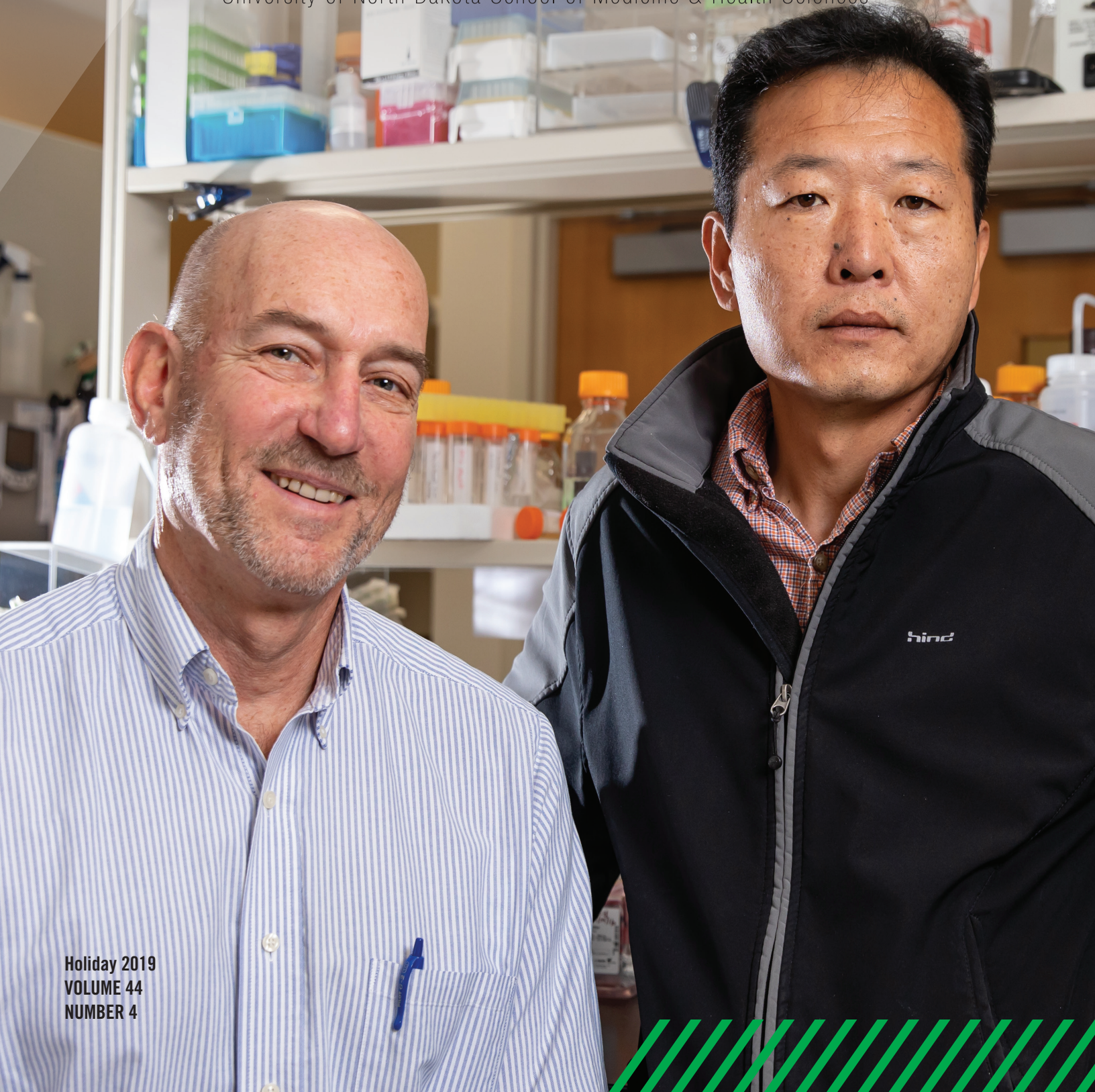




NORTH DAKOTA MEDICINE

University of North Dakota School of Medicine & Health Sciences



Holiday 2019
VOLUME 44
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NORTH DAKOTA MEDICINE

University of North Dakota School of Medicine & Health Sciences

UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

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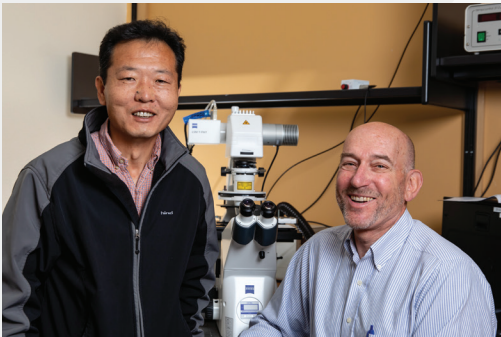
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ON THE COVER: Drs. Jonathan Geiger and Xuesong Chen in the lab at the UND School of Medicine & Health Sciences in Grand Forks, N.D.



North Dakota Medicine (ISSN 0888-1456; USPS 077-680) is published four times a year (March, June, September, December) by the University of North Dakota School of Medicine & Health Sciences, Room W103, 1301 N. Columbia Rd Stop 9037, Grand Forks, ND 58202-9037. Periodical postage paid at Grand Forks, ND.

Printed at Forum Communications Printing, Fargo, ND.

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NORTH DAKOTA MEDICINE is available online at
www.med.UND.edu/nd-medicine

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UND SCHOOL OF MEDICINE & HEALTH SCIENCES
UNIVERSITY OF NORTH DAKOTA



EVERY SINGLE GIFT MATTERS



The fall semester at UND certainly has been busy! A lot of wonderful things are going on, and I've really enjoyed the experience of being president of UND, if only on an interim basis. I continue to serve as vice president for Health Affairs and dean of *your* School of Medicine & Health Sciences, but I now have had the chance to view higher education through a wider lens than just my prior focus on health-related education. And what I see at UND is quite positive in general, although certainly there are some storm clouds on the horizon.

What is positive is the upgrading of UND's physical plant, with a whole slew of new construction and renovation projects. And the faculty and staff excel in helping to make UND a very special place for our students.

One of the clouds on the horizon, however, is that there has been—and will continue to be—a decrease in the number of graduating high school seniors who are possible college matriculants. This is mainly just a reflection of the demographic reality that the birth rate in the United States has been steadily declining for some time, resulting in a relative growth in the elderly population and a reduction in the fraction of college-eligible candidates. While this is a major issue for institutions of higher education in general, the major impact has been on undergraduate education. This trend has not impacted the health professions much at all, since there has been an increase in interest among younger adults in these fields and thus a pivot by many away from a traditional liberal arts education and toward a focused health career.

While this is positive news for the School, it is a worrisome trend for UND's undergraduate campus. Fortunately, the national trends are somewhat muted regionally where the estimates are that for North Dakota and Minnesota (the two most important feeder states for students attending both UND and the SMHS), the number of high school graduates actually will continue to increase until around 2025 when they too will start to decline. That gives UND a window during which we need to continue to refine our strategic plan and direction so that UND continues to address what our students (present and future) want and need. I'm quite confident that we're ready to face this challenge!

Also positive is the incredible generosity of the University's many supporters and donors. As you may know, the academic year just recently completed was marked by the largest single-year record of philanthropic donations in the history of UND, capped by an incredible \$20 million gift from Werner and Colleen Nistler to the College of Business and Public Administration.

The SMHS continues to be a grateful recipient of strong philanthropic support as well, helping to address what has been our top priority—mitigating student debt. And thanks to many donations of all sizes, we have been able to reduce student debt at a time when most schools have seen their student debt loads rise.

We have recently added a second priority for our philanthropic efforts, and that's to increase the number of endowed professorships and chairs at the School. Why is this so important? Because we compete for faculty on a national stage, and, frankly, recruiting to North Dakota can be a challenge. But having endowed professorships to attract highly qualified candidates provides us with a competitive advantage in faculty recruitment and retention efforts. We've set an aggressive goal of providing at least one new endowed professorship or chair for each of our academic departments over the next decade, which translates into adding a least one each year.

And while it is true that only a small percentage of people are able to provide such a seven figure donation, the School and UND are incredibly grateful for all of the gifts we receive, both large and small. As we reported in our most recent Vital Signs community report, we actually saw a much larger number of overall donors to the School in the 2018-19 fiscal year, relative to 2017-18, even though the average gift amount was lower. Together, these generous donations help ensure that UND continues to be a very special place for so many.

During the time that I've been president, I've come to summarize my impression of the overall status of UND as "moving forward and striving for excellence." In moving forward, we are following the One UND Strategic Plan that was

widely vetted and positively received both across campus and in the community. And in all of our endeavors—educational, scholarly and research, community service, or engagement—we continually are trying to "up our game" and do even better.

Thanks to the terrific efforts of our students, faculty, staff, and supporters, the future of the University and the School looks bright. I'm quite certain that the best is yet to come!

Thanks to all of you who are members of the UND and SMHS extended family. Susan and I wish you a wonderful holiday season, great things in the New Year, and good health and happiness for you and yours.



Joshua Wynne, MD, MBA, MPH
Interim President, UND
Vice President for Health Affairs, UND
Dean, School of Medicine & Health Sciences



FALCON CREST

Second-year med student Emily Falcon follows her father Gilbert into medicine at UND and the University’s Indians Into Medicine Program.

Sometimes it’s as simple as liking your teachers.

“I was interested in what the teachers I had growing up had to say about science,” said Dr. Gilbert Falcon over the phone from Belcourt, N.D. “And since science was more interesting to me, I did better [in those classes]. I suppose that led to medicine.”

Easy-peasy.

A Belcourt native and 2009 graduate of the UND School of Medicine & Health Sciences (SMHS) MD program, Gilbert, who was also part of the School’s Indians Into Medicine (INMED) Program, was pleased that practicing in Belcourt was an option for him when he finished his family medicine residency in Minot, N.D.

“I wanted to practice in a rural setting,” he continued. “I like small towns, and the Midwest was where I wanted to be. The opportunity to go home was available, so I took it. Not a lot of people get to go home because it’s not always easy to practice medicine among so many people you know. The social dynamic of it can be hard on them. But for me it’s worked out.”

‘Family’ Medicine

And while it might not have been his express intent, Gilbert’s decision to stay in North Dakota more than a decade ago has resulted in another Falcon gracing the halls of the various buildings on the UND campus—including the SMHS—today.

In 2018, Gilbert’s eldest daughter Emily became the second Falcon to enter not only the School’s MD program, but INMED.

“During my sophomore year of high school, I participated in the INMED Summer Institute at UND, which allowed me to become more acquainted with UND and its campus,” said Emily, who admits that in high school she was more interested



LIKE FATHER, LIKE DAUGHTER

Emily Falcon and her father Gilbert at Quentin N. Burdick Memorial Hospital in Belcourt, N.D.

in interior design and architecture than medicine, and originally wanted to go to college outside North Dakota. “However, I realized that I wanted to be close enough to be able to watch my younger sisters—now ages 9 and 10—grow up. Then, after the exposure from the INMED summer program, I knew that I wanted to go to UND for college.”

It perhaps goes without saying that hearing such words is a comfort to Gilbert—who insists he didn’t pressure Emily either to pursue medicine or attend UND, but is nonetheless glad she did.

“She’s attached to [Belcourt],” added Gilbert of his daughter. “The community—she loves it. Being part of a community makes it easier to come back, which also makes it easier for recruiting docs. If you have a link to a town, whether a reservation town or any small town in North Dakota, a provider is more likely to come back.”

Recruitment and retention of physicians is, after all, an ongoing concern in North Dakota, especially for those on the state’s five American Indian reservations. According to data from the Health Resources & Services Administration, eight of the top 10 counties expressing the greatest need for providers in North Dakota are those with reservations, including Belcourt’s Rolette County.

“Right now, we’re under the gun because we have a lot of older providers retiring—and we had one pass away recently,” Gilbert sighed. “We have a lot of people who have been here for decades and will eventually need to replace them. That’s definitely a challenge, but I think INMED is helping with that.”

Emily Falcon is a case-in-point.

Admitting that INMED was perhaps the biggest factor in convincing her to attend UND for her undergraduate and medical education, Emily said that the support system that INMED offers has been invaluable.

“The INMED group in our class is very close,” she explained. “Many of the INMED students come from far away, and it is very hard being away from family. But we have found our own family with each other. I am so grateful for this opportunity to be able to learn with other Native students who have a similar goal: to help advance our populations.”

