



# NORTH DAKOTA MEDICINE

University of North Dakota School of Medicine & Health Sciences



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# 2019 UNIVERSITY OF NORTH DAKOTA HOMECOMING

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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

Interim President, UND **Joshua Wynne**  
Vice President for  
Health Affairs and Dean,  
School of Medicine &  
Health Sciences

Editor **Brian James Schill**

Writers **Brenda Haugen**  
**Stacy Kusler**  
**Jan Orvik**  
**Jessica Sobolik**

Contributors **Kristen Peterson**

Graphic Design **Laura Cory**  
**John Lee**

Photography **Wanda Weber, Mike**  
**Hess, Kristen Peterson,**  
**Shawna Schill**

ON THE COVER: AAMC President David Skorton at the UND School of Medicine & Health Sciences in August 2019 (photo by Mike Hess, UND).



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UND School of Medicine & Health Sciences  
Office of Alumni and Community Relations  
Attn: Kristen Peterson, 1301 North Columbia Rd Stop 9037  
Grand Forks, ND 58202-9037

E-mail: kristen.peterson@UND.edu  
Phone: 701.777.4305

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## Features

|  |    |
|--|----|
| <b>Branches From the Same Tree</b> .....   | 6  |
| AAMC President David Skorton and UND Vice President for Health Affairs Joshua Wynne sit down and talk Einstein, medical education, and the arts at the School of Medicine & Health Sciences. |    |
| <b>Love Medicine</b> .....   | 10 |
| Or, how the UND Indians Into Medicine program survived—and thrived—in the new century.   |    |
| <b>Making it Rain</b> .....  | 22 |
| UND's Department of Biomedical Sciences pulls in another \$10 million for expanded epigenetics research.   |    |
| <b>To be Continued</b> .....   | 24 |
| The SMHS Office of Continuing Education contributes to the ongoing education of thousands of North Dakota health providers each year.  |    |

## Departments

|  |    |
|--|----|
| <b>Dean's Letter</b> .....                               | 4  |
| <b>Center for Rural Health</b> .....                     | 12 |
| <b>Alumni Notes</b> .....                                | 13 |
| <b>Students in Action - Marcos Moreno</b> .....          | 14 |
| <b>Faculty in Action - Bryan Delage, MD</b> .....        | 16 |
| <b>Alumni in Action - Erik and Leesha Heitkamp</b> ..... | 18 |
| <b>Workforce</b> .....                                   | 20 |
| <b>Homecoming/Philanthropy</b> .....                     | 26 |
| <b>News Briefs</b> .....                                 | 28 |
| <b>In Memoriam</b> .....                                 | 32 |
| <b>Parting Shots</b> .....                               | 34 |

**UND** SCHOOL OF MEDICINE  
& HEALTH SCIENCES  
UNIVERSITY OF NORTH DAKOTA



# TAKING IT ALL IN



As you may know, I've been functioning as UND's interim president (while continuing my duties as vice president for health affairs and dean of the UND School of Medicine & Health Sciences) since the somewhat abrupt departure of former president Mark Kennedy this past June. It has been a whirlwind couple of months, to say the least, with my managing two full-time jobs and a move into the president's residence on the UND campus in Grand Forks, N.D.

One of the more rewarding experiences I've had as interim president was hosting the annual UND Bus Tour of North Dakota this summer. Along with about 30 new faculty and administrators, we traveled across the northern portion of North Dakota in August. Each year since 1990, UND's newcomers have boarded a UND bus to see the Peace Garden State firsthand over the course of a few days. Stops on this year's tour dotted U.S. Highway 2 westward to the North

Unit of Theodore Roosevelt National Park. We had stops in Grafton, Devils Lake, Minot, Velva, New Town, Watford City, Tioga, Rugby, and Lakota before returning to Grand Forks on Wednesday evening. The tour is known for its diverse perspectives on North Dakota culture, from industry to nature. Walkthroughs of the Marvin Windows plant in Grafton and Leading Edge Equipment in Devils Lake started the trip on Monday, while Tuesday included a tour of the Three Affiliated Tribes Museum in New Town and a drive through the tips of the absolutely breathtaking North Dakota Badlands.

One of the highlights of the trip—among many—was the tour and supper we had at Black Butte Acres at Effertz Farm in Velva (population 1,204). The farm is a family business that is run by Jerry and Norma Effertz with assistance from their daughters Maria and Kayla. They were wonderful hosts, and all radiated their passion for the beauty and wonders of living in rural North Dakota. Especially for new faculty and staff who are not from North Dakota, the visit provided a unique and instructive perspective on rural life.

Another highlight was the lunch at McKenzie County Healthcare Systems in Watford City, hosted by CEO Dan Kelly. Dan is one of the real leaders in rural health care delivery, and he educated our busload of new North Dakotans regarding the current status of health care in his region. As you undoubtedly know, Watford City has experienced as dramatic a transformation as perhaps any locale in North Dakota—the result of the oil boom. Its population has increased something like four-fold or more, and it sports a variety of new facilities to support the burgeoning community. And a trip to the nearby North Unit of the Theodore Roosevelt National Park provided everyone with an awareness and appreciation for the ruggedness, beauty, and solitude of part of North Dakota's landscape.

As this issue of North Dakota Medicine suggests, UND's trip across the rural portions of our state is especially instructive for those of us in the health care fields. It's vitally important for providers to see first-hand both the amazing work our

rural facilities are doing, often with limited resources, and the positive results of our many Healthcare Workforce Initiative (HWI) programs—such as the RuralMed and expanded graduate medical education (residency) programs. Nearly a decade after the HWI got off the ground we are seeing these investments pay off for the state and the citizens of our rural communities in major ways that can serve as a model for the nation.

Since expanding the rural health care workforce is one of the priorities of the School, I was pleased to also participate in the recent White Coat Ceremony where medical students in the incoming Class of 2023 were welcomed into the profession. We were honored to have a very special guest speaker at the ceremony that capped the students' first week. The just-installed new president and CEO of the Association of American Medical Colleges (AAMC), Dr. David Skorton, was on hand to deliver the featured address at the ceremony. I have known David for decades during his stints as vice president for research and then president of the University of Iowa, president of Cornell University, and most recently as secretary of the Smithsonian Institution. As you might surmise, Dr. Skorton has wide-ranging experiences and interests in a wide spectrum of activities related to higher education (which you can read more about in the following pages). The White Coat Ceremony was a very special event; we had almost 600 family and friends of the incoming medical students on hand for the ceremony and the subsequent supper—our largest turnout ever! And shortly thereafter, we welcomed to campus even more students to our many health sciences programs. The new building on the Northeast (Grand Forks) campus has come alive after its summer slumber!

Lastly, I'm delighted to report that alumni and friends of UND gave a record-setting \$67.7 million to the University through the UND Alumni Association & Foundation during the fiscal year that ended June 30, 2019. Donors to the UND SMHS were important contributors to the record year. The FY19 UND record is nearly twice the amount committed the previous

year, while the old record was \$49.9 million set in 2011. The philanthropic generosity of our alumni and friends is humbling, and we are truly thankful for such amazing support. It is a reflection of the passion and commitment our alumni and friends have for UND and the School. This financial support is invaluable as we work to provide outstanding opportunities for the next generations of health professionals and aim to keep their debt load from becoming onerous. It's also instrumental in elevating both the University and the School as premier institutions that focus on education and research excellence in the setting of community engagement.

