the research component of our mission going is to become better at it," said Joshua Wynne, UND vice president for health affairs and SMHS dean. "We're going to have to do more with less." Wynne is leading this effort to energize the School's research enterprise along three fronts.

The first is reorganization.

"We are reorganizing our research away from the silos of disciplines, such as anatomy and microbiology, and more along the idea of diseases," said Wynne. "So we will bring together someone from anatomy, someone from physiology, and someone from microbiology, for example to study a common problem, say Alzheimer's disease. That's one of the major directions that we see for our research enterprise."

The second is to refocus on research that matters to patients.

"We also want to speed up and encourage what has been called translational research, that is, research that takes discoveries at the bench in the lab and actually applies them to the bedside," Wynne said. Why? We want to speed up and encourage ... translational research ... that takes discoveries at the bench in the lab and actually **applies** them to the bedside. "So that we can more quickly develop the evidence base for optimal medical practice," Wynne said. "Given the fact that roughly two out of three physicians in this state are on our clinical faculty, that's a wonderful network to use to develop clinical trials and translational research protocols so, again, we can take discoveries in the lab and bring them to the bedside."

The third is to enhance the focus on population health.

"It's been estimated that upward of 40 percent of deaths in this country could be delayed, with an accompanying increase in quality of life, if people took better care of themselves," Wynne said. "For example, if we could get people to stop smoking, reduce their drinking, exercise more, and lose weight, we could have a substantial improvement in our community health, and an improvement in life expectancy and quality of life for individual members of that community."

That's why the SMHS developed a Master of Public Health (MPH) degree program in conjunction with North Dakota State University—it's an effort to shift the focus from individual health to group, or community, health.

"We want to focus on research questions that revolve not only around 'why does my grandmother have Alzheimer's and what should we do to treat her' to questions like 'what can we do to improve the health of Grand Forks in a global way with my grandmother being a member of that community, but not the only one there.""

Meanwhile, Wynne noted, the SMHS continues to build on its successful research tradition.

A look at a sample from this year's grant awards shows how and why.

Doing well

"We're doing fairly well," said Barry Milavetz, PhD, professor of biochemistry and molecular biology at the SMHS and UND associate vice president for research development and compliance. "The medical school brings in about 20 percent of the research dollars coming into UND."

About 95 percent of the external support received by the SMHS comes from the National Institutes of Health (NIH), an agency of the federal Department of Health and Human Services. This year's NIH funding to the medical school included two new R01 grants, five years each at \$250,000 per year, one to Joyce Ohm and another to Colin Combs (see list below).

"UND itself has been very fortunate in previous years to get semicompetitive federal earmarks, but the medical school by and large doesn't benefit from that," said Milavetz, himself a recipient of federal research grants; he's also a reviewer on an NIH committee that looks over grant applications. "Almost all of the medical school's grant dollars emanate from competitive grants, and its overall rate of success is more than 12 percent."

Research, according to Milavetz, is the key to maintaining credibility and expertise.

"At a basic philosophical level, a lot of people believe that in order to be a good teacher you need to be an expert in your field," Milavetz said. "The way you demonstrate—and continue to demonstrate—that expertise is by doing research. We, the SMHS, are a research institution. It's critical that our faculty be active researchers."

\$15.9 million—

largest grant in SMHS history

For Don Sens, PhD, federal dollars are the key to helping the younger generation develop an interest in science and the health professions. Sens, professor of pathology and a longtime cancer researcher, coordinates the North Dakota INBRE (Institutional Development Award [IDeA] Network of Biomedical Research Excellence) program.

"INBRE gets awarded to 25 states that together get less than 5 percent of the NIH budget of about \$30 billion," Sens said. "The INBRE grants are used to develop infrastructure, for example, labs, not just here at UND but around the state. A big part of that is getting undergraduates in all of North Dakota's colleges and universities interested in research and health professions. Our INBRE grant, administered here at the SMHS, helps to support undergraduate research programs at, in addition to UND, Minot, Valley City, Mayville, Dickinson, Little Hoop, and Turtle Mountain."

INBRE now is in the fourth year of a \$15.9 million, five-year NIH grant, which

is the largest grant the School has ever received. Part of that funding is being used to build biomedical research capacity by serving research universities, baccalaureate institutions, and tribal colleges within the state.

"We also encourage the development of collaborations and interactions between investigators in North Dakota and those at Sanford Health in South Dakota," said Sens, whose own research covers several forms of cancer.

Research conducted under the ND INBRE program focuses on health and the environment.

The statewide INBRE network—based at the SMHS—is administered by Sens as the principal investigator and by Donald Schwert, PhD, a distinguished professor of geology and director of the Center for Science and Mathematics at North Dakota State University, as the co-PI.

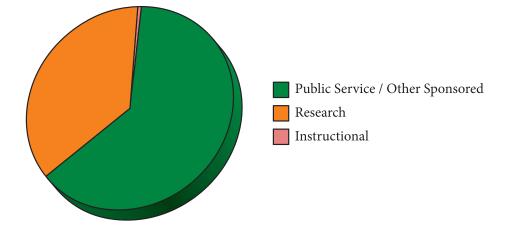
\$5.1 million—NIH funds SMHS COBRE

NIH awarded \$5.1 million to the SMHS Center of Biomedical Research Excellence (COBRE). This year's award of the five-year grant marks the second time it was renewed on its first attempt and brings to 15 the total number of years NIH will have supported UND's neuroscientists through this funding mechanism. The NIH is the nation's medical research center and is the largest source of funding for medical research in the world. COBRE's PI is Jonathan Geiger, PhD, Chester Fritz Distinguished Professor of Neuroscience and chair of the Department of Pharmacology, Physiology, and Therapeutics.

In 2002, the UND COBRE for Neurodegenerative Disorder Research was originally funded for \$10.4 million, and in 2007, UND's COBRE funding was renewed for an additional five years at \$10.1 million.

Over the first ten years of COBRE grant funding, nine new faculty members were hired, 11 project directors were supported, and the mass spectrometry and imaging core facilities were developed and supported. In addition, 16 neuroscience investigators were supported through pilot grants. COBRE investigators have attracted about \$11 million in additional grants and have achieved many successes, including publishing 242 scientific studies in international scientific journals.

UND School of Medicine & Health Sciences Sponsored Project Awards by Agreement Type Fiscal Year 2012



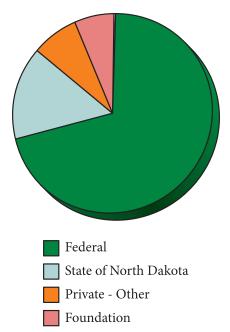
\$4.98 million—Leona M. and Harry B. Helmsley Charitable Trust funds SMHScoordinated SIM project

The Leona M. and Harry B. Helmsley Charitable Trust has awarded the ND STAR (North Dakota Simulation, Teaching and Research) Center for Healthcare Education at the University of North Dakota School of Medicine and Health Sciences a \$4.98 million, three-year grant to bring mobile simulation education to rural North Dakota. The new program, called SIM-ND (Simulation in Motion– North Dakota), will provide education and training in medical-trauma events to help providers in the state deliver high-quality health care in the safest way possible.

"Our investment in the simulation program in North Dakota, we feel, will change lives," said Walter Panzirer, trustee of the Leona M. and Harry B. Helmsley Charitable Trust during the award ceremony earlier this year. He cited the great distances rural volunteer emergency personnel have to travel to receive their training.

Four large trucks with custom-made classrooms will be stationed in Grand Forks, Fargo, Bismarck, and Minot. A three-person crew from each of the state's six major hospitals will teach in each mobile simulation unit. ND STAR will train the educators, manage the operation of all four mobile simulation units, schedule all programming for the units, and provide ongoing monitoring, evaluation, and development.

Fiscal Year 2012 Sponsored Project Awards by Sponsor Type



Private - Industry

\$3.5 million—HRSA funds Center for Rural Health's Center of Excellence in Native Behavioral Health

The federal Health Resources and Services Administration's Bureau of Health Professions awarded the SMHS a five-year, \$3.5 million grant to be a Center of Excellence in Native Behavioral Health. The name of the new Seven Generations Center of Excellence in Native Behavioral Health is based on the Great Law of the Iroquois Confederacy, which states "In our every deliberation, we must consider the impact of our decisions on the next seven generations."

The purpose of the Seven Generations Center is to recruit, mentor, and retain promising American Indian, Alaskan Native, and Native Hawaiian students who have an interest in becoming mental health professionals.

"The new center will serve to plug the leaks in the workforce pipeline," said Jacque Gray, PhD, research associate professor in the Center for Rural Health, who will direct and be the principal investigator for the Seven Generations Center.

The Seven Generations Center—one of three Native American centers housed at the Center for Rural Health's Indigenous Programs Section—will forge new partnerships to support Native American students.

\$2.64 million—U.S. Office of Rural Health Policy funds UND Center for Rural Health

The Center for Rural Health at the SMHS was designated as one of seven national rural health research centers by the federal Office of Rural Health Policy. UND was awarded a four-year, \$2.64 million grant to operate the Rural Health Reform Policy Research Center (RHRPRC). The purpose of the research center is to conduct at least 16 policy-relevant research studies and policy analyses that are relevant specifically to rural health, especially how health care reform as it currently is mandated or changes will influence rural health care access and delivery.

\$1.65 million—U.S. grant funds cancer monitoring service

The SMHS, in collaboration with the North Dakota Department of Health, was

awarded a five-year, \$1.65 million grant from the Centers for Disease Control and Prevention to operate the North Dakota Statewide Cancer Registry. UND experts in the Department of Pathology and the Center for Rural Health will supervise the registry, which will serve to provide a cancer early warning system for the state.

The purpose of the North Dakota registry, established in 1997, is to monitor cancer trends, promote research, increase survival, guide policy planning, and respond to cancer concerns from patients or the public.

"UND will collect and organize the data so it can be used for public health monitoring as well as research studies," said Mary Ann Sens, MD, PhD, professor and chair of UND's Department of Pathology, who will serve as the program director. "Additional goals of the registry are to establish that cancer treatment in North Dakota is equitable, prompt, and meets national standards."