For what it’s worth, Emily added, another big part of her retention was 25-year INMED staff member Kathleen Fredericks, who “always encouraged me to apply through the INMED program and helped me with whatever I needed.”

Gilbert agreed, noting that Fredericks emerges first in his mind as an INMED veteran who made all the difference in his development.

“She was my all-around person to go to for anything I needed, whether help applying for grants, prepping for interviews, troubleshooting the various things that come with applying to schools, or getting by day-to-day,” he said. “INMED in general was—and still is—filled with empathetic, helpful, selfless people. But Kathleen was the best one.”

New prescription

INMED notwithstanding, the medicine that Dr. Falcon learned two decades ago is different from the medicine being taught to his daughter today, which is also having an effect on recruitment and retention of physicians for rural areas.

Medical education has come a long way in recent years, evolving from sterile lecture halls and textbooks to “active” learning: hospital and clinic simulations, telemedicine and distance learning, and what the SMHS calls patient-centered learning.

“There’s a lot more virtual training and simulation,” Gilbert admitted, noting that telemedicine can help rural providers and patients feel less isolated. “There’s a room up there at UND with some seriously realistic situations, which is cool. There’s a lot more focus on ultrasound. They’re also focusing



THE WHITE COAT

Dr. Joshua Wynne, dean of the SMHS, and Emily Falcon at the School’s 2018 White Coat Ceremony in Grand Forks.

more on genetics and individualized profiles and treatments based on genetic profiles. They’re getting more of that than I did—it’s almost sci-fi.”

Technology aside, teachers still matter. And for Emily, there was perhaps no better teacher than her father.

“My dad taught me many things, from the importance of family to the basics of family medicine,” said Emily, who had the opportunity to shadow her father at his Belcourt clinic this past summer. “I remember my dad once asking me if I knew the meaning of the word ‘doctor.’ I replied no, and what he told me next still sticks with me today. He said the word doctor, whether it be a Ph.D. or M.D., is derived from a word meaning ‘to teach’ [*docere* in Latin] so being a doctor involves teaching. If you are not teaching your patients or others, then you are not fulfilling your role as a doctor.”

Calling the experience of watching his daughter go through medical school “very rewarding,” Gilbert likewise gushed with pride for Emily, particularly after working with her in the clinical setting.

“Just seeing her succeed and seeing how focused she is has been great,” he said. “She’s amazing in my mind.”

By Brian James Schill



PUTTING ON A (FREE) CLINIC

An interprofessional team of health students and local providers partner on building a student-led, free clinic in Grand Forks.

When Eric Johnson, M.D., and his team of first- and second-year medical students set up their blood glucose and blood pressure gear at the Welcoming Community Picnic at University Park in Grand Forks this past September, they had little idea how many patients they would be seeing.

Hundreds of patients later, the small volunteer group was exhausted, if relieved.

“We had one patient whose blood pressure was so high we sent him right to the emergency room,” said Johnson, associate professor in the UND School of Medicine & Health Sciences (SMHS) Department of Family & Community Medicine. “What if we hadn’t been there to catch that?”

The popularity of such an event begs another question among SMHS faculty and students: Should there be a standing free clinic that can take on patients without access to the health system otherwise, and if so, how might the SMHS be involved?

Meeting a Need

Answering that question has been Pranish Kantak’s mission, almost since he began as a first-year medical student at UND in 2017.

“When I was in grad school in North Carolina, I saw that UNC Chapel Hill had the largest student-run free clinic in the country,” explained Kantak, now in his third-year, over the phone from Fargo, N.D., where he is in the middle of his clinical rotations. “It started in 1951. So, when I came to UND, I was in my first block [of medical school] and set up a meeting with Dr. Dorscher to ask why we didn’t have one.”

“It’s true that many medical schools have this type of program already,” said Joycelyn Dorscher, M.D., the School’s associate dean for Student Affairs & Admissions. “The reason we don’t is that we only have students here for two years. At other schools, you have third- and fourth-year students you can bring into the process and increase the volunteers you have to work with. But we send most of ours out of Grand Forks.”

In other words, because the SMHS is one of only 28 community-based medical schools in the country that don’t own or operate their own hospital or clinic, the School’s third- and fourth-year medical students are sent to clinical locations across North Dakota to complete their final two years of education. That arrangement means anyone working to create a free, student-led clinic in Grand Forks must work especially hard to find not only appropriate space to house a clinic, but has a reduced pool of (student) volunteers to staff the clinic.

Interprofessional Education

“One of the things that I think is so incredible about this program [Kantak] is starting is that he’s being so inclusive of many other programs—nursing and social work and these things,” Dorscher continued from her office in the SMHS.

As Dorscher implies, the SMHS has put interprofessional education at the core of its curricula since 2006.

For example, the School offers an Interprofessional Health Care Course (IPHC)—taught by Dr. Johnson and faculty from other professions—twice per semester not only for medical students but those in nursing, physical and occupational therapy, counseling psychology, social work, nutrition & dietetics, and communication sciences & disorders. The course introduces students from each of these backgrounds to the roles played by other health care professionals in the same system.

“The idea is that this will help students learn how to work in an interdisciplinary team, which is how you function on the wards anyway,” Kantak said.

In line with this philosophy, he made an effort to reach out to students from the health sciences to make sure they’re also involved in the volunteer clinic. Thus is the effort led by a multidisciplinary steering committee.

“We see this as a community need for those who don’t have insurance—a place where people can get some care so they

MEETING A NEED

Dr. Eric Johnson (right) and medical students give free blood pressure and blood glucose checks at University Park in Grand Forks in Sept. 2019.



don't end up in the emergency department with something major that came from something minor that could've been caught earlier," added Michelle Montgomery, wellness advocate at the SMHS and a key player in the School's interprofessional training module. "But it's also an opportunity for students from nursing, social work, physical therapy, and occupational therapy to have an interaction experience now, as students, to learn the value of working in teams."

Public Health as Community Health

It seems those providers actually working in teams in the field agree.

"Our involvement has been to encourage the effort by students to consider total population health, address the social determinants of health in their interventions, and to work across disciplines," noted Grand Forks Public Health Director Debbie Swanson, a nurse by training, of her early involvement in the clinic. "I had some early email messages with Pranish and helped to get a meeting arranged that included Mara."

That's Mara Jiran, CEO of Spectra Health, a community health center based in Grand Forks and Larimore, N.D., dedicated to seeing that high-quality health services are available to everyone in northeast North Dakota.

According to Jiran, Spectra Health supports not only projects like Kantak's but a series of UND interprofessional projects, including the School's physical therapy clinic, a women's health rotation for medical students, and various internships for UND nursing, pre-medicine, pre-dental, counseling psychology, Master of Public Health, and social work students.

"We are finding that fewer people lack access to care since the Affordable Care Act was fully implemented and Spectra has expanded," continued Swanson, noting also that Grand

Forks-based provider Altru Health System has been involved in the project. "Yet, there are people who have difficulty navigating the system and a few disenfranchised groups that lack coverage, such as those recently incarcerated. I'm hopeful a student-run clinic can help fill those gaps."

Location, Location, Location

In the end though, and to illustrate Swanson's point, the biggest challenge Kantak has faced has been finding space.

"The issue that remains is how to handle emergency cases, should they present," said Kantak, noting that overcoming hurdles such as coding and medical record-keeping has been relatively easy. "If someone comes in and needs an emergency procedure or referral on a site, who manages that and who pays? Whose responsibility is it to care for that serious case? That's been our largest challenge—finding a place to do it all."

But assuming finding reliable space is likely, a clinic setting should be forthcoming, Kantak said, especially for non-emergent cases.

After all, there is precedent for such a space in the community; for many years Third Street Clinic in downtown Grand Forks provided access for patients weekly. Although that nonprofit still exists, it operates under a different model today, connecting patients to care off-site and providing them with medication assistance.

"There's still a need for clinical care for patients who don't want to go to the emergency department," concluded Kantak. "There's a place for this type of clinic, both for patients and educators helping to train future providers."

By Brian James Schill



SETTING THE RECORD STRAIGHT

Neuroscience researchers net record series of NIH grants.

Five NIH R01 grants. \$7.5 million.

Here's why those numbers matter for UND.

Over the past five years, UND neuroscientists Jonathan Geiger and Xuesong Chen have received more than \$7.5 million in research grants from the National Institutes of Health (NIH). That's more NIH individual grant money received than any other scientist in North Dakota—ever.

Geiger, Chester Fritz Distinguished Professor in the Department of Biomedical Sciences at the School of Medicine & Health Sciences, and Xuesong Chen, associate professor in the same department, just received a \$2.2 million R01 grant from the National Institute of Mental Health, a division of the NIH, to determine the mechanisms that may cause neurological complications in people with HIV.

The award is even more remarkable because Geiger and Chen now have five active NIH R01 grants between them—three from the National Institute of Mental Health, one from the National Institute of Neurological Diseases and Stroke, and one from the National Institute of Drug Abuse. That accomplishment is unique in the state.

Competitive funding

And besides testifying to Geiger and Chen's skills as scientists, this award and its predecessors play a vital institutional role as well. The reason is that NIH R01 grants are some of the most prestigious grants researchers can receive, and funding is extremely competitive.

"We can do it at UND," said Geiger, who has been at UND since 2003. "We have the people and the physical infrastructure to compete for grants. They are hard to get, and you bet they are hard work. But we can do it. Investigators at UND can compete with anybody."

Only the top 10 to 20 percent of NIH grant applications are funded, said Geiger. But only 50 percent of applications are even reviewed in detail and scored. That means that just the top 5 to 10 percent of submitted grants get funding.

"It's not easy," Geiger said.

He should know. He just finished chairing two separate grant review study sections for the NIH, and continues to serve on other study sections.

"I get more nervous reviewing grants than writing them," Geiger said. "I know how hard it is to get grants, and I want to do a good job. I know how much effort people put into writing grants."

After all, submitting a grant can take years.

"You have to gather a lot of preliminary data," said Chen. "You need evidence to support your idea, and that takes a lot of time."

"We have to generate those preliminary data to convince reviewers you have a good idea and we're the right people to investigate it," Geiger said.

And they always keep the big picture in mind.

As Geiger added, "We remind our trainees that this is our tax dollars at work. We are cognizant of the public trust as we work to advance research."

Solving problems

Geiger and Chen work together on multiple projects, and Geiger also works with researchers at other universities. Their work includes investigations into ketogenic diets and epileptic seizures, how lysosome (organelles that digest particles) dysfunction affects persons with Alzheimer's and HIV, how calcium functions in lysosomes, and how caffeine may protect against neurodegenerative disorders.

The one thing all this research has in common, said Geiger, is intellectual curiosity.

"The link between many of our interests is ATP [adenosine triphosphate], the universal energy source for cells," Geiger said. "We've been studying ATP and its root compound adenosine for a long time, and are still interested in it. It's known that caffeine



TEAM EFFORT

Geiger (left) and Chen (right) emphasized that they don't do research in isolation. They have undergraduate, graduate, medical and post-doctoral students helping them in the lab. (Photo by Mike Hess)

can block cell-surface adenosine receptors, and caffeine can kick calcium out of cells. Another scientist asked me to collaborate on the link between a protein component of HIV and calcium. It's easy to look back and see how it all ended up fitting together."

Geiger and Chen emphasized that they don't do their work in isolation. They have a great group of people working with them in the laboratory, they said.

"We have undergraduate students, graduate students, medical students, and post-doctoral students. They're really talented, and they come to us."

With their most recent award, Chen and Geiger are seeking to test a strategy to prevent cognitive disorders in people treated for HIV.

"Earlier in the HIV pandemic, 20 percent of HIV patients developed dementia," Chen said. "Now, after the introduction of effective antiretroviral therapies, their neurological complications, although less severe, are being experienced with increased prevalence; 30 to 50 percent of people living with HIV develop cognitive disorders."

In describing their research, they liken the actions of the intracellular organelles—structures within living cells—that they study to the concept of digestion.

"We all eat," said Chen. "The stomach is acidic, and without that acid, we can't digest food. That lack of acid can also lead to infections and bacteria. The same thing happens to acidic organelles in cells, which need to eat and digest nutrients. If a virus can escape digestion from these acidic organelles, it can infect cells."