We'll be celebrating this achievement this October for UND Homecoming 2019. I hope to see you there for the many events—including a multi-disciplinary continuing education symposium—the School is hosting in collaboration with UND. It promises to be a great week.



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





# BRANCHES FROM THE SAME TREE

*David J. Skorton, MD, is president and CEO of the Association of American Medical Colleges (AAMC), a not-for-profit institution that represents the 154 accredited medical schools in the United States (and 17 in Canada), as well as nearly 400 teaching hospitals and health systems, and more than 80 academic societies. He joined the AAMC in July 2019 after a long and distinguished career after serving as president of two universities—Cornell University (2006 to 2015) and the University of Iowa (2003 to 2006)—and, most recently, serving as the 13th secretary of the Smithsonian Institution.*

*Dr. Skorton visited the UND School of Medicine & Health Sciences (SMHS) in August 2019 to speak at the School's MD White Coat Ceremony—his first visit to a member institution since becoming AAMC President—at the request of UND's interim president and SMHS dean, Dr. Joshua Wynne. Among the busy schedule of events Dr. Skorton kept during his two days in Grand Forks was a sit-down with Dr. Wynne to discuss medical education in the U.S., distance learning, and the added value the arts and humanities bring to the sciences.*

*The following is a transcript of the two physicians' conversation, edited for clarity and space.*

**Joshua Wynne:** Something that is very important to me, as I know it is with you, is combining the arts with the sciences. I wanted to start by asking you to talk about that a little bit. When we look at the jobs you've had—some at the very big research universities, but also at the Smithsonian—I'm

wondering what you think the importance is of the liberal arts to the sciences, especially as it relates to the health care field.

**David Skorton:** It's not a mistake or totally surprising that those bridges can be built. There was a study by Root-Bernstein that showed that scientists who reached the top level of scientific accomplishment—Nobel Laureates—are much more likely to have an avocation in poetry, the arts, something like that. So, I think there's good evidence that the arts are important to many of us in the sciences. But most importantly, these [biomedical] problems just aren't so easy to categorize. In the medical sphere, places like UND have brought the humanities into the mainstream of medical education, which is fabulous. Not only by introducing concepts like empathy and communication, but beyond that, there was a study by Harvard Medical School that took some students learning how to do physical exams to the Museum of Fine Arts in Boston and taught them how to look closely at works of art. And it turns out that this increased students' ability to observe things in patients, because they'd learned how to see things more closely. And you guys—I mean this sincerely—are at the forefront of this. To answer your question, I've had a nonlinear career path, which I'm happy about. There's a recent book I'd been reading [by David Epstein] called *Range* on the notion that specialization in one's life early on—which used to be a mantra—is maybe not the only or best way to reach excellence. I didn't do it on purpose, but I bounced around a lot. I wanted to be a musician—that's how I started. Obviously, I was a flop at that, since you're not



streaming my music or paying to hear me play now. But I never lost my interest in the performing arts. Much later, when I was a medical student, and later doing research, it came to me from reading thought leaders over the generations that problems and challenges in the world don't come in neat categories. Even medical problems—patients don't walk in and say "I have a problem with this particular part of my biochemical pathway." They come in with a whole bunch of things. Problems, fears, the need to communicate and be heard. You know Einstein has this quote from the thirties in an essay where he says—and I'm paraphrasing—that all science, religion, and arts are branches from the same tree. And I really believe that's the case.

**JW:** [My spouse] Susan and I hosted a reception for the incoming medical student class recently at the North Dakota Museum of Art, and what was interesting to me was that without us encouraging the students, some of them—who'd never been there before, even if they did their undergrad work at UND—were wandering through and looking at the art and talking about it. We heard more than a few students say "I went to UND but had no idea this place existed. Thank you for opening it up to me and letting me experience this."

**DS:** That's really a gift to give those young people. So, I was at the Smithsonian until just recently, and the newest museum there—the National Museum of African American History and Culture—where the founding director there, who's now the Secretary of the Smithsonian, Dr. Lonnie Bunch, estimated to me once that about a quarter of the people who've gone

to that museum have never been to any museum before. So opening up that world is amazing. When patients come to us, or when we think about the general population, about 10-20 percent of our health can be related to health care. About 80 percent is related to other factors, including the social determinants of health, who your grandparents were and your zip code. That puts you right in the junction of science, the social sciences, the humanities, and to some extent the arts.

**JW:** In the realm of medical education, and education generally, there are important trends underway that will continue and maybe accelerate in the future. We've seen that many current students like to study and interact on their timeframe in their locale. This is different from the way you and I experienced medical school in the large lecture hall where the professor gets in front of the class and does a data dump from their brain to the student's brain. Increasingly we're seeing students who want to engage in active learning, not necessarily all together or at the same time—that is to say, asynchronously—and not necessarily physically in a lecture hall. What do you see as some trends for the future? Is it possible, for example, to use virtual reality to train people in "teammanship"—which we think is vitally important in the future of American medicine?

**DS:** All kinds of trends are happening. This thing you described, which some for the last decade or so have called the "flipped" classroom [small group, student-directed learning facilitated by instructors], is interesting. We're interested in

having them get that information in whatever way they want, in whatever method is used, as a place to test out this so-called active learning. You're doing it at UND, and as I understand it you're working toward an intensification of that process in a new curriculum. I think there are a couple trends overall that will be interesting over the years for us to be in close touch with. For example, the push toward competency-based education. Isn't it possible that student A versus student B would have a different time to get to a point where she or he is competent at doing something? There's already a discussion around the country about shortening medical school. Might we get to a point where it's really individualized through technology as you suggest and through a flexible curriculum, as you have and are developing? To have the education customized for each student, to a certain extent. Or for categories or cohorts of students. All those things will happen, and I think that day will come when we'll ask if someone really needs a bachelor's degree to go to medical school or law school. Could you pass some competency threshold and then proceed to professional education? Now, I'm old school. In fact, I'm old period. No other qualifier. So, I think there's enormous benefit to having the breadth of a baccalaureate experience, but also the socialization that occurs on campus.

**JW:** Let me follow up on your competency-based education idea, which I agree with completely. If we apply this especially to medical education, one of the issues or stumbling blocks is post-degree training, that is, residency training. If students finish at different times based on their attainment of certain competencies, how does that feed into a residency program that uses a computerized system on a given day to admit everyone? Would that have to evolve as well? How would that work after medical school?

**DS:** That is a great question, and before I answer that let me just say that one of the challenges that you and I both have is the problem of our success in increasing the number of med schools in the country and the number of students per class. And now, just recently, the medical schools in the United States have caught up with the goals set up by the AAMC to increase the number of doctors being educated by 30 percent. We've gone just over that. Now we have another problem, which you brought up one aspect of, which is: are there going to be enough slots in graduate medical education, and will the federal government have the wisdom to understand that we need to put some more funds into creating more [residency] slots so that we can increase the overall supply of doctors in the country and avoid a serious physician shortage? This is the overriding issue. In terms of how we would work competency-based education in terms of currently fixed deadlines for

moving to the next phase, that's a problem to be faced. Another thing I find exciting at UND is the fact that you have communities for the groupings that you put people in where you combine other health care workers.

**JW:** Our learning communities. These are both physical and virtual. We put the students of different disciplines together physically, but we also do some educational activities with them together as a group, such as our Interprofessional Health Care course.