\$1.4 million—NIH funds research into Alzheimer's-obesity links

This year, Colin Combs, PhD, and Mikhail Golovko, PhD, faculty members in the SMHS Department of Pharmacology, Physiology, and Therapeutics, received NIH funding totaling \$1.4 million to determine the relationship between Alzheimer's disease and obesity.

Combs and Golovko's targets of interest are molecules of APP (amyloid precursor protein), proteins that are responsible for the flow of materials into and out of not only adipose (fat) cells but brain cells as well. APP is a freighthandling molecule that serves to transport substances through the cell membrane. Combs and Golovko have been able to demonstrate that a high-fat diet in mice stimulates an increase in APP, and higher levels of APP in the brain correlate with increased evidence of cell damage and inflammation, both of which are consistent to some degree with what is observed during Alzheimer's disease.

Combs and Golovko's grant brings to \$6.85 million the total funding awarded by the NIH to SMHS researchers this year in the Department of Pharmacology, Physiology and Therapeutics.

\$1.12 million—grant to support rural health care in North Dakota

The Center for Rural Health (CRH) received \$1,117,968 in grant funds. The North Dakota Medicare Rural Hospital Flexibility Program (Flex), the Small Rural Hospital Improvement Program (SHIP), and the North Dakota Frontier Community Health Integration Project (FCHIP) have been funded to support rural health care throughout the state.

The Flex program helps sustain rural health care infrastructure by strengthening critical access hospitals and emergency medical services, which helps maintain access to care for rural residents. The Flex program fosters the growth and sustainment of rural collaborative health care systems across the continuum of care. Now in its thirteenth year of funding, Flex received \$708,968 in North Dakota.

The SHIP program received \$324,000 to provide support for small rural hospitals to help implement changes in how the hospitals deliver care. These funds will benefit rural hospitals and help ensure they have a strong foundation to provide health care to their community.

The Center for Rural Health participates in these competitive federal grant programs to bring in much needed dollars to support rural health care delivery. A significant amount of these funds will go directly to rural communities to implement local solutions related to quality of care, financial viability, and future access issues related to health care.

\$1 million—HRSA funds UND Physician Assistant Program's service to underserved North Dakota

The Health Resources and Services Administration awarded almost \$1 million to the Physician Assistant Program in the Department of Family and Community Medicine. The purpose of the five-year, \$999,416 grant is to fund curriculum development, learning enhancement, and faculty development in training physician assistants who provide primary care for rural communities in North Dakota.

"The UND PA Program seeks to improve North Dakotans' access to health care by helping to alleviate shortages of primary care providers in rural areas," said Jeanie McHugo, PhD, PA-C, program director for the Physician Assistant Program.

The federal government has designated 94 percent of North Dakota counties as either health professional shortage areas or medically underserved areas, indicating that patients must travel significant distances to reach health care services in rural areas and thus reduce their access to care.

\$350,000—NIA funds SMHS research on Alzheimer's-HIV connections

The National Institute on Aging (NIA) seeks to spur the research of two scientists at the University of North Dakota School of Medicine and Health Sciences. Xuesong Chen, PhD, and Jonathan D. Geiger, PhD, colleagues in the Department of Physiology, Pharmacology, and Therapeutics, have piqued the interest of NIA officials, who awarded the duo a \$350,000 R21 grant.

The NIA, one of the 27 institutes that compose the National Institutes of Health, supports research on the nature of aging and supports the health and well-being of older adults. One of the means at the NIA's disposal to meet its ends are R21 grants it provides to investigators to pursue what the NIA deems "exploratory and developmental research projects" that carry considerable risk of failure but may also lead to breakthroughs into the causes of diseases and their treatment.

Why it all matters

"When we educate medical and other health sciences students there is an increasing emphasis on using evidence-based medicine," said Wynne. "Research is tied to clinical practice, which is tied to education. So there is a triumvirate of research, education, and practice that is inviolate. You cannot be a first-class clinician without knowing the latest developments in research and incorporating them into your practice."

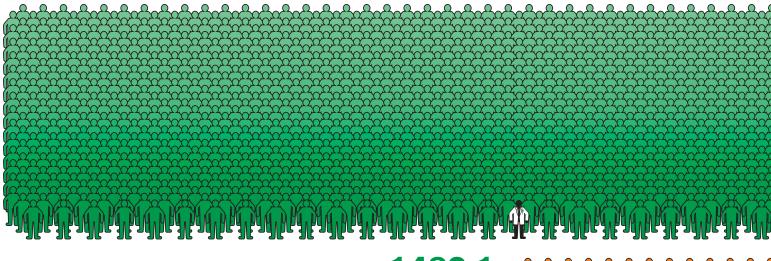
Thus, Wynne argues, medical schools necessarily have both a research mission and an educational mission.

"And both of those support the ultimate goal of optimizing patient care," he said.

"Research is an essential component of the educational mission, and both of them together form the foundation of optimal clinical practice out in the communities of North Dakota," Wynne said. ... A research mission and an educational mission ... both of those support the ultimate goal of **optimizing patient care**.

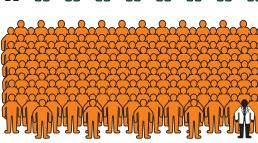
Cultivating Rural

The School's programs nurture rural health care professionals.



In isolated rural North Dakota, the patient to physician ratio is **1482:1**

In urban areas it is 308:1



Source: Center for Rural Health

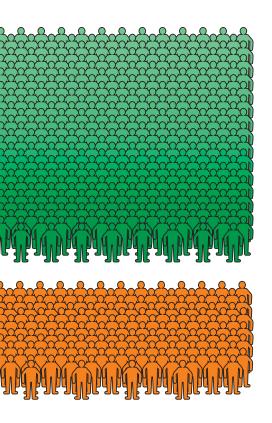
Take a moment to consider what a *health workforce pipeline* means to you. It may hold any number of meanings. There are three entities in North Dakota hard at work to create a new meaning for workforce pipeline, one that offers encouragement and sustenance for current and potential rural health care employees.

The Center for Rural Health (CRH), North Dakota Area Health Education Center (AHEC), and the University of North Dakota School of Medicine and Health Sciences (UND SMHS) believe students at young ages need to be introduced and encouraged to pursue careers in health care. During elementary, middle school, secondary, and postsecondary education, budding professionals need insight into rural experiences. Rural health care professionals require environments that foster their work, continued professional growth, and appreciation of the communities they serve through the meaningful work they do. Collaborative efforts between the AHEC, CRH, and SMHS feed the needs of North Dakota's future and current health workforce. Workforce development efforts are divided this way: K–16 students are introduced to health care careers, professionals are introduced to rural settings, and rural providers are supported in their efforts of providing care.

K-12

There are over 100,000 students in North Dakota's elementary, middle, and secondary schools; there are nearly 50,000 students at North Dakota's colleges and universities. This makes for a very large pool of potential rural health care providers, and the net has been cast. Every year, many

Medicine



activities occur through the CRH, AHEC, and SMHS with one goal in mind: introduce students to careers in health care at a young age. Through encouragement at an early age, students are more likely to take their ambitions to the field of health care after graduating from high school. For example, the CRH has hosted more than thirty Scrubs Camps over the past few years. Scrubs Camps are one-day minicamps hosted in rural communities that involve local health providers and are supported through state-appropriated funds. The effect of these camps can be shown through the hundreds of North Dakota students who have been introduced to and encouraged to pursue a career in health care by their local professionals.

In addition to the camps, the CRH has twice hosted a Scrubs Academy, where students from across the state participate

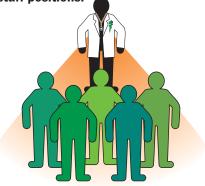
By Kristine Morin

in three days of hands-on activities (similar to Scrubs Camps) at UND, and learn from University faculty and staff, and local health professionals. Both the Scrubs Camps and Scrubs Academy are designed to be age-appropriate learning experiences, positive interactions with role models, and fun. While these efforts to introduce middle- and secondary-age students to health careers are still in their infancy, there already are some examples of the early experience producing a positive effect. Examples of success have been shown in many small, anecdotal ways with these minicamp experiences. For example, the CRH recently became aware of four young female students from Mayville who have made the decision to pursue careers in health care because of the experiences they had at a Scrubs event. Four may not be four hundred, but this is one of many stories of students who have been inspired when shown the vast opportunities in health care, having observed the positive environment they can be a part of in rural areas. More and more states are developing their own efforts to provide opportunities to introduce students to health careers at a young age as a "grow your own" strategy.

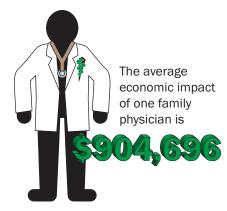
In addition to these fun, interactive sessions, the North Dakota AHEC staff have been hard at work traveling across the state to countless functions where students are found. All of these efforts are done with the intention of inspiring young North Dakotans to consider the medical field as a stable and satisfying occupation. The North Dakota AHEC is federally and state supported with a program office located at the CRH in Grand Forks, and two rural-based regional offices serving the state from Hettinger and Mayville.

Clinical Rotations

Once a student enters the pipeline, and is on track for career development (that is, One full-time family physician is estimated to create an average of five full-time supporting staff positions.



Source: Robert Graham Center for Policy Studies, February 2009



Source: Robert Graham Center for Policy Studies, February 2009 accepted into a higher education health professional program) support from the AHEC, CRH, and SMHS does not end. During a student's studies, opportunities for the student to experience rural health care firsthand through clinical rotations are available. The AHEC is taking the lead with this, and is following the footsteps of other strong programs such as the Student/Resident Experiences and Rotations in Community Health (SEARCH), Don Breen, and Rural Opportunities in Medical Education (ROME). In line with the mission of the SMHS, the AHEC and CRH support students going into rural communities to see firsthand what it is like to live, work, and enjoy rural life. Connecting with the culture and lifestyle found in a rural community is as important to students as learning and experiencing the quality of care, availability of technology, and formal connections with other health providers (both in rural and urban settings) present in a rural health organization.