"How do viruses and viral proteins escape from the organelles?" asked Geiger. "How does it get out of the organelles and replicate? No one knows the mechanisms,

but we think we have a good theory. The NIH is letting us test those hypotheses."

"We think the virus proteins escape through pores and channels that actually function to make the organelle acidic, just like the stomach pumps acid," Chen continued. "That pump, disassembled, forms a big pore."

Chen and Geiger said the pore may then open, allowing HIV proteins to escape from the lysosomes and end up in the nucleus where it can increase HIV replication.

"If that little lysosome stomach doesn't work, all the waste accumulates in the neurons," Chen said. "The neurons live as long as you do, and relatively few neurons in brain are capable of regenerating. If they can't digest nutrients, they starve, and pathogens flourish and affect the neurons."

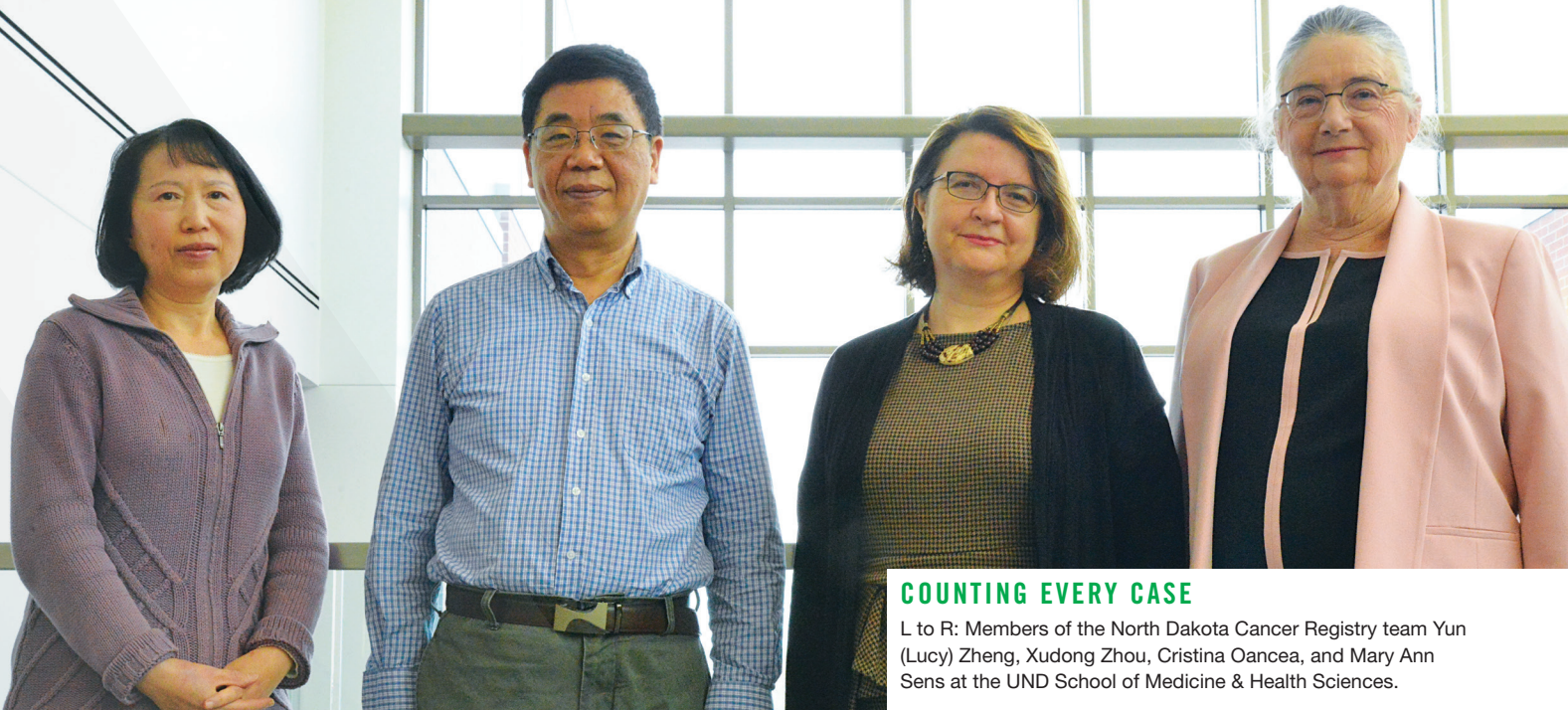
Therapeutic targets

"This opens up a whole new realm of possible therapeutic targets," said Geiger. "We're here not only to figure out the complexities of science, but to identify mechanisms that can be targeted therapeutically. Half of the infected population experiences neurological complications. We'd like to help them."

Their work could also have implications for other diseases, such as Alzheimer's.

"Our organelle work is important for neurological complications and the ability of HIV to infect cells," Geiger said. "We think that what we're doing is relevant to many cells and pathological conditions in the body."

By Jan Orvik



COUNTING EVERY CASE

L to R: Members of the North Dakota Cancer Registry team Yun (Lucy) Zheng, Xudong Zhou, Cristina Oancea, and Mary Ann Sens at the UND School of Medicine & Health Sciences.



LESS UNCERTAINTY

The North Dakota Statewide Cancer Registry racks up awards and recognitions for documenting, and hopefully reducing, cancer incidence in the state.

In the so-called “Copenhagen Interpretation” of quantum mechanics, developed originally by Neils Bohr and Werner Heisenberg in the 1920s, the outcome of any scientific measurement can only be described in terms of probability.

This inability to truly “know” with precision what is happening inside any atom, object, or body at a given moment gave rise to a series of often frustrating maxims, including “entanglement” and Heisenberg’s uncertainty principle, that read more like philosophy than physics.

So confident was Heisenberg of the effect scientists-observers had on the objects of their research, in fact, that he soon went on to question the very reliability of scientific observation itself.

“The scientific method of analysing, explaining and classifying has become conscious of its limitations, which arise out of the fact that by its intervention science alters and refashions the object of investigation,” Heisenberg wrote with an ironic

certainty in *The Physicist’s Conception of Nature* (1958). “In other words, method and object can no longer be separated.”

Well don’t tell any of this to Mary Ann Sens, Yun (Lucy) Zheng, Cristina Oancea, and Xudong Zhou.

This quartet professors at the UND School of Medicine & Health Sciences (SMHS) is the core of North Dakota’s Statewide Cancer Registry (NDSCR), whose express purpose is making order out of the disorder and uncertainty of cancer.



Getting off the ground

While not distancing themselves from the debates in quantum physics, the three pathologists and lead epidemiologist (Oancea) see it as their mission to track and analyze the incidence, distribution, and perhaps even probability of cancer diagnoses and outcomes in North Dakota.

It makes sense that UND would put so much energy into studying and tracking cancer, an uncontrolled and often unpredictable growth and spread of abnormal cells: this umbrella term describing at least 100 “entangled” diseases is the leading cause of death for people ages 35-64 in the Dakotas, the incidence of which can be nearly double for American Indians, relative to the rest of the population.

And although most cancers have known or suspected risk factors associated with them, cancer occurrence is almost always the result of an uncertain, and even unpredictable, combination of interconnected factors stretching from one’s lifestyle and genetics to the environment.

Despite this apparent randomness, cancer research—from prevention and diagnosis to treatment and tracking—has come a long way since President Nixon declared war on cancer in 1971. Many risk factors and preventive measures have been identified and treatments have been developed.

Because cancer is still a problem, though, registries are increasingly seen as coequal players in the fight.

“The North Dakota Department of Health kept the original state registry, but when registry’s founder retired they wanted to divest the institution,” explained UND Department of Pathology chair Sens of the institution established in 1994 through a grant from the Centers for Disease Control & Prevention (CDC). “They knew we had a registry for cancer research and a medical school [at UND]. The infrastructure was here and we built it up. I came to Lucy and

Xudong and said ‘You have two months to study for and pass the [Certified Tumor Registrar] test’ —and they did!”

On the authorization of the North Dakota Century Code (Section 23-07-01) and the state’s Department of Health, then, the North Dakota Statewide Cancer Registry collects information about new cancer cases, the course of cancer treatment, and cancer deaths. The UND Department of Pathology became the state’s bona fide agent and assumed responsibility for the operation and maintenance of the cancer registry on July 1, 2012.

This means that all hospitals, laboratories, physicians, and other health care providers are required by state law to report all newly diagnosed or treated cancer patients. Such data is collected and kept in the registry’s secure database, and is used to monitor cancer trends, promote research, increase survival, inform program development and interventions, influence policy, and respond to citizen concerns.

“It’s very important for North Dakota to be accurately represented with cancer data relative to other states,” continued Sens. “It’s been very encouraging to see how excellent we are across the board in reporting and accuracy. It helps all of us because it helps us be better represented nationally.”

And this group’s work helps physicians, researchers, and policymakers around the world better understand the cause and prevention of at least some cancers.

Since taking over Registry operations in 2012, the team at UND has already identified radon exposure as a risk factor for chronic lymphocytic leukemia (CLL), a type of bone marrow cancer occurring mostly in persons over age 50, and identified an increase in colorectal cancer among persons age 20-49—previously deemed “too young” for such a disease.

“We have a serious problem with colorectal cancer among young adults,” added Oancea. “[Our work is helping] physicians pay more attention to these symptoms in young adults and allows them to know the risk of colorectal cancer.”

Award-winning

This is why such efforts are being recognized.

NDSR has been identified repeatedly by the CDC’s National Program of Cancer Registries for its achievement in meeting their standards

CANCER SCREENING AND RISK FACTOR PREVALENCE*

Cancer Screening	North Dakota	National Rank	U.S.
Mammography, women 40 years and older, 2016	71.2%	32	72.4%
Stool test/endoscopy, 50 years and older, 2016	65.3%	37	68.9%
Pap/HPV test, women 21 to 65 years, 2016	81.7%	37	84.2%

*Figures provided by the American Cancer Society

for data completeness, timeliness, and quality. Meeting these standards allows the NDSCR’s data to be included in the United States Cancer Statistics report.

And in August 2019 the NDSCR once again received Gold Certification from the North American Association of Central Cancer Registries (NAACCR), marking the seventh consecutive year that the NDSCR has received gold-level certification.

“The evaluation of central cancer registry incidence data recognizes population-based cancer registries that have achieved excellence in the areas of completeness of case determination, data quality, and timeliness,” Sens said in a news release that followed the award’s announcement at the time. “Achieving this level for seven years straight is a testament to the exceptional team we have in place in North Dakota doing this vital work.”

In addition to the registry’s Gold Certification, Zheng, a dermatologist by training and associate professor in the Department of Pathology, was awarded the “NAACCR Committee Member 2018-2019” award by the NAACCR for her work on participating in the development of a Virtual Pooled Registry Cancer Linkage System (VPR-CLS). The VPR-CLS is a new, secure, online system where researchers in the state can link cancer study cohort data with registries around the U.S. using a standard linkage process and software.

“It was definitely an honor and a surprise to be awarded by the NAACCR,” Zheng said. “We take this role very seriously and are happy that our efforts are being recognized nationally.”

Furthermore, the efforts in North Dakota have come to serve as a case study for the CDC. In their online primer on cancer registries, the CDC includes the example “North Dakota: Is a Cancer Cluster Real?” to explain the epidemiology of cancer clustering.

“In 2013, a concerned citizen in a small town in rural North Dakota asked the North Dakota Cancer Registry why so many people seemed to be getting cancer there,” wrote the CDC. “Scientists used their knowledge of diseases, the environment, lifestyle factors, and statistics to investigate this possible cancer cluster (a higher than expected number of cancer cases among a group of people or in a geographic area). The registry was able to ease the county’s concerns. After review, there was no link between this rural community and the cancer.”

Less uncertainty

It’s perhaps ironic that Werner Heisenberg died of kidney cancer in 1976—only a few short years after the National Cancer Act became law in the United States. In a way, it was his own theorizing on the uncertainty of the movement and function of particles at the atomic and subatomic level that anticipated the illness that ended his life.

The physics of uncertainty notwithstanding, the team at North Dakota’s Cancer Registry is determined to continue to reduce the probability of cancer in the Dakotas and beyond.

“We get cancer data for all North Dakotans no matter where they got treated,” said Sens, explaining how cancer registries are uniquely collaborative institutions. “We make sure the data is accurate and not duplicated. There’s no other registry that I’m aware of—trauma registry, neurologic registry—that has that high level of collating. They tend not to have that second step we have, which puts a level of quality into it.”