**DS:** What a great idea. Think of all the people who contribute to health care in the country. The physicians, the nurses, the physician assistants, the pharmacists, the medical librarians, occupational therapists, physical therapists, and others. And you're bringing them together.

**JW:** Going back to your comment about the numbers and distribution, but also the team approach, one of the things that we were thinking about as far as the prediction of how many practitioners one needs is using a pretty simple business formula. The output (that is, the number of practitioners needed to provide outstanding healthcare) is a function of the number of people you have and what you invest in systems, often called capital, and some efficiency factor when you bring them all together. The usual prediction of the number of physicians we need assumes that the efficiency factor doesn't change. What we say is, yes, there is a real need for more physicians and other providers, which is one of the reasons we expanded class size. But we said that's necessary but not sufficient. The way we can get a better output—that is, better and cheaper patient care—is not just simply increasing the number of physicians, not simply doing capital things like a new building, but actually improving the efficiency by which those ingredients are brought together.

**DS:** This sounds exactly right. And by the way, a tip of the hat for the breadth of education that's going on here, and an extra tip of the hat to our nursing colleagues.

**JW:** Absolutely.

**DS:** Nurses are helping us get around the bases in so many ways. The clinic I was co-director of at the University of Iowa for over 20 years, which was devoted to the care of the adolescent and adult with congenital heart disease, was run expertly by an advanced practice nurse who had her own practice within it and also kept us moving in a more efficient direction. But your definition of efficiency in this setting is one I've never heard before. It's very, very interesting. You ought to jot that down for somebody to read. I want to ask you a quick



question. Do you think what you've been discussing about efficiency in education, putting on your presidential hat for a moment for the University of North Dakota at large, does that go for the other kinds of education?

**JW:** I'm smiling because this reminds me of the conversation we had last night. I was discussing accepting the interim presidency with a former fellow dean of a medical school, who now has a very senior position where he oversees both the medical campus as well as the non-medical campus. He urged me to accept this interim position for the following reason: He said, based on his experience at this other major public institution, that the most attractive part of [a presidency role] was being able to find partnerships between what was going on at the medical campus as well as the non-medical campus, which was largely but not completely undergraduate. They have a lot of other graduate programs, but not medically focused. And he thought that the articulations that they found between the two institutions were extremely productive in building this idea of maximizing productivity by bringing together different members of the educational team. But you brought up nursing. There has been a not always a smooth relationship, shall we say, between physicians and nursing. Assuming this is correct, what further can we do to try to foster, encourage, and welcome a more balanced and appropriate relationship so there isn't an arm wrestle, but an arm-in-arm relationship, working together for patient care?

**DS:** The answer is a long, multidimensional answer. I'm thinking about this, starting where my office is, my building on K Street in Washington. My predecessor, our colleague, and friend, Dr. Darrell Kirch, is a wonderful leader, a very visionary man. When he was putting together that building, not only is the AAMC headquartered there, but [he brought in] organizations that are devoted to education of other health professions. Two floors of the building are actually devoted to that, so that's somewhat a symbolic thing, but also allows us to run into each other at the water cooler, so to speak, as we would say in the old days. Then there's legislative piece, which includes identifying the scope of practice that's permitted. In general those are developed on a state-by-state basis. Those are things that have to be thought about very, very carefully. And then there's the issue of how you fund all of this. I want to say, having been in public higher education for most of my career at University of Iowa, and having a chance to recognize the success that you've had in public higher education here at UND, it's obvious that the Legislature of the State of North Dakota and this university have found common ground. We're sitting in a building that's magnificent, a great investment for the future. Looks like it was a sizable investment to my eye, but

obviously a great investment for the future, and I congratulate you and the Legislature.

**JW:** Just as a point of information, this is not going to be the answer in all states, obviously. But as you may know, we actually have gotten the State Legislature as a partner in GME slots, and the state is now funding 35 GME slots in North Dakota. This is provided through state appropriations. Those are tax dollars, and when this bill came up, in a state well known for being careful with its financial resources, almost 80 percent of the Legislature voted for the bill. Nearly 80 percent is a landslide in any state, and these are careful legislators who spend public money very carefully. They realized the importance of this issue.

**DS:** There's so much denigration of elected officials these days everywhere. What a great thing to see, a partnership, an example. You can be sure that [Dr. Skorton's Chief of Staff] Jennifer [Schlener] and I are going to go back and talk about this example with our government relations people because it's a fabulous, fabulous example. But you brought up public universities. I just want to say one more thing. Having been in both the public and private sector, the public higher education system is the bulwark of American higher education. And Jennifer and I have both been in public higher education for years and years, as you are. And of course the private sector is also extremely important. But the public higher education system is what people are depending on in every corner of this country. It's not a mistake that the first visit I'm making as president of the AAMC is here. Part is because it's you, somebody I admire so much. But part of it is also that I wanted to visit a public university in a community-based setting, and it's very, very impressive. The only thing I'm impatient about is, as great as it is to see you, I can't wait to meet the students this evening. All 77 of them.

**JW:** You'll enjoy it.

**DS:** Yes. I hope they stay awake throughout my speech. For the record, let me just first say that I'm thrilled to be here. I've been a fan of Dr. Wynne for a very long time. You're very lucky to have him leading the whole University of North Dakota, not only the School of Medicine & Health Sciences. Dr. Wynne has two attributes that are made for the moment. Not only is he a distinguished academic who's got chops in research, patient care, teaching, and more recently, health care policy. He's the genuine article. Two—he's never satisfied. He always wants to push the envelope a little bit and make things better. Those two things are fabulous attributes and it's wonderful to be here and to celebrate all you're doing.

*Dialogue arranged and edited by  
Brian James Schill and Jan Orvik*



# LOVE MEDICINE

Or, how the UND Indians Into Medicine program survived—and thrived—in the new century

Gene DeLorme paused, choosing his words carefully.

“We went from nine employees to four,” DeLorme emphasized, still wincing at the thought. “When you look at that fact, and take inflation into account and purchasing power, that’s devastating. But we carried on with the same program and burnt ourselves out trying to do same workload as nine people.”

DeLorme, an attorney by training who was Indians Into Medicine (INMED) Director at UND’s School of Medicine & Health Sciences (SMHS) from 1994 to 2017, is referring to the \$600,000 loss the program suffered in 2006 when Congress cut the Health Care Opportunities Program, one of two federal programs that had been keeping the program afloat.

In an instant, INMED’s operating budget was cut almost in half.

Making the cut deeper was the fact that DeLorme and his team had just helped INMED reach a level of stability following other budget troubles and a federal audit in the mid-1990s—which he was brought in to manage. Now he was being put in the position of both reducing the scope of services the program provided American Indian students interested in health careers and cutting staff positions.

But while such blows could have meant the end of INMED at UND, DeLorme and his team soldiered on, wounded, but dedicated to accomplishing its mission.

And the University of North Dakota is better for it.

### Home away from home

The workload DeLorme references cannot be underestimated. Although INMED began in 1973 as the nation’s first program specifically to assist American Indian and Alaska Native (AIAN) medical students, by DeLorme’s time the program had expanded tremendously.

In the 1990s, INMED not only was providing support services to medical students but managing a Medical College Admissions Test (MCAT) prep course for pre-medical undergraduate students, a Summer Institute (SI) that brought dozens of middle and high school students to UND’s campus for science education each summer, and even was bringing science education to reservation schools in North Dakota.