All of the efforts of the SMHS as exercised through its range of programs work in concert with each other, avoiding duplication of effort. The aim is to support health workforce initiatives in whatever way possible. The AHEC, CRH, and SMHS believe that putting students into rural communities increases the likelihood of their staying or going back to those communities. Solutions for the job seeker, health organization (employer), and community in need of a health professional are created through these partnerships. This makes for healthy communities, which in turn create a healthier North Dakota.

Recruitment and Retention

In addition to clinical rotations, the formal academic part of the pipeline provides a number of other support structures and systems. For example, the Health Workforce Information Center (HWIC), an online information portal filled with health workforce related resources, is a resource shared with students, teachers, and others interested in learning more about health care careers, including wage potential, education requirements, and job prospects. HWIC serves as a catalog of scholarships, loan repayment opportunities, and loan options. This federally funded initiative, located in the CRH, is frequently met with encouraging responses as to how useful a tool it is.

North Dakota has a significant need for primary care providers; we are fortunate to have a school of medicine that is one of the top in the country for producing family medicine physicians. In addition to a significant percentage of medical students entering primary care, there are programs in place to support these efforts and encourage students to work in rural areas. In addition to ROME, Don Breen, and SEARCH, there are the RuralMed Scholar Program, which provides full scholarship support in exchange for a medical student's commitment to serve in a rural area for four years, Indians into Medicine (INMED), and financial incentive programs such as the federally supported National Health Service Corps (NHSC) that are well established at the SMHS. Numerous students take advantage of these offers.

Once ready to enter the workforce, health care providers have many different motivations and factors for choosing a community to practice in. Again, the CRH, AHEC, and SMHS have a plan in place to support them through this process. Through funds designated from the state, the CRH has a full-time employee, Mark Barclay, dedicated as a workforce specialist. Barclay provides placement assistance to both providers seeking rural opportunities and rural facilities searching for quality providers. Barclay's main focus is coordinating this for physicians, nurse practitioners, and physician assistants, but any health care professional is welcome and encouraged to use these resources.

This recruitment assistance provided through the CRH is unique to the state. Facilities that use the CRH's recruitment services pay no fees. This can be a large savings to a financially vulnerable rural health system, as private recruiters often charge as much as \$25,000 to bring a provider to a rural community. In addition to the cost savings, the CRH also has access to the best source of rural health care providers in the country. The CRH is the North Dakota member of the National Rural Recruitment and Retention Network

(3RNet). 3RNet is a national association composed of one organization member per state. Any provider in the country can go onto the 3RNet website (3rnet.org) and register to review rural opportunities. Last year, over 370 candidates expressed interest in rural North Dakota to the CRH through 3RNet. These candidates were "sourced," and their information was conveyed to rural health systems throughout the state. The CRH works collaboratively with rural health systems by providing candidate names, arranging site visits, and providing technical assistance to the community in their recruitment and retention efforts; however, the CRH is not a recruitment firm. The primary responsibility for the effort rests with the community. The CRH works to build local capacity in recruitment and retention efforts so community representatives can be self-reliant and responsible for their local efforts.

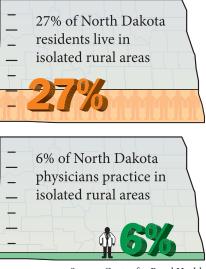
In addition to coordinating the recruitment of the right professional to the right community, other efforts are underway to help improve the overall landscape of recruiting and retaining quality professionals. One of the many initiatives the CRH has implemented in the last year is known as the Community Apgar program, developed by Boise State University, and the Family Medicine Residency Program of Idaho. With a namesake taken from the standard test for newborn babies, the validated research tool assesses a hospital's strengths and challenges related to the recruitment of family medicine physicians. The information gathered with the Apgar assessment tool can be used to guide critical access hospitals in rural communities on how to better promote their facility and community and what type of candidates might be the best fit.

Continuing Education

Providers want to feel connected and keep up on their skills, and this can be especially challenging in rural areas. For example, if a provider wants to enhance their knowledge or skills in behavioral or mental health, they might participate in a workshop on depression screening or suicide prevention. The CRH, AHEC, and UND SMHS offer a number of educational opportunities. One long-standing venue is the annual Dakota Conference on Rural and Public Health. This is a collaborative conference for rural and public health entities in the state. For 28 years, the conference has offered continuing education credits for several professions, connecting health care professionals from around the state to learn more about the latest trends in health care in our state and nation, hone their skills and knowledge base, and network with each other.

In addition to the Dakota Conference, several other continuing education opportunities are put together using resources from the CRH, AHEC, and SMHS. For example, the new Leona M. and Harry B. Helmsley Charitable Trust grant awarded to the SMHS will provide simulation training for critical access hospitals and emergency medical services around the state. As in South Dakota, Simulation in Motion (SIM) ND will be an excellent way for providers to keep their current skills precise, gain knowledge on new skills, and again work with colleagues from neighboring communities or other facilities to foster collegial relationships and a feeling of confidence in the quality care they provide to rural citizens of our great state.

The workforce development efforts described here between the AHEC, CRH, and UND SMHS are not all-encompassing. As with anything, there is much more to do, and the AHEC, CRH, and UND SMHS have plans to get it done. Similar to the pipeline process of planting a seed of interest in a young individual, nurturing them to their fullest potential, and supporting them in a rural practice, these three entities are at the same time planting their own seeds. Collaboration is the key to leverage current and potential resources. In doing this, the possibilities are endless on how we can positively affect the health workforce of the future. We are confident that over time the seeds that have been planted to grow a new health workforce and maintain the current workforce will bear fruit.



Source: Center for Rural Health

Life Expectancy and

By Raymond L. Goldsteen, DrPH **Director, North Dakota Master of Public Health Program at UND**

In October, the New York Times and other news media reported a deeply disturbing story: life expectancy among white men and women in the United States with less than a high school education has declined steadily and precipitously since 1990. For white women with less than a high school education, life expectancy dropped from over 78 years in 1990, to about 75 years in 2000, and just over 73 years by 2008.

Why is this story so disturbing? Life expectancy has been increasing in the

United States for all groups for over 100 years. Each generation has come to expect that it will live longer than the previous. During the 50-year period between 1900 and 1950, the Centers for Disease Control and Prevention documents a striking improvement in life expectancy in the United States. A person born in 1900 could be expected to live, on average, 47.3 years. By 1950, life expectancy was 68.2 years, a 44% increase over 1900. This improvement in life

Because life expectancy had been continually increasing in the United States among all groups for over 100 years, we have tended to forget that improvement is not inevitable.

expected age, but the average (or expected) age indicates the common situation affecting that population's health.

The story in the Times reminds us that life expectancy, that is, expected longevity for a group of people, results from conditions that affect the entire group, and if these conditions change for the worse, life expectancy will change for the worse as well. In the 1950s when we believed that antibiotics had eliminated microbial disease threats, René Dubos, the Pulitzer

Prize-winning microbiologist, warned that new microbial diseases would always arise. In the 1980s, Dubos was proved correct by the AIDS epidemic and others like H1N1 that followed. Today, the finding that life expectancy has declined for whites with low education sounds a similar warning.

The improvement in life span during the first half of the twentieth century was due in large part to control of infectious diseases. By midcentury, people were dying later in life and from

different causes than their parents and grandparents. In 1900, infectious diseases-pneumonia and influenza, tuberculosis, and intestinal infectionswere the three leading causes of death in the United States. These "Big Three" accounted for over 31 percent of all deaths. Other infectious diseases, including typhoid, diphtheria, and cholera, were major causes of death, as well. By 1950, the "Big Three" had become heart disease, cancer, and stroke, accounting for 62 percent of all deaths. Other major causes of death were chronic, noninfectious conditions, including diabetes and renal diseases.

The provision of clean water for drinking, cooking, and hygiene through

States in any previous period. In the latter half of the twentieth century, longevity continued to increase for all groups. The decline found among people with low education starting in 1990 reversed this historical trend. Because life expectancy had been

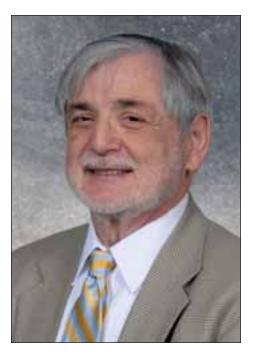
span had not been exceeded in the United

continually increasing in the United States among all groups for over 100 years, we have tended to forget that improvement is not inevitable. Life expectancy is a measure of the health of a population, not an individual's health. For individuals, life expectancy is a probability, not a certainty. An individual within a population may live longer than expected or die before the

Public Health

large-scale public health initiatives was one of the most important changes that brought about increased life expectancy in the nineteenth and early twentieth centuries. Growth of towns and cities had led to widespread degradation of drinking water. Drinking water sources, including rivers and lakes, were often contaminated by sewage, which spread waterborne infectious diseases such as cholera and, it is hypothesized, weakened the immune system so that people were susceptible to other infectious agents. When cities and towns began treating drinking water and ensuring that it was not also contaminated by sewage, death rates dropped dramatically. These and other measures that improved the sanitation and safety of food, workplace, and home contributed to rising life expectancy. In the latter half of the twentieth century, advances in medical care therapies for leading causes of death such as heart disease, which were made widely available through expansion of access to medical care-especially through Medicaid and Medicare-led to continuing improvement in longevity.

There are several lessons that we should take away from the story about the recent decline in life expectancy among Americans with low education. Life expectancy fluctuates like the stock market or any other dynamic phenomenon. We cannot assume that it will continuously improve without our involvement. In every era, we must determine what are the threats to continued improvements in health and longevity. We need to monitor health, detect trends and their causes, disentangle the multiple factors that affect health and longevity, seek solutions, and evaluate the comparative effectiveness of our strategies. We should not "drop the ball" handed to us by our ancestors who, as the result of their foresight and investments, left to us the health and longevity benefits that we enjoy today. We should continue their robust work and leave an equally fine



legacy. This calls for investment in scientific tools, methods, and training, not complacency. Creating large, integrated datasets for data mining and predictive modeling, and developing advanced computational and statistical methods applied to both population health and medical care problems are two examples. These kinds of investments will tell us what we are doing wrong, what we are doing right, and what we could do better to improve health and longevity.