“Everybody can relate to cancer—everybody knows someone with cancer,” Oancea added. “It gives us purpose to do what we do. We know there’s a person behind every number and that’s what makes this work important for us.”

That much, at least, is certain.

By Brian James Schill

■ '10s

Vanna Binning, Family Medicine Residency '19, is now at Trinity Health in Minot, N.D., as part of the family medicine team.

John Folland, Family Medicine Residency '19, has joined the family medicine team at Trinity Health in Minot, N.D.

Josalynne Hoff, MD '16, joined Heart of America Medical Center in Rugby, N.D.

Sarah Clausen, MD '15, has been hired by St. Luke's Obstetrics & Gynecology Associates in Duluth, Minn. Clausen completed her obstetrics and gynecology residency at Cleveland Clinic Akron General in Akron, Ohio.

Kyle Wilebski, MD '15, has joined Sanford Health System in Fargo, N.D. A native of Grafton, N.D., Wilebski is a recent graduate of the Indiana University School of Medicine Anesthesia Residency Program in Indianapolis.

Brendan Boe, MD '14, has joined the obstetrics and gynecology team at Altru Health System in Grand Forks, N.D.

Brian Johnson, MD '14, has joined Mid Dakota Clinic in Bismarck, N.D.

Alexis Larson, DPT '14, has joined Rehab4Life in Fargo, N.D.

Paul Selid, MD '14, is the newest practitioner at Dakota Eye Institute in Bismarck, N.D. Dr. Selid will specialize in the treatment of cataracts, cornea transplantation and refractive eye surgery, including custom LASIK.

Janae Meier, DPT '13, is the latest addition to the physical therapy staff at St. Luke's Hospital in Crosby, N.D.

Eric Ragland, MD '12, has joined Essentia Health in Fargo, N.D. as a hospitalist.

Luke Roller, MD '12, has been named the new chair of the Department of Radiology at the UND School of Medicine & Health Sciences in Grand Forks, N.D. He is a physician at Bismarck Radiology Associates and has been a Bismarck-based clinical faculty member with the SMHS since 2018.

Melinda Picard, MD '11, has joined Essentia Health in Fargo, N.D., as a hospitalist. She is board certified in Internal Medicine.

Jason Haus, MD '10, recently joined the anesthesia team at Marshfield Medical Center-Eau Claire in Eau Claire, Wis. He is board certified in anesthesiology and is a member of the American Society of Anesthesiologists.

■ '70s

Tom Winters, BS Med '71, was awarded with the Harriett L. Hardy MD Award on Dec. 5, 2019, in recognition of his contributions to the Occupational Health field. Winters and a partner established the Occupational Environmental Health Network in 2006. OEHN now provides occupational health services at many hospitals, including University of Massachusetts, Boston University, and others. It also supports researchers at many academic, pharmaceutical, and biotechnology companies in Massachusetts.

■ '80s

James Frisk, BS Med '67, is retiring from his practice, Plains Ear, Nose, Throat and Facial Plastic Surgery in Fargo, N.D., and also from outreach with CHI St. Alexius Health in Carrington, N.D. He specialized in hearing loss and rehabilitation, diagnosis and therapy of sinus disease, nasal disorders, and sleep medicine. During his retirement, Dr. Frisk will be spending more time riding his Harley, restoring automobiles, skiing, fly-fishing, and spending time with his wife, children, and grandchildren.



John Folland



Josalynne Hoff



Brendan Boe



Kyle Wilebski



Brian Johnson

GIVING IS RECEIVING

A partnership between a health care system and its foundation is key to workforce pipeline stability.



GIVING HEARTS

WRHS Foundation Fund Development Officer Ted Uecker prepares for a Giving Hearts Day fundraising event

Availability and retention of the health care workforce is a top concern for more than half of rural hospital communities in North Dakota, according to the North Dakota Center for Rural Health's Community Health Needs Assessment data. One rural North Dakota community is taking proactive steps to ensure an adequate health care workforce now and in the future.

Located in southern North Dakota, the town of Hettinger has a population of 1,221. It is fewer than five miles from the South Dakota border and is 150 miles from the nearest tertiary hospital in Bismarck. West River Health Services (WRHS) operates a critical access hospital and long-term care center in Hettinger, and has outreach clinics in Bowman, Mott, New England and Scranton, N.D., and another in Lemmon, S.D. The facility's total service area covers around 20,000 people.

Continuing to offer services for these communities is critically important, WRHS officials say. To do that they continuously need to focus on recruiting their health care workforce.

"We have had a steady 15 to 18 physicians in Hettinger, but we're closer to 11 or 12 at the moment," said Ted Uecker, Foundation Fund development officer at WRHS. "Retirements, moves for family reasons ... it's been a challenging year."

The ebb and flow of physician workforce is not unfamiliar to rural communities like Hettinger; it is the nature of the health care industry today, with younger physicians typically staying in a single location for fewer years than their older colleagues did.

This is where WRHS and its partnership with the WRHS Foundation are so important. The WRHS Foundation supports WRHS and Western Horizons Care Center in providing comprehensive health and wellness services for the residents and visitors of their region. Uecker says the Foundation is keenly aware of the need for a healthy pipeline of potential employees in Hettinger and the towns that WRHS serves. This is why the funding focus in recent years has been on three major areas: the physician recruitment endowment fund, the scholarship fund, and the academic loan fund.

The physician recruitment endowment fund is a program supported by the Foundation to help supplement the cost of physician sign-on bonuses, student loan forgiveness, and even an ambassador program for experienced physicians to travel and meet with residents from around the country. This fund was the focus of WRHS Giving Hearts Day campaign in February 2019.

“We weren’t sure if the community would donate to this fund,” Uecker said. “If you put equipment in front of donors, or a new building, people will dig in. The physician recruitment endowment fund is a little different in that you can’t physically see what it’s going toward.”

Among their marketing efforts for the campaign, the team created a YouTube video involving community members and school children, with the message that they are looking for “top docs.” The campaign raised \$158,000 and will receive additional matching funds from the Impact Foundation.

“The community was supportive beyond expectation for this effort,” Uecker said.

Another program the Foundation manages is the scholarship fund, which supports juniors and seniors in college who are pursuing a health care degree. The preference for scholarship awards is given to students who are from the WRHS service area, but the Foundation also is open to considering applications from individuals who are interested in serving rural areas. Historically, the Foundation provided scholarships to area high school seniors who planned to pursue a health care degree, but they recently refocused on college students who are closer to graduation. “We found that students who are just entering college end up changing their mind on a degree quite a few times before landing on something they like,” Uecker said.

Bailey McGee, LPN, is a past recipient of WRHS Foundation’s scholarship, and is now receiving funds from the WRHS Academic Loan Fund, which supports current WRHS employees working toward a higher degree or level of training in their profession. McGee is a success story that Uecker hopes will repeat itself. McGee started working at the hospital in Hettinger as a certified nurse assistant (CNA). She moved away to earn her licensed practical nurse (LPN) degree before moving back to the area to work for WRHS again. Now, McGee is working toward her Registered Nurse (RN) degree while working full time.

“WRHS has been very supportive of me going to school and working full time,” McGee said. “They allow me the time off I need for school, which is a huge relief.”

McGee is receiving support from the Foundation as she works toward her RN degree, which she says has allowed her to make her dream come true.

“I have been fortunate to receive this financial support and have been so grateful that they have supported me in continuing my education,” she said. The scholarship has also

strengthened her ties to the community and WRHS. “WRHS is a great place to work, and they have been very supportive of me. I have every intention of staying with WRHS after I graduate with my RN.”

To train more students like McGee, WRHS recently became a satellite site for the Dakota Nursing Program (DNP). DNP is a consortium of colleges and satellite locations that educate practical nurses and associate degree nurses. In its first year now, WRHS in Hettinger is currently teaching and preparing three licensed practical nurses. The group eventually hopes to expand its class to five students per year.

Jennifer Seamands, RN, is the satellite director in Hettinger and is excited about the possibilities that come with offering this program. “This program will very much impact our nursing workforce here,” Seamands said.

Many rural communities are offering nursing education programs such as the one offered through the DNP because they allow interested students to earn their degrees without having to travel to another city. This removes the financial barrier associated with travel and relocation. In addition, if students have spouses and children, they don’t have to worry about uprooting them. The programs offered through DNP satellites are usually only two to three days per week. This schedule allows students to continue working and earn an income while they pursue a degree.

Seamands is excited about the effect this program is having on WRHS. “We’ve already made arrangements for them to be employed through WRHS after they complete the program,” she said.

The WRHS Foundation already has donations coming in specifically earmarked for DNP student scholarships and is looking to contribute more funds toward the scholarships.

Uecker and his partners within the WRHS hospital, outreach clinics, and long-term-care facility know it can be difficult to find enough qualified employees in a rural area to fill the open positions at WRHS. However, with the combination of scholarships and a focus on “growing their own” from both inside and outside the organization, the future is looking very bright.

To find out more about the programs WRHS supports, visit wrhs.com/giving.

By Stacy Kusler



‘WE SUPPORT THE STUDENTS BIG TIME’

Sponsorships help the UND Center for Rural Health Scrubs Academy grow.

Since 2011, 512 students entering grades 7 through 9 have participated in the Rural Collaborative Opportunities for Occupational Learning in Health (R-COOL-Health) Scrubs Academy I. The Scrubs Academy I is a four-day/three-night camp that focuses on health careers and is held on the University of North Dakota (UND) campus. In the academy’s inaugural year, 38 middle school students from across North Dakota took part in the program. In 2019, the Scrubs Academy more than doubled its first-year attendance, hosting 84 students, the most in the program’s nine years.

The Scrubs Academy offers any North Dakota middle school student the opportunity to learn about a variety of health care professions in engaging, hands-on, and interactive classroom sessions. In addition, students get to experience what it is like to live and learn in a university environment.



GROWING UP WITH MCCARTY

Left: Connor McCarty at 2019 University of North Dakota commencement ceremony

Right: A much younger Connor McCarty learning CPR at 2011 Scrubs Academy.

Connor McCarty of Grand Forks and Walker Schmidt of Harvey were two of the North Dakota students in the first academy in 2011. At the time, McCarty wasn’t even thinking about a career in health. He just thought the camp sounded like a fun summertime activity. Schmidt, on the other hand, came to the camp looking to learn more about medicine with the goal of someday becoming a physician in a rural community.

Fast-forward eight years. McCarty graduated from UND in May 2019 with a bachelor of science degree in biology, and an emphasis in pre-medicine.

“My goal is to be accepted into medical school in the fall of 2020,” McCarty said. “I think Scrubs Academy had a major impact in planting the seed in what I chose for a major, as well as what I wanted to pursue for a career.”

Schmidt is in his senior year at UND and is in the process of applying to medical schools.

“That same goal of becoming a family doctor still lingers with me, in no small part to my formative experience at the Scrubs Academy,” Schmidt added.

The cost for students to attend the Scrubs Academy I is \$275. Unfortunately for McCarty and Schmidt and their parents, no sponsorships were offered in 2011. However, for the past two years, many health care organizations throughout North Dakota have covered part of the cost for multiple students to attend the academy, or in some cases, payed the full cost of one or two students from their region to attend.

Kylie Nissen, senior program coordinator at the UND Center for Rural Health, has been involved with the R-COOL Health Scrubs program from the beginning. She says that even though North Dakota health care facilities may not see immediate results, they understand the value of the academy and are willing to invest in their youth.

“The funding these facilities provide for their local students shows the kids that their community is invested in them and the future of their area’s health care workforce,” Nissen said. “This is an enticement for the students to come back and practice in their hometown as a way to give back to the community that has already shown support for them.”

Nissen said that in 2018 and 2019 there were a number of North Dakota facilities that provided sponsorships for local students to attend the R-COOL-Health Scrubs Academy. They include Mountrail County Medical Center (MCMC) in Stanley, Towner County Medical Center in Cando, Lutheran Sunset Home in Grafton, Sanford Health Oakes Regional Clinics in Oakes, Valley City Barnes County Development Corporation in Valley City, First Care Health Center in Park River, Powers Lake Ambulance in Powers Lake, and Jamestown Regional Medical Center in Jamestown.