And it began offering on-campus support to American Indian students in affiliate health programs from nutrition & dietetics, medical laboratory science, and nursing to social work and, yes, engineering—on the assumption that reservation hospitals, like any health facility, needed social workers and engineers to function.

Kathleen Fredericks remembers those days well.

“We had study hall, prepared meals on occasion, and had more events then,” explained Fredericks, referencing the art show, student organization, and annual powwow that INMED at one time sponsored. “This space was truly a home away from home for these students. It was very supportive.”

A 17-year veteran of the program, Fredericks today oversees INMED’s “Med-Prep” summer programs and advises medical and pre-medical INMED students. She too was there when the program was expanding—and then contracting.

And as Fredericks’s colleagues suggest, even if INMED no longer makes fry bread for its students, its value-add hinges on its status as a second home, which increases retention and graduation rates for American Indian students, some of whom had never set foot off the reservation before their Summer Institute session or freshman year at UND.

“There’s a sense of community about these programs and what students experience here,” smiled Dr. Joycelyn Dorscher, the SMHS associate dean of Student Affairs & Admissions who served as INMED’s interim director following DeLorme’s retirement in 2017. “That’s exactly what these kids need. It’s important for students to come here and be exposed to the college environment, and get excited about it. They make connections with other people—those connections stay. INMED is all about relationships, which is how you build trust in tribal communities.”

Or, as the program’s assistant director Dr. Siobhan Wescott puts it, since not a lot of American Indians have a family member in medicine to guide them through the process—yet—INMED itself functions as that guide.

“Having gone through med school myself, it seems that the number of med students in general who have a parent or close

## PASSING THE TORCH

Dr. Joycelyn Dorscher (left) and Eugene DeLorme at the SMHS for DeLorme's retirement reception in 2017.



family member in medicine is very high,” said Wescott, who also serves as chair of the Minority Health Section for the American Medical Association. “You need someone who is close to you to help you through this incredibly long, complicated process with all its nuances. INMED has been a steady presence in a rough sea for native students getting through medical school. It’s a great model and we have a lot to be proud of.”

### Expanding again?



This, then, is the role INMED has tended to emphasize in a 21st century economic environment known for its austerity: the mentor-guide, the provider of a version of what novelist and poet Louise Erdrich called “love medicine.”

All of which is to say, although it may not cook meals for students much anymore, INMED has survived numerous challenges and emerged—almost against the odds—as committed to producing AIAN health providers as it was in 1973.

And there is at least hope that it might begin to expand its scope again: both Wescott and Assistant Professor Nicole Redvers, ND, have been brought on board to help current INMED Director Dr. Donald Warne, who also serves as the School’s director of the Master of Public Health (MPH) program and its associate dean for Diversity, Equity & Inclusion, move the program forward.

“We should be thinking further upstream,” Warne recently told a group of American Indian health professionals at the Strengthening Academic & Tribal Partnerships in the Great Plains conference, hosted by the SMHS. “We should be

thinking K-12, not just middle-school, and maybe even pre-K for INMED. And looking downstream, we should be thinking about INMED residency programs and other leadership development programs.”

This vision of a 360-degree INMED—kindergarten STEM education through post-graduate residency training—is the type of bold and comprehensive thinking Warne was brought in to help the program initiate in 2018.

“We are in process of developing an INMED pre-med program at the bachelor level,” continued Warne, referencing also his vision for dual MD/PhD and JD/MPH degrees for American Indian students interested in health policy, research, and law. “These are all moving forward. And nationally there are many preventive medicine residencies, but none that focus on rural and tribal populations. That’s something we really need—a focus on preventing disease.”

All of that will take time to realize, of course. But after a handful of tumultuous years around the turn of the century, INMED is perhaps in the best position to expand its vision than it has been since its founding nearly 50 years ago—and see hundreds more AIAN students bring their UND degrees back home to communities across North Dakota and the nation.

“Those were always the most significant moments for me—when I got to sit on the stage of Chester Fritz Auditorium and watch that seventh grader cross that stage and get their MD degree,” concluded DeLorme. “That’s when they first came to us, seventh grade. And they went through all five years of SI and did undergraduate and medical school at UND. So that was a pretty special day. It doesn’t get much better than that.”

*By Brian James Schill*

# NOT FORGOTTEN

## NICOA solidifies partnerships with local tribes, programs

When Larry Curley, executive director of the National Indian Council on Aging (NICOA), visited North Dakota earlier this year, the trip provided an opportunity for him to see firsthand the programs in place to help Native Americans elders. Curley not only met with staff from the Center for Rural Health's (CRH) National Resource Center on Native American Aging (NRCNAA), talking about issues such as the growing prevalence of Alzheimer's disease and disabilities in Indian Country, he joined them on tribal visits across the state.

A member of the Navajo Nation, Curley has been involved in the aging and health care fields for more than 40 years and has been instrumental in working with the federal government and national organizations on aging to garner support for programs affecting Native American elders. Early in his career, Curley worked as a nursing home administrator for a tribal long-term care facility. He also served as a hospital administrator in Nevada and as a college instructor at the University of Nevada-Reno and Eastern Washington University. He was chosen as assistant dean of the Four Corners region for the Burrell College of Osteopathic Medicine and served as director of program development for Rehoboth McKinley Christian Health Care Services in New Mexico.

Perhaps Curley's biggest impact came as a Washington, D.C., lobbyist. As a lobbyist, he successfully pushed for the passage of Title VI of the Older Americans Act in 1978. The Title VI legislation, which Curley also wrote, established programs providing nutrition and support services for American Indians, Alaska Natives, and Native Hawaiians. In 2000, caregiver support services were added. Through Title VI programs, grants are provided to eligible tribal organizations to promote community and home-based support services—including nutrition services and support for family and informal caregivers—for Native elders.

It's because of Title VI that programs such as the NRCNAA exist. During his visit to North Dakota, Curley, NICOA Executive Assistant Cheryl Archibald, and Cole Ward, NRCNAA project



### NATIVE ELDER PROGRAMS

Cole Ward (left) and Collette Adamsen (right), both of the NRCNAA with Larry Curley (second from left) and Cheryl Archibald (third from left).

coordinator, traveled to New Town, N.D., to talk with Polly Chase, the Title VI director for the Mandan, Hidatsa, and Arikara Nation. Chase discussed her program and how it functions. Along with answering questions around the Meals on Wheels Program that many communities utilize, Curley was interested in what else Chase needed for her program to meet the evolving needs of the elders, Ward shared after the trip.

"I believe it was really important to Larry to visit with the Title VI programs to hear firsthand their stories," said Collette Adamsen, director of the NRCNAA. "It helps him to have a better understanding of where their needs lie and how he can assist the elders. It allowed him to get a better sense of the forefront issues for our Native elder programs."

Curley, Archibald, and Ward traveled the following day to Spirit Lake, where they met with Heather Lawrence, the Title VI Director for the Spirit Lake Tribe, and Michelle Meyer, senior project coordinator for the Native Aging in Place Project at the CRH.

"We discussed the projects Heather and Michelle are currently working on and the future projects they envision," Ward said. "I was very impressed with Larry. As I listened to Heather, I noticed and felt like Larry genuinely cared and never interrupted her as she spoke, but reassured her that NICOA was available to help and provided contact information for people he thought could provide answers."

According to Adamsen, Curley's visit was important because it

helped build partnerships between Native elder-focused programs, all of which have common goals in advocating for our Native elders.

