

NORTH DAKOTA MEDICINE

THE UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

Pushing the Envelope

Match Day

Epigenetics Research

Behind the Camera

Physician Assistant
White Coat Ceremony

Spring 2013
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**UNIVERSITY OF NORTH DAKOTA
SCHOOL OF MEDICINE AND HEALTH SCIENCES**

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social media on Match Day in Fargo.

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WEBMASTER

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Erratum: On page 12 of the holiday 2012 issue, Jared Marquardt was misidentified as Gerald Marquardt. We apologize to Jared.



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Education, Research and

The past few months have been packed full of exciting developments for the School, with positive developments in all three aspects of the School's mission involving teaching, research and scholarship, and service. I am especially proud of our educational accomplishments, where our students excel. An example that highlights the academic achievements of our students comes from a recent American Medical Student Association (AMSA) Conference in Washington, D.C. Several of our first-year medical students participated at the conference in what was called Simlympics, a competition involving simulation and patient-care scenarios. They competed against mostly second-year medical students from seven other schools. Our students competed in a series of simulated clinical scenarios requiring medical knowledge, clinical skills, teamwork, and communication. A panel of judges determined the winner for each of seven elimination rounds, with our students winning! In addition to the distinction of winning, they received certificates and a \$1,000 cash prize. But perhaps even better than the cash prize is the acclaim the team received. I recently received an e-mail from the organizer of Simlympics. He wrote to say how impressed everyone at the national convention was with the performance of the UND medical students. They were lauded for their knowledge, teamwork, and compassion for their patients. "Team Fargo," as they were dubbed by their AMSA colleagues, outperformed students senior to them. After hearing that our team was composed entirely of first-year medical students, a stunned member of the audience at the conference called out, "What school do you attend?" When told that they attend the University of North Dakota School of Medicine and Health Sciences, another member of the audience yelled out, "Can we come?" The organizer concluded his e-mail to me with the following: "You should be proud of your students and faculty. Whatever you're doing up there works." Dr. Jon Allen, the



director of ND STAR (North Dakota Simulation, Teaching, and Research Center for Healthcare Education) and all of the faculty members who teach our first-year students deserve recognition for teaching excellence. However, ultimate praise and congratulations go to Emily Bromley, Turner Fishpaw, April Coming Hay, and Jared Sander who applied under pressure what they had learned at the School (shown in photo from left to right).

In the research arena, we are looking forward to the July arrival of Dr. Malak Kotb, the founding chair of our new combined Department of Basic Sciences. Four basic science departments will be amalgamated into one, and the research enterprise will be reformatted into multidisciplinary groups studying a common disease entity such as neurodegenerative diseases. These groups, or clusters as we have called them, will bring together scientists with varied backgrounds, experiences, and skills, reflecting the national and international trend toward team science, with less focus on an individual investigator or a specific discipline. Rather, the focus will be on disease-related problem solving using a broad team of specialists working together for the common good.

Scholarship, and Service



Photography by Joe Miller.

Finally, in the service area, we are hopeful that the North Dakota Legislature will fully endorse and fund the School's Health Care Workforce Initiative, a bold plan to address the health care workforce needs of North Dakota through disease prevention, increased retention of graduates, expansion of class sizes, and improvement in the health care delivery process through the use of multidisciplinary health care teams. Although the final verdict from the Legislature still is pending, we are hopeful that we'll soon have the green light to proceed with implementing the plan. As baby boomers like me continue to age, we will put additional pressure on an already stressed health care delivery workforce in North Dakota. Fortunately, we have both a plan and the resources to be able to seize our own future and mitigate the stresses in the system—but we need to act now. Let's hope that by the time you are reading this Dean's Letter we'll have the necessary legislative approval and support to proceed.

So, much is happening at your School, but much needs to be done. I solicit and welcome your support and guidance as we move forward, and ask you to be open and frank with me about the things that the School is doing well and those things that we need to do better. It is only through this type of dialogue that we can be sure that we're headed in the right direction.

But regarding the three critical efforts of the School—education, research and scholarship, and service—I am very confident that the School and its faculty, students, and staff are doing a superb job of fulfilling the mission of the School by improving the quality of life of North Dakotans across our great state!

A handwritten signature in black ink that reads "Josh Wynne".

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

Rural Assistance Center celebrates 10 years of service to rural America

The Rural Assistance Center (RAC), a national information resource for rural health and human services, celebrated 10 years of service to rural America. Since its launch in December 2002, RAC's website, www.raconline.org, has received over 6 million visits, and RAC staff members have responded to over 8,700 information requests from people across the country.



Kristine Sande

"People in rural organizations have to wear many hats. With their multiple responsibilities, time is always at a premium," said RAC Program Director Kristine Sande. "Because of that, opportunities might be lost, not only for the providers but also the communities they serve. So our mission has always been to level the playing field for rural providers across the country in finding and competing for funding opportunities, staying abreast of current regulations and events, and accessing current information."

Based at the University of North Dakota Center for Rural Health, RAC is a collaboration of the University of North Dakota and the Rural Policy Research Institute (RUPRI). It is funded through the federal Office of Rural Health Policy, part of the Health Resources and Services Administration (HRSA).

"In 10 years, the Rural Assistance Center has become a national resource for anyone who wants to know more about rural health or human services," said Tom Morris, HRSA associate administrator for rural health. "We had high hopes when we initially awarded this grant, and UND and the RAC have far exceeded our high expectations."

Chuck Fluharty, RUPRI president and CEO, said, "The Rural Assistance Center has made a major contribution to the rural health and human services field over the past decade, and the Rural Policy Research Institute is honored to have been a cofounder and collaborator in this journey. Institutional innovation is always challenging, and few organizations can honestly say they have altered the knowledge dissemination dynamics within a field. RAC has done this."

In its 10 years of operation, RAC has continually grown and adapted its online collection of information available to rural stakeholders, offering an extensive online library, information by state and topic, various tools for community success, electronic updates, and customizable maps. In an effort to continue to meet the evolving needs of rural communities, RAC partnered with other organizations to create the website's Tools for Success, which features toolkits and resources on topics vital to rural communities, such as obesity prevention, health information technology, community health workers, and planning for sustainability.

David Bradley receives ND Commerce Department grant to continue research on avian flu antibodies

David Bradley, PhD, an immunologist at the University of North Dakota School of Medicine and Health Sciences, received a Centers of Research Excellence grant of \$700,000 from the North Dakota Department of Commerce to continue research on avian flu antibodies that could help poultry farmers effectively combat outbreaks of the disease.



David Bradley

Bradley's lab is working collaboratively on the project with a local company, Avianax (which develops antibodies for human and animal diseases such as West Nile and the avian flu, respectively), which is providing a 2-to-1 cash match for this research to develop the therapeutic avian flu antibody. Avianax LLC, a joint venture between Intraglobal Biologics and the University of North Dakota Research Foundation, was created to investigate the properties of goose antibodies and how they can be utilized as a platform for therapeutic and prophylactic treatment of various viral diseases.

Today, avian flu outbreaks almost certainly result in the destruction of affected flocks—even small backyard flocks—within a 5-mile radius. It's a costly, devastating process. But Bradley's research has already proven that the antibodies, developed from goose eggs, could be very effective in combatting this viral flu.

Bradley and Avianax, with the help of this North Dakota grant, hope to develop commercially viable therapeutic treatments within 12 to 18 months.

Kotb named founding chair for Department of Basic Sciences at UND School of Medicine and Health Sciences

Malak Kotb, PhD, a noted infectious disease and biodefense expert, has been named the founding chair of the Department of Basic Sciences at the University of North Dakota School of Medicine and Health Sciences. Kotb has been a tenured professor since 2008 at the University of Cincinnati College of Medicine's Department of Molecular Genetics, Biochemistry, and Microbiology/Immunology. She was the former chair of the department. She also is a senior career research scientist at the Veterans Affairs Medical Center in Cincinnati. Kotb will begin work as chair at UND on July 1, 2013.

At the University of Cincinnati, Kotb was a member of the Institute for Military Medicine Research in the Department of Surgery. Kotb had established the MidSouth Center for Emerging Infectious diseases in Memphis, Tenn., where she was dedicated to bolstering preparedness for natural pandemics or deliberate man-made biological attacks. In Cincinnati, she directed the Midwest Center for Emerging Infectious Diseases.

"Dr. Kotb is precisely the type of individual we have been seeking—an acclaimed scientist who embodies collaborative and interdisciplinary research, a dedicated educator, and an accomplished administrator," said Joshua Wynne, M.D., M.B.A., M.P.H., UND vice president for health affairs and dean of the UND School of Medicine and Health Sciences.

Kotb earned her doctorate in immunology and biochemistry from the University of Tennessee Health Science Center and St. Jude Children's Research Hospital in Memphis. At UTHSC, she established and directed the immunogenetics, translational and biodefense research programs. She also founded and directed the Surgical Immunology Program and served as medical director for the Transplant Program Surgical Immunology Laboratory. Kotb completed postgraduate work at the Howard Hughes Medical Institute at Duke University.

Her research expertise uses interdisciplinary approaches to study the genetics and biology of disease-modifying genes and pathways. She seeks to translate her discoveries into effective diagnostic tools and personalized treatments for patients. Kotb holds two U.S. patents on her work in developing a medical screening method for cancer and a targeted treatment of cancer. She has chaired several national and international committees and served as a consultant and advisor for many national and international research organizations as well as global pharmaceutical companies.

A 1997 Fulbright Scholar, Kotb edited two books and is the author of more than 170 scientific articles. She participates in a number of prestigious research societies, has been invited to speak at research conferences throughout the world, and has worked on and chaired numerous grant review panels for the National Institutes of Health study sections, the Department of Veterans Affairs as well as for other national and international advisory boards and granting agencies.

Kotb grew up in Heliopolis, Egypt, daughter of the late Karima Kotb, a social activist and leader of several charities and women's organizations, and the late Dr. Salah Kotb, former

president of Ain Shams University, a scientist and graduate of Teachers College at Columbia University in New York, who pioneered the field of science education for teachers and was an international consultant and advisor to several premier universities, including the Harvard Graduate School of Education. He was also an advisor to the late former President of Egypt Anwar el-Sadat. Kotb obtained her education at Cairo's American College for Girls and got her B.S. from Ain Shams University in Cairo. In 1972, she was selected by the International Rotary as Goodwill Ambassador to the United States and was given a full scholarship to cover her education and living expenses.



Malak Kotb

Ilse Coleman and Mark Harries receive Student Spirit Awards

Ilse Coleman, a junior occupational therapy student at the University of North Dakota, and Mark Harries, a sophomore in the mechanical engineering program, were honored with the 2013 UND Student Spirit Award. UND Student Spirit Award winners were selected based on their demonstrated leadership in service, philanthropy, community involvement, and academics.



Ilse Coleman

Honorees will serve as student ambassadors for UND's philanthropic endeavors and were awarded \$1,000 each — \$500 for their personal tuition and fees, and \$500 to be gifted to a University of North Dakota program of each recipient's choice as it matches their philanthropic focus. Ilse plans to share her \$500 gift with UND's Student Occupational Therapy Association, and Mark plans to share his \$500 gift with the Society of Woman Engineers/Volunteer Engineering Students (VESTS) to encourage volunteering and service among engineering students.

Pushing the Envelope

The MD Class of 2013 pursue new heights in their education.

By Denis MacLeod

Opening envelopes that held the answers to where they will spend the next few years of their lives, 59 fourth-year medical students, members of the Doctor of Medicine (M.D.) Class of 2013 at the University of North Dakota School of Medicine and Health Sciences, learned where in the United States they will hone their skills as resident physicians. On Match Day, March 15, medical school seniors across the country found out where they will complete their residencies, a period of advanced intensive training in their chosen medical specialty before independent practice as a physician. Depending on the medical specialty, medical school graduates complete anywhere from three to seven years of residency training after medical school.