The Mountrail County Health Foundation is a strong advocate and supporter of the academy. In the past two years, the Foundation has provided sponsorships for 31 students. Steph Everett, Mountrail County Health Foundation director and CEO in training, says because there is a shortage of workers in the medical fields, it is important for rural health care organizations to “grow their own” providers.

“What better way to expose our youth to the medical profession than a hands-on, four-day camp on the University of North Dakota campus,” Everett said. “We started offering sponsorships to Stanley three years ago. This past year, we

expanded the sponsorships to all five schools in our service area and were able to send 22 students to this amazing academy last summer.”

Additional health care facilities offer sponsorships for students from their areas, too. However, some did not receive any local applications. Those facilities were Wishek Hospital Clinic Association in Wishek, West River Health Services in Hettinger, and Sakakawea Medical Center/Coal Country Community Health Center in Beulah/Hazen.

“We support the students big time,” said Marie Mettler, public relations specialist at Sakakawea Medical Center. “We’ve had students participate in past years. Hopefully,

by offering sponsorships, we will get more kids interested in the future. It is hard to find enough providers for our rural facilities, so if we can support students who may someday come back to work in our community, it is well worth the money.”

The success of Scrubs Academy I for middle school students has prompted the development of an advanced R-COOL-Health Scrubs Academy II, which will be open to students who will be entering grades 10 through 12. A Scrubs Academy II will be offered in July 2020 and will be based out of Minot.

McCarty and Schmidt are not surprised by the Academy’s success. They said it was an honor to be a part of the first camp, and they look forward to seeing it grow in the future.

“The Scrubs Academy’s effort toward inspiring the next generation of rural physicians and health care providers meant a great deal to me, and it certainly means a lot to other students as well,” said Schmidt.

Parties interested in learning more or sponsoring students to Scrubs Academy I or II can visit ruralhealth.UND.edu/projects/scrubs-program/academy/sponsor-student.



Steph Everett



Kylie Nissen

By Marv Leier

LA DANSE

School of Medicine & Health Sciences Art Gallery helps choreograph the perpetual dance between medicine and the arts at UND.



LIBERAL ARTS

Dr. Joshua Wynne (center background) welcoming visitors to the “School of Paris” reception at the SMHS Art Gallery in Nov. 2019 (with a Matisse on the wall behind him).

Five figures, their hands interlocked, swirl and sway without shame. Hazel-haired and burgundy-backed, the dancers writhe on a bed of green in apparent homage to Saint Vitus, the manic dance for whom came to be associated with Sydenham’s chorea, an infection resulting in the involuntary and uncoordinated movements of sufferers’ feet, hands, and face.

This at least, may have been what French painter Henri Matisse had in mind when he created “La Danse” in 1939 for *Verve* magazine in Paris. The image is one of the many between-the-wars pieces developed by a series of Paris-based artists in the 1930s that were chosen to be included in the “School of Paris” collection of pieces on display at the UND School of Medicine & Health Sciences Art Gallery.

“It’s hard to describe how excited and proud I and we are to be able to do this,” noted SMHS Dean and UND Interim President Joshua Wynne, M.D., M.B.A., M.P.H., of the inaugural art reception held at the School in November. “The art reminds us and our students that we are not simply studying the disease process but are trying to help people who happen to have a disease. This is implicit in the pedagogical model we have used with our medical students for over 20 years, which is called patient-centered learning. By shifting the focus from the disease process to the patient, we try to emphasize the humanistic aspects of health care.”

Even before it opened in 2016, the designers of and administrators at the new SMHS building envisioned the building as a “satellite” gallery for UND Art Collections, whose official gallery is located in the Empire Arts Center in downtown Grand Forks.

Given the School’s academic emphasis on health care, Dr. Wynne said it is appropriate that each of the SMHS programs understand the waltz at the heart of providing evidence-based and often highly technical medical care to humans who come to providers every day with their own histories, aesthetic preferences, creative interests, and stories.

“When I was growing up, names like Max Ernst, Matisse, and Miró were dinner table discussions,” added Wynne. “To see [these pieces] now in the building that I use every day is incredibly gratifying.”

Preservation and Education

Artwork displayed throughout the UND campus wouldn’t be possible without the support of many generous donors to, and supporters from within, the University, including two donors who attended the art reception in November.

“UND approached us about setting up an endowment,” said Peter Kuhn, who along with his wife Eunice, is responsible for establishing the UND Art Collections Endowment for Preservation and Education (ACEPE). “That’s one of the reasons we set this up. We spoke with Sarah [Heitkamp] who said there are hundreds boxes of this stuff. Sarah said they opened up the boxes and found these pieces and at first didn’t know what they were. But it needs to be brought out. That’s what it’s for—the public to enjoy.”

The ACEPE provides financial support to UND Art Collections for efforts related to the preservation and conservation, research, presentation, and educational utilization of the

University's art collections across campus. The UND Alumni Association & Foundation distributes allocations from the fund each year to support these efforts.

"The Kuhns have committed \$25,000 over the next five years [to the endowment] and the University will be matching it," added Heitkamp, manager and curator for UND Art Collections and instructor in the Department of Art & Design. "They had an opportunity to visit with me at the art repository and asked questions about how we operate at the University—and asked what we need to do to make it all better. We talked through that and made it happen. They're such a great example of kindness and generosity."

According to Heitkamp, immediate plans for the endowment include hiring a student to assist with the documentation of approximately 15,000 undocumented objects (of the 30,000 total art pieces UND maintains in its collection). Longer-term opportunities include the possibility of funding staff or internships, conference attendance, supplies and archival storage, technology upgrades, exhibition of works, and staff development in the areas of preservation and conservation.

"I like any art, even the abstract stuff," added Eunice, who is a retired public school art instructor. "It's nice to see this work finally being documented. We're very honored to help start something like this—it's very neat. The art that's here is just amazing—these famous artists. To know that we have these in the collection is just amazing."

The Art of Medicine

School of Paris marks the official establishment of the School of Medicine & Health Science Art Gallery, located on the second floor of the School. But the Paris collection is actually the Gallery's second major exhibit of world-renowned artists. When it opened in 2016, the SMHS housed a collection of abstract expressionist or "pop" art pieces from the UND collection. For more than three years, the gallery displayed paintings by Andy Warhol, Roy Lichtenstein, and Robert Rauschenberg, among other pop artists of the mid-20th century.

This specific gallery notwithstanding, the School maintains more than 100 pieces over the course of its four floors. More "permanent" installations include pieces by Honoré Daumier, Emily Lunde, Audrey Flack, Peter Kuper and Walter Piehl, among many others.



FOR POSTERITY

UND Art Collections manager Sarah Heitkamp (left) with donors Eunice and Peter Kuhn in the SMHS Art Gallery.

Many of these pieces revolve around medical or health-related themes, such as Zack Julen's third-floor piece "Infected," which resembles bacteria as they might look under a microscope. And to help the viewing public better access such pieces, the School recently completed a self-guided art tour booklet for the building, available online and in the kiosk in the SMHS lobby.

Long term, the School hopes to employ students of all backgrounds as curatorial assistants. Through such a work-study role, students of multiple backgrounds could learn about the installation and upkeep of artwork, research and academic writing, and the processes involved with curating exhibitions.

One such student who has already done work for the School is Jocelyn Harrie, an undergraduate in the UND Honors Program.

"Although these are all separate pieces made by separate artists, they come together to capture a moment in time—an era teetering on the brink of war," said Harrie, who worked as a curatorial assistant in the SMHS in summer 2019. "Each piece represents a boundary being pushed, a new art style being invented."

The same should be said of the state's only medical school: by pushing itself beyond the typical academic and institutional boundaries, and making the art integral to the training of health providers, the SMHS is not only advancing medical education, but also the broader education that students come to universities such as UND to experience.

By *Brian James Schill*

Nich Riveland plays his violin at the SMHS Deeded Body Interment Service at Memorial Park Cemetery in Grand Forks in 2017.


 A photograph of Nich Riveland, a young man with glasses and a beard, wearing a blue plaid shirt and a grey vest, playing a violin. He is standing behind a wooden podium with the University of North Dakota seal on it. A music stand with sheet music is to his left. The background shows a cemetery with several headstones under a green canopy.

MUSICOPHILIA

Master of Occupational Therapy student Nich Riveland turns a passion for music into a career of service to others.

There was a time in Fortuna, N.D., native Nicholas (Nich) Riveland's life when he expected to be neither living in the Red River Valley nor considering turning his love of music into a career.

When an epilepsy diagnosis for one of his siblings in 1990 upended his parents' best laid plans, though, and his sister was sent regularly to Minneapolis for care, Nich eventually found himself on the road from oil country, where his family owned a farm, to the flood plain.

As it turns out, the family's move to eastern North Dakota, and Larimore specifically where his father took a job, changed not only the course of Nich's and his family's lives, but their relationship to music.

"For a while there, some of the physicians were telling my parents that they didn't think she'd perform very well in school," Nich said from the UND School of Medicine & Health Sciences lobby, recalling those difficult early days and explaining how music literally transformed his sister's—and then his—future. "So, they homeschooled her for a few years and signed her up for music classes. Piano lessons. They saw all the cognitive and social benefits that came from those lessons almost immediately."

His sister not only survived the diagnosis, but thrived, he said, becoming both a straight "A" student, who no longer needs anti-seizure medications, and a talented musician to boot.

"So, after that she just signed us all up for piano lessons," Nich said of his mother Robin.

And the family never looked back.

"Heavy metal drummer"

Nich's love of music exploded after that, and he learned not only piano but a variety of stringed instruments, including violin, guitar, and mandolin.

Graduating from the high school in Thompson, N.D., in 2008, he imagined making a career of music—but was also interested in health care, given his family's experience.

Enter the University of North Dakota, which at the time felt simultaneously right and wrong for the former farm kid.

"It didn't click—I wasn't real motivated," Nich confessed of his initial attempts at majoring in pre-medicine and, later, physical therapy a decade ago. "College felt sort of foreign to me then. Coming from a smaller community I felt like a small fish in a really big sea. I didn't feel connected, didn't have rapport with teachers like I was used to."

So did the musician take some time away from college to collect his thoughts and try music for real.

In addition to teaching violin to students of all ages at Arioso Music Academy in Grand Forks, a music education school founded by his mother, Nich also began playing mandolin

and “fiddle” in a travelling Americana band called Free Candy, playing some originals and covers by, among other groups, Avett Brothers and the Black Keys in regional clubs—and opening for heavy metal cover band Hairball in Fargo.

The time away from school to play in a travelling band, teach budding musicians, and assess his own professional path made all the difference.

One evening, the spouse of Nich’s drummer, a pediatric occupational therapist, chatted him up on the profession during those gap years, convincing him that it was an option worth considering—one which would allow him to incorporate music into a more lucrative gig.

“She told me I’d be good at that [type of work]. I looked into it and she was right,” Nich smiled, appreciating the irony that he was being pushed back into a health career via music.

And almost overnight, it seemed, everything clicked. Finally.

“When I first started getting into the profession and had my first pre-occupational therapy class, I started drawing those parallels between teaching children an instrument and having an interaction with a client in a one-on-one way,” Nich continued. “There were so many parallels. It felt like I had been sort of doing this work for a while. It’s a relatively new health profession, but I love the directions you can go with it—and now I’m finally learning the theory behind the sort of ‘teaching’ I was doing [as a music instructor].”

“On the road again”

Three years after returning to UND to pursue a Master of Occupational Therapy degree, then, Nich is both a new dad and on the cusp of a fieldwork experience in Idaho, where he and his spouse do expect to live for a time after graduation in May 2020.

And although he’s not set on a particular specialization within the profession, he acknowledges affinities for both the pediatric and geriatric populations.

“Every setting has its pros and cons, of course, but the setting that will benefit me most is one that will give me time to really plan interventions and think about the whole person in front of me and engage with them,” said Nich, who likes to build rapport with clients and claims he hasn’t experienced a therapy environment he didn’t enjoy. “My original aspiration was kids. I’ve had experience with both children and the geriatric population. I lived with my grandma for a while, so I feel I connect with older adults too. So, it’ll probably be one of those populations.”

That said, he’s had UND faculty encourage him to consider teaching and research too.

“I’ve been going to school on and off since 2008,” he replied, at the suggestion that he stay in higher ed, “so I’m feeling confident and competent in starting an entry-level practice and want some experience working. But I’m open to furthering my education—I’ve enjoyed my experiences here at UND.”