“Therefore, it is so important to develop these collaborations to make us more powerful in accomplishing our objectives in serving our Native elder populations,” Adamsen said. “In the past, we have attended NICOA conferences and presented with some of the members of NICOA at the American Society on Aging conference, but going forward, we plan to work together more. We are going to partner on some future projects for Native elders throughout the nation. We are developing a memorandum of understanding together to solidify that partnership.”

At the CRH, Curley said he wanted to meet with the NRCNAA to redevelop that relationship so both organizations can work together and move forward. “We have a lot of issues that we’re dealing with. The reauthorization of the Older Americans Act is coming up and we’ve put together a legislative agenda that we’re going to be pushing and organizations like North Dakota, UND, are a vital part of that process,” he said.

Along with solidifying partnerships, Curley’s stop in North Dakota helped assure local people and programs that they are important and haven’t slipped off the national radar.

“In my mind, Larry’s visit was important because, for some reason, North Dakota is often forgotten about in D.C. and in the minds of national agencies,” Ward said. “But the man who wrote the Title VI legislation for Natives and now is the executive director at the National Indian Council on Aging was at our doorstep reassuring Native people in North Dakota that they are not forgotten.”

“I felt very honored and humbled to have Larry visit with our program,” Adamsen said. “I’m so excited for the future work we will be collaborating and partnering on. He is someone we can learn from, and I respect him very much. He has so much knowledge to share. He is a huge asset to NICOA, the NRCNAA, and Native elders overall.”

*By Brenda Haugen*

## ■ '10s

**Nathan Brunken, MD '16**, is now at Essentia Health St. Mary's in Detroit Lakes, Minn.

**Troy Krieger, MLS '15**, is among 40 high-achieving pathologists, pathology residents, and medical laboratory professionals younger than 40 who were recently named to the prestigious 2019 ASCP 40 Under Forty List. A medical laboratory scientist with a “specialist in cytometry” credential, Krieger has a qualification in laboratory safety and is licensed in Montana as a clinical laboratory scientist. He works as a medical laboratory scientist performing clinical flow cytometry at Yellowstone Pathology Institute Inc. Krieger serves on the Montana State Board of Clinical Laboratory Science Practitioners and on ASCP’s Council of Laboratory Professionals as the Northwest Regional Representative.

**Steven Halcrow, DPT '12**, in the UND Department of Physical Therapy, successfully completed the examination and requirements as a Board Certified Specialist in Orthopedics. According to the American Board of Physical therapy Specialties, the first orthopaedics specialist certification examination was administered in 1989. As of June 2019, ABPTS has certified nearly 16,000 orthopaedics specialists.

**Ashley Kremer, MD '11**, is the new medical director for Northland Health Centers and will be seeing patients in Rolla and Rolette, N.D.

**Keri Weick, PA '10**, was recently honored with the Minot Area Chamber of Commerce’s Eagle Award For Excellence. Weick is a family medicine provider at Trinity Health in Minot, N.D.



**Nathan Brunken, MD**

## ■ '00s

**Jason Askvig, Ph.D., '12**, received promotion and tenure to Associate Professor in Biology at Concordia College, Moorhead, Minn.

## ■ '90s

**Sara McCullough, MD '98**, has joined the emergency medicine department at Mayo Clinic Health System in Albert Lea and Austin, Minn.

**Thomas Magill, MD '90**, has joined the emergency medicine department at Mayo Clinic Health System in Albert Lea and Austin, Minn.



**Jane Gorud, MD**

## ■ '80s

**Jane Gorud, MD '87**, is now at Mid Dakota Clinic Gateway Mall in Bismarck, N.D., in pediatrics.

**Kathryn Obregon, MD '85**, has re-joined the pediatric and adolescent medicine department of Mid Dakota Clinic in Kirkwood Mall in Bismarck, N.D. She was with the clinic from 1994-2014.



**Kathryn Obregon, MD**

# ‘NATIVE LIVES MATTER’

Third-year med student Marcos Moreno talks health disparities, a book chapter, and activism among American Indian youth

The statistics can be overwhelming: on the Pine Ridge Reservation in South Dakota, life expectancy is lower than anywhere in the western hemisphere, with the exception only of Haiti.

Likewise, the incidence of substance abuse, diabetes, cancer, and suicide are all higher among American Indians and Alaska Natives than non-indigenous people—and in some cases are increasing.

Born on the Pascua Yaqui Reservation in Arizona, Marcos Moreno couldn't help but be struck by the similar figures on his reservation.

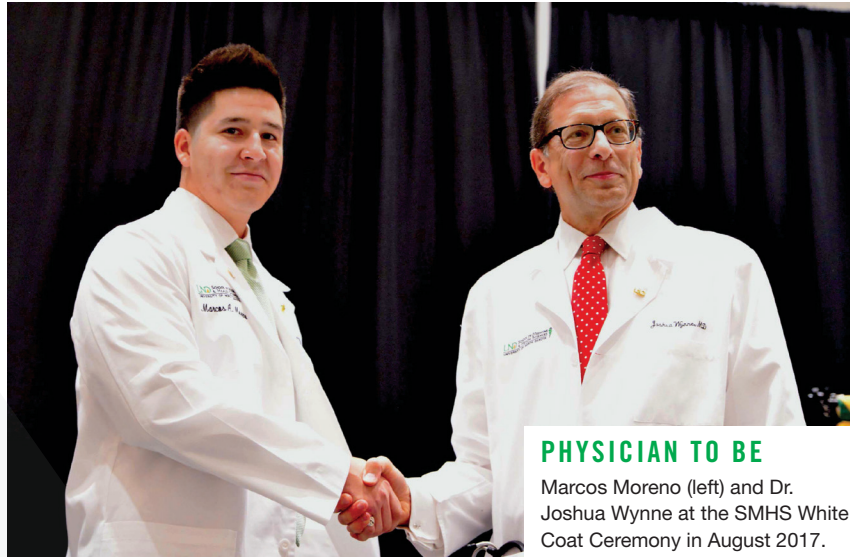
“Many of the tribes [in Arizona] also have some bleak statistics of their own at the national level,” said the third-year medical student, who is in the middle of clinical rotations in Fargo for the UND School of Medicine & Health Sciences. “Between my reservation and the Tohono O’odham reservation near Tuscon—that’s maybe 12,000 people—there were more suicide attempts than in all of southern Arizona combined one year.”

## Neuroscience as Public Health

It's these facts that set Moreno on the path not only of studying medicine long ago, but conducting public health research with his tribe more recently.

Although Moreno started writing about disparities in public health outcomes at Cornell University when he was an undergraduate, most of his research focused on the neurological bases of addiction, specifically opioid, alcohol, and amphetamine use.

But medicine proper quickly followed as Moreno found himself talking public health with both Dr. Carlos Gonzales, the director of the INMED program at the University of Arizona, and, eventually, Dr. Donald Warne, director of the INMED program at the UND School of Medicine & Health Sciences.



## PHYSICIAN TO BE

Marcos Moreno (left) and Dr. Joshua Wynne at the SMHS White Coat Ceremony in August 2017.

So he applied to UND and was accepted.