Match Day is the culmination of the National Resident Matching Program (NRMP), a private, not-for-profit corporation established in 1952 to provide a uniform date of appointment to positions of graduate medical education or residency in the United States. Each year approximately 16,000 U.S. medical school seniors participate in the residency match. Students as well as residency program directors register their preferences for each other with the NRMP. The NRMP then feeds the rank-ordered choices of the students and directors into a computer, which provides an impartial match between the two groups. In the third week of March, at the same time across the country,

students open envelopes to find the results of the match.

“The match process is an exciting and a tense day for students and their families,” said Joycelyn Dorscher, M.D., associate dean for Student Affairs and Admissions at the UND School of Medicine and Health Sciences. “I am proud of the caliber of students who come out of this medical school; they are highly competitive for some pretty impressive residencies across the country.”

UND medical students successfully matched in the traditional primary care specialties of family medicine (14), internal medicine (3), and pediatrics (8)—for a total of 25 or 42.4 percent of the class. Other specialties chosen by this year’s class include anesthesiology, neurology, emergency medicine, general surgery, obstetrics/gynecology, otolaryngology, pathology, plastic surgery, psychiatry, medicine-pediatrics, and radiology.

“Our graduates are well prepared to take on the challenges of a residency,” Dorscher said. “We should always remember how many people it took to help them get to this point. Essentially, because we are a community-based medical school, all of North Dakota participated in their education, so we should all be very proud of their accomplishments.”

Residency Sites—Class of 2013

Name	Location	Program
Adams, Nicholas	Grand Rapids Medical Education Partners Michigan State University Program Grand Rapids, Michigan	Plastic Surgery
Aldrich, Aileen	Grand Rapids Medical Education Partners Michigan State University Program Helen DeVos Children’s Hospital Program Grand Rapids, Michigan	Pediatrics
Bastian, Allison	Family Medicine Residency of Idaho Boise, Idaho	Family Medicine

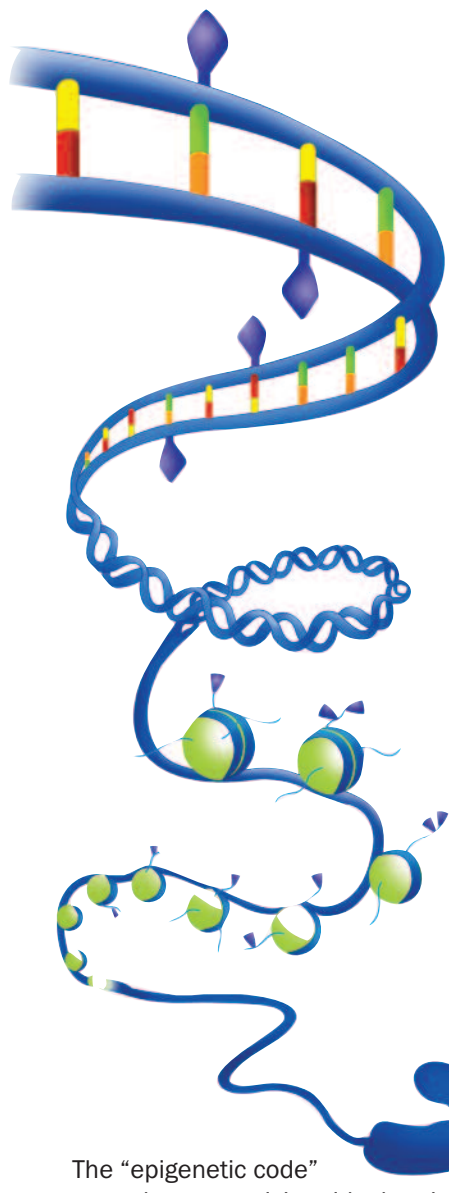
Bjore, Emma	University of Colorado Denver HealthONE Rose Medical Center Program Denver, Colorado	Family Medicine
Bradley, Kevin	Louisiana State University Shreveport Program Shreveport, Louisiana	Anesthesiology
Brentrup, Christine	St. Francis Hospital and Health Centers Program Indianapolis, Indiana	Family Medicine
Brown, Marissa	Gundersen Lutheran Medical Foundation Program La Crosse, Wisconsin	Transitional
	Mayo School of Graduate Medical Education Rochester, Minnesota	Anesthesiology
Carver, Stephanie	University of South Dakota Sanford School of Medicine Sioux Falls, South Dakota	Pediatrics
Cathey, Alex	Central Iowa Health System Iowa Methodist/Iowa Lutheran Des Moines, Iowa	Internal Medicine
Chalmers, Sarah	University of Illinois St. Francis Medical Center Peoria, Illinois	Medicine-Pediatrics
Christensen, Megan	University of North Dakota School of Medicine and Health Sciences Fargo, North Dakota	Transitional
	University of Nebraska Affiliated Hospitals Omaha, Nebraska	Anesthesiology
Fiest, Kristen	University of Illinois College of Medicine at Chicago Program Chicago, Illinois	Obstetrics-Gynecology
Gero, Jennifer	Grand Rapids Medical Education Partners/Michigan State University Grand Rapids, Michigan	Emergency Medicine
Gourneau, Bethany	University of Kansas School of Medicine Program Kansas City, Kansas	Anesthesiology
Greiman, Travis	University of Minnesota St. Cloud Hospital Program St. Cloud, Minnesota	Family Medicine
Hagen, Heather	Central Iowa Health System Blank Children's Hospital Des Moines, Iowa	Pediatrics
Haley, Angela	University of Kansas Wichita Program Wichita, Kansas	Obstetrics-Gynecology
Henderson, Lindsey	Western Michigan University School of Medicine Program Kalamazoo, Michigan	Family Medicine
Hendrickson, Meghan	University of North Dakota School of Medicine and Health Sciences Bismarck, North Dakota	Family Medicine
Herold, Richard	Navy Medical Center San Diego San Diego, California	Emergency Medicine
Holsen, Shannon	Altru Health System Grand Forks, North Dakota	Family Medicine
Hosey, Nicholas	University of Kansas School of Medicine Program Kansas City, Kansas	Emergency Medicine
Huls, Amber	University of Minnesota Medical School Minneapolis, Minnesota	Neurology

Jangula, Adam	University of North Dakota School of Medicine and Health Sciences Fargo, North Dakota	Psychiatry
Jenko, Gabriel	SAUSHEC-Brooke Army Medical Center Fort Sam Houston, Texas	Transitional
Jethwa, Ashok	University of Minnesota Medical School Minneapolis, Minnesota	Otolaryngology
Keaveny, Virginia	Mayo School of Graduate Medical Education Rochester, Minnesota	Emergency Medicine
Leitch, Cameron	University of North Dakota School of Medicine and Health Sciences Fargo, North Dakota Mayo School of Graduate Medical Education Rochester, Minnesota	Transitional Radiology-Diagnostic
Lindemann, Jessie	University of Wisconsin School of Medicine and Public Health Eau Claire, Wisconsin	Family Medicine
Lommen Kadrmas, Lindsey	Altru Health System Grand Forks, North Dakota	Family Medicine
Lystad, Kendra	University of Utah Affiliated Hospitals Salt Lake City, Utah	Pediatrics
Nord, Shannon	Case Western Reserve University/ University Hospitals Case Medical Center Program Cleveland, Ohio	Surgery-Preliminary
Odegard, Kayla	Regions Hospital – Health Partners Institute for Medical Education Program St. Paul, Minnesota	Emergency Medicine
Pandolfo, Caitlin	University of Massachusetts Medical School Worcester, Massachusetts	Obstetrics-Gynecology
Peterson, Kate	Banner Good Samaritan Medical Center Program Phoenix, Arizona	Obstetrics-Gynecology
Peterson, Rachel	University of Nebraska Medical Center College of Medicine Program Omaha, Nebraska	Obstetrics-Gynecology
Pohlman, Joshua	Gundersen Lutheran Medical Foundation Program La Crosse, Wisconsin Medical College of Wisconsin Affiliated Hospitals Program Milwaukee, Wisconsin	Transitional Radiology-Diagnostic
Putbrese, Bryn	University of South Dakota Sanford School of Medicine Sioux Falls, South Dakota University of Utah Program Salt Lake City, Utah	Transitional Radiology-Diagnostic
Racek, Adrienne	University of Iowa Hospitals and Clinics Program Iowa City, Iowa	Obstetrics-Gynecology
Rauser-Foltz, Kristina	University of Nebraska Medical Center College of Medicine Omaha, Nebraska	Pediatrics
Rodenburg, Andrew	University of North Dakota School of Medicine and Health Sciences Fargo, North Dakota University of Oklahoma Health Sciences Center Program Oklahoma City, Oklahoma	Transitional Ophthalmology
Rooney, Sydney	University of Iowa Hospitals and Clinics Program Iowa City, Iowa	Pathology

Rosenau, Justin	Family Medicine Residency of Idaho Rural Program Boise, Idaho	Family Med/Rural
Sandness Nelson, Heather	St. Francis Hospital and Medical Center Program Hartford, Connecticut	Obstetrics-Gynecology
Sauter, Shannon	University of North Dakota School of Medicine and Health Sciences Bismarck, North Dakota	Family Medicine
Schommer, Eric	College of Medicine Mayo Clinic Jacksonville Program Jacksonville, Florida	Surgery-Preliminary
	College of Medicine Mayo Clinic Jacksonville Program Jacksonville, Florida	Urology
Schouweiler, Katie	University of Iowa Hospitals and Clinics Program Iowa City, Iowa	Pathology
Sharma, Amit	Abbott-Northwestern Hospital Program Minneapolis, Minnesota	Internal Medicine
Stahl, Andrew	Emory University School of Medicine Atlanta, Georgia	General Surgery
Stromquist, Emily	University of South Alabama Program Mobile, Alabama	Obstetrics-Gynecology
Thompson, Alex	Mayo School of Graduate Medical Education Rochester, Minnesota	Pediatrics
Thorvilson, Megan	Mayo School of Graduate Medical Education Rochester, Minnesota	Pediatrics
Thuen, Bobbi	University of North Dakota School of Medicine and Health Sciences Bismarck, North Dakota	Family Medicine
Tomosie, Pearlyn	Northern New Mexico Family Medicine Santa Fe, New Mexico	Family Medicine
Traverse, Chelsea	Mayo School of Graduate Medical Education Rochester, Minnesota	Family Medicine
Uriell, Matthew	St. Francis Hospital of Evanston Program Evanston, Illinois	Transitional
	Emory University School of Medicine Atlanta, Georgia	Radiology-Diagnostic
Watkins, Patricia	University of Iowa Hospitals and Clinics Program Iowa City, Iowa	Pediatrics
Wiisanen, Jeffrey	Mayo School of Graduate Medical Education Rochester, Minnesota	Internal Medicine
Wolf, Craig	University of Arizona Program Affiliated Hospitals Tucson, Arizona	Obstetrics-Gynecology

GRADUATES:

Pratt, Cody John (2012)	University of North Dakota School of Medicine and Health Sciences Grand Forks, North Dakota	Surgery-Rural Track
Roselius, Kassi (2012)	Clarkson Family Medicine Omaha, Nebraska	Family Medicine
Thompson, Gwen (2012)	Mayo School of Graduate Medical Education-Rochester, Minnesota	Internal Medicine



Epigenetics Research

Scientists at the SMHS and UND seek potential treatments in the cellular neighborhood around our DNA.

By Juan Pedraza

In the beginning there's the gene.