Besides, Nich added, he needs to take as much time as possible to be present for his newborn daughter, if for no other reason than to manipulate her musical tastes.

“That’s one of the most exciting aspects of [being a father] is that I can influence her music choices, at least to a certain extent,” he laughed, explaining too how he and his wife bought their daughter a onesie with a guitar on it to accompany the rock-history-for-babies book his drummer gifted them. “And hopefully as she grows up we’ll have a good enough relationship where she won’t end up hating all those influences.”

Get rhythm (when you get the blues)

Wherever Nich ends up, he’s confident that he will continue to incorporate music into his clients’ therapeutic regimen.

“No matter what happens in my professional journey I want to incorporate my lifelong passion for music into my therapy practice however I can,” he said, admitting to having considered studying music therapy. “Thinking about the creativity that stems from being an artist—that’s important for me in whatever I do. And that’s one reason I was drawn to occupational therapy. The profession really promotes using your creative powers for therapeutic reasons.”

The scholarly literature tends to support such a bias, of course. Dozens of studies have demonstrated the therapeutic effect music has on persons with any number of physical, psychological, and neurological conditions, as former UND Writers Conference participant Oliver Sacks, among other writers, documents in *Musicophilia*.

“It’s a powerful tool, one that has allowed me to adapt to the profession,” concluded Nich. “Music has been part of my life forever, and it always felt like a therapeutic part of me.”

By Brian James Schill



BLOOD OPERATIONS

Lieutenant Colonel Scott Corey, Squadron Commander of the United States Air Force's 42nd Operational Medical Readiness Squadron, is "from" nowhere. A lifelong military guy who considers everywhere and nowhere his home, Lt. Col. Corey joined the Air Force in 1990, and while on active duty obtained his undergraduate degree in health care management and master's degree in medical laboratory science—the latter from UND. After 30 years in uniform, and nearly a decade since his graduate degree, the SMHS alum sat down to chat with North Dakota Medicine via telephone from his base in Montgomery, Ala., to discuss military life, lab science in the Air Force, and moving on—perhaps to academia.

Thanks for your time, Lt. Col. Corey. So you're part of a team doing medical laboratory science for the Air Force. Are the military medical labs different from those in the civilian world?

In general, no. Basically, we, as laboratorians, are similar to the civilian sector in the sense that we operate clinical laboratories just like those out in general communities like Grand Forks, N.D., only for the Department of Defense. We adhere to the same regulatory standards, same lab practices that any

other civilian institution adheres to. Some unique challenges we face include a great deal of staff turnover, due to our military personnel. We're mobile and agile, meaning replacing staff to maintain continuity is always a challenge. We're key to the medical team in that regard, providing important diagnostic data to aid clinicians in making a diagnosis for our beneficiaries.

The population you serve must be a bit different, though?

Most of the population we serve is young, healthy individuals. They include active duty and retired personnel, along with their dependents, spouses, and children. Other special sub-populations include our pilots and flying crew, whether bomber or fighter pilots, who get treated a bit differently because they're in flying status. There are unique physiological demands put on them that are a bit different [from non-pilots], requiring special care. They're being monitored for conditions while flying and physicians will turn to the clinical laboratory to help solve any medical issues that arise.

Do you have medical labs on airplanes or ships at sea?

We don't have any Air Force labs on airplanes or ships but we

do have portable diagnostic instruments on cargo planes that are conducting aeromedical evacuation of personnel. We have approximately 70 Air Force military treatment facilities located all over the globe. As an example, there's a clinic located at Grand Forks Air Force Base with a small laboratory nested inside with Air Force personnel overseeing lab operations.

So, are you still doing lab-based work in your role as Squadron Commander?

I've stepped out of the clinical world a little bit. I still have the foundation and maintain my MLS certification [to practice]. Squadron Command has been a unique and rewarding career-broadening experience. I oversee seven different departments comprising roughly 130 personnel. It's my job to ensure our personnel are organized, trained, and equipped so they can do their day-to-day job.

Was this the sort of role you saw yourself in a decade ago?

I graduated from UND in May 2011 and was tracking toward this position. The Air Force positioned me on a leadership track and squadron command is a part of that track. Throughout my military career, I always wanted to be a Squadron Commander. In this capacity, I feel the privilege to serve and influence personnel is a tremendous responsibility that I don't take lightly. The best part of my day is watching individuals and teams under my command succeed, and see our staff deliver outstanding medical care to our active-duty military population and their dependents, and to the retirees that we serve. My background is I joined the Air Force as an enlisted member in 1990 and advanced through the enlisted ranks for eleven years before completing my undergraduate degree in 2001. I then applied for a direct commission and was accepted as a Second Lieutenant in the USAF as a Biomedical Laboratory Officer. My first officer assignment was to Bolling Air Force Base, in Washington, D.C., in 2001. I have been deployed twice to the Middle East, conducting mostly what we call "blood operations" [providing blood for soldiers in combat]. It was while serving in Alaska from 2004-2008 that I heard about the master of clinical laboratory science program at UND and was excited to enroll.

Did you have any affiliation with the Grand Forks or Minot Air Force Bases when you were out here?

No. I heard about UND's program via word of mouth through another active-duty airman who had graduated from UND's then-CLS program.

At which time you applied to UND's graduate program in MLS.

Correct, I enrolled in the graduate MLS distance learning/online program at UND. The distance program was obviously

beneficial for me, being a couple thousand miles away from the main campus and being stationed in Alaska. All in all it took me a few years to complete the master's program. Since commissioning in 2001, I've worked in small- to medium-sized labs in various laboratory management roles, overseeing core lab or point-of-care testing, and so on. I'm very appreciative and happy I chose UND's program. It provided me the flexibility to complete the program on my own time and it fit my schedule in a way that didn't burden my family.

Because Air Force living can be "unsettling" so to speak.

Yes. I was born at Tinker Air Force Base, Okla., and raised in the Air Force. My dad spent a little over 20 years in the USAF and retired in 1987. As a military kid, it's hard to call one place home. We moved a lot when I was younger, although I spent the better part of my young adult life growing up in San Antonio, Texas. After high school graduation in 1987, I believed college wasn't right for me yet—I needed a little more time to develop and mature. I felt like the military gave me that buffer of time to grow up and serve my country, so I joined what I knew best—the Air Force. Additionally, my parents weren't in a position to financially support me through college after graduation and I didn't want to put the [financial] burden on them, so I turned to the military. The Air Force has outstanding tuition assistance benefits, so I utilized that resource tremendously throughout both my undergraduate and graduate programs of study.

Do you see yourself doing anything different in five years?

It's hard to believe time has gone by so quick and it seems like yesterday I headed out for basic military training. I began my military career in 1990, so next year puts me at 30 years of total service in the Air Force. My time in the Air Force has been extremely rewarding and I wouldn't trade the experience for anything, but my family and I are looking forward to the next chapter. I'm in the process of transitioning out of the military and returning to either the clinical laboratory locally here in Montgomery, or perhaps trying my hand at an MLS faculty position.

Interview conducted and edited by Brian James Schill

IT'S ABOUT LISTENING

Adopt-a-Med-Student Program uses stethoscopes to connect donors to students in a direct way.



MENTORSHIP

Brandi Hoffart (center) receives her stethoscope from Dr. Mark Koponen (right) as Dr. Wynne looks on.

"I recalled a well-known acoustic phenomenon: if you place your ear against one end of a wood beam the scratch of a pin at the other end is distinctly audible." So noted French physician René Laënnec (1781–1826), who in 1816 invented what we today call the stethoscope. "It occurred to me that this physical property might serve a useful purpose in the case I was dealing with."

Still in use around the globe daily, the stethoscope is recognized as a nearly universal symbol of medicine.

Since 2011, however, the stethoscope has taken on a slightly different symbolism at the UND School of Medicine & Health Sciences. That year, the School began the Adopt-A-Med-Student program, which provides engraved stethoscopes for first-year medical students.

The goal of the program, which exists at other U.S. medical schools, is not only to provide physicians-in-training with a valuable tool to use during their education, but to encourage a relationship with sponsors that hopefully lasts a lifetime.

"I look forward to getting to know and work with you during my time in medical school as I prepare for my career in medicine," Grand Forks, N.D., native Brandi Hoffart wrote to donor Mark Koponen, M.D., an associate professor in

the SMHS Department of Pathology, after receiving her stethoscope in September 2019. "It was an honor to receive [the stethoscope] from you in person."

Koponen, a nine-year donor to the program, responded that as an associate professor at the SMHS, he sees medical students' ongoing need not only for serious study and training, but mentorship.

The notion that the School's supporters are "adopting" students is emphasized by SMHS administrators. School

Dean Joshua Wynne, M.D., M.B.A., M.P.H., encourages donors to write letters to the students receiving gifted stethoscopes—and for students to respond in kind. Ideally, the exchange will serve as the foundation for a lifelong relationship between donor and student, who by the time of the exchange will be familiar with the Hippocratic Oath's appeal that physicians act as teachers always and "gladly share such knowledge as is mine with those who are to follow."

"I see the medical students daily and appreciate their efforts as they navigate the first two years of their undergraduate medical training," Koponen told *North Dakota Medicine*. "As a former medical student, I remember how my stethoscope connected me to my patients and was a symbol of my chosen profession."

Dr. Wynne presents the stethoscopes to students at a complimentary luncheon each fall, at the start of new students' medical training—and invites donors to the event as well. But not all donors, who live all across the nation, can attend the luncheon, of course.

Just ask Donald A. Person, M.D., Col., MC, U.S. Army (retired).

Also a nine-year donor to the program, Person, writing from

San Antonio, Texas, gushed about the Adopt-A-Med-Student program, explaining how both writing to students and receiving letters from them “brings back wonderful memories of my time at UND. Some of the thank you notes from the students are truly touching and uplifting.”

Person graduated from UND with a bachelor of science in medicine degree in 1961 and went on to earn a medical doctorate from the University of Minnesota in 1963.

“Thank you so much for sponsoring me and for the stethoscope,” wrote Nadia Toumeh, one of two students receiving a stethoscope from Person this year. “I am very eager to use it to care for my future patients.”

“Certainly, the stethoscope represents an iconic symbol of the practice of medicine,” Person later told the School. “It is fitting that this year, 2019, is the two hundredth anniversary of

Laënnec’s description of the stethoscope.”

By contrast, Dr. Denise Rondeau, clinical associate professor in the SMHS Department of Obstetrics & Gynecology and academic coordinator for the School’s obstetrics clerkship, was a first-time stethoscope donor.

She had been saving her participation for her son, who became a first-year student at the SMHS this fall.

“It was a really special opportunity for me as I was able to present [in person] the stethoscope to my son, Brandon, who didn’t know I was going to be part of that day!” explained Dr. Rondeau, a 1994 graduate of the School’s MD program who surprised her son at the 2019 luncheon in Grand Forks. “I use my stethoscope every day that I am seeing patients!”

By Brian James Schill

ADOPT-A-MED (OR PA) STUDENT

If you wish to help make a difference in a student’s education, please consider giving to the Adopt-A-Med-Student program.

For \$250, donors can provide students with a 3M Cardio IV stethoscope, with the students’ names engraved on the device’s diaphragm.

This year, 60 donors provided funding for 77 students. A full listing of stethoscope donors since 2011 can be seen at: med.UND.edu/alumni-community-relations/adopt-a-med-student.

There are already 23 donors on the 2020 stethoscope list, so don’t delay!

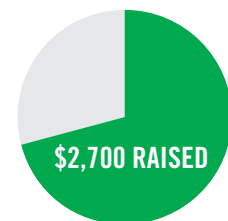
Gifts begin a relationship that can last a lifetime. Last year, donor and pediatrician Lori DeFrance was coincidentally paired with a med student whom Dr. DeFrance had delivered in the hospital more than 20 years ago!

Gifts of \$250 per student can be mailed to the: UND Alumni Association & Foundation 3501 University Ave. Stop 8157 Grand Forks, ND 58202. (Please include “Stethoscope” in the memo line.) Gifts can also be submitted through the “Give Now” button on the Foundation’s website or by going to: undalumni.org/SMHS.

The School is also taking donations for the Adopt-A-PA-Program for our Physician Assistant Studies students. Help us reach 100% of our goal!