MLS: Behind the Scenes

By Emily Aasand

For two graduate students, teaching cultivates the link between medicine and science.



Amanda Schenk and Peter Knopick working in the lab

Peter Knopick

University of North Dakota School of Medicine and Health Sciences medical lab science (MLS) Graduate Teaching Assistant Peter Knopick got involved in medical technology because it sounded cool.

"Those two words, *medicine* and *technology*, just interested me: medicine, which I liked, and technology, because I loved working with it," Knopick said.

The Winona, Minn., native credits his high school physics teacher for pushing him into the science field.

"I didn't excel in his class, but he did influence me," Knopick said. "He told me that if it's something that interests me, I should pursue it."

It wasn't until his junior year at Winona State University (WSU) that Knopick found out what he'd actually be doing for a career.

"I had never walked into a lab in my life, but when I did, everything just fell into place."

Knopick completed his undergraduate at WSU and came to UND for its MLS summer practicum and for his final year of rotation, which allowed him to apply and practice the skills learned in the classroom.

Knopick credits UND for preparing him for his future career.

"It's an intense program," Knopick said. "But after seeing how beneficial it was, it was worth it."

After graduation, Knopick took a job in Sioux Falls, S.Dak., before deciding to get his master's degree.

"I knew I could bring a different teaching aspect to the program, and that's why I went back to school."

Karen Peterson, an MLS faculty member, told Knopick about an MLS graduate teaching assistant position. Knopick moved to Grand Forks two years ago to take the position and had planned to finish his master's degree in MLS this past December.

Knopick prefers to stay behind the scenes.

"I like the behind the scenes stuff," Knopick said. "We don't 'physically' see patients in the lab, but you don't have to be visible to make a difference."

Amanda Schenk

Also working on her master's degree in MLS at the SMHS is Graduate Teaching Assistant Amanda Schenk.

Schenk, a Wisconsin native, graduated from the University of Wisconsin–La Crosse with a double major in microbiology and clinical lab science.

Like Knopick, Schenk came to UND for the MLS summer practicum.

Schenk took an interest in the science field early on.

"My mom inspired me the most," Schenk said. "She worked for the county as a public health nurse and had to do a study with people from the Centers for Disease Control and Prevention (CDC) regarding a monkey pox outbreak. I just thought it was the coolest thing. I was determined to work for the CDC and track down infectious diseases."

That's when her love for science really started.

Schenk attended the University of Wisconsin–La Crosse for microbiology. The faculty member who ran the CLS program in La Crosse was also in the microbiology department and talked her into majoring in both.

After graduating, Schenk was offered a graduate teaching assistant position at UND and began working on her master's degree in MLS. She's working with an instructor on a medical mycology course that studies fungi. With that, they are writing a manual for students and are rewriting the course to make it more understandable.

With the donation from Dr. Robert and Charlene Kyle of Rochester, Minn., the Medical Laboratory Science Program was able to purchase a slide scanner. The slide scanner is able to scan digital images of organisms, which are then implemented in the curriculum Schenk is working on.

Every year, the SMHS brings in local high school students to tour the School. The students get the opportunity to visit with the different departments and get an in-depth look at science careers.

Schenk and Knopick work together to give a presentation on the MLS department. The duo had more than 15 tour presentations last year, and according to Knopick, they had one goal: "To get a little spark in their eye instead of fear of the needle."

"When the students come in, they usually have a negative aspect of the lab, like getting your blood drawn," Knopick said. "It's our job to get them away from that fear."

"We like to get them interacting with the lab, so we let them look at normal blood cells, cancerous cells, sexually transmitted diseases, and parasites," Schenk said.

Along with having students visit the lab, Schenk and Knopick also speak at local high schools.

"It's a great way to get students thinking about a career in science," Schenk said.

In addition to high school tours, Schenk also visits elementary schools.

"I went to Magelssen Elementary School in Fosston, Minn., with Karen Peterson last year, and we spent the day presenting to two fourth-grade classes," Schenk said. "The children performed hands-on activities and used microscopes. They loved it."

Schenk never expected to like teaching, but she's keeping it as an option for the future.

"I might go to the labs while the students are doing their rotations, and I would be the person who coordinates their exams and who teaches them on the bench." I knew I could bring a different teaching aspect to the program.

Honoring Buck Zahradka's Memory

The Buck Zahradka Memorial Scholarship continues to aid medical students well after the Zahradka family created the fund in Buck's memory. As his mother says, "As long as people remember you, you live."

By Jessica Sobolik



... His real strength is his **straightforward**, **common-sense** approach to the patient's problems. Shirley Zahradka (center) with her family.

It's been 14 years since the tragic death of Buck Zahradka, MD '98, but his mother Shirley still feels his presence in everyday occurrences. "We like to say he's still with us," she said. "Recently my grandson got married. Buck was his hero. I think Buck was there with us."

In March 1999, just 10 months after earning his medical degree, Buck was beaver hunting in Hillsboro, N.Dak., with anatomy graduate student Craig Cameron and Trevor Thompson, brother of Jody Thompson, MD '97. Their boat motor failed, and the boat went over a small dam. All three men drowned.

A tree was planted north of the UND School of Medicine and Health Sciences in honor of Buck and Craig. The Ohio buckeye "was chosen for its beauty and hardiness," former Dean H. David Wilson wrote to Shirley in 2000. The tree flourishes today. "It blooms beautifully in the spring," Shirley said.

Career Path

Among other factors, Buck was likely influenced in his decision to attend medical school by his older sister Sandra, who earned her medical degree from Joan C. Edwards School of Medicine at Marshall University in Huntington, W.Va. She is now a practicing dermatologist in Birmingham, Ala. "Buck and I went to her graduation," Shirley said. "He and Sandy were two peas in a pod." Sandra said he visited with her classmates and learned they had previously come from successful professions-engineering, law, nursing, and accounting, to name a few. "I'm sure he thought, 'If they can do it, so can I," Sandra said. "They gave life to his dream."

Once accepted at UND, Buck completed his first and second years of medical school in Grand Forks, often bringing classmates to his mom's house for lunch. He spent his third year on the Bismarck campus and his fourth year in Minot. His graduation was held amid the Flood of 1997 in Grand Forks, so the ceremony was moved to Fargo. Sandra was there with the rest of the family and remembers how Buck wasn't upset about the change in venue. "He had that resiliency," she said. "It was an extraordinarily happy time, and still he was like, 'OK, I got this, now on to the next thing.""

He went on to a family medicine residency at UND in Fargo, where he earned praise from his physician instructors. "Buck's medical knowledge is solid, but his real strength is his straightforward, common-sense approach to the patient's problems," according to one of his clinical performance evaluations.

Sandra remembers her brother as having unwavering exuberance for life, regardless of the circumstances he found himself in. He wanted to experience every aspect of life, never resting on his laurels. His tireless energy and passion for helping people inspired those around him to be the best they could be. "People that met Buck did not forget him," she said. "This scholarship is a continuation of Buck's joy of life, his thirst for knowledge, and his passionate commitment to rural medicine."

Inspiring Future Medical Students

After the accident, the Zahradka family— Shirley and her children Sandy, Bill, Dale, and Lonney—along with spouses, friends, and colleagues proudly created the Buck Zahradka Memorial Scholarship Endowment, which provides scholarships to first-year medical students at the UND School of Medicine and Health Sciences. Recipients of the scholarship must be motivated, hardworking, and dedicated students who share the high principles and potential for professional career success. In addition, Sandra said the family looks for students with down-home rural North Dakota spirit, a strong work ethic, and a thirst for knowledge, like Buck had. "People have different interpretations of success," Sandra said. "Buck's was to be the quintessential rural physician here in North Dakota. That's who we want to receive his scholarship."

The first Buck Zahradka Memorial Scholarship was awarded during the 1999-2000 school year. Three years ago, the use of a condo in Grand Forks was added. Students are now required to complete an application form through the Office of Student Affairs and Admissions to be considered for the scholarship. "Although the additional funds are always appreciated by students, having a place to live for a year has an even more lasting impact," said Dr. Joycelyn Dorscher, associate dean for Student Affairs and Admissions. "It means fewer loans and that means less interest owed over the span of a medical education. This scholarship is an incredible gift that likely has its biggest impact when a recipient is looking for a practice site and doesn't have the same pressures of loan repayment that they would have had if the scholarship had not been available."

The scholarship continues to support and encourage medical students who are walking the same path Buck once traveled. In that way, they keep Buck's memory alive.



Buck Zahradka

Where are they now?

Recipients of the Buck Zahradka Memorial Scholarship are now representing numerous specialties across the United States.

- 2012-13: Betsy Dickson, first-year medical student
- 2011-12: Thomas Grindberg, second-year medical student
- 2010–11: Paul Selid, third-year medical student
- 2009–10: Andrew Rodenburg, fourth-year medical student
- 2008–09: Michelle Reinholdt, completing OB-GYN residency, Rochester, Minn.
- 2007–08: Eric Ericson, completing radiology residency, Iowa City, Iowa
- 2006–07: Sara Mayer, completing neurology residency, Minneapolis, Minn.
- 2005–06: Derrick Cote, completing orthopedic surgery residency, Park City, Kans.

- 2004–05: Megan (Welsh) Strand, dermatologist, Bismarck, N.Dak.
- 2003–04: Jill (Detwiller) Klemin, family practitioner, Bismarck, N.Dak.
- 2002–03: Jon Solberg, U.S. Army captain practicing emergency medicine, El Paso, Texas
- 2001-02: Amy (Grimes) Juelson, pediatrician, Bismarck, N.Dak.
- 2000–01: JoEllen (Kohlman) Kohlman–Petrick, Fargo, N.Dak.; completed internal medicine residency in Minneapolis, Minn.
- 1999–2000: Megan (Muilenburg) Dixon, Minneapolis, Minn.; completed internal medicine residency in Charleston, S.C.