That's the hardware—the DNA—that generates all living things, from single-celled bread yeasts to complex *Homo sapiens*.

But that's yesterday's science. Today, researchers like UND's Joyce Ohm, Archana Dhasarathy, and their colleagues are probing a much more complex set of mechanisms—the so-called epigenetics, or software—that govern who we are, what we do, and how the world around could affect not only us but our kids and grandkids.

These scientists—who are at the core of a growing cadre of researchers at UND who study or are keenly interested in epigenetics—tell us that genes alone don't determine whether diets work for you or who among your kin will die of cancer. Nor does the DNA code by itself answer a

host of questions related to the nature-nurture debate.

"I learned about all that at a science fair when I was in the eighth

grade in India—I found it fascinating," said Archana Dhasarathy, assistant professor of biochemistry and molecular biology at the UND School of Medicine and Health Sciences. "I thought that was so cool that I decided then and there to become a bioscientist."

Epigenetics, she explains, is the study of heritable changes that influence how the genetic code is expressed, changes caused by mechanisms other than DNA sequence.

"These epigenetic mechanisms can be influenced by factors such as chemicals in the environment or the kind of food we eat," Dhasarathy said.

At UND, epigenetics is the subject of intense research by a team that also includes Barry Milavetz, a professor and researcher at the School of Medicine and Health Sciences and associate vice president for Research Development and Compliance. But there's a lot more to the epigenetics

circle than a team of biomedical researchers.

"There's interest across campus in epigenetics," said Milavetz, who studies how epigenetics works at the level of viruses and has published extensively about the subject. "So we organized an epigenetics group that meets regularly, consisting of researchers in the area plus scientists in other fields who are interested in epigenetics."

From that group, Milavetz got the inspiration to call for a gathering of UND and other scientists on campus. The symposium started with a National Institutes of Health COBRE (Centers of Biomedical Research Excellence) proposal.

"A number of us had been publishing in the field of epigenetics since the early 2000s, but we recognized that there were a number of other researchers on campus who were interested but not extensively published in this area," Milavetz said.

"That's why we organized the informal interest group from which the idea of a symposium emerged. We met fairly regularly, and one consequence of those meetings was the idea of pursuing a COBRE grant, which also funds areas that can attract new faculty and link them up with mentors. From this beginning, we organized last November's epigenetics and epigenomics symposium. We wanted with this event to let people know that we're serious about epigenetics at UND, that we're willing to put some resources into it."

"Barry urged us last August to get moving with the symposium, and he provided money—a key ingredient for this to become a reality—to bring experts in the field together with other interested researchers," Dhasarathy said. "The team on the grant proposal was me, Joyce Ohm, Sergei Nechaev, and Lucia Carvelli in the School of Medicine and Health Sciences and Cindy Anderson in the College of Nursing. Diane Darland, a member of the epigenetics interest group on campus from

The "epigenetic code" controls gene activity with chemical tags that mark DNA (purple diamonds) and the "tails" of histone proteins (purple triangles). These markings help determine whether genes will be transcribed by RNA polymerase. Genes hidden from access to RNA polymerase are not expressed. (Image courtesy of the National Institute of General Medical Sciences)

the Department of Biology, joined in to help us with the symposium.”

“We organized it as a one-day symposium, and we invited both in-house experts and outside speakers who were leaders in their field,” Dhasarathy said. “Our aim was to put the word out there that UND was a new hub for epigenetics research. We really want UND to become a center for epigenetics.”

Part of the sponsorship for the symposium was from UND Vice President for Research and Economic Development Phyllis Johnson.

“She was one of the driving forces behind the symposium,” Milavetz said. “We also got the support of the deans of medicine, nursing, and arts and sciences; they put some money into it. And Archana got corporate sponsors who not only contributed financially but also had displays in the Memorial Union where we had the symposium. It was really impressive because the corporate sponsorships indicated the depth of interest across the country in epigenetics.”

What it’s all about

Milavetz explained, “DNA—that genetic code that is inherited by each of us from our parents—responds to the environment in ways that can be inherited.”

“In other words, environment affects expression without changing the DNA sequence—that environmental influence chemically modifies the DNA, and those changes can be passed along to your offspring,” Milavetz said.

“Why epigenetics?” Milavetz asked. “Because it addresses things related to inheritance that don’t make sense if you look at them strictly within the limitations of DNA acting alone. For example, we know that if you have a twin sibling, that sibling may not have the same outcome as you as you age. Epigenetics is a way to explain such different outcomes even in terms of people who share identical genetic traits. Thus we now know that there are a lot of things that epigenetics can explain, such as why some people can diet all their lives but never permanently lose weight.”

“For example, there’s evidence that suggests that if you were overfed as a baby, you’re going to probably have more problems with obesity as you get older,” Milavetz said.

Epigenetics also helps to explain other

sorts of weird things—everybody knows that adolescence is a tough time, but we’re now learning that decisions that you make as a teenager can affect the rest of your life. The reality is that the genetics are the same no matter what you decide, but when you’re a teen, every cell in your body is dividing as you grow, so the signals that those cells get while they’re dividing can directly affect what genes are affected and to what extent.

“There are other processes such as autoimmunity that we still do not understand well,” said Ohm, an epigenetics researcher at UND who is looking at how this affects the development of cancers. “But we believe that there is an epigenetics connection that will one day help us treat autoimmune diseases such as diabetes. The biggest takeaway from this area of research is that we’re understanding more about the cause and progression of disease—we’re adding new depth and dimension to health concerns.”

Fly the epigenetics flag

Last year’s Nov. 15 symposium, the first ever at UND on this relatively new area of scientific inquiry, was conducted by the campus epigenetics community.

This event—which brought together experts from fields such as dynamics of chromatin structure and function; epigenetics and gene expression; genomics; computational biology and human health—flagged UND’s aim to continue and broaden its epigenetics research.

Two keynote speakers—Michael Kladde from the University of Florida Shands Cancer Center, and Beth Sullivan from Duke University Genome Sciences and Policy Institute—showcased the broad-based interest in the field. In addition, scientists from North and South Dakota presented their research related to epigenetics.

Additionally, students had the opportunity to present posters based on their research in the fields of epigenetics and epigenomics.

This event and future UND epigenetics symposia are intended to promote interaction and collaboration among researchers in the Dakotas and beyond, and provide opportunities for learning about important new tools, approaches, and resources to advance epigenetics as it applies to human disease and development.

“We believe that there is an epigenetics connection that will one day help us treat autoimmune diseases such as diabetes.”

Measuring Rural

Access to health care makes **dollars and \$ense** for rural communities.

By Kristine Morin



Access to quality health care is often an overarching goal when examining rural health. Rural residents need—and deserve—access to quality health care. What, exactly, does that mean for rural North Dakotans? What does it mean to you? Lack of quality health care can be

detrimental to an individual but also an entire community. Rural health providers care for residents who are burdened more than urban residents are with higher levels of disease and injury as well as a lack of access to health care. Additionally, beyond providing care so people can stay healthy,

Health's Impact

access to health care can create an immense economic impact in communities, especially rural communities. There is a positive relationship between not only the local health care system and the patient but also between the local health care system and the social and economic well-being of a rural community.

Access to health care for a community means individuals can receive the high quality care they are entitled to and they expect to receive, care that is provided in a setting familiar to them by people they know and live next to. It also means jobs and revenue that keep people staying in their local communities. Rural health care contributes to the sense of a caring and supportive community, and it produces an economic benefit that helps to sustain the community.

In North Dakota, 36 of the 38 rural hospitals are classified as critical access hospitals (CAHs), meaning they have 25 or fewer beds and are at least 35 miles away from another facility or 15 miles away along secondary roads with difficult terrain to traverse, such as mountains or rivers. A CAH typically serves as the primary access point to local health services. In North Dakota, 33 of the 36 CAHs own and operate another health care business such as a primary care clinic, nursing home, senior residential setting, or ambulance service. The CAH is more than a hospital: it is a centralized health and medical center serving as a hub for health care. In addition to the important role a CAH plays in providing access to care, they also play a significant economic role because they contribute, according to the Center for Rural Health, about \$6.4 million dollars on average to the local economy. Additionally, CAHs produce about 224 jobs on average for a community. According to the North Dakota Hospital Association, the annual economic impact of all community hospitals—rural and urban—exceeds \$4.7 billion in North Dakota.

In rural North Dakota, if a community is home to a hospital, it is often the largest- or second-largest employer. According to the 2013 *Pulse Report* by the North Dakota Hospital Association, rural hospitals provide a source of high-tech jobs for young people who might otherwise leave the community; rural hospitals also provide an anchor for other health care jobs, such as physicians and pharmacists. What if rural hospitals went away? At the very least, the former employees would have to find another job, which could require commuting or leaving the community to seek employment.

Rural North Dakotans recognize the importance of their local hospitals. In a series of community and organizational meetings from 2008 to 2012, the Center for Rural Health administered short surveys to better understand perceptions toward rural health issues. The highest-rated concern was “financial issues facing rural hospitals,” and the third-highest was “access to and availability of care (keeping the hospital and clinic open).” In a survey of CAH CEOs conducted by the Center for Rural Health in 2011, 13 of the 36 CAHs in North Dakota, or 36% received local tax support through either a mill levy or sales tax. In addition, 26 CAHs (72%) operated a hospital foundation to help ensure the facility stayed open. From this it is clear that rural North Dakotans recognize the importance of having accessible, local, quality health services present. There is a growing recognition on the part of rural citizens that they need to have “skin in the game” by supporting their principal health access points with local funding. Rural health infrastructure contributes to both the economic composition and the social fabric of a community.

“ A critical access hospital contributes about **\$6.4 MILLION** to a local economy in North Dakota. ”

A Look Behind the

Wanda Weber preserves significant moments for the School in photographs.

By Emily Aasand



Photography by Jackie Lorentz.

Wanda Weber poses with her camera collection in her office at the School.

The first thing you'll notice when you walk into Wanda Weber's office is the collection of 30-plus cameras proudly displayed on a bookshelf by her desk.

"I have everything from my first camera I ever owned to my family's cameras that have been passed down for generations," Weber said.

Weber, the photographer at the University of North Dakota School of

Medicine and Health Sciences (SMHS), also has impressive pictures of landscapes, breathtaking sunsets, architecture, and individual snowflakes lining her office, showcasing her talent in what some deem as a "behind-the-scenes" job.

"I think that's one of the things I like most about the job," Weber said. "I'm able to sneak around and not be noticed."

Camera

Starting out

Weber was born and raised in the Niagara and Larimore, N.Dak., area and took an interest in photography at age 14.

“I took a photography class when I was a freshman in high school, and I was instantly hooked,” Weber said.

You can hear her passion for photography just by talking to her.

“I love all of it,” Weber said. “I loved developing my own pictures. I loved watching the pictures show up after being soaked in the solution, and I love working with the chemicals and the procedures needed in order to get the picture to look just right.”

After high school, Weber went into the U.S. Marine Corps for two years. She then went on to freelance for magazines, for architectural advertising, and for legal companies.

Weber decided to attend UND in 1978 and graduated with a major in journalism with an emphasis in photography.

“When I went to school at UND, I was a work-study photographer for Biomedical Communications,” Weber said. “After working there for a while in college, I knew this is where I wanted to eventually work.”

Professional career

After graduating, Weber worked at Options in East Grand Forks, which assists people with disabilities to live independently, writing grants and working on different programs.

She worked at Options until getting the photography job at UND’s SMHS. It took her a while, but Weber finally had her dream job.

Weber is on her twenty-third year at UND and says there’s no place she’d rather work.

“I love working with all of the people here,” Weber said. “The students are great to work with and so are the faculty and staff.”