“I remember on my interview for UND, one of the professors was grilling me on the neuro research I’d done as an undergrad—making sure I knew what I was talking about,” laughed Moreno, who has an interest in practicing medicine for his tribe in the future. “At first I thought ‘Oh man, this guy doesn’t like me.’ But as the interview went along he warmed up to me and we talked about the East Coast, where he was from, and where I had been living. We talked about what adjusting to life in the Midwest was like, and some of the special things that he felt UND had to offer that other places didn’t. It ended up being a really good experience.”

Describing his interest in specializing in either neurology or psychiatry, Moreno noted that while studying public health is important for any physician—“There’s a whole host of social factors that overlap with medicine, so you can’t avoid [public health],” he quipped—this fact is especially true for doctors looking at working with tribal populations.

Just as important is reporting your work to a variety of audiences, especially those outside medicine.

To that end, Moreno recently contributed a chapter—“America’s Forgotten Minority: Indigenous youth perspectives

on the challenges related to healthcare access, widespread poverty and public misinformation regarding Native Americans”—to the book *Global Indigenous Youth: Through Their Eyes*, which describes the health disparities facing American Indians in the United States especially.

Featuring essays by indigenous youth from all seven United Nations-designated indigenous regions, the book, co-published by Columbia University and the United Nations in 2019, documents the challenges, hopes, and prospects of indigenous youth from around the world.

Moreno’s chapter is the only one in the nearly 300-page book that deals with indigenous health in a formal way.

“The big issue with native health care in the U.S. is that while some tribes have designed their system such that the disparity isn’t that drastic, there are others where these trends have persisted for a very long time, for whatever reason,” Moreno explained, adding that on a per capita basis the federal government spends more on the health of federal inmates than persons using the Indian Health Service for medical care. “There’s a lot of variation from tribe to tribe, but that’s what I wanted to capture [in the essay]—the spectrum of outcomes.”

Far from laying blame, though, Moreno notes that the IHS, which has seen a series of budget cuts for decades, understandably struggles to face such devastating issues alone.

“When the IHS was established, I don’t think [the federal government] realized how long these problems would be around or how big they would get,” he said. “The problems have definitely outgrown what IHS can provide on its own in most cases. But as tribes take more control of their own systems and have more autonomy, their outcomes tend to improve. When they can decide where resources go and handle problems as they arise, it does benefit them.”

### Adverse Childhood Experiences

Relying on Dr. Warne, among other voices, in his chapter, Moreno notes that recent scholarship suggests a connection between unresolved trauma, adverse childhood experiences, and poor health outcomes—not only in Indian Country but everywhere.

Furthermore, such health outcomes cannot be divorced from the realities of a racism that has persisted into the 21st century.

So have native youth began speaking up and out with greater frequency on the impact social and political issues have on their tribes’ physical and emotional wellbeing.

Calling Native peoples’ resilience their greatest asset, Moreno wrote in the essay that the recent “strong and invigorating series of movements led by [indigenous] youth, including the national protests of the Dakota Access Pipeline and the beginning of the Native Lives Matter Movement” intersects with population health.

“Especially for tribes who’ve lost most of their land, you can see how exaggerated the disparities are for things like mental health, addiction, and suicide,” he said.

Such health activism coincides too, said Moreno, with more college attendance by American Indians and Alaska Natives in the 21st century.

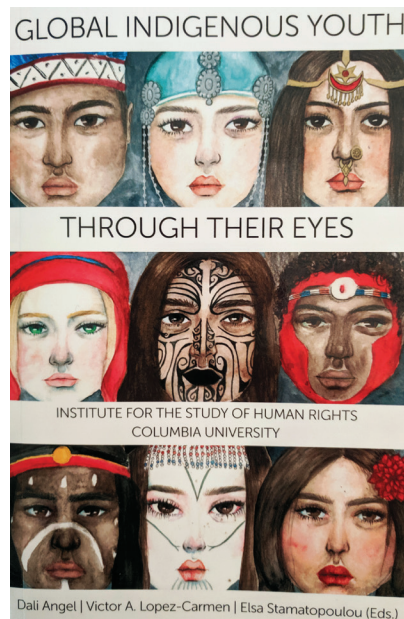
“Because my generation is one of the first to attend school in much larger numbers than in past times, we’ve had the opportunity to reclaim and learn a lot about our own tribes’ history and traditions on our own, and have tried to give those back to our parents a bit,” he added. “When I talk to my dad about this,

he says he’s learning things about his tribe from me at times—and I feel like that says a lot because my dad’s not that old. It just shows you how much things are changing.”

This is why rather than feeling merely discouraged at the statistics cited above, Moreno is optimistic for his tribes’—and Indian America’s—future.

“In my lifetime I’ve seen quite a bit of change in the sense that [suicide and other health disparities] are being recognized as issues by not only Native peoples, but others observing the statistics coming out of Indian country,” he concluded. “UND does things that pay recognition to tribes’ struggles with health care like including lectures on it within the medical curriculum. Cornell had a whole minor that could be focused on Native health care. These are all positive things, and steps in the right direction no doubt.”

By Brian James Schill



# EVERY MINUTE COUNTS



## UND works to be designated a cardiac ready campus

When a person has a heart attack, every second counts.

“With every minute that passes, you lose 10 percent chance of survivability,” said Terry Wynne, UND director of safety (no relation to SMHS dean Joshua Wynne). “You have to act as soon as you can.”



**Terry Wynne**

That’s one of the reasons UND is working to be the first university or college in the state – and perhaps the nation – to be named a Cardiac Ready Campus by the North Dakota Department of Health – Division of Emergency Medical Services. UND is seeking the designation in partnership with the UND College of Nursing & Professional Disciplines, UND Work Well and Altru Health System.

The campaign kicked off earlier this spring, and organizers expect to submit the application to the North Dakota Department of Health soon.

Once UND is designated as a Cardiac Ready Campus, it will focus on four aspects of cardiac health and readiness: stroke, hypertension, heart attack, and CPR (cardiopulmonary resuscitation)/AED training.

### **Cardiac campaign**

The campaign’s goals are to educate students, faculty and staff about the risks of heart disease, train them to perform CPR or use defibrillators and offer blood pressure screening.

One of the projects, a map of defibrillators on campus, is already complete.

“When we say Cardiac Ready Campus, it’s really a Cardiac Ready Community,” said





**Tiffany Knauf**

Dr. Bryan Delage, assistant professor of family & community medicine at the UND School of Medicine & Health Sciences, who is spearheading the campaign. “If we promote it on campus, we may generate interest among students, who might promote Cardiac Ready Communities throughout the state.

We want to get the message out about how we can improve outcomes.”

A number of people have suffered heart attacks on campus over the decades, Wynne said. But in recent years, thanks to quick action by University community members and defibrillators stationed across campus, more have survived.

“In one case, a department had talked about cardiac issues and emergencies at a meeting,” Wynne said. “Later, a staff member came into work, and his co-workers noticed something was wrong. He was in the middle of a heart attack. They acted quickly, and he had five stents put in. He would have died if people hadn’t acted quickly. That makes all the difference.”

“The outcomes from an acute cardiac arrest vary widely, with the average nationwide survival rate being only about 10 percent,” said Delage. “But in places where early CPR or defibrillators were more likely to be available, the survival rate rose to 60 percent.

“That’s a 50 percent difference in survival rates – a huge difference. That’s what stimulated me to promote UND as a Cardiac Ready Campus.”

Through education, training, and community awareness, UND can improve the potential survival of such events in the campus community and Grand Forks, Delage said.