ALUMNI NOTES

- '10s -

Greg Holubok, MOT '12, has been hired by Orthopedic and

Judy Anderson, PA '10, has joined the Sanford Health Valley

- '00s —

Sports Physical Therapy in Breckenridge, Minn.

City Clinic.

Sara Reinke, MD '09, is now at Sanford Health in Bismarck in the pediatrics department.



Steven Schmidt, MD '09, has been hired by Sanford Emergency Trauma Center in Bismarck.

Joshua Ranum, MD '08, recently joined West River Health Services as an internal medicine physician. He serves clinics in Hettinger and Mott, N.Dak., and in Lemmon, S.Dak.

Stacy Roers Irmen, MD '08, is now practicing family medicine at Altru Health System in Grand Forks.

Jill Steinle, MD '08, recently joined the OB/GYN department at Mid Dakota Clinic in Bismarck. Steinle is a member of the American College of Obstetricians and Gynecologists.

Matthew Voigt, MD '08, has joined St. Alexius Heart and Lung Clinic in Bismarck as an anesthesiologist. He is experienced in general anesthesia and ultrasound guided regional anesthesia, as well as obstetric, orthopedic, and cardiac anesthesia. He is board eligible in anesthesiology.

Aaron Chalmers, MD '07, has joined Mid Dakota Clinic in Bismarck in the surgery department. Chalmers is a member of the American College of Surgeons, the Alpha Omega Alpha Honor Medical Society, and the North Dakota Medical Association.

E.

Matthew Carpenter, MD '07, recently joined Sanford Orthopedics and Sports Medicine in Bismarck.

Jennifer Beckwith, MD '06, recently joined Sanford North Mandan Clinic, practicing family medicine.

'00s -

Candace Granberg, MD '05, is now at Mayo Clinic Health System in Owatonna, Minn., specializing in pediatric urology.

Loren E. Wold, PhD '03 Physiology, of Nationwide Children's Hospital appointed editor-in-chief of *Life Sciences*. Dr. Wold is a tenured associate professor of pediatrics at The Ohio State University (OSU) College of Medicine. He is also an Investigator in the Dorothy M. Davis Heart and Lung Research Institute, and an adjunct associate professor in the Department of Physiology and Cell Biology at OSU. Wold's National Institutes of Health and American Heart Association funded research program focuses on the effects of environmental triggers of disease, particularly heart disease.



Debra Geier, MD '01, was elected secretary-treasurer of the North Dakota Medical Association during its 125th annual meeting in Bismarck. Geier practices internal medicine at Sanford Health in Jamestown.

Matthew Sanford, MD '01, recently joined Sanford Bemidji Main Clinic in the radiology department. Sanford is boardcertified by the American Board of Radiology.



Tanya Skager, MD '01, was honored with the Dickinson State University Young Hawk Award. The award is presented annually by DSU Alumni and the Foundation. It recognizes graduates of DSU who have distinguished themselves in their personal and professional lives. She is currently a family medicine physician at Sanford Health Dickinson Clinic.

ALUMNI NOTES

— '90s



Mitchel Schwindt, MD '98, is the author of *An ER Doctor's Guide to Urgent Care and the Emergency Room*, which was published this past summer. He earned his Bachelor of Science in Natural Science from UND in 1993, and he completed his residency in emergency medicine at Michigan State University in Grand Rapids in 2000, serving as chief resident during his final

year. He was elected to Alpha Omega Alpha at Michigan State, and he is board-certified in emergency medicine.

Schwindt works in the Emergency Department at St. Joseph's Hospital in Park Rapids, Minn. He has worked as a flight physician on a rescue helicopter and continues in an oncall capacity for an international medical transport company. In addition to practicing emergency medicine, he continues to work in several busy urgent care clinics, serves as the medical director for a hospital trauma program, and does a variety of consulting work related to medicine, dentistry and physicianfocused Internet entrepreneurial activities.

Schwindt has served on many committees and steering groups related to health care, quality, and process improvement. His areas of interest focus on patient education and advocacy, lifestyle and longevity, and also on undergraduate education. He continues to serve as an advisor to preprofessional students hoping to pursue careers in medicine, dentistry, or related fields. He is also author of *Test Taking Strategies: The Proven Methods For Success.* He serves as a volunteer physician for local sporting and martial arts events.

You can reach him via Twitter: DrMitchelMD; his blog: MitchelMD.com; and also on Facebook: facebook.com/MitchelMD.

Lori Nuytten, BS OT '97, was recently hired as an occupational therapist with the Southwest/West Central Service Cooperative. Nuytten will work at Jefferson Learning Center in Willmar, Minn., and will provide services to the birth-to-age-5 population at home and at preschool settings.



Carrie Rubin, MD '93, MPH, recently had her first novel, *The Seneca Scourge* (a medical thriller), published by Whiskey Creek Press. She lives in Ohio with her husband **Mike, MD '93**, and two children.

David Billings, MD '92, is now practicing obstetrics and gynecology at Altru Clinic in Devils Lake.

B

Robert Beattie, MD '89, was elected as the AMA Delegate for the North Dakota Medical Association during its 125th annual meeting in Bismarck. Beattie serves as the chair of the UND School of Medicine and Health Sciences Department of Family and Community Medicine in Grand Forks.

Kevin Fickenscher, MD '78, has been named to the Intelligent InSites Fargo health care advisory board. Fickenscher is president of the American Medical Informatics Association.

'70s -

'80s -



Shari Orser, MD '77, was elected as the AMA Alternate Delegate for the North Dakota Medical Association during its 125th annual meeting in Bismarck. Orser practices obstetrics and gynecology at Sanford Women's Medical Center in Bismarck.



Steven Strinden, BS Med '76, has been elected as vice president and board chair of the North Dakota Medical Association. Strinden practices urology and urologic surgery at Essentia Health in Fargo.

David Klein, MD '69, has been named to the Intelligent InSites Fargo health care advisory board. Klein is the chief executive officer for Excellus BlueCross BlueShield.

'60s ——

Got news?

We want to hear it!

Please send your news items for the next issue of **North Dakota Medicine** to Kristen Peterson: kristen.peterson@med.und.edu or call 701.777.4305.



Jason Askvig and Kate Behm sit beside anatomical models of a torso and a heart.

North Dakotans Find Passion

By Emily Assand

"My dad is a veterinarian, so I've had exposure to science ever since I was little," said Kate Behm, an Anatomy and Cell Biology graduate student. "I would watch nature specials on PBS and tag along with my dad to work. I found it all interesting."

Behm, a native of Minot, N.Dak., didn't take your typical high school science classes. She went beyond the norm and took courses in genetics, biology, advanced chemistry, physics, and comparative anatomy.

"I chose to come to UND after being on campus for North Dakota Girls State," Behm said. "I liked the feel of the campus, and it had a forensic science and anthropology program."

Behm got her undergraduate degree in forensic science and biology.

"I worked for the Anatomy and Cell

Biology program as an undergraduate, and they asked me to be a research graduate student," Behm said. "I enjoyed the research as well as the benchwork I was doing for the departments, so I agreed."

Doing graduate research alongside Behm is Jason Askvig.

Askvig, a native of Des Lacs, N.Dak., came to UND determined to be a physician. Instead Askvig quickly became interested in anatomy and cell biology.

Askvig landed in an anatomy class taught by Anatomy and Cell Biology Assistant Professor Dr. Jon Jackson. Askvig continued as an undergraduate teaching assistant and got an undergraduate job with his research advisor Anatomy and Cell Biology Associate Professor Dr. John Watt.

"The anatomy faculty have helped me

Recruiting Young Scientists

Aside from doing research, Askvig and Behm give presentations regarding the Department of Anatomy and Cell Biology for high school tours.

The tours had two portions: anatomy and heart physiology.

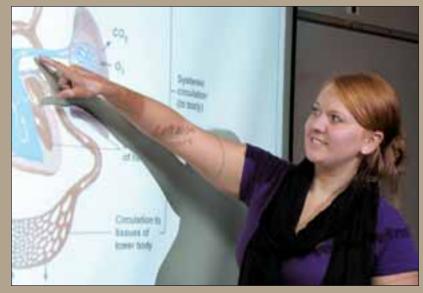
The anatomy portion relates to the human structure. It highlights different specimens of the body.

"We like to tie in the movie *The Waterboy*, where they talk about the medulla oblongata in the alligator," Behm said. "We show them where the medulla is in a human brain, and we make sure to tell them that it's not the center of rage, as was mentioned in the movie."

The heart and physiology portion deals with the function of each structure. The high school students learn about each chamber of the heart, and they get to look at their heartbeat on an EKG.

"I've had students who I've taught at UND who said they've had a high school tour from me," Askvig said. "I think the tours are a great experience for the high school students who want to pursue a career in a health sciences field."

Askvig has been giving high school tours for the past eight years, while Behm is on her third year.



Kate Behm explains the chambers of the heart.

in Anatomy and Cell Biology

out a lot," Askvig said. Behm agrees.

"Our entire faculty within the program is really great for encouraging students," Behm said. "They make you think about where you want to go with your research in the future."

Askvig and Behm have been working in the same lab under the advisement of Dr. Watt, and they're finishing up their research. They worked with repair mechanisms of the hypothalamic nervous system, specifically with the neurotrophin CNTF (ciliary neurotrophic factor, a protein that has an effect on neuron survival), to understand how it keeps neurons alive.

"We're trying to determine what responses occur inside the injured cell after you administer CNTF, which promotes neuronal survival," Askvig said. "We use injury models to promote cell death. Our goal is to understand the mechanisms that CNTF utilizes to promote neuronal survival."

Both students graduated in December 2012, Askvig with his PhD and Behm with her master's degree.

"I really enjoy teaching and have attained a love for research," Askvig said. "Whether it's at a medical school or at a smaller university, I want to do both."

Behm wants to work while applying to physical therapy departments.

"I like small towns, and I like North Dakota," Behm said. "Physical therapy would allow me to stay in a small town, and if the hospital does any research, I would get in on it." Our **goal** is to understand the mechanisms that CNTF utilizes to promote **neuron survival**.

Sisters of St. Joseph School of

Before the SMHS, there was the SSJSN.