“I like to take people’s wedding pictures and senior pictures,” Weber said. “I started off by just taking pictures of friends and family, but as word quickly got around, I’ve gotten a few more requests.”

Looking back

“I sat down the other day and realized that I had been doing photography for 40 years,” Weber said. “It’s crazy how time flies when you’re doing something you love.”

In those 40 years, significant changes have been made to the world of photography.

“The technology in today’s society is unbelievable,” Weber said. “Instead of working in a darkroom working to perfect the prints, I’m on the computer using Photoshop. It’s been quite an adjustment.”

Whether Weber is capturing pictures for the SMHS or for personal clients or if she’s just going for a leisurely walk, she can always be found with a camera in her hands.

“I still have a few years until retirement,” Weber said. “But that’s fine, because I love my job and I love coming to work every day.”

“ I took a photography class when I was a freshman in high school, and I was instantly hooked.”



Fishing at Crack of Dawn



Found a Peanut

Wanda Weber

PHOTOGRAPHY



Snowflakes



Sell Lake Lutheran Church Bemidji, Minn.



Double-Time

This medical student trains his mind and body.

By Emily Aasand

For medical student Sean Cooley, it was only natural that he'd go to the University of North Dakota.

Having his dad and uncle play baseball and an older brother play football for UND, it was no surprise that Cooley would be recruited for sports too. Cooley came to UND on a baseball scholarship and began his major in exercise science.

"For my major, I had to take weight lifting and physiology classes," Cooley said. "I began to figure out how I could apply those concepts to my baseball career. I was able to see how my major could be implemented into real life."

After his five-year run on the baseball team ended, Cooley took an interest in physical therapy.

Sean Cooley wins the Duluth, Minn., Superior Man 70.3 Triathlon on August 26, 2012.

Photography by Matthew E. Moses.

Although Cooley wasn't "academic" throughout high school and the first couple of years in college, he was ready to turn it around and take on a challenging course load.

"I'm a big advocate of the fact that people can change," Cooley said. "Just because you didn't do well academically in high school doesn't mean you can't change that in college. Once you find your direction, you can do whatever you set your mind to."

Cooley's path in physical therapy quickly led him to a career in medicine.

"I ended up taking a physiology class over at the medical school and Dr. James Haselton, a professor in the Pharmacology, Physiology, and Therapeutics Department, told me I should go into medicine because I had such an interest for it."

The native of Grand Forks, N.Dak., is now a second-year medical student at UND.

"I chose UND's medical school because Grand Forks is my home," Cooley said. "I couldn't think of going anywhere else. I've developed such an attachment to UND that it just felt right to stay and continue my education here."

The faculty at the medical school have helped Cooley reach his full potential academically.

"Everyone at the medical school from professors to the dean is here to work with you and to help you succeed," Cooley said. "It's a productive environment to work in, and it's been really enjoyable for me."

As far as future plans go, Cooley is excited to see where his career in medicine takes him.

"I like the Midwest a lot," Cooley said. "It's where I grew up. But I'm willing to end up wherever. There are endless opportunities with medicine; it's one of the biggest attractions about it. You can find something you're interested in, and there's probably a specialty for that."

From medical school to triathlon training

With the demanding course work of medical school, it's impressive that Cooley finds time to train for rigorous physical competitions.

Cooley has competed in numerous small triathlons and Half Ironman competitions over the past four years. He has qualified for the world championships in the Half Ironman in the past two years and has done remarkably well at both of them.

"The Half Ironman consists of a 1.2-mile swim, a 56-mile bike, and a 13.1-mile run," Cooley said. "It takes a lot of time to train, but it's one of those things that has constant room for improvement."

His interest in running came from his mother.


"My mom has done numerous marathons,"

Cooley said. "At the time she was doing it, I thought she was crazy, but then after baseball, I was looking for a different challenge. I liked the idea that the Ironman had three different disciplines to work on. I was ready for the new challenge."

Cooley admits that it's difficult to find time to train for these events.

"I've mapped out my days so it's easier to find a consistent time to work on each discipline," Cooley said. "I swim in the mornings, run on Mondays and Wednesdays over my lunch break, bike Tuesday and Thursday afternoons, and bike and run on Fridays. Then I have my weekends for my longer workouts."

Cooley just picked up training again for the Half Ironman in June, and he competed in the Iceman Triathlon, which consists of skiing, running, and biking, in Grand Forks on February 23, placing first in the Yeti or solo men division. (Bryn Putbresi, a fourth-year medical student from Grand Forks, placed first in the Yetiess or solo women division of the race.)

Sean was recently selected to represent North Dakota at the Best of the U.S. Triathlon on June 2 in Chicago. In April, Sean was named a USA Triathlon All American 2012. 

“Once you find your direction, you can do whatever you set your mind to.”

Fashion Statement

PA students don white coats and their new calling.

By Denis MacLeod

Fifty-five health professionals began the clinical portion of their studies in January to earn the Master of Physician Assistant Studies degree at the University of North Dakota School of Medicine and Health Sciences.

The individuals in this class come from a wide variety of professional health-care disciplines, which through class interaction will strengthen each student's ability to return to his or her rural clinical site as a well-rounded primary care provider.

The PA Program admits health professionals who have years of experience working as nurses, respiratory therapists, radiology technologists, paramedics, military health-care providers, and related professions. This group averages eight years of previous professional health-care experience upon matriculation into the program.

Enrolled students come from throughout the United States, from Washington to Florida, but this particular class is very regional, with nearly 60 percent of the students from the tristate area of North Dakota, South Dakota, and Minnesota. Students range in age from 25 to 58 years, with an average age of 33; the class includes 25 men and 30 women.

The White Coat Ceremony was held on January 25 in the Reed T. Keller Auditorium at the UND School of Medicine and Health Sciences. Eric Johnson, MD, medical director of the Physician Assistant Program, presented the keynote address, fo-

cus on the role of the physician assistant in primary care and the importance of professionalism and compassion in clinical practice. Welcome remarks were given by Gwen W. Halaas, MD, MBA, SMHS senior associate dean for Academic and Faculty Affairs, and Wayne Swisher, PhD, interim dean of the UND Graduate School. Robert Beattie, MD, chair of the Department of Family and Community Medicine at the SMHS, gave the closing remarks.

"The presentation of the white coat is symbolic of the new profession the students are entering," said Jeanie McHugo, PhD, program director. The coats are worn by students through the clinical phase of their training and denote their involvement with the Physician Assistant Program at UND.

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

For more information, please contact the PA program at (701) 777-2344, visit www.med.und.edu/physicianassistant/, or use the QR Reader in your smartphone to scan this QR Code.



The Master of Physician Assistant Studies Class of 2014 pledge the Physician Assistant Professional oath.

University of North Dakota School of Medicine and Health Sciences Master of Physician Assistant Studies Class of 2014

Name	Hometown
Lee Akerson	Denver, Iowa
Sommer Anstine	Volin, South Dakota
Pete Baker	Tarpon Springs, Florida
Sarah Bement	Detroit Lakes, Minnesota
Daniel Brady	Reno, Nevada
Charles Broberg	Britton, South Dakota
Andrew Brown	Aberdeen, Washington
Jeff Brown	Grand Forks, North Dakota
Tristina Brown	Saint Cloud, Minnesota
Larry "Leon" Burns	Horizon City, Texas
Leah Costello	Malvern, Arkansas
Shelly Daniels	Fargo, North Dakota
Gabriel Davidson	West Fargo, North Dakota
Daniel Deutsch	Fargo, North Dakota
Desirae Dinius	Bismarck, North Dakota
Ellen Doebler	Grand Forks, North Dakota
Morris Duffy	Bismarck, North Dakota
Laura Ermer	Cavalier, North Dakota
Travis Farhar	Henderson, Kentucky
Karley Fischer	De Smet, South Dakota
Lisa Froemke	Fargo, North Dakota
Jennifer Gannon	Albany, Minnesota
James Gilbert	Holdenville, Oklahoma
Kathryn Gray	Kindred, North Dakota
Jessica Hale	New Bern, North Carolina
Elaine Hammond	Eveleth, Minnesota
Alicia Hanson	Omaha, Nebraska
Ashley Hoscheit	North Mankato, Minnesota

Name	Hometown
Amber Houge	Estherville, Iowa
Timothy Hubbard	Saint Clair, Missouri
Michelle Jansson	Augusta, Kansas
Benjamin Johnson	Lubbock, Texas
Stephanie Johnson	Saint Paul, Minnesota
Joshua Kelsey	Bemidji, Minnesota
Tanveer Khan	Houston, Texas
Theresa Koppal	Casa Grande, Arizona
Kelly Krause	Clarkridge, Arkansas
Reiner Kremer	Franktown, Colorado
Matthew Mattis	Laramie, Wyoming
Eric McCue	Rochester, Minnesota
Eric Mjelde	West Fargo, North Dakota
Idil Mohamed	Minneapolis, Minnesota
Karrah Oliver	Karlstad, Minnesota
John "Tommy" Paul	Ada, Oklahoma
Janelle Pilarski	Alpena, Michigan
Kelly Polley	Sedalia, Missouri
Toni Rheault	Dilworth, Minnesota
Angela Salveson	East Grand Forks, Minnesota
Holly Savenko	Bismarck, North Dakota
Lynelle Schneider	Bloomington, Minnesota
Christopher Seil	Bismarck, North Dakota
Christopher Seime	Piedmont, South Dakota
Jonathan Spellmeier	Topeka, Kansas
Lori Steinley	Lakeville, Minnesota
Kevin Swenson	Perham, Minnesota

For statistics about the Class of 2014 and a map summarizing which states the students come from, please visit <http://bit.ly/UNDMPAS>.

Harold A. Bjork, BS Med '39, 96, of Kenosha, Wis., passed away Wednesday, Aug. 8, 2012, at his home. He was born on Nov. 18, 1915, to Theodore S. and Martha (Arneson) Bjork in Enderlin, N.Dak. On July 15, 1942, he married Juanita Mary Fisher, RN, at St. Lawrence Parish in Chicago. They settled in Kenosha in 1952 and built their family home in 1959. Juanita preceded him in death on April 30, 2011. Harold served in the United States Coast Guard and Public Health Service from 1942 to 1946. They lived in Buffalo, N.Y., and Boston during that time. Harold practiced general medicine in St. Joseph, Michigan, from 1946 to 1949. He returned to Chicago and completed his radiology residency at St. Luke's Hospital in 1952. Harold and Juanita came to Kenosha in 1952 as director of Radiology at St. Catherine's Hospital. He was named director of the X-Ray Department at Burlington Memorial Hospital in 1953. He was the president of the Medical Staff at St. Catherine's Hospital in 1960 and again in 1971. He founded the X-ray Technician Program at St. Catherine's Hospital. Harold was appointed a Fellow by the American College of Radiology in 1978 and retired from active practice in 1984. After retirement, he served on the board of directors at St. Catherine's Hospital for several years. At different times in his life, Harold enjoyed dancing, duck and pheasant hunting, bowling, boating, golf, and bridge. Harold and Juanita traveled to several countries, including Norway to visit his ancestral home. His favorite state was always Wisconsin. Harold was a member of the American Medical Association, the State Medical Society, the American College of Radiology, the Kenosha County Medical Society, the Kenosha Elks Club, the Kenosha Rotary Club, the Kenosha Serra Club, and St. Mark's Catholic Church.