**Know your numbers**

“High blood pressure is a risk factor for heart attacks,” Delage said. “If you’re in your doctor’s office and they say your blood pressure is a bit high, we want to raise awareness.”

“About 33 percent of North Dakotans have high blood pressure,” said Tiffany Knauf, Hypertension and Health Systems Coordinator with the North Dakota Department of Health, who is working with UND to help it earn the designation.

“The best way to avoid a stroke or heart attack is to get your blood pressure under control. If we can bring awareness to campus about the importance of getting your blood pressure

under control so you can avoid emergencies, or more effectively save someone quickly in case of an emergency, it can make a huge impact.”

**Increasing survival**

Early CPR is also important, Delage added.

“Good CPR, initiated early, can really increase survival,” said Delage. “Initiating it early and maintaining it extends how likely people are to be resuscitated. That’s why all the efforts we’ve chosen improve that chance of survival. Teaching people to start and do effective CPR, and to get a defibrillator on as early as possible and then getting EMS there are all part of the chain of survival that the American Heart Association talks about.”

Changing best practice CPR to compressions from mouth-to-mouth has also improved survival rates, Delage said.



**“When we say Cardiac Ready Campus, it’s really a Cardiac Ready Community.”**

**DR. BRYAN DELAGE**

“Laypeople are more likely to do chest compressions,” Delage said. “If you can get compressions going and get emergency medical services there within 10 minutes, data shows there is no difference in save rates between a health care provider doing mouth-to-mouth breathing versus compressions only. People are more willing to do chest compressions, and that increases the save rate.”

Delage said that some communities in North Dakota are already cardiac aware, but he would like to expand that awareness throughout the state.

“Our hope is that medical students will help promote the effort while doing their family medicine rotation, or when they go home for the summer,” Delage said. “We want to generate interest among students who could promote a cardiac ready community once they’ve seen it on campus. We hope this propagates through the state of North Dakota.”

*By Jan Orvik*

Leesha Heitkamp with her two-year-old son at Leesha's White Coat Ceremony in Aug. 2019.



## (FRIENDLY) FAMILY RIVALRY

Leesha and Erik Heitkamp turn a good-natured competitiveness into better health for North Dakota

It's only a friendly rivalry.

"I majored in zoology and only minored in chemistry and psychology, so Leesha one-upped me there," explains Erik Heitkamp of his spouse. "She double-majored in zoology and psychology, with a chem minor. So, yeah, there's a little bit of competitiveness between us."

"But it's a healthy competitiveness," interjects Leesha Heitkamp. "We push each other."

And North Dakota is better off for it.

Having met at an American Medical Student Association (AMSA) meeting at NDSU as undergraduates, Leesha and Erik initially felt less romance than a friendly—at times tongue-in-cheek—competition with each other, says Leesha.

But as the academic years progressed, so did their relationship.

"I was president [of AMSA] and she was the activities coordinator, so we had to work together," remembers Erik, who claims Lisbon, N.D., as home. "I thought she was cute—but she thought I was annoying. Over time, though, we developed a really good friendship and, obviously, more."

Graduating from NDSU together, the pair stayed together and applied to the UND School of Medicine & Health Sciences (SMHS), they explained over the phone from Fargo. Erik got in, while Leesha, who is originally from Bismarck, N.D., was waitlisted.

### **Blessing in disguise**

The scenario turned out to be a blessing in disguise, however, as the two quickly realized how difficult it may have been on their relationship to be in med school simultaneously.

"We feel quite fortunate, actually, that it worked out the way it did," says Leesha today, who instead took the wait-listing to hone her clinical skills in various settings before reapplying to UND. "The time away from school was good. These in-between years for us have been a phenomenal journey—I gained work experience, and we obviously got married and had a baby."

So it is that after a brief hiatus the "competition" continues this fall. With Erik's internal medicine residency winding down—he's already signed with a local hospital system in the area—it's Leesha's turn to go back to school. In August, she became a first-year medical student at the SMHS.

"I am so excited to be starting medical school," Leesha beams. "This has been a dream of mine, and really a dream of ours, for many years. I am thrilled to be returning to school to further educate myself, achieve my goals, give back, and become a different type of role model for our son and community."

That said, she admits to a mix of emotions as she sends the couple's two-year-old son off to daycare.

"We're a little bit nervous, but we're excited," continues Leesha. "There's a part of me that is worried he will not remember all the time we spent together given that my new schedule will require more time away from home. But he's ready to make some new friends."

It is this sort of anxiety that Erik says Leesha helped him through when he was in med school—and he hopes to reciprocate.

"UND does a good job of letting people in families know what it means and how they might be feeling emotionally," explains Erik, who took his MD from the SMHS in 2017 and knew early on that internal medicine was the place for him. "So, at times when you're just stressed and frustrated with studying and tests, there's someone there to encourage you. That was my wife."

### **Improving the system**

That support and engagement is critical too, says Erik, in so far as it can help ward off the burnout to which providers of all backgrounds are susceptible in the current health system.

"In the health care system in general, people who accept these roles to take care of others can sometimes lose their passion for patient care," Erik explains. "You get bombarded by numerous regulatory and political issues that can be hard for anyone—docs, nurses, physical therapists—to navigate. It is a terrible pain and can truly hamper your ability to take care of some patients."

Later, describing the challenge of caring for patients either

without insurance or whose plan doesn't cover certain medications, Erik explains how the prescription they were recently given for a portable epinephrine auto-injector for their son's egg allergy was complicated by the cost of a product their provider said was necessary having been marked up nearly 300 percent by the manufacturer.

"Six-hundred dollars," said Erik. "That's expensive for any person and that might be a life or death thing for my kid. What do you do—not pay for the medication since it might not get reimbursed?"

For these reasons, among others, both Heitkamps remain interested in working to improve not only the health system generally, in so far as they are able, and patient care in North Dakota specifically.

"I've been on a lot of committees trying to improve the education process," says Erik. "And I'm open to looking for ways to improve our residency program and make changes to the [medical] curriculum. Giving back to the school is important and I'd love to be involved in med student education. So—we want to give back to the state that has given so much to us, which is why we wanted to stay here."

Leesha too has a background in volunteerism and service learning and hopes to continue her volunteer efforts while in school.

"Our desire to be involved in our communities is an aspect I do not foresee changing, and one we hope to instill in our children," Leesha concludes, stoking the rivalry with a smile. "With my medical career I hope to have an impact on women in medicine. [But] I am interested in medical education as a whole, how it's developed, the admissions process, and how it can evolve to best prepare medical students to practice and accommodate the needs of our ever-changing communities."

Let's hope this even friendlier rivalry continues for a very long time.



**Erik Heitkamp**



**Leesha Heitkamp**

*By Brian James Schill*

# RETURN ON INVESTMENT

The SMHS RuralMed program begins its second decade of supplying physicians to rural North Dakota communities



**RURAL DOCTOR**  
Dr. Travis Waswick  
in Mayville, N.D.

“The UND School of Medicine & Health Sciences appreciates the strong support it has received for this program from the North Dakota state Legislature,” remarked Dr. Joshua Wynne, dean of the medical school and UND’s interim president.

“This is a big step in the right direction of meeting the health care workforce needs and improving the quality of life for the citizens of North Dakota, especially those in rural areas.”

He was speaking of one of his own initiatives—the RuralMed program—designed to boost the number of physicians serving the state.

And so far, so good.