Adopt-A-PA-Student Program

- Goal: \$3,300
- 81% has been raised since Nov. 4, 2019



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Schmitz appointed to three-year National Advisory Council term for National Health Service Corps

Professor and Chair of the UND School of Medicine & Health Sciences (SMHS) Department of Family & Community Medicine David Schmitz, MD, has been named to the National Health Service Corps's (NHSC) National Advisory Council. The appointment is for a three-year term.

The NHSC looks to address America's shortage of primary care providers by awarding scholarships and offering loan repayment services to providers in eligible disciplines in exchange for their service to underserved regions of the country. This shortage is especially acute in rural areas of the United States, whose residents often have limited access to health care.

"This appointment will be a great opportunity to serve North Dakota in a

national capacity regarding workforce allocation," noted Dr. Schmitz, who came to the SMHS in 2017 after years of practicing rural medicine in Idaho. "The NHSC scholarship and loan repayment programs help provide services to some of the most underserved and vulnerable populations in the U.S., which certainly include some parts of North Dakota."

Schmitz was nominated by both the American Academy of Family Physicians and the National Rural Health Association for consideration for appointment. He is board-certified in Family Medicine and earned his Doctor of Medicine degree from the State University of New York at Buffalo. He is recognized across the United States for his rural medicine scholarship and advocacy.

Tasked with advising the secretary of the U.S. Department of Health and Human Services and the administrator of the Health Resources and Services

Administration, the National Advisory Council on the NHSC is a group of health care providers and administrators experienced in working with communities facing a shortage of primary care professionals. The group has been strengthening and growing the country's primary care workforce since 1972.



David Schmitz

Lei awarded five-year, \$1.5 million R01 grant from the National Institutes of Health to study anxiety

Saobo Lei, Ph.D., professor in the UND School of Medicine & Health Sciences Department of Biomedical Sciences, has been awarded a five-year, \$1.5 million grant from the National Institutes of Health. The prestigious R01 class grant, which is funded through the National Institute of Mental Health, will be used to explore new therapies for anxiety disorders in humans.

Anxiety disorders are among the most common psychiatric disorders affecting as many as 20 million American people today. Unfortunately, current first-line pharmaceutical treatments for anxiety are effective for only 50 to 60 percent of patients, and achieve full remission of anxiety in less than one-third of people taking them. Furthermore, most

available medications, such as the class of pharmaceuticals known as benzodiazepines, have side effects and can create dependence in users.

Having studied anxiety and related neurological conditions for more than a decade, Dr. Lei is hoping his lab might discover a new way of treating or preventing such disorders.

"Our long-term goal with this grant is to explore novel mechanisms by which therapeutic strategies for anxiety disorders can be developed," noted Dr. Lei. "Accumulating evidence indicates an important role for vasopressin, or AVP, in anxiety. Among other effects, AVP interacts with a class of receptors known

as V1aRs that, when activated, contribute to the symptoms of what we call anxiety."



Saobo Lei

Community participates in tenth annual Joggin' with Josh

In September, UND Interim President, Vice President for Health Affairs, and Dean of the School of Medicine & Health Sciences (SMHS) Joshua Wynne, MD, MBA, MPH, hosted the School's annual Joggin' with Josh, an informal 5K/10K/one-mile walk, jog, or run.

Presented by the SMHS, in conjunction with UND Healthy Campus Week, this public event was free and open to the public.

Countless studies have shown that the benefits of regular exercise are many and varied. From reducing one's risk of heart disease and diabetes, to controlling weight



and improving mental health, exercise can add healthy years to a person's life.

Joggin' with Josh began in 2010 when Dr.

Wynne reminded SMHS medical and health sciences students not only to encourage their future patients to live healthful lifestyles but also "practice what they preach."

North Dakota IDeA Network of Biomedical Research Excellence (INBRE) holds annual Research Symposium at the UND School of Medicine & Health Sciences Oct. 19-20

The Institutional Development Awards (IDeA) program, under the National Institutes of Health's (NIH) National Center for Research Resources, assists states such as North Dakota that have historically received relatively less research funding from the NIH. The program's objective is to develop in those states



an infrastructure that supports biomedical research, creates opportunities for students to pursue careers in biomedical research and assists researchers in becoming more competitive for NIH funding.

The statewide INBRE network, which focuses on health and environmental studies with research projects that include undergraduate students, is administered by the SMHS. Don Sens, Ph.D., a professor in the SMHS Department of Pathology, runs the program at UND.

"INBRE provides a broad range of benefits in biomedical research and science education to

research universities, baccalaureate institutions and tribal colleges across North Dakota," said Sens.

The focus of the Symposium, which included a poster session and workshops on immunohistochemistry, confocal microscopy, and flow cytometry, was research conducted by undergraduate students from undergraduate institutions, tribal colleges, and universities across North Dakota.

Award winners from the North Dakota State Science & Engineering Fair were also on hand to display their projects.

UND School of Medicine & Health Sciences celebrates Pre-Med Day

The UND SMHS Student Council held its annual Pre-Med Day on Saturday, Oct. 26, 2019, in Grand Forks. Pre-Med Day is an opportunity for college undergraduates and high school juniors and seniors who are thinking about becoming physicians to learn more about studying medicine at UND.

The event's morning session consisted of speakers who introduced participants to the SMHS and the UND pre-medicine and medical school curricula. Panels of medical students discussed their experiences thus far in medical education at UND. The afternoon session provided an overview of the admissions process, including a panel of local physicians who will talk about their lives as doctors. SMHS Simulation Center tours were also provided.

Alpha Omega Alpha Honor Medical Society recognizes SMHS for Excellence in Inclusion, Diversity and Equity

The Alpha Omega Alpha (ΑΩΑ) Honor Medical Society has given the University of North Dakota School of Medicine & Health Sciences (SMHS) a 2019 Award for Excellence in Inclusion, Diversity and Equity in Medical Education and Patient Care. The SMHS is one of only four medical schools in the U.S. to receive the award in 2019.

UND received its award on the strength of its Indians Into Medicine (INMED) program, which “seeks out, nurtures and supports American Indian and Alaskan Native students on their paths to becoming physicians,” noted an ΑΩΑ release. “The program ensures that 10% of the School’s medical class each year [comprised of 78 total students] are a part of the American Indian population.”

“This is outstanding,” noted Dr. Donald Warne, director of UND’s INMED and Master of Public Health programs and associate dean for Diversity, Equity & Inclusion at the School. “Our School is consistently in the top slot in the nation for the percentage of medical students identifying as American Indian, but now we’ve begun thinking further upstream. We’re exploring kindergarten through high school [K-12] programs, and maybe even pre-K for INMED. And looking downstream, we’re thinking about INMED

residency programs and other leadership development programs for indigenous physicians.”

Dr. Warne said all of this builds on the program’s efforts to develop an INMED pre-med program at the bachelor level at UND and dual M.D./Ph.D. and J.D./M.P.H. degrees for American Indian students interested in health policy, research, and law.

“We’re very excited about this!” added Dr. Cornelius “Mac” Dyke, associate dean of the School’s southeast campus in Fargo, N.D., who coordinated the ΑΩΑ application for UND. “INMED deserves this national stage.”

The award, established earlier this year, recognizes medical schools (and their associated ΑΩΑ Chapter) that demonstrate exemplary leadership, innovation, and engagement in fostering an inclusive culture that transforms the ideals of inclusion, diversity, and equity into successful programs to support medical students, house staff, and faculty diversity in service to the community.

Criteria for award selection include a broad range of diversity and inclusiveness-centered initiatives, including efforts to support

recruitment and retention of medical students, faculty, and staff from diverse backgrounds; multicultural programming or related initiatives; community outreach and pipeline activities; programs that enhance diversity and inclusion; mentoring, coaching, and role modeling programs related to diversity and inclusion; and established programs/activities that advance an understanding of, and astute respect for, cultural competence.

“I am extremely proud of our INMED program and the several hundred doctors who graduated from it over the more than four decades it has been in existence,” commented Dr. Joshua Wynne, interim president of UND, vice president for Health Affairs, and dean of the SMHS. “UND is grateful for this national recognition of INMED’s noteworthy contributions that reflect the combined efforts of faculty, staff, and especially students.”



Donard Warne

Jurivich awarded \$3.75 million to study geriatrics education and health care transformation in Dakotas

Dr. Don Jurivich, chair of the Department of Geriatrics and the UND School of Medicine & Health Sciences (SMHS), was recently awarded a \$3.75 million grant from the Health Resources & Services Administration. The federal grant will be used to advance geriatrics education and health care transformation in the Dakotas, with particular focus on the American Indian population.

According to Jurivich, the grant will be directed both to improve older adult health care through geriatric education for all learners ranging from caregivers and medical

students to practicing providers, and make primary care in the state more “age-friendly.”

“Ultimately we want to create age-friendly health care systems and entire age-friendly communities,” said Jurivich. Although boasting a population with a relatively low median age (35.4 years in 2018), advanced age is a growing socioeconomic and health issue in North Dakota, whose population ranks fourth out of 50 American states and the District of Columbia for Alzheimer’s disease prevalence and “oldest-old” status (citizens age 85 and up). As the nation’s

median age continues to increase, incidence of other conditions typically associated with older age—not only Alzheimer’s but things like Parkinson’s disease and dementia—are also likely to rise.

Partnering with the SMHS on the project are the North Dakota State Division on Aging Services and Health Promotion, UND Center for Rural Health, Good Samaritan Society, Alzheimer’s Association, Memory Café, North Dakota State University, and South Dakota State University, among other organizations.

Mary Averill, BS OT '94, passed away on Monday, Aug. 5, 2019. Mary was born on Aug. 25, 1938. She graduated from Wichita High School West, class of 1956.

Darlene A. Bender, BS MT '59, received her angel wings on Aug. 1, 2019, after a massive stroke. Darlene was one of two children born to Alfred and Ann Bender, in Harvey, N.D., on Oct. 23, 1936. Darlene graduated from Harvey High School and the University of North Dakota. After graduating from college Darlene accepted a position with Kaiser Hospital in Oakland. It was in Oakland where Darlene met Les Grussenmeyer. Darlene and Les were married on Feb. 6, 1960. They later moved to Sacramento and then to Davis where their children Anne and Ed were born. Darlene was in charge of the laboratory at UC Davis Student Health Center, retiring in 1999. Darlene had a love for traveling and hiking, and she joined a local hiking group, The Trampers. Darlene also enjoyed her volunteer work at a local thrift store. Darlene is survived by her daughter, Anne; son, Ed and his wife Laura; grandchildren Evan, Sarah, and Jacob; along with nieces and nephews, and her companion, Greg Voge.

Meredith R. Dubuque, BS MT '65, age 76, passed away Sunday, Aug. 11, 2019, at her home in Grand Forks. Meredith Ruth Olufson was born Feb. 4, 1943, in Grand Forks, N.D., the daughter of Henry and Emeline (Kroll) Olufson. She attended Rye 30 school through eighth grade and attended Valley Junior and Central High in Grand Forks, graduating in 1961. In 1965, she graduated from UND with a BS in Medical Technology. She was employed by UND for eight years before becoming a full-time farm wife & mother, spending many hours volunteering as picture lady (Art Appreciation) and room mother for her daughters' classes. Meredith married Dan Dubuque in 1965. They lived on the Dubuque family farm where they raised four girls. She then returned to work and enjoyed a 20-year career in the lab at United/Altru Hospital. She was a lifelong member of United Lutheran Church, where she was a member of ULCW and volunteered her time helping in any way she could.

Carla Ann Freeman, (at the time certified via UND's Department of Physician Assistant Studies) FNP '75, was born on July 21, 1938, on the family farm in DeSmet, S.D. Carla attended country school and graduated from DeSmet High School in 1956; she then graduated as a registered nurse from St. John's School of Nursing in Huron, S.D. Carla met the man who would one day become her husband at the fourth grade spelling bee, where the "country girl" was victorious over the "city boy," much to his chagrin! Carla and Dallas later started dating in high school and were married on Dec. 28, 1958. In 1969, the family moved to Estherville, Iowa, where

Carla continued her nursing career at Holy Family Hospital and Dallas joined the faculty at Iowa Lakes Community College. At Holy Family, Carla served as supervisor of the Medical/Surgical Floor and was given the responsibility of setting up and implementing the Coronary Care and Intensive Care Units. A budding pioneer in Iowa medicine, Carla was selected in 1975 as one of the first six women in Iowa to pursue family Nurse Practitioner licensure, forming the foundation of Nurse Practitioner and Physician's Assistant professions in this state. She received her advanced education from the University of North Dakota and practiced for 20 years at Spencer Medical Associates in Spencer, Iowa, both at the Spencer office and her own satellite clinic in Milford, Iowa. Even after retiring in 1993, Carla never surrendered her medical bag and stethoscope, as she cared for family, friends, neighbors, and anyone in need.