Bennie James Clayburgh, BS Med '47, was born in Scobey, Montana, on January 31, 1924, the son of Anna (Horvick) and Marcus Clayburgh. Ben liked to say, "Once a Montanan, always a Montanan," but he considered Grand Forks his hometown. He attended South Junior High and graduated from Central High School in 1941. Ben passed away on Monday, January 21, 2013, 10 days short of his eighty-ninth birthday. Ben married his college sweetheart, Mina Tennison on June 23, 1947. She passed away in 1968. On January 3, 1970, Ben married Beverly Manternach in Moorhead, Minn. Ben enlisted as a private in the U.S. Army in 1942. Following basic training, he was assigned to Service Command Unit 3772, University of North Dakota, where he took premed courses; Washington Jefferson College, Washington, Pa., for nine months; and performed general duties in the neuropsychiatric section of Fitzsimmons General Hospital in Denver, Colo., for four months. He was then transferred back to UND, where he was a student in medicine for fifteen months. Recalled by the military in 1950 during the Korean conflict, Ben was stationed at Ellsworth Air Force Base in South Dakota and at a base in London serving as a flight surgeon, retiring from the Air Force in June of 1953. Following military service, Ben began his orthopedic surgery residency at the Mayo Clinic in Rochester, Minn. After completion of his residency in 1956, Ben moved his family back home to Grand Forks, where he spent the next 10 years practicing at the Grand Forks Clinic. In 1966, Ben and Dr. John McLeod formed the

Orthopedic Clinic. Ben was certified by the American Board of Orthopaedic Surgery and served as a Councilor for North Dakota to the American Academy of Orthopaedic Surgeons for six years. Ben was a clinical professor in surgery at the UND School of Medicine and Health Sciences. He was an active member of many professional organizations throughout his career. He served as president of both the Third District Medical Association, as well as the ND Medical Association in 1994, the same year his son, John, was chair of the ND Dental Association. In the mid-1980s, Ben and a half-dozen other Midwest orthopedists founded the Mid-America Orthopaedic Association, an organization encompassing all states in the middle part of the country. Ben served as secretary of this group for four years and in 1988 was the group's president. In 1988, Ben and three other orthopedic surgeons from around the country were invited by the Chinese government to come to China to lecture their military doctors on spine surgery. In 1991, Ben and Bev spent several weeks in Malawi, a country in Central Africa, where Ben operated and taught basic surgical techniques to that country's medical students. Ben loved his profession and combined his love of travel with the passion of sharing his knowledge with those in developing countries. Since the mid-1960s, Ben was active politically on the local, state, and national levels. He served 12 years as North Dakota's Republican national committeeman. He was honored to be chosen an elector in 2004, casting North Dakota's vote for President George W. Bush. Ben was recognized as the 2008 Republican Volunteer of the Year, and his picture hangs in the Hall of Fame at the Ronald Reagan Republican Party office in Bismarck, N.Dak. He retired from his busy surgical practice in 1994 in order to devote full time to his campaign for a seat in the U.S. Senate. Following his defeat in that election, Ben established OIME Inc. (Orthopedic Independent Medical Evaluations, P.C.), which he managed for the next several years, doing independent medical evaluations and spine consultations. Following his retirement from OIME, Ben became active with the UND School of Medicine and Health Sciences (he was given the title "International Ambassador for Medicine"), focusing on arranging medical student exchanges between UND and medical schools in Trondheim and Tromsø, Norway, making many trips to Norway as that program developed. At the time his health began to decline, he was working on a new medical student exchange between UND's INMED students and Norway's native Sami students. Ben also was one of the founders of the local Nordic Initiative, a group composed of representatives of all five Scandinavian countries interested in preservation of their heritage. Ben was a devoted UND fan and a number of years ago determined that his University should have a marching band. He gathered together a number of other devoted UND fans and together they began an intense fundraising campaign to outfit a band of 100 student musicians with snappy uniforms, some instruments, and a vehicle in which to transport them. Ben was particularly fond of the band's young director, Robert Brooks, and tried to make it his business to see that Robert would be well compensated and have whatever he needed to put together a band we would all be proud of. Ben watched with great pride and a sense of ownership as "his band" played and marched at athletic events.

Joseph W. Cleary, 88, Bismarck, died Jan. 18, 2013, at St. Vincent Care Center, Bismarck. Joseph Wolter Cleary was born April 11, 1924, at Escanaba, Mich., to Gerald Joseph and Regina (Wolter) Cleary. He was raised and received his early education in Escanaba, graduating from high school in 1942. He enrolled in the Civilian Conservation Corps in 1941. He was drafted into the U.S. Army in January 1943. Joe served in World War II from 1943 until September 1945, and in the Korean War from June 1951 until June 1953. Joe graduated from Louisiana State University School of Medicine in 1949 with an MD degree. He was a member of the academic medical society, Alpha Omega Alpha. Joe began his OB/GYN residency in Shreveport, La., and finished at Milwaukee, Wis. Joe married Audrey Boucher on June 19, 1954, at Menominee, Mich. They moved to Bismarck in 1955, where he was employed with the Missouri Valley Clinic from 1955 to 1971, and with the Quain and Ramstad Clinic from 1971 to 1989. In May 1991, he became medical consultant for the North Dakota Medicaid Program. He served as the OB/GYN vice-chair of the UND School of Medicine and Health Sciences. Joe retired on June 30, 1999. Joe was a member of Cathedral of the Holy Spirit, Knights of Columbus, American Legion, AMA, North Dakota OB/GYN Society, North Dakota State Medical Association, American College of OB/GYN, American Association Pro-Life OB/GYN, and was a CCC alumnus. Joe also served on the YMCA Board of Trustees, the North Dakota State Board of Medical Examiners, and St. Mary's Central High School Board. He enjoyed running, swimming, biking, and reading. He was recognized as the first long-distance runner in Bismarck. In his lifetime, he completed 49 marathons. Joe was an ethical man who maintained high standards of morality. His strong religious belief was demonstrated by the priority he placed on his duties to church, and he was deeply devoted to Audrey, his children, and his grandchildren.

Stonewall Gessner, BS PT '71, MPT '93, 64, of Lake Upsilon, N.Dak., formerly of Minot, passed away on Wednesday, Nov. 7, 2012, at his home. Stonewall Edward "Stoney" Gessner was born Dec. 2, 1947, in Devils Lake, to Maxwell and Dorothy (Atkins) Gessner. He was reared and educated in Cando, graduating from Cando High School in 1965. Stoney furthered his education at the University of North Dakota, earning a degree in physical therapy in 1971. He earned his master's degree in physical therapy in 1993. Stoney was united in marriage to Margaret "Peggy" Thomas on July 1, 1967, in Calio. Together they raised three children, Nicole, Stephani, and Maxwell. Following their marriage, he and Peggy lived in Grand Forks until he completed his degree. He was employed by UND Rehab until 1972, when they moved to Wadena, Minn., where he was employed at Tri-County Memorial Hospital for eight years. In 1980, they moved to Dickinson, where he was self-employed in private practice for seven years. In 1987, they moved to Minot and he was employed at St. Joseph's Hospital as director of Physical Therapy. In 2001, he became director of Rehabilitation at ManorCare Rehab and Nursing Facility and worked there until his retirement in January 2012. Stoney was a past officer of the

Wadena and Dickinson Elks, and was also involved in the Eagles, Kiwanis, and Minot Curling Club. He was also den leader for Cub Scouts in Dickinson. He was a member of the American Physical Therapy Association and held various offices within the North Dakota Physical Therapy Association. Stoney was president of the Lake Upsilon Improvement Association and was involved in the Izaak Walton League. He enjoyed golfing, hunting, and fishing, and especially spending time with his family at beautiful Lake Upsilon in the Turtle Mountains. Stoney devoted 41 years of his life to being a physical therapist. In his profession, he touched many lives with his caring, his compassion, and especially his sense of humor. He cared deeply for his loving wife and children. His attributes at work are reflected in his children, as he was so proud of them. He will be greatly missed by his wife, children, grandchildren, sister, and many, many family members and friends.

Syed Jalal, of Rochester, Minn., passed away Tuesday, Jan. 15, 2013. He was a loving husband, father and grandfather, and a kindhearted soul who took pains to help others. A passionate Vikings follower, he also loved playing bridge and tennis. Jalal was a professor of laboratory medicine and pathology at Mayo Clinic, Rochester, and an icon in the field of cytogenetics. He was a professor of biology at the University of North Dakota as well as a consultant for the UND School of Medicine and Health Sciences cytogenetics lab. He was one of the earlier PhDs in cytogenetics and trained under the famous geneticist James Crow at Madison, Wis. He became a leader in his field, recognized for not only his laboratory expertise but also his contributions to research and education. He retired at the end of 2007 at the age of 69 years after a distinguished career at Mayo Clinic. Even after retirement, he was sought out by colleagues for counsel, and he was always there to help. He was born and raised in India, but spent most of his adult life in the United States. Jalal belonged to a generation who achieved success through hard work and determination. He was always available for advice and encouraged others with his kind words. He will be missed by all whose life he touched.

Zach Aarol Johnson, BS Med '48, was born on July 19, 1916, at his family home in the small town of Gorham, N.Dak., where his parents were homesteaders. In the late twenties and thirties, residents faced many struggles and hardships because of the Great Depression and Dust Bowl. It was during these years Zach developed his strong personality traits of hard work, determination, and support of community. Zach's interest in medicine began as a young teenager when he incurred a serious leg injury after a horse he was riding stepped into a hole and fell on him, tearing open his leg. Doctors recommended amputating the leg because of the subsequent infection, but his mother would not let them, and Zach spent many months recuperating in the hospital because antibiotics were not available at that time. On May 25, 1939, Zach graduated from the State Normal School in Dickinson, N.Dak., with a Bachelor of Arts in Education. He taught school two years at Bucyrus, N.Dak., to earn money for

further education; the second year, he added being principal to his responsibilities. Always active, he was interested in sports and started a tumbling class for his students. He also started a Cub Scout group for the community. While attending school at Dickinson, he joined the North Dakota, National Guard (164th Infantry, Company K). In February 1941, the 164th Infantry was called to active duty; Zach often recalled peeling potatoes for days on the train ride to central Louisiana. There he participated in war games that later came to be called the Louisiana Maneuvers. In November 1941, Zach transferred to the U.S. Army Air Corps as part of the aviation cadet program. He was sent to Maxwell Field, Alabama, where he received a single-engine pilot certification, and then to the Air Force Technical School at Lowry Field in Denver, Colo., for an armament course. He received his commission as a 2nd lieutenant in May 1942 and was transferred to the 17th Bomb Group, 95th Squadron, assigned to the coastal patrol duty on the East Coast. He later traveled to England with several others from his unit on the Queen Mary for training with an English bombing unit. Around the first of November 1942, the group boarded English troop ships in the North Sea and headed for Africa; his unit joined the 12th Bomber Command, 12th Air Force, as part of the North Africa invasion force in Operation Torch. Some months later he was wounded. Zach spent about 21 months in North Africa, Italy, and Sardinia as the squadron and group armament gunnery officer; during this time he flew multiple combat missions in Marauder B-26 medium bombers directing the group's firepower. Zach was sent back to the states for advanced training; he attended the Graduate School of Business Administration at Harvard University, Cambridge, Mass. After graduating in May 1945, he was assigned to the Office of Statistical Control in the Army Operation Section at the Pentagon. His final assignment was in Great Falls, Mont., as commanding officer of the Office of Statistical Control Pacific Northwest 7th District. Although offered promotion and assignment to the Army War College, he resigned his commission as a major in the U.S. Army Air Force in April 1946 to pursue his dream of a medical career. Zach married Esther Josucks on July 7, 1946, at the Immanuel Lutheran Church in Seattle, Wash. After their marriage, they moved to Grand Forks, N.Dak. Housing was scarce at that time, and they lived in a small, one-room trailer while Zach attended the University of North Dakota, where he earned a Bachelor of Science from the School of Medicine in June 1948. He received his medical degree from the University of Colorado School of Medicine in 1950 and interned at the Marine Hospital in Seattle, Wash. The family moved to Glendive, Mont., where Zach worked as a medical doctor at the Northern Pacific Railroad Hospital for one year. Zach and Esther moved to Salmon, Idaho, in 1952, finding the community very inviting and the new hospital, built in 1950, a great advantage to a medical practice. House calls were a common practice when Zach began his practice in Salmon, and at times, he even flew his own plane to reach patients. Zach was a strong believer in education. As a result of his continued training, he was elected as a Charter Fellow of the American Academy of Family Physicians in September 1972. The Charter Fellows were recognized for taking "specialized