By Emily Aasand



Class of 1962.

A photo of the Class of 1962 reunion can be found in Parting Shots on page 38. The Sisters of St. Joseph School of Nursing held two class reunions in August. The classes of 1962 and 1967 gathered in the Greater Grand Forks Area to catch-up, reminisce, and to tour what is now the UND School of Medicine and Health Sciences (SMHS).

The SMHS occupies the former home of St. Michael's hospital. St. Michael's opened in 1952. With the relocation of the hospital, so came the relocation of the Sisters of St. Joseph School of Nursing. It was the first three-year diploma program in Grand Forks, and in 1956, it was the first nursing school in North Dakota to receive full National League for Nursing accreditation.

The class of 1967 had 18 of 38 graduates make it back for the two-day reunion. The first day was spent catching up with classmates at a social and dinner at Eagle's Crest Grill on King's Walk golf course in Grand Forks.

"We had classmates come back from all over the country. It was interesting to see

where everyone's careers took them in life," said Barb Riskey, a class of 1967 alumna. "We had people who went on to be military nurses, taught nursing, and one even got involved with missionary nursing in Kenya."

The second day was spent on the UND campus with a tour of the SMHS, lunch at the North Dakota Museum of Art, and a tour of Fulton residence hall.

"Fulton is where all of us were housed during our schooling," Riskey said. "We got to know each other quite well while living there."

The class of 1962 held its reunion the last weekend in August. Of the 36 graduates, 22 classmates attended.

"We had a reception that was held at the medical building, and we were able to re-create a group picture we took for our 'capping ceremony' during freshman year," said Virginia Esslinger, a class of 1962 alumna. "It was very nostalgic."

Touring what used to be their nursing school and local hospital was a highlight of

Nursing Holds Class Reunions



both reunions.

"The atrium in the medical school is absolutely beautiful," Riskey said. "Significant changes have been made since the hospital occupied the building."

"The renovations are quite impressive," Esslinger said. "Most of the offices used to be patient rooms, and you can still see that some of the walls are the same as they were back in the day."

"You are able to look past all the changes and renovations, and you remember it the way it was. It brought us back to our days at St. Michael's," Riskey said.

"We did a lot of reminiscing, walking through that building. A lot of stories were told and a lot of laughing was done," Esslinger said.

Going to nursing school was rigorous. The women spent three straight years at school, including summers, only to receive one month off a year.

The first year of nursing school was typically spent dually enrolled at UND and the Sisters of St. Joseph School of Nursing. The second year was spent doing rotations at different hospitals, and the third year was spent finishing up rotations and schooling.

While some nursing students were housed on UND's campus, some early students called the hospital their home.

"We lived in the dorms on the fifth floor of the hospital," Esslinger said. "We had curfews which were strictly enforced. Of course, it didn't help that the sisters lived on the same floor as us."

After graduating, Riskey continued to work at St. Michael's hospital.

Esslinger graduated from Sisters of St. Joseph School of Nursing and decided she wanted to teach. She continued her nursing degree at UND and was hired by the Sisters of St. Joseph to teach.

The decision to close the school came in 1969 because of a decrease in qualified applicants and rapid changes in health care.

The Sisters of St. Joseph School of Nursing graduated its last class in May of 1971.

Class of 1967

Top row, left to right: Janice Dimmer Scheuring, KayDeen Anderson Carlson, Phyllis Steidl DeCann, Bernadine Hafner Anderson, MaryBelle McMillan Gratton, Maureen Kasowski. Middle row, left to right: Carol Myhr Rerick, Jane Boyer Geiser, MarDee Graham Dahlin, Nina Patrie Martin, Paulette Brandenburg Schmidt. Bottom row, left to right: Ronda Sabe Stromsodt, Barb Berg Riskey, Cheryl Cassidy Klev, Mary Lou Matejcek Novak, Mae Holland Wieland.

IN MEMORIAM

Stephen Dippé, MD '61, 74, beloved husband, father, grandfather and friend, passed away on Sunday, September 30, 2012, at his residence surrounded by his family. He was born on June 14, 1938, in Cavalier, N.Dak, the youngest of five children. Dippe was a graduate of the University of North Dakota and the Medical School at the University of Wisconsin, Madison, completing his fellowship at the University of California, Berkeley. In 1972, his family moved to Phoenix, Ariz., where he began his private practice in Scottsdale, Ariz. He was known as the "Gland Man"-a wonderful endocrinologist who would make his patients laugh. He enjoyed practicing medicine every day with a smile. He had an adventurous spirit and a passion to travel to the most remote and interesting places on Earth. But his real love was for his family. He and his family had the opportunity to travel to all 50 states and their capitals over a five-year period. These family trips created memories that will live forever. He retired in 2007 and continued to travel all over the world, which enabled him to experience new cultures, meet new friends, and fulfill his desire to continue to learn. Stephen is survived by his loving family: wife, Gerry, daughter Suzi, sonin-law John McBride, daughter Heidi, son-in-law Jason Bleimeyer, son Stephen, stepdaughter, Nicole and son-in-law Jason Ladner. He will be forever missed by his six grandchildren, Jackson and Carter McBride, Joshua and Riley Bleimeyer and Harrison and Davis Ladner, who remember the games he would make up for them. He is also survived by his four older siblings. Stephen lost his first wife, Gaynelle, in September 1992 to cancer. In 2010, he was diagnosed with progressive supranuclear palsy for which there is no known cure. The family wishes to express sincere gratitude to his caregiver Thomas May. Stephen will be forever remembered as the jolly man whose spirit and laughter could fill a room.

Roger D. Engberg, MD '55, 82, passed away Monday, September, 24, 2012, in palliative care in Fargo, surrounded by his family and loving wife of 63 years. Roger was born on September 5, 1930, to Frances (Powers) and Homer Engberg in New Rockford, N.Dak. He graduated from Carrington High School in 1948 and married Betty Anne Froelich on February 20, 1949, in Carrington. He began studies at the University of North Dakota, graduating in 1953 with a degree in chemistry, followed by two years of medical school at UND. He then attended the University of Oregon Medical School, earning his Doctor of Medicine in 1957. Roger's internship was completed at St. Luke's Hospital in Fargo, followed by two years of general practice in Jamestown, N.Dak. He returned to the University of Oregon Medical School to pursue his passion in orthopedic surgery, serving his residency at both the Veterans Hospital in Portland, Ore., and at the Shriner's Hospital for Crippled Children in Spokane, Wash. Roger began practicing orthopedics at DePuy-Sorkness Clinic in Jamestown, N.Dak. While in Jamestown, he enjoyed being involved at Anne Carlson Crippled Children's School, providing consulting and medical services. He then went into private practice opening the Orthopedic Clinic, during which time he was the team

physician for the Jamestown College football team. In 1971 he moved to Fargo, where he joined the staff of Fargo Clinic as chief of orthopedics, leading in his field by performing many new and innovative procedures and participating in the redesign and perfection of surgical tools and implements. He was particularly proud of performing well over 500 hip surgeries, including the first one to be done in North Dakota. Roger retired from practice in 1986. Roger and Betty enjoyed traveling, visiting many countries abroad. Winters were spent at their home in Scottsdale, Ariz. Roger was deeply interested in flying, taking his first solo flight at the age of 16. In his later years, he continued his interest in planes and aviation by building beautifully detailed replicas of World War II aircraft. Roger will be deeply missed by his wife Betty, their four children: Terry and Cyndee (Larson), Fargo, and children Tarah (Josh Bjorem), Amon, Ian, and Jaeda, Fargo; Pamela, Fargo, and daughter Dayna, Minneapolis; Thomas and Karen (Potucek), Bismarck, and daughters Lydia and Kristin; Jodie and Michael (Skibicki), Houston, Texas, and children Samantha (Cade Goodwin) Canon City, Colo., and Ryan. Great-grandchildren include Sophia (Amon), Rhonin and Bridger (Tarah and Josh). He is preceded in death by his grandson, Ian (Terry and Cyndee), and parents Homer and Frances Engberg.

George H. Hilts II, BS MD '51, 87, died Tuesday, August 28, at Altru Medical Center in Grand Forks. Dr. George Hilts II was born January 4, 1925, in Bowbells, N.Dak., to Dr. George H. and Alma L. (Dorsey) Hilts. He was the youngest of four boys. He graduated from Bowbells High School, served in the U.S. Navy, and attended school at the University of North Dakota for his undergraduate degree, attended medical school at the University of Iowa, and completed his residency training at St. Elizabeth's Hospital in Lafayette, Ind. He married Flora E. Koch on November 17, 1946, and together they raised fifteen children: three sons Dr. George "Rocky" (Jean) of Bismarck; Hal of Bend, Ore.; John "Bill" (Holly) of Bellingham, Wash.; twelve daughters: Sheila (Keith) Tang of Kronenwetter, Wis.; Brandy (Randall) Kumagai of Peoria, Ariz.; Leigh Porter of Atascadero, Calif.; Cassie (Terry DeMars) of Grand Forks; Lisa Hilts of St. Paul, Minn.; Nan Hilts of Grand Forks; Tina Hilts of Dania Beach, Fla.; Mauri (James Olsen) of Cando, N.Dak.; Toni Hilts of Denver, Colo.; Georgia (Scott) Knoke of Devils Lake, N.Dak.; Marci Hilts of Grand Forks; and Monica (Dave) Ferrera of Coto de Caza, Calif. He was an amateur radio operator for 73 years. While in the Navy, he boxed in fleet competitions and before that boxed in Golden Gloves amateur boxing. An avid golfer, he played regularly at the Cando Golf Course, and for the past few years volunteered his time helping to maintain the golf course and the clubhouse. Travel was another passion of his, which he generously shared with his family. He hosted many family trips, making sure to include all his children and grandchildren. Planning these trips and seeing them to fruition was one of his greatest joys. He was a family practice medical doctor at the Palmer Clinic for 37 years before his retirement in 1991. He was active in the North Dakota Medical Association, serving as

president, chair of the local district, and was on the legislative committee, he also served on the North Dakota Blue Cross/Blue Shield advisory board. He was an avid supporter of the Cando Cubs athletic teams and received an honorary letterman jacket from them. He had a dry sense of humor and enjoyed telling jokes to brighten the day for those around him. His sense of humor will be missed. He was a member of Sacred Heart Catholic Church. He was preceded in death by his parents; wife Flora, who passed on October 29, 1992; four grandsons, Kevin Tang, Bryan McCormick, Steven Kumagai, Peder Hilts; daughter-in-law Donna Kay Hilts (Braun); and brothers Wilfred, Frederick, and William. He is survived by 15 children, 30 grandchildren, and 17 great-grandchildren.