James Hockenberry, BS Med '62, passed away on Aug. 21, 2019. He had been ill for several months, and he passed peacefully at home. He was born in Oakes, N.D., in 1933, a community that still remembers his family since there is a Hockenberry Park on the edge of town. Dr. Hockenberry married his spouse just after she graduated from High School in July 1953. They finished up with the Navy after another two years, and then moved to Grand Forks, where James went to college to get a degree in chemistry. He realized he wanted to be a doctor, however, and applied to med school at UND. After two years at UND, James transferred to the University of Kansas for the last two years, as UND was a two-year program at the time. After graduation, they moved to Sioux Falls, S.D., where he did an internship at McKennon Hospital. Finally done with his formal education, the Hockenberry family moved to Oakes, N.D. where James joined Dr. Walt Craiche in private practice. Dr. Hockenberry ran a private clinic in Fallon, Nevada, from 1981 until the early 2000's, covering the Emergency Department, admitting patients to the hospital, running his private clinic, and delivering hundreds of babies. The nurses at the hospital who knew him well will tell you his best quality was that he was always available. He finally retired for the third and last time in 2008 and lost his wife in 2013. Learning how to do laundry, run a vacuum, and cook for himself were difficult tasks for an old guy, but he was able to figure it out with a little help from his family. His health declined over the last several months, and he passed away peacefully, with an ever present cup of coffee at his side. He will be missed by his family and friends as well as the many patients for whom he cared so deeply.

David R. Holten, BS Med '58, passed from this earth peacefully on Sept. 16, 2019, with his wife of 59 years Bonnie, holding his hand. He had medical complications, including Parkinson's, which finally took his breath away. David was born in Grand Forks, N.D., on the first day of spring, March 21, 1935, to Melvin and Polly Holten. He wanted to become a doctor when he was in fourth grade. He was further inspired to do so when his brother John became a physician. Dave diligently pursued his studies and finished his pre-med program in three years. To put himself through school, he washed dishes, delivered papers, worked highway construction, and worked in a slaughterhouse. He was offered a swimming scholarship to the University of Michigan, which he turned down to live at home for pre-med and the first two years of medical school offered at UND. He then enrolled in Temple University in Philadelphia where he completed medical school. It was at Temple that he met the love of his life, Bonnie Holton, who was teaching school in nearby Levittown, Pa. "David" means "beloved" and that was David Holten's life exemplified. He was a faithful family physician for 58 years serving in Minnesota, Wisconsin, the U.S. Army, and Albuquerque for 48 years. He was a servant to thousands of patients and always enjoyed running into them years after treating them. Dave was a dedicated family man who adored his wife, children, and their spouses and grandchildren.

Maridell Helen Reid, BS OT '59, passed away on Oct. 7, 2019, at her home. She was born in Minot, N.D., on April 14, 1937, to Samuel and Golda (Nettleton) Reid of Palermo, N.D. She attended grade and high school at Stanley, N.D., graduating in 1955. She graduated from the University of North Dakota at Grand Forks with a Bachelor of Science in Occupational Therapy in 1959. Following graduation, she worked for 2 years as Recreation Director at the former Minnesota State School for Girls at Sauk Centre, Minn. She became a registered Occupational Therapist in the American Occupational Therapy Association (AOTA), and was licensed by the North Dakota State Board of Occupational Therapy in 1961 while working at the former UND Rehabilitation Unit for patients with physical disabilities. In 1965, she became Chief Occupational Therapist at St. Luke's Hospitals in Fargo (now Sanford Health). She developed clinical practices in psychiatry, physical disabilities, and pediatrics. She served in this position for 18 years. She was selected to be UND's O.T. representative to the AOTA Councils on Education and Clinical Practice, serving four years. She then held the same positions for the North Dakota State College of Science Occupational Therapy Assistance Program for four years. As president of the NDOTA, she served 6 years on the AOTA Delegate Assembly.

She presented many educational programs to different service groups while living in Fargo. She was an active member of Quota International and served one term as president. She was a member of the Architectural 1 Design committee for the development of New Horizons handicapped living facility. In 1977 she won the YWCA Woman Of The Year Award. In 1982 she was an occupational therapist in Monroe, Wisc., and later returned to North Dakota where she worked with geriatric patients at the State Hospital in Jamestown. She retired in 1977 and continued to live with the "ruler of the house" her beloved parakeet, Joey. She was preceded in death by her parents. Her body has been donated to the UND School of Medicine & Health Sciences Deeded Body Program.

Dean Roland Strinden, BS Med '50, was born Nov. 29, 1923, to Teddy Isaac and Martha Ovidia Eidsvig Strinden and died Sept. 21, 2019, in Williston, N.D., at the age of 95. He grew up in Litchville, N.D., where his parents instilled values of faith, family, and community service. He was preceded in death by his parents; sisters, Lone and Marcelle; brothers, Keith, Osmund Alfred, and Theron Strinden. He is survived by his wife of 69 years, Cathleen Leona Wallgren Strinden; daughter Susan (Lyle) Hall and children Nathaniel (Annie), Kirsten (John) Juhl, Selah (Ryan) Stebbins, Maren (Nathan) Nodland, Bennet and William (Andrea); son, William (Sarah) and children, Ernest (Gabriela), Edward, Emily (Evan) Flett and Daniel (Elizabeth); daughter, Carol (William) Hineman and children, Joel (Megan), Bridget (Judah) Coleman and Jared; 18 great grandchildren; brothers, Earl (Jan) and David (Ella); sisters-in-law, Cleone and Mavis Strinden; and numerous nieces and nephews. After graduation from Litchville High School, he served in the Army in World War II, stationed in the Philippines and New Guinea. He entered the UND medical school after completing his undergraduate degree then transferred for the final two years graduating from the University of Colorado Medical School in 1952. While at UND he met and married his beloved wife, Cathleen Wallgren. They moved to Williston in 1954. He co-Founded Harmon Park Clinic in 1954 and served the community as a family doctor doing everything from delivering babies to trauma surgery. He reluctantly retired from active medical practice in 1993. Over his career he served as president of the ND Chapter of the American Academy of Family Physicians, ND Society of Obstetrics and Gynecology, and the ND State Medical Association, and served on the State Health Council by governor's appointment. He was the recipient of UND's Sioux Award in 1994. He was the chairman for the UND Foundation and UND School of Medicine Campaign for Excellence. He was grateful to live in Williston and have the opportunity to serve with his friends and

neighbors. He has been ever dedicated to his family. There were pony rides and long walks in search of agates. His words of wisdom included "life is too short to have bad days." For the past few years he fought health issues to continue caring for his wife. He wanted nothing more than to remain in their home spending time on the porch overlooking their peaceful valley together. He was intelligent, wise, stubborn, strong, dedicated, and loved so much. He had a passion for life, learning and doing the right thing. He was fiercely proud to be a North Dakotan and would take any opportunity to teach others about his great state. He was an excellent and loving husband, father, grandfather, and great-grandfather, leaving a legacy of service and lessons learned and cookies for Cathleen and the grandchildren.

Gerald R. Swafford, BS Med '53, died on Oct. 3, 2019, at age 89. He was intelligent, hardworking, generous, and forthright, with a hearty and memorable laugh that all who knew him will remember. Gerry was born on July 21, 1930, in Bismarck, N.D., the only child of Gerald Swafford and Winifred (Flinn) Swafford. When he was only four years old, his father died, and he knew from that point on he wanted to be a doctor. His mother found work in Bismarck and Gerry went to live with her parents in the nearby town of Wilton. Although his mother made frequent visits to spend time with him, he stayed with his grandparents until his graduation as valedictorian of the 16-student senior class at Wilton High School. Then he was off to Jamestown College, where he completed in three years the requirements necessary for transfer to the two-year medical school at the University of North Dakota in Grand Forks. He completed his final two years at Vanderbilt University. He and his classmates did well, and Gerry was accepted for his internship at the University of California Moffitt Hospital in San Francisco. The following summer, he married Mary Sandra Puckering in Fargo, N.D. However, the jobs he had arranged for their summer in Yosemite had to be abandoned when he was drafted. When offered the option by an Army recruiter, he chose to become a paratrooper. After six weeks in San Antonio for basic training, he and Sandra were sent to Fort Bragg, N.C., where Gerry became a Captain in the 82nd Airborne Med Co. Over the next two years, he accomplished 13 jumps for pay and three for the fun of it, one from a helicopter. After his honorable discharge, Gerry began his four-year surgical residency at Fort Miley Hospital in San Francisco. A clinic in Jamestown, N.D., offered financial support if he would agree to be their general/vascular surgeon when his residency was completed. Both Gerry and Sandra had family still living in Fargo, so it was not a difficult choice; and at the end of the residency program, they went to Jamestown. They missed

California, however, and after six years moved back so Gerry could share a practice in Yuba City with a friend from his residency days. Realizing that he enjoyed surgery but not the business aspects of the practice, he decided to join Kaiser Permanente in Sacramento, where he practiced for 25 years. He liked his fellow doctors and his work there; he especially enjoyed helping train surgical residents from UC Davis Medical School. Following his retirement, Gerry kept busy reading, traveling worldwide to spot birds, gardening, and hiking with friends. He joined other Kaiser surgeons in providing free hernia operations to help disadvantaged people get back to work, recorded several books for the California State Library Braille and Talking Book program, volunteered as an AARP Tax Aide during tax season, volunteered at Peace Action, and worked for the Kaiser Spirit Program with fifth grade students.



THINKING HEALTH CAREERS

SMHS Simulation Center Project Coordinator Stephanie Flyger (right) talks to North Dakota high school students about health careers at the Northern Valley Career Expo at Alerus Center in Grand Forks.



(FAMILY) REUNION

L to R: Peg Mohr, Julie Devahl, and Mary Kay Twito, members of the SMHS Class of 1979 at the School's Homecoming banquet in Grand Forks, October 4, 2019.



I LOVE A PARADE

Members of the UND School of Medicine & Health Sciences Occupational Therapy program at Potato Bowl 2019.



ALL CARE IS PRIMARY

Dr. David Schmitz, professor in the SMHS Department of Family & Community Medicine, talks shop with Melissa from Trinity Health at the UND Center for Rural Health's annual Primary Care Week festivities in Grand Forks, Oct. 2019.



INTERPROFESSIONALISM

Associate Professor of Family & Community Medicine, Dr. Eric Johnson (center) with NDSU College of Health Professions faculty Cynthia A. Naughton (left), senior associate dean and associate professor, and Teri Udem, director of Advanced Pharmacy Practice Experiences, at the Schools' joint pharmacy student-medical student match social in Sept. 2019.



ALLERY AWARDS

From L to R: Andrea Kelsch, a senior with a double major in medical lab sciences and pathology at UND; Marlinda Haudley, a second-year graduate student in public health at NDSU; and Ryan Toledo, a second-year medical student at the UND School of Medicine & Health Sciences were honored with the 2019 Alan J. Allery Awards at the seventeenth annual American Indian Health Research Conference in October 2019.



DREAM TEAM

Gov. Burgum and First Lady Helgaas Burgum (left) with Dr. Don Warne (center) at his faculty lecture “American Indian Health Equity: Trauma, Resilience, and Recovery.” With them are UND Dept. of Biology Professor Bill Sheridan and UND Interim President Dr. Joshua Wynne.



CEREMONY

Indians Into Medicine professor Nicole Redvers speaking at the 17th annual American Indian Health Research Conference, held at the SMHS on Oct. 19, 2019.



CUTENESS, STAT!

Second-year medical student Jared Schommer with friend at the School's annual Teddy Bear Clinic.

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SAVE THE DATE:

Alumni receptions in conjunction
with professional conferences



PHYSICAL THERAPY

Feb. 13, 2020 - Denver, CO



OCCUPATIONAL THERAPY

March 27, 2020* - Boston

* tentative