education programs to enhance professional competence and the quality of health care provided to the people of America." Even after retirement, he continued to stay updated on advances in the medical field with online courses; he maintained his medical license until his early 90s. He was active in his profession over the years. He served as chief of staff at the Steele Memorial Hospital in Salmon, Idaho, for five years. Other medical memberships included the Idaho Medical Association, American Medical Association, the Idaho Academy of Family Practice, and the American Academy of Family Practice. He was a member of the Upper Snake River Medical Society, a local chapter of the now Idaho Medical Association, and served as president in 1971. He served as president of the Idaho Academy of Family Practice from 1973 to 1974; ten years later, the Idaho Academy awarded him the honor of Idaho Family Doctor of the Year. Zach was also very active in his community. He served on the administrative board of the United Methodist Church. He and Esther served as copresidents of the Salmon Parent-Teacher Association and did extensive fundraising for the community swimming pool built in Island Park; the pool has been covered and is used as a skate board park today. Zach was an active member of the Salmon Elk's lodge, B.P.O.E. 1620, for many years and served as Exalted Ruler during the time the present Elk's building was built. Zach also volunteered as a leader with the Boy Scout troop sponsored by the Elk's Lodge, and worked both with the troop and with the Salmon River District under Teton Peaks Council. He received the district Award of Merit, the highest award given by a district to recognize a volunteer Scouter. Zach served as a president of both the Rotary Club and the Chamber of Commerce. He was an active member of the Independent Order of the Odd Fellows. The Jaycees awarded him the Senior Citizen of the Year award in 1962 for his involvement promoting the welfare, leadership, and business in the community. Zach was also a member of the American Legion, Veterans of Foreign Wars, and Disabled American Veterans. After Zach's retirement in 1981, he and Esther enjoyed traveling throughout the United States and abroad including trips to Egypt, Greece, Europe, and the Far East. Zach passed away on September 4, 2012, in Boise, Idaho, at the age of 96 years.

Dale C. Kana, BS Med '57, 79, died from Alzheimer's on February 14, 2013, at Sanford Medical Center in Fargo. He was born and lived in Grand Forks and attended Central High School, where he earned nine letters in football, basketball, and golf. He attended the University of North Dakota and received his Bachelor of Science in Medicine in 1957. While at UND, Dale played basketball for one year and was on the golf traveling team for four years. He went to Kansas University where he received his MD in 1959. He returned to Fargo to intern at St. John's Hospital. Dale joined the Grafton Clinic in Grafton. He was county coroner, Jaycees president, vice president of Lion's, and a member of golf and curling clubs. In 1964, he bought his own practice in Fargo. He, along with seven other physicians, had the Professional Building built. He and several family practice doctors joined together and moved their practices there. In 1981, they joined MeritCare. For several years he was a

mentor for UND junior medical students in family practice, which he enjoyed. For five years he was in Detroit Lakes, Minn., to help establish a MeritCare and help plan a new building. He then returned to his Fargo office where he remained until retirement in 1999. Dale was an avid golfer, hunter, fisherman, and curler. He was in several bridge clubs and enjoyed playing poker with his friends. He was active in the Fargo Country Club, Elks, and curling clubs. He married LoAnn Burman in 1955.

Kathy Jo Kautzman, BS OT '96, 43, Bismarck, passed away Jan. 20, 2013, at home from natural causes. Kathy was born in the Jamestown Hospital, Jamestown, N.Dak., on Sept. 26, 1969, to Robert and Jo (Ehli) Ellingson. Kathy attended grade school in McHenry, N.Dak., and moved to Bismarck in 1982, where she attended school and graduated from Bismarck High School in 1988. Following graduation, Kathy attended UND and graduated summa cum laude with a degree in social work and occupational therapy. Kathy married Jay Kautzman in Bismarck on September 19, 2008. Kathy was loved by all who had the honor of knowing her. She had a contagious laugh and the most beautiful smile that would light up the room. Kathy was a devoted wife who enjoyed spending time at home with family and friends. Attending AA and NA meetings was a big part of Kathy's life. Kathy recited the Third, Seventh step, and the Lord's Prayer every night before going to sleep. Kathy enjoyed fishing, walking, Starbucks drinks, collecting UND memorabilia, and Charlie Brown funnies and ornaments. Kathy loved her pets Dusty and Mojo. We may never understand why such a young and beautiful person had to leave our world so soon. She is with God now and will become an angel to look over all of us! We love you Kathy, you were the best! We'll miss you with all our hearts!

Donald Leonard Lamb, BS Med '54, age 82, departed to the ultimate hunting ground on Feb. 14, 2013. He last lived in the Memory Care Unit of Sheyenne Crossings in West Fargo, N.Dak. Don was born in Fargo, N.Dak. on July 19, 1930, to Martha Ingelina Erickson and Richard Donald Lamb, and was raised in Dilworth, Minn. After high school, he enlisted as a hospital corpsman in the U.S. Navy and served from 1948 to 1949. He then attended NDSU until he started medical school at UND and completed his internship at the University of Utah. After completing his general surgery residency at the University of Minnesota, he attended the University of Pittsburgh and finished his training in plastic surgery in 1963. He moved back and started his solo practice in Fargo. At that time, he was the only plastic surgeon in the country between Minneapolis and Seattle. His surgical mentors were skeptical he could survive in rural America, but he developed a successful practice and ultimately retired in 1995 after helping many children with cleft lips and palates as well as hundreds of trauma victims. He served on the Fargo School Board from 1974 to 1977.

Donna L. Leonard, BS OT '56, 78, of Dunseith, North Dakota passed away at St. Andrew's Health Center in Bottineau, N.Dak., on November 25, 2012. Donna was born on July 15, 1934, to Henry and Florence Sunderland in Rolette, N.Dak. She grew up

in Dunseith and attended grade and high school there. She graduated from the University of North Dakota in January 1956 with a BS in Occupational Therapy and had the distinction of being one of the first two graduates with an OT degree. She worked as an OT in Pennsylvania at a state mental hospital for two years. She returned to North Dakota and was married to Robert Leonard in the United Methodist Church in Dunseith on August 31, 1958. They lived in Grand Forks for a year, Stanley for a year, and then returned to Dunseith in 1960 when Bob started working at Security State Bank. Donna was active in community, social, and church activities over the years; however, her main passion was raising their four children, supporting and educating them in every way to be sure they turned out to be responsible adults. She insisted and made sure they all graduated from the University of North Dakota. She had a humorous and wonderful personality and was always trying to please her friends. She liked to clown around, keeping everyone off guard, including her husband. She liked pets and had a dog for all of her married life, which provided great companionship and comfort to her. She was a great sports fan with a particular fondness for the Green Bay Packers and a collector of their paraphernalia. She was very excited at Christmas 2011 when she received a share of Packers stock from Santa.

Raymond Dean Olson, BS Med '59, 76, of Cortland, N.Y., passed away unexpectedly December 20, 2012, at his home. He was born November 21, 1936, in Grafton, N.Dak., the son of the late Archie and Frances Dunbar Olson. Olson was raised in Calvin, N.Dak., attending local schools and then completing his undergraduate studies at the University of North Dakota, receiving a BA and BS. He completed his doctorate in medicine at the University of Pennsylvania School of Medicine. He did his internship at Highland Hospital and Strong Memorial Hospital in Rochester, N.Y., then served two years with the U.S. Air Force in Minot, N.Dak., before completing his residency in OB-GYN. In June of 1968, he joined the late Drs. Theodore Jacobus and Lewis Berk at their practice on Euclid Ave. in Cortland. In 2001, after 32 years of practice and delivering over 5,000 babies, Olson retired from the group where his partner Dr. In Whan Oh is still practicing. His professional memberships include the Central New York OB-GYN Association, Medical Society State of New York, American Medical Association, and American Congress of Obstetricians and Gynecologists. He also served as past president of the local American Cancer Society board and was a founding board member of the Golden Eagle's Hockey Club. He loved being outdoors and was an avid hunter and fisherman. He also enjoyed spending time at his homes in Cape Cod and Florida. His biggest joy came from playing with his grandchildren and watching them grow. Poppa/Papa will be dearly missed by all of us. 🌿

For more details visit
<http://bit.ly/Spr13InMemoriam>



Head of Mayo Clinic research focuses on what is important to patients

By Juan Pedraza



Gregory Gores

Gregory Gores, MD, a gastroenterologist, was recently appointed the Mayo Clinic's executive dean for research. Gores, who was raised in New Town, N.Dak., previously was chair of Mayo's Division of Gastroenterology and Hepatology. He now oversees research across Mayo Clinic and Mayo Clinic Health System.

Gores received his MD from the University of North Dakota in 1980 and completed his medical residency and fellowship at Mayo Clinic. He joined the clinic as a staff physician in 1986.

Gores also serves as a professor of medicine, and he is a past medical director of the Liver Transplant Program at Mayo. His research focuses on the fundamental mechanisms underpinning cell death of liver cells, employing models relevant to human disease. He is the member of several expert boards and councils and has published more than 500 original articles, chapters, reviews, and editorials on liver disease.

Gores, who was raised on the Fort Berthold Indian Reservation, learned in that setting a lot about the key rural health issues, such as health care disparities, including access. In an interview with *North Dakota Medicine*, Gores talked about his new job and his views about the value of research in today's health care.

Although Gores now administers one of Mayo's largest divisions, he continues to see patients.

"I think it's important for me personally to understand their clinical problems," Gores said. "Also, it's important for me to stay connected with patients and thus assure that the reductionistic lab models mirror real human conditions. My biggest challenge is time management. In addition to seeing patients, I'll maintain my own research program because that's vital to me in terms of the credibility in research management."

"It's leading by example," said Gores, who's responsible for about 200 scientists who have traditional research appointments, plus many others throughout the Mayo

system who do meaningful translational research part-time without a specified research appointment. His responsibilities also include oversight of Mayo's institutional review board.

Gores sees biomedical research as critical to the future of U.S. health care delivery.

"I would say we're in a transformative environment in medicine," Gores said. "We're beginning to understand that each person's disease is unique; in other words, each has their own 'private' disease. We need to expand our ability to understand even minor differences between how a particular disease manifests itself in one person versus another. We're learning about each person's genetic makeup, which helps us to accurately predict the 'natural history' of the disease. This is vital because it will help us to tailor therapies to individuals—and this means that we will deliver more optimal therapies."

What currently are the most pressing medical research priorities for our country?

"How we perceive the most pressing research needs in health care often depends on which patients we're taking care of at the moment," said Gores.

"There's really no limit to afflictions that demand our attention," Gores said. "But in general I'd say among the top concerns nationally and regionally are diabetes and obesity. After that, it's understanding more about inflammation disorders; we also want a much more detailed understanding about how the immune system affects disease. Another research priority is understanding the processes involved in tissue regeneration."

'00s

Patricia Bramati, FM Res '12, has joined St Alexius Mandan Clinic as a family practice physician. She received her medical degree from the University of Buenos Aires and completed a medical oncology residency there.