Andrew Christian Hopkins, MD '91, died on Sept. 5, 2012, at his home in Dallas, Texas, after a long and courageous struggle with pancreatic cancer. Dr. Hopkins was born on December 31, 1957, in Millinocket, Maine; he was the son of the Reverend Harold A. Hopkins and Nancy Myer Hopkins of Scarborough, Maine. He attended schools in Bar Harbor, Maine, and Cumberland, Maine, and was involved in many extra activities, including the family sheep farm. For three years, he worked as a sternman on the late William (Bill) Moody's lobster boat, out of South Freeport, Maine. After graduating from Greely High School, Andrew received his BA degree from Brown University and continued his postgraduate and medical studies at North Dakota State University and the medical school of the University of North Dakota. He completed his residency and training in psychiatry at the University of Vermont Medical School in Burlington. For several years he held positions in psychiatry in New Hampshire, before moving to Dallas. Dr. Hopkins worked for 17 years at the Texas Health Presbyterian Hospital, where he received a number of awards for excellence in his field, including Outstanding Physician of the Year three times. The Celebration of Life Award at the Hospital is now named in his honor. In addition to his parents, Dr. Hopkins is survived by his wife, Marianne Hopkins, MD; brothers, Thomas Hopkins of Bismarck, N.Dak., Jonathan Hopkins of Rochester, N.Y., Paul Hopkins of Dubai United Arab Emirates; and sisters Elizabeth Hopkins of Hope, Maine, and Katherine Piecuch of Memphis, Tenn.

Barbara (Domaskin) Huestis, BS MT '70, of Claire Pass, Saratoga Springs, N.Y., passed away Monday morning, Sept. 24, 2012, at Seton Health Schuyler Ridge Residential Care in Clifton Park, N.Y., from complications due to early onset Alzheimer's disease. Born in Minot, N.Dak., she was the daughter of the late Emil and Helen (Rolf) Domaskin. Barb was a graduate of the University of North Dakota, cum laude, with a Bachelor of Science in Medical Technology. She was also a graduate of the Hudson Valley/ Albany Medical College Physician Assistant Program (N.Y.). She was a member of the United Methodist Church in Saratoga Springs. Barb was married to Kirby Huestis. In addition to her husband, survivors include two children, David Huestis and his wife, Christine, of Saratoga Springs, and Rebecca Huestis of Lafayette, N.J.; one brother, James Domaskin and his wife, Mary, of Ross, N.Dak.; one brother-in-law, W. Robert Huestis, Jr. and his wife, Nancy, of Willsboro, N.Y.; four nieces, Andrea Domaskin, Jenny Smith, Sara Miller, and Katie Huestis; two nephews, Todd and Robb Huestis; and many dear friends.

Wanda Marie Olson, OT '89, died on September 3, 2012. Wanda was born on July 8, 1952, to Lorraine Brisbois and Herbert Olson in Kodiak, Alaska. The family moved back to Lengby, Minn., living on a farm on the White Earth Reservation. She attended school in Hibbing and graduated from Billings Senior High School, Billings, Mont. Later, she finished her education at the University of North Dakota in Grand Forks with a degree in occupational therapy. Employed by a therapy group, she served assignments in Farmington, N.Mex.; Texas; and in Aurora, Hoyt Lakes, and Ely, Minn. In Ely, she bought a cabin that was her much-loved retreat summer and winter. In all her travels, including college, she always had a cat or a dog, as she loved animals. Wanda was quick-witted, liked to joke and play jokes, and her laugh would bring smiles to everyone around her. She often did private home care. Wanda was creative in many ways, including art, gardening, and cooking, and she loved music. She liked to read, especially to children and to her nephew, Alex. She continued to love the water, becoming an expert kayaker on Minnesota lakes. She liked to experiment with healthful foods and recipes. Wanda loved without restraint-her family, friends, and patients. She lived happily in the country outside Hibbing with her partner Gary Carlson for many years, moving into town only after her lung condition made it mandatory. Wanda's free and smiling spirit made life seem good to all of us. Passing before her were her parents, and her brother Bart. Surviving her are her sisters, Tina Rae Olson and Vanessa Swanson, nephews Alex and Rory and many cousins.

DeRae Kay Prabhu, BS MT '72, died October 10, 2012, at Methodist Dallas Medical Center in Dallas, Texas. DeRae Kay Nishek, daughter of Harold and Hilgegard (Speidel) Nishek was born November 9, 1950, in Aberdeen, S.Dak. She grew up in Ellendale, N.Dak., graduating from Ellendale High School. She then graduated in 1972 from the University of North Dakota with a Bachelors of Science in Medical Technology. She moved to Palm Springs, Calif., and worked for two years before moving to Riyadh, Saudi Arabia, where she worked at King Faisal Specialist Hospital for 14 years. She was united in marriage to Mukesh Prabhu on August 23, 1986, in Zion Lutheran Church in Ellendale. They made their home in Arlington, Texas, and she was employed at Methodist Dallas Medical Center. DeRae was a member of Grace Lutheran Church in Arlington, and the Legion Auxiliary and Veterans of Foreign Wars Auxiliary, both in Ellendale. DeRae is survived by her husband, Mukesh, one son, Kieran Prabhu, two daughters, Tara Kay Prabhu and Keren Valdez, all of Arlington; two stepsisters, Lisa Rains of Ellendale and Jean Lutz of Bismarck and one stepbrother, Bruce Stairs of Glendive, Mont. Her parents, stepmother, one brother, Greg Nishek, and one stepbrother, Robert Stairs, preceded her in death.

GIFT PLANNING R

Leaving a Legacy **By Dave Miedema**

Webster's dictionary defines legacy as "something received from an ancestor or predecessor or from the past." I suggest this definition could also include "the principles and ideals of a thoughtful individual that are carried forward and beneficially impact future generations."

We are all about building a greater University of North Dakota School of Medicine and Health Sciences, and those who have chosen to "leave their legacy" through an estate plan gift have certainly helped fulfill this noble mission.

A gift provision in your will or trust to the UND Foundation will benefit the students, faculty, programs, and infrastructure of tomorrow's UND School of Medicine and Health Sciences and is a gift that will live forever-a true legacy.

Statistics show that nearly two-thirds of Americans do not have a will. Do you have one? As we begin a new year, it is a good time to begin planning for the future, including having a properly executed will. A will is an easy way to leave a lasting impact on the people, projects, and causes that are important to you. Making a gift in your will (also called a bequest) benefits those following in your footsteps who will one day provide high quality medical care to their patients-just as you have done throughout your career.

How could your bequest impact the School of Medicine and Health Sciences? Here are a few examples:

- Fund scholarships for high-achieving and aspiring medical professionals.
- Create or sustain top-notch academic programs.
- · Provide discretionary resources to help meet the most pressing needs of the School.
- Help recruit and retain high quality faculty and researchers. A bequest written into your will, directing a gift to the

University of North Dakota Foundation, enables you to retain lifetime control of your assets and, ultimately, continue your



For additional information on how to best structure your bequest or gift to benefit the School of Medicine and Health Sciences, please contact: Dave Miedema, Director of Development School of Medicine and Health Sciences UND Foundation davem@undfoundation.org (701) 777-4933 (800) 543-8764

UNIVERSITY OF NORTH DAKOTA

support of the School of Medicine and Health Sciences.

Where do you begin? We recommend you first consult with your professional advisor to ensure your bequest intent will be properly structured within your will or trust. Your testamentary gift may involve a specific dollar amount, percentage of your estate, specific asset, or residue of your estate. Such a bequest may benefit an SMHS department or project of your choice, or a charitable income arrangement for the benefit of surviving loved ones. Here is an example of a specific dollar-amount bequest:

"I give, devise and bequeath to the University of North Dakota Foundation, 3501 University Avenue, Stop 8157, Grand Forks, North Dakota 58202-8157, a non-profit charitable corporation under the laws of the State of North Dakota (TIN 45-0348296) to benefit the School of Medicine and the sum of \$ Health Sciences by [e.g., establishing a named endowment, benefiting a specific department or project within the SMHS, adding to the Dean's Scholarship Endowment or funding a charitable income arrangement]."

Always feel welcome to contact us for additional general bequest information, for other recommended bequest language, or to discuss how you would want your gift to specifically benefit the SMHS. We also encourage you to notify us of estate plans you may have already made to benefit the SMHS, both to document your intent and to ensure your bequest will be used as you have indicated.



What is a bequest?

haritable

A bequest is a gift made by including language in your will or trust. You can specify a gift to be made to family, friends or charities. A bequest is perhaps the easiest and most tangible way to make a lasting impact at the University of North Dakota and other charities you support. It may be an effective way to make a gift and at the same time lessen the burden of taxes on your family and estate.

How do I make a bequest?

- With the help of an advisor, you can make multiple bequests bequest in a few ways:
- to various individuals and/or organizations. You can specify a
- Gift of a specific dollar amount or percentage of your estate. Gift of a specific asset (e.g. real estate). Gift of the residue of your estate.

What are the best asso

"Adopting" Students, Transforming Lives

Yes I still feel like I'm learning medicine! It's been 30 years since I was a first-year medical student at UND. I still remember those first few days of orientation. I also remember the stress of those first few months. Medical school is not easy. Your residency will not be easy. But you have chosen a noble and fascinating profession, one that will require you to continue learning throughout your career. Your medical degree from UND will serve you well, no matter what you choose to do with it.