Marisa Albertson, MD '09, has joined the Family Medicine team at Trinity Health in Minot. She provides primary care services to people of all ages, including diagnosis and treatment for a wide range of illnesses, management of chronic conditions such as diabetes and high blood pressure, and counseling patients on self-care skills to help prevent disease. The longtime gymnastics coach

also serves as director of Minot's Gymnastic team.



Stephanie Gravning, MD '09, a Bismarck, N.Dak., native, is currently practicing as a hospitalist at Sanford Medical Center in Bismarck. She completed her residency at the University of Nebraska Medical Center in Omaha.



Jennifer Beckwith, MD '06, a native of Center, N.Dak., has joined the team at Sanford Health in Bismarck. Beckwith is a board-certified family medicine physician and provides care for infants, children, adolescents, adults, and seniors. She completed her residency at the UND Center for Family Medicine-Bismarck.



Jason Erpelding, MD '06, has joined Sanford Orthopedics and Sports Medicine in Fargo. Erpelding specializes in hand surgery. He completed his residency in orthopedic surgery at the University of Nebraska Medical Center, Omaha.



Justin Horner, MD '06, a native of Bismarck, recently joined Sanford Children's Clinic in Bismarck. Horner works in tandem with other Sanford pediatricians to provide treatment for children with heart issues.

Candace Granberg, MD '05, is now a pediatric urologist at Mayo Clinic in Rochester, Minn. Granberg also works with a pediatric urology outreach clinic in Owatonna, Minn., once a month. *(Editor's note: The holiday 2012 issue incorrectly stated that Dr. Granberg worked at Mayo Clinic in Owatonna. I apologize to Dr. Granberg.)*

Phyllis Heyne-Lindholm, DPT '05, has been named director of Clinical Education in the Doctor of Physical Therapy Program at Jamestown College in Jamestown, N.Dak.

Kevin Gray, MD '02, is now at the St. Ignatius Tribal Health and Human Services Clinic in St. Ignatius, Mont.

Robert Wells, FM Res '01, has joined the Mid-Dakota TODAY Clinic in Bismarck as a family medicine physician. He earned his medical degree from Dartmouth Medical School.

'70s

Mary Lee Leikas, PT '73, has been named special projects coordinator for the Doctor of Physical Therapy program for Jamestown College.

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.



Thomas (T. C.) Glasscock

He cleared the hurdle of medical school at UND, where he is passing the baton to the next generation through his charity.

By Emily Aasand

“I moved back to North Dakota so I could run track and go to medical school at UND.”

The University of North Dakota’s oldest athletic alumnus is still actively involved in UND athletics at the age of 94.

Thomas (T. C.) Glasscock, a Finley, N.Dak., native moved to Iowa when his father relocated his family practice, and became active in track during high school.

“I moved back to North Dakota so I could run track and go to medical school at UND,” Glasscock said.

Glasscock was a half-mile runner for the UND 1936–37 track team, and as could be imagined, there were significant differences in how the program was run then versus now.

“We didn’t have a track coach,” Glasscock said. “The basketball coach served as our track coach. We trained on our own, and all of our training was done on a wooden track. UND had a winter sports arena that housed hockey, and they were able to remove the ice to create our indoor track field.”

The track team consisted of 16 members, among those was Fritz Pollard Jr. Pollard went on to become an Olympic medalist; his father Fritz Pollard Sr. was the first African American head football coach for the National Football League.

Glasscock had to quit track because of the rigorous course load brought on by medical school. Five members of the track team went on to medical school.

“There was never a varsity athlete in medical school,” Glasscock said. “It was known that anyone going into medicine

only focused on medical school. The dean of the medical school wanted it that way. He wanted us to focus on our studies.”

Glasscock attended UND’s medical school for two years and then transferred to the University of Chicago to do his clinical work. He received his Medical Doctor degree in 1942, joined the Navy, and completed his internship at the Pensacola (Florida) Naval Hospital.

He later went on to serve as a Navy medical officer for a PT boat squadron during the invasion of Normandy on D-Day in World War II.

After the Navy, Glasscock moved to Oklahoma, where he worked in the Niemann-Northcutt clinic practicing internal medicine for five years. He then opened his own clinic, which he worked at until he retired at age 83.

Glasscock visited UND in 2000 for homecoming.

“It’s incredible to see how the place has changed,” Glasscock said.

Glasscock still follows UND athletics and is a proud donor to both the athletic department and to the UND School of Medicine and Health Sciences.

Glasscock is enjoying his retirement in Ponca City, Okla., with his wife Jean. He and Jean have enjoyed being members of the Ponca City Country Club and enjoy spending time with their children and grandchildren.

Gifts of Appreciated Property

By Dave Miedema

Many stocks, bonds, and mutual funds have had a nice recovery since the market collapse in 2008, and many are owned by individuals who now find themselves with portfolios valued well above cost. Securities owners are seeking opportunities to leverage maximum value from their investments and to minimize tax exposure. Appreciated securities such as these, plus other types of appreciated property, like real estate (for example, farmland and mineral interests in North Dakota), can harbor a number of strategic financial benefits, particularly for those owners who are charitably inclined. Converting from one investment to “another,” in this case an investment in medical education in North Dakota, with a gift of appreciated assets may be a perfect, tax-wise philanthropic strategy.

When given to the UND Foundation for the benefit of the School of Medicine and Health Sciences, gifts of appreciated property avoid the capital gains tax you would otherwise pay upon selling, produce a charitable income tax deduction for the fair market value of the asset, and in some cases, can be used to provide you income for life. With the passage of the American Taxpayer Relief Act of 2012, ordinary income tax rates now as high as 39.6 percent, and capital gains tax rates that have climbed to 20 percent, the total tax savings on gifts of appreciated property can be significant. In addition, for those taxpayers subject to the 3.8 percent Medicare contribution tax on capital gains, dividends, interest, and other unearned income (those with adjusted gross income over \$250,000 filing jointly/\$200,000 for singles), the savings may be even higher.

As noted earlier, appreciated property may be given to fund an income arrangement, and upon maturity, the balance remaining in the arrangement becomes available to support the School of Medicine and Health Sciences. Here is an example:

Dr. Jones is single, age 65, and is subject to the new 39.6% income tax bracket. Capital gains incurred in 2013 will be taxed at the highest capital gains rate, 23.8%. Dr. Jones owns securities valued at \$250,000, for which he paid \$50,000 five years ago. He decides to transfer these securities to a charitable

remainder trust with the UND Foundation that will pay him for the rest of his life equal to 6% of the annually valued assets. Here are some of the outcomes of his gift. First, Dr. Jones receives a charitable income tax deduction of about \$97,000.* In his tax bracket, this deduction could save him approximately \$38,000. Second, he avoids paying capital gains tax on \$200,000 of gain, saving about \$47,600. And, if Dr. Jones happens to be a North Dakota resident, his gift is eligible for the North Dakota Tax Credit, providing him a credit on his North Dakota income tax.† If he is a North Dakota resident, Dr. Jones’s “cost,” net of taxes, to establish the charitable remainder trust is reduced substantially from the original gift amount. This trust will provide Dr. Jones \$15,000 of income in the first year (\$250,000 x 6%). Last, and very importantly, the School of Medicine and Health Sciences receives the remainder at the trust’s maturity. All in all, this is a tax-efficient plan to minimize taxes, increase income, and benefit the School of Medicine and Health Sciences.

For additional information on gifts of appreciated property and the North Dakota Tax Credit, or how a charitable remainder trust could fit within your financial and estate plans, please feel welcome to contact me. Please consult with your tax advisor for how charitable gift planning with the new laws could benefit and affect you.

*The federal charitable income tax deduction for gifts of long-term appreciated property is limited to 30 percent of adjusted gross income in any one calendar year. The unused deduction amount may be carried forward for up to five additional years.

†The North Dakota Tax credit is limited to \$10,000 per person each calendar year. The amount of unused credit may be carried forward for up to three additional years.



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
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 (701) 777-4933
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to our
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Health Sciences.

Michael, MD '92, and Donna Ebertz of Orono, Minn., have established the Dr. Michael and Donna Ebertz Scholarship Endowment, which will provide scholarships to medical students who graduated from a North Dakota or Minnesota high school. Dr. Ebertz is a founding partner of Skin Care Doctors, P.A., which owns four dermatology clinics in the Minneapolis and St. Cloud area.

The family and friends of **Stonewall "Stoney" E. Gessner, BS PT '71, MPT '93**, have established the Stonewall "Stoney" E. Gessner PT Scholarship Endowment, which will provide scholarships to physical therapy students in either their second or third year of the program. Gessner, of St. John, N.Dak., served as director of rehabilitation at ManorCare Health Services in Minot, N.Dak., until shortly before his death in November.

David and VeAnna Selid, '82, of Williston, N.Dak., have established the David and VeAnna Selid Endowment, which will provide scholarships for medical students. The couple owns a plumbing and heating business in Williston. Their son Paul is currently a third-year medical student.

Justus Fiechtner, BS Med '70, and his wife Karlene Gehler of Okemos, Mich., have established the Dr. Justus Fiechtner and Karlene Gehler Scholarship Endowment, which will provide scholarships for third- or fourth-year medical students who have an interest in internal medicine. Dr. Fiechtner owns a private practice centered on the clinical care of rheumatoid arthritis patients.



Janet Jedlicka, BS OT '82, of Grand Forks, N.Dak., has established the John and JoAnne Jedlicka OT Scholarship Endowment in honor of her parents. It will provide scholarships for occupational therapy students. Janet is chair of the Department of Occupational Therapy at the UND School of Medicine and Health Sciences.

David, MD '90, and Karen Gayton, BS OT '86, of Bismarck, N.Dak., have established the Dr. David J. and Karen M. Gayton Endowment, which will provide scholarships for medical students. Dr. Gayton is an emergency physician at St. Alexius Medical Center, where Karen is an occupational therapist.

Tom, BS Med '65, and Sandy Olson, of Billings, Mont., have established the Drs. Thomas and Sandra (Whaley) Olson SMHS Endowment, which will provide scholarships for second-, third-, or fourth-year medical students who have graduated from a North Dakota or Montana high school.

Steve, MD '98, and Teri Lantz of Horace, N.Dak., have established the Dr. Steve and Teri Lantz Endowment, which will provide funding for the highest priority needs of the UND School of Medicine and Health Sciences. Dr. Lantz is an orthopedic surgeon at Essentia Health in Fargo.

Brad and Gayle Aafedt of Grand Forks, N.Dak., have established the Dr. Brad and Gayle Aafedt Medical Endowment, which will provide scholarships for medical students who rank in the top 25 percent of the first-year class. Dr. Aafedt is a diagnostic radiologist at Altru Health System.

Carol Eidsvoog, MD '84, and her husband David Spencer of State College, Pa., have established the Eidsvoog Endowment, which will provide scholarships to medical students from rural North Dakota.

John "Jack," BS Med '55, and Donna Linfoot of Orinda, Calif., have established the Dr. Jack and Donna Linfoot Endowment, which will provide scholarships to medical students preferably from North Dakota or northwestern Minnesota.

John DeKrey, BS Med '56 (deceased), established through his estate plan the John A. DeKrey MD Scholarship Endowment, which will provide scholarships to medical students of the UND School of Medicine and Health Sciences.

Mary Margaret French Frank (deceased), daughter of former Dean Harley French, established through her estate plan the Dr. Richard and Mary Margaret French Frank Medical Endowment, which will provide funding for the highest priority needs of the UND School of Medicine and Health Sciences.



Tom, BS PT '75, and Peggy Mohr, BS PT '89, of Grandin, N.Dak., have established the Peggy and Thomas Mohr Endowment for Emerging Leaders in Pediatric Physical Therapy, which will provide scholarships for physical therapy students in their final year of the program. Tom is chair of the Department of Physical Therapy at the UND School of Medicine and Health Sciences, and Peggy is a professor in the department.

Alumni and friends of the Department of Occupational Therapy at the UND School of Medicine and Health Sciences have funded the Occupational Therapy Alumni Scholarship Endowment, which will provide scholarships to occupational therapy students.

Founders Day Awards

Faculty and staff at the School are recognized for excellence.

By Brenda Haugen



Holly Brown-Borg

**The UND Foundation/
Thomas J. Clifford Faculty Achievement
Award for Excellence in Research**

Holly Brown-Borg, PhD
*Chester Fritz Distinguished Professor of
Pharmacology, Physiology,
and Therapeutics*

Holly Brown-Borg started making an impact at the University of North Dakota almost immediately. Because of her enormous contributions of time and energy and the significant national and international recognition her work has brought to UND and the state as a whole, Brown-Borg has earned the UND Foundation/Thomas J. Clifford Faculty Achievement Award for Excellence in Research. Brown-Borg joined the Physiology Department in UND's School of Medicine and Health Sciences as an assistant professor in 1995.

"Before arriving at UND, she applied for National Institutes of Health funding to support her research on hormonal regulation of immune function," said Chester Fritz Distinguished Professor Jonathan Geiger, chair of Pharmacology, Physiology, and Therapeutics and interim chair of Anatomy and Cell Biology. "This funding was received shortly after being hired, and this helped kick-start the development of her independent research program." The following year, Brown-Borg published her first paper on aging in *Nature*, one of the most prestigious science journals. This accomplishment was followed in 1998 with an invitation to take part in the NIH Summer Institute on Aging. She also received a fellowship to participate in an 18-day workshop on the Molecular Biology of Aging at the Marine Biological Laboratory in Woods Hole, Mass.

"These opportunities provided her with a very high level of exposure to outstanding scientists in the aging research field and brought critical attention to their

work," Geiger said.

Since then, Brown-Borg has earned funding from the NIH, the American Federation for Aging Research, the Glenn Foundation, and the Ellison Medical Foundation. In 2008, she garnered an unsolicited two-year award from the Glenn Foundation for Biomedical Research, an unprecedented event at UND.

The following year, Brown-Borg received a five-year NIH grant and a major four-year Ellison Foundation grant to support her aging research. In 2010, she got a five-year NIH award. And then, in 2011, she again garnered a two-year unsolicited award from the Glenn Foundation for Biomedical Research.

"By any measure, this level of recent grant funding support is outstanding," Geiger said. "Moreover, UND bestowed on her in 2010 the highest academic honor for a faculty member in naming her a Chester Fritz Distinguished Professor."

In the last six years, Brown-Borg has published 36 manuscripts, book chapters, and special issues of professional journals. Five more manuscripts have been submitted for publication and are at various stages of review.

Brown-Borg has served as the president of the American Aging Association, chair of the Biological Sciences Section of the Gerontological Society of America (GSA), and chair of the Gordon Research Conference on the Biology of Aging. In 2006, she was elected as a fellow in the GSA, the highest honor given to active members of this aging research society. Recently, Brown-Borg became the organizing chair of the International Symposium on Neurobiology and Neuroendocrinology of Aging.

Despite her busy schedule, Brown-Borg continues to provide lectures for medical and graduate students. In addition, she has trained three PhD students and one master's student in the last several years, and has served on the faculty advisory

committees of 31 graduate students. She also hosted 19 undergraduate students in the lab and participated in mentorship and the work-study program. She has trained two medical school students, served as a mentor for a high school teacher, and mentored two assistant professors.

“Overall, she has made significant contributions to the teaching and education mission of the University, not only lecturing and facilitating medical and graduate students, but also administering courses, designing and implementing curriculum, and training undergraduate students in science,” Geiger said. “In addition to her research and teaching activities, she provides a very high degree of service at all levels: departmentally, for the School of Medicine and Health Sciences, for UND, and for her profession.”

**The UND Award for
Interdisciplinary Collaboration in
Research or Creative Work**

Min Wu, PhD

*Associate Professor of Biochemistry
and Molecular Biology*

Julia Zhao, PhD

Associate Professor of Chemistry

Julia Zhao of the Chemistry Department and Min Wu of the Department of Biochemistry and Molecular Biology have made names for themselves within their respective departments for their outstanding scholarly activity. But together their groundbreaking and productive work in the area of bionanotechnology deserves special recognition. That is why the duo has garnered the UND Award for Interdisciplinary Collaboration in Research or Creative Work.

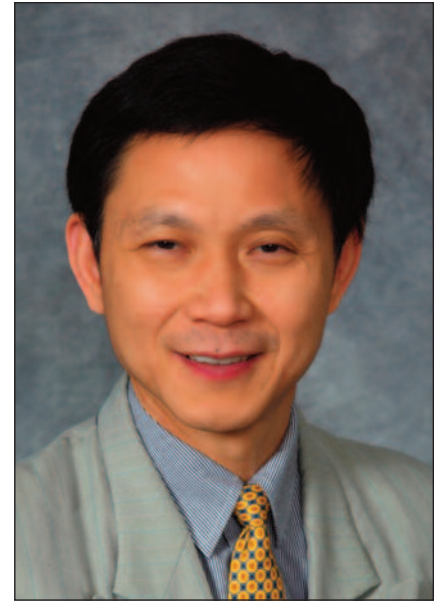
“The impact of nanomaterials on human health is an area of intense research that has grown tremendously since Drs. Zhao and Wu began their collaboration in

2004,” wrote David Pierce, professor and chair of the Chemistry Department, and Katherine Sukalski, associate professor and interim chair of Biochemistry and Molecular Biology. “It is remarkable that they have contributed to so many different facets of this area, from some of the seminal evaluations of nanomaterials for biotoxicity to applications of nanomaterials for bacterial detection, cancer phototherapy, and battlefield hemostats.”

Their work has been published in prestigious journals and has attracted significant interest from numerous scholarly outlets, including *Medical News Today* and *Science Daily*.

“Beyond its recognition in the scientific community, the collaboration between Drs. Zhao and Wu should also be noted for its development of future scientists,” Pierce and Sukalski said. “More than a dozen undergraduates, PhD students, post-docs, and research scientists have directly benefited from the interdisciplinary research conducted between these laboratories, and more can certainly be expected. This is an outstanding record of accomplishment and a sign of the effective scientific mentoring provided by Drs. Zhao and Wu.”

The work of Zhao and Wu has resulted in six grant proposals. They are currently collaborating on two National Science Foundation grants and a \$2.4 million grant from the Department of Defense to develop nanomaterials for immobilization of medicines on battlefield hemostats. “The work done by Dr. Zhao and Dr. Wu is a model of collaboration for the campus,” said Kathleen Tiemann, dean of the College of Arts and Sciences.



Min Wu



UND President Robert O. Kelley (top left) presents The Departmental Excellence in Research Award to the Center for Rural Health represented by (top from middle) CRH Director Gary Hart and Deputy Director Brad Gibbens; and (seated, from left) Research Associate Professor Jacque Gray and Wendy Peters, PhD.

**The UND Award for Departmental Excellence in Research
The Center for Rural Health**

- Gary Hart, PhD**
Professor and Director
- Brad Gibbens, MPA**
Research Assistant Professor and Deputy Director
- Mary Amundson, MA**
Research Assistant Professor
- Paula Carter, PhD**
Research Assistant Professor
- Jacque Gray, PhD**
Research Associate Professor
- Marilyn Klug, PhD**
Research Associate Professor
- Kyle Muus, PhD**
Research Associate Professor

Since its inception in 1980, the Center for Rural Health has done research that is important not only to the University of North Dakota and School of Medicine and Health Sciences but also to the health needs of the entire state.

“The Center for Rural Health investigates what the state’s health problems are and then works to solve them by analyzing health policy, strengthening local capabilities, advocating for basic rural concern, and developing community-based alternatives,” said Dr. Joshua Wynne, vice president for health affairs and dean of

the School of Medicine and Health Sciences.

Because of its outstanding work, the Center for Rural Health has earned the UND Award for Departmental Excellence in Research. The Center for Rural Health was created by UND’s School of Medicine and Health Sciences with legislative support and funding. It was designed to serve as a focal point on rural health for the state and the University. In recent years, the center has generated numerous publications, made many presentations, and garnered significant extramural funding. Since its beginnings, the center has successfully operated largely from grant support. In the last five years, the center has captured more than \$29 million in funding. In 2011–12, the center garnered two new grants: the Rural Health Reform Research Center, a federal research grant, and the Community Transformation Grant, a community development and population health grant.

In 2008–09, the Center for Rural Health started a new program called the Health Workforce Information Center. It provides free online access to the most updated resources on the nation’s health workforce.

In addition, the Area Health Education Center was created. Its goal is to improve the distribution, diversity, supply, and quality of North Dakota’s health care personnel. Another landmark that year was the development of the new critical access hospital service program, which helps improve health care quality and further develops the capacity of critical access hospitals to provide high-quality care.

The following year, the Regional Extension Assistance Center for Health Information Technology was established. A federally funded program, the assistance center is dedicated to helping clinics, small hospitals, and other settings in North Dakota and Minnesota to implement and effectively use electronic health records. Today, about 50 faculty and staff work at the Center for Rural Health. They average a total of about 75 presentations a year at community, state, regional, and national venues. In the last five years, they’ve made about 380 oral presentations and 45 poster presentations. They’ve also had 67 peer-reviewed publications and 111 general publications as well as five book chapters. 🌱

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Photography by Wes Peck.

Bryn Putbrese, a fourth-year medical student, is shown completing the final “leg” of the Iceman Triathlon in Grand Forks on February 23. Putbrese placed first in the Yetiess or solo women division of the race, where contestants skied and ran roughly three miles each, biked just over seven miles, and finished with a slide down the sledding hill at Lincoln Park.



Medical Laboratory Science Club members Barb Tisi (left) and Amanda Chirhart (back) demonstrate MLS technology to two students during the Student Wellness Expo on February 27 at the UND Wellness Center.



As a part of Spirit Week, students gathered outside the Harley E. French Library of the Health Sciences to sign thank you cards for donors who support the School of Medicine and Health Sciences.



In Minot, medical students Kayla Odegard (left) and Kate Peterson celebrate their futures on Match Day, March 15.



Heather Sandness Nelson and Brian Nelson share a happy moment on Match Day in Bismarck.



“Tuberculosis on the Great Plains: The Grand Forks Epidemic” was a highly successful seminar hosted by the ND Master of Public Health Program at the School on February 21. Presenters included two of the School’s clinical faculty members, James Hargreaves, DO, FACP, Grand Forks City and County health officer, Altru Health System (pictured); and Don Shields, MHA, MBA, FACHE, director, Grand Forks Public Health Department; as well as Shawn McBride, northeast regional field epidemiologist with the North Dakota Department of Health.



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Thursday, Oct. 10
Sioux Award Banquet

Friday, Oct. 11
Celebration of North Dakota Spirit | The Campaign for UND
Evening reception for School of Medicine and Health Sciences alumni and friends
celebrating 50-year graduates, and 60 years of the Medical Laboratory Science
program (formerly Medical Technology)

Saturday, Oct. 12
Homecoming Parade
Homecoming Brunch at the Gorecki Alumni Center
Brunch at the School of Medicine and Health Sciences celebrating
60 years of the Medical Lab Science program (formerly Medical Technology)
Tailgating
Football vs. Eastern Washington

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