-Dr. John C. Johnson, '86

Sponsors who participated in the second annual Adopt-a-Med-Student program wrote letters like this to the members of the Class of 2016, giving the students encouragement, sharing personal information about their sponsor, and

inviting the students to keep in touch during their four years of medical school and beyond.

This was exactly the intent of the program when it was created by Dean Joshua Wynne and the Office of Alumni and Community Relations in 2011.

For a gift of \$250, sponsors give first-year medical school students stethoscopes, a staple tool of all physicians. The students select the model and color they want, and their names are then engraved on the diaphragm. The stethoscopes are presented to the students at a luncheon in the Vennes Atrium in October.

Sponsors are paired with students mostly based on



Robert Arusell, MD; Michael Traynor, Jr.; and Dean Joshua Wynne

geographic location, possibly by other interests such as sports or hobbies (if evident) but sometimes simply at random. Some students have been surprised to learn they know their sponsor, and sometimes sponsors have attended the luncheon to personally present the stethoscopes to the students.

If you are interested in sponsoring a member of the Class of 2017 next fall, please contact the Office of Alumni and Community Relations at (701) 777-4305 or e-mail kristen.peterson@med.und.edu.

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PARTING SHOTS



Class of 1962 Sisters of St. Joseph class reunion Back row standing, left to right:

Kaki Item Wavra, Leone Holland Forseth, Mary Ellen Seitz Frey, Rita Christopherson Moen, Aleda (AJ) Kirchoffner Ahlgren, Bonnie Mellem Hoghaug, Connie Spiekermeier Wavra, Mary Ellen Persson Kropp, Donna Gourde Zils, Celestine (Sally) Huss Wescom, Patsy Pendergrast Klose, Delores Schmidt Tuckwell, and Margo Lovgren Viger. Middle row, seated, from left:

Theresa (Terri) Rogus Cochran, Barb Konetzko Edvall, Barb Schmisek Fowler, Daytona (Toni) Byram Williams, Suzanne (Suzie) Kuznia Husler, and Karen Fischer McCarthy. Front row, kneeling, from left:

Verna Gellner Kartes, Carol Irmen Galt, Ann Young Clark, Virginia (Gina) Danda Esslinger.





First-year medical student Jamie Odden, from West Fargo, discusses a blood pressure reading with a participant in the Health Screenings Fair at Walmart in Grand Forks on November 3. Medical, nursing, nutrition and dietetics, occupational therapy, and physical therapy students worked at the free community event.

World-renowned hematologist Dr. Robert Kyle presented a guest lecture, "What My Patients Have Taught Me," to SMHS Medical Laboratory Science students during Homecoming week.



Students relate to a participant in the Health Screenings Fair at Walmart in Grand Forks on November 3.



Sarah Meyers, MD, assistant professor and assistant medical examiner in the Department of Pathology, was one of 48 new employees and staff from 21 departments Dean Wynne welcomed at the New Employee Reception honoring new faculty and staff. The reception was held in the Vennes Atrium of the SMHS in Grand Forks on November 13. A list of the new faculty and staff is available at http://bit.ly/UrMBKJ.



SMHS Occupational Therapy students pose with North Dakota Senator John and Mikey Hoeven before the 2012 Homecoming Parade.



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2011–12 Honor Roll of Donors

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Please note that every effort was made to include all donors who made gifts, new cash pledges, or payments on existing pledges by June 30, 2012. If we have omitted your name in error, please accept our sincerest apologies and contact us so that we may make corrections as needed.

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Erica Sauer, MD '12

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Samantha Dusek, first-year medical student

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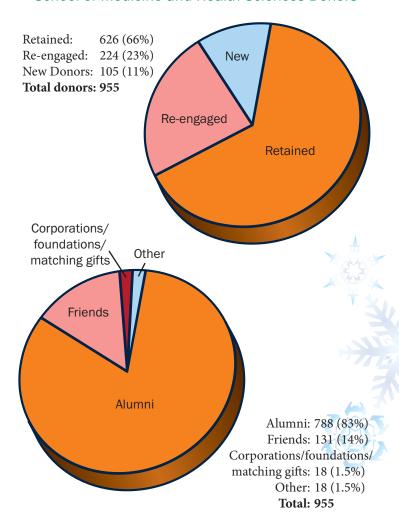
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"I wanted to thank you for providing the Karen and Elvira Lynner Medical Scholarship, of which I am a recipient. I'm a medical student, wife, and mother of two with the intent of becoming a pediatrician. This scholarship will help me reach my goal."

Sarah Chalmers, fourth-year medical student

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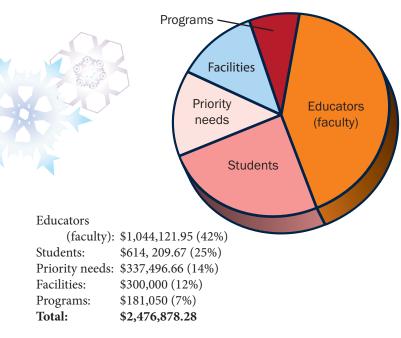
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Dear Alumni and Friends,

Special thanks to all who contributed this past fiscal year to the University of North Dakota Foundation for the benefit of the School of Medicine and Health Sciences. During this exciting phase in our School's history, we are especially grateful to all who have joined with us through their financial support, helping us to fulfill our mission and to meet our responsibilities to all North Dakotans.

North Dakota Spirit—the Campaign for UND is nearing the finish line with approximately one year to go. The ambitious goal to raise \$300 million in gift commitments to benefit our University is certain to be exceeded by the conclusion of the campaign, December 31, 2013. As of June 30, 2012, the total reached was \$273,164,351. In FY12 (July 1, 2011–June 30, 2012), \$2,501,800 was raised specifically for the benefit of the School of Medicine and Health Sciences, bringing the School's portion of the Campaign total to \$25,361,276. This impressive gift commitment total comprises annual contributions, pledges, and deferred gifts of various types. The School's alumni and special friends continue to invest in the future of quality health care education at the University of North Dakota, and we thank you!

Please accept this invitation to visit us at any time and witness firsthand the many innovative and exciting projects we have underway at your School. The future looks extremely bright, and with your ongoing help and involvement,



Dave Miedema Director of Development UND School of Medicine and Health Sciences UND Foundation Joshua Wynne, MD, MBA, MPH UND Vice President for Health Affairs Dean, UND School of Medicine and Health Sciences

the School of Medicine and Health Sciences will continue to build on its proud tradition and history in serving the great state of North Dakota.

For information on investing in the School of Medicine and Health Sciences, we invite you to contact either of us at your convenience.

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An endowment can be established through the UND Foundation and named with a minimum gift of \$25,000 and funded over time or with a deferred gift arrangement. Donors may also choose to designate gifts to existing endowments held within the UND Foundation to grow their base of support.

For the 2012 fiscal year, the following 12 endowments are established with the UND Foundation to benefit students, faculty, and programs within the School of Medicine and Health Sciences.

Dr. Dave and Theresa Theige Medical Scholarship Endowment

Donors: Dr. David and Theresa Theige

To provide one or more academic scholarships to students earning an M.D. degree within the UND School of Medicine and Health Sciences.

Dr. David and Lola Rognlie Monson Endowed Professorship in Medical Education

Donors: Dr. David and Lola Monson

To recruit, foster leadership activities of, and provide support to the holder of the Monson Professorship who will be appointed by the dean of the UND School of Medicine and Health Sciences.

Dr. David M. Blehm Memorial Endowment

Donor: Dr. Julie A. Blehm

To provide scholarships to medical students enrolled within the UND School of Medicine and Health Sciences. Preference shall be given to recipients who intend to become primary care providers and practice in North Dakota.

Dr. Edward and Carolyn Fogarty Endowment

Donors: Edward Fogarty, M.D., and Carolyn Fogarty To fund research activities within the UND School of Medicine and Health Sciences for students who are pursuing interests in clinical imaging or imaging technologies that may impact clinical medicine or the teaching of medicine.

Dr. Mark and Becky Odland Endowment

Donors: Dr. Mark and Rebecca Odland

To provide one or more scholarships to student(s) earning an M.D. degree at the UND School of Medicine and Health Sciences. Recipients of this scholarship are asked that in the future they provide the same opportunity to other medical students.

Dr. Nadim and Rola Kanafani Koleilat Endowment

Donors: Nadim Koleilat, M.D., and Rola Kanafani Koleilat To fund the annual Koleilat Award, presented to the graduating medical student who has demonstrated the most humanistic character, who conducts herself/himself with high integrity, and who will relate to patients with sincere expressions of compassion and respect.

Edwin Berge Cancer Research Quasi-Endowment

Donor: Edwin J. Berge* To be used for cancer research.

Edwin Berge Heart Research Quasi-Endowment

Donor: Edwin J. Berge* To be used for heart research.

Jodi and Scott Boettner Physical Therapy Scholarship Endowment

Donors: Scott and Jodi Boettner

To provide one or more academic scholarships to a secondor third-year Physical Therapy student in good academic standing in the Physical Therapy Program at the UND School of Medicine and Health Sciences. Preference will be given to a motivated and caring student who shows an interest in practicing physical therapy in a geriatric setting.

Linnea J. Veeder Scholarship Endowment

Donors: Linnea and David Veeder

To provide scholarships for incoming freshman with preference given to students from McIntosh County, North Dakota, with a GPA of 3.0 or greater, pursuing a degree in Medical Laboratory Science (formerly Medical Technology) within the UND School of Medicine and Health Sciences.

Lucille M. Radke Fostvedt M.D. Memorial Endowment

Donors: Andrea L. Karsten and Craig G. Fostvedt To provide one or more academic scholarships to students enrolled within the UND School of Medicine and Health Sciences. Qualified scholarship recipients shall be either first- or second-year medical students with first preference given to female students.

Noah and Carrie Gregory Endowment

Donor: Norma K. Overstreet

To provide one or more scholarships to UND students who are enrolled members of a federally recognized American Indian tribe and are participating in the Indians Into Medicine Program within the School of Medicine and Health Sciences.

*Deceased

The UND Foundation, an independent non-profit organization, raises and manages funds that secure a strong future for UND, the SMHS, and their students, faculty, and alumni.

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