Nearing the start of its eleventh year, the RuralMed program at the University of North Dakota School of Medicine & Health Sciences (UND SMHS) is making its mark in North Dakota by supplying physicians to rural areas.

Students pursuing careers in family medicine, as well as the more recently added specialties of general surgery and internal medicine, who apply to the program can have the

cost of tuition for up to four years paid for through a forgivable student loan. In return, recipients agree to practice in rural North Dakota for five years following the completion of their medical training.

The program was started with this end goal in mind—to serve the state. An additional benefit of this program is the immense debt relief it provides to participants.

“RuralMed serves a dual purpose, benefitting both our students and the people of North Dakota. Currently we have RuralMed recipients practicing in the rural communities of Devils Lake, Grafton, Mayville, Rugby, Valley City, and Williston,” said Jenny Duffy, the program’s manager and the associate director for medical student financial aid at the UND SMHS. “The benefit to our students is extremely important as well. Student loan debt in our country has surpassed \$1.5 trillion and is the highest form of consumer debt, outside of mortgages. RuralMed provides an opportunity for our students to complete medical school with significantly less debt than their peers.”

## The Road Less Borrowed

Is the reduction in medical school debt enough to garner interest in a five-year commitment post-training, though? Program participants Dr. Travis Waswick (2015) and Dr. Chelsea Traverse (2013) certainly think so.

Dr. Waswick is in his first year of practice at Sanford Health in Mayville, N.D. The Minot, N.D., native had his sights set on rural since his undergraduate years at UND when he served as an emergency medical technician for the Mayville ambulance crew. His time spent volunteering there opened his eyes to the type of community he wanted to serve in the future.

“You can make the biggest impact [in a rural community],” he said.

Dr. Waswick knew rural was where he wanted to be, and when he heard about the RuralMed program, it eased his mind about paying off loans and solidified his decision to practice in rural North Dakota versus another state.

“Especially in beginning a practice, there’s a lot of concern about how you’re going to build that practice. The RuralMed Program allows you to practice confidently and to know you don’t have an enormous mountain of debt staring at you every day. You can just go and practice and know that things will be okay,” he said.

Not unlike Waswick, Dr. Chelsea Traverse grew up in Munich, N.D., where the closest health care facility was 31 miles away—in Devils Lake, N.D. She knew she was on a path to a career

in medicine since junior high. She applied for the RuralMed program at the start of her second year of medical school.

“What made me decide to apply for the RuralMed program was my interest in rural health care, wanting to serve the needs of the smaller community, and then just understanding the financial burden as I was going through medical school,” Traverse said. “It was kind of a perfect pairing of my interests and realizing the financial needs of a person going into this career path.”

Traverse is now entering her third year in practice at Sanford Health in Valley City, N.D. Both Traverse and Waswick say the RuralMed program has been life-changing.

“This is definitely a program I’d recommend. You get so much more financial freedom. You’re going to come into your practice with much less debt, and that’s going to help you jumpstart your life after medical school and after residency,” Waswick said.

Traverse agrees. “Now that I’m in practice, I think the best thing is not worrying about loans at all,” she said. “[The program] also helped me determine what field I was going into and kind of tailor my training a little bit more. Instead of [focusing on] finding a job in the second or third year of residency, I knew where I was going to work even before I started residency.”

There have been 25 RuralMed recipients, ranging from students to practicing physicians, since the program began in 2009. Seven of those recipients are currently out in the workforce in rural North Dakota. This number will continue to increase as RuralMed recipients complete their residency training and begin their service commitment in rural communities throughout North Dakota.

### Learn More

UND’s Center for Rural Health recently partnered with the RuralMed program to create a promotional video. To view the video and to learn more about the RuralMed program, visit [med.UND.edu/student-affairs-admissions/ruralmed.html](http://med.UND.edu/student-affairs-admissions/ruralmed.html).

*By Stacy Kusler*



### MEDICAL PROVIDER

Dr. Chelsea Traverse in  
Valley City, N.D.



## MAKING IT RAIN

UND's Department of Biomedical Sciences pulls in another \$10 million for expanded epigenetics research

When the human genome was sequenced in 2001, researchers across disciplines had anticipated that determining the function of genes and their components would be a relatively straightforward task.

The instructions for how human beings grow and change turned out to be anything but straightforward, however.

"One of the most exciting things about epigenetics is that the mechanisms are dynamic and reversible, meaning that it is potentially possible to reprogram a faulty epigenome back to a normal or healthy state," explained Roxanne Vaughan from her office at the UND School of Medicine & Health Sciences (SMHS), describing how the research that followed this sequencing breakthrough showed that the expression of genes is extremely complex, differing across cell and tissue types, throughout embryonic development and maturation, and in disease conditions.

"This fuller understanding of gene function requires knowledge

of not only what products are encoded by genes, but how expression of the gene is regulated in specific conditions," she said.

Thus was the field of epigenetics born.

Researchers studying epigenetics explore the mechanisms that regulate gene expression and the activation and deactivation of specific genes. Understanding better how the human body can turn genes on and off during growth and aging and in response to its environment has important implications for the diagnosis and treatment of many disorders including cancer, diabetes, major depression, and neurodegenerative diseases such as Alzheimer's and Parkinson's.

The Human Genome Project notwithstanding, then, the apparatuses underlying these pathologies remain poorly understood and represent a continuing gap in scientific knowledge. To that end, the Epigenetics Working Group (EWG) at the University of North Dakota was formed in 2013 through

the support of a \$10 million Center of Biomedical Research Excellence (CoBRE) grant from the National Institutes of Health (NIH) to investigate such questions.

This initial award helped five junior investigators at UND establish research projects that allowed them to compete successfully for larger grants. These researchers have already published 61 papers and received approximately \$5.5 million in additional funding from the NIH, the National Science Foundation, and private foundations. Furthermore, the grant helped establish a Genomics Core at UND, which has been used by researchers from 32 individual labs, with over 5,000 genetic samples processed for genome-wide analyses.

So successful have Dr. Vaughan and her colleagues been at exploring the epigenetics of disease at UND that the NIH recently awarded the SMHS a second \$10 million, five-year grant to bolster and expand the School's epigenetics research program.

"This new 'CoBRE-II' will help another set of investigators establish research in their field," continued Vaughan, principal investigator of the CoBRE grant and Chester Fritz Distinguished Professor at the SMHS. "The new group of investigators funded include Drs. Keith Henry, John Watt, and Motoki Takaku from the SMHS, and Drs. Diane Darland and Manu from the UND Department of Biology. Because epigenetic changes are potentially reversible, this group's research could lead to new therapeutic paradigms for pathologies that have thus far resisted treatment or cure."

Takaku, a newer faculty member at UND who has built a career working on chromatin enzymes, stresses the significance of this grant for his work on breast cancer.

"Many chromatin associating proteins are frequently mutated in cancer," he explained. "This is a very new area in cancer therapy, and at least one company sees a \$40 billion market value in this area. We are trying to understand the fundamental mechanisms of chromatin organization as well as disorganization in cancer. This grant helps our progress on this study."

Darland agreed, arguing that the grant renewal is a watershed, without which she would not be able to complete her research that takes a genome-wide approach to investigating critical questions concerning neural-vascular interactions in development and disease.

"My primary interest is in stem cell and blood vessel interactions during development and in glioma tumor progression," she noted, describing the type of tumor that starts in the glial cells of the brain or the spine. "Glioma is

among the most common and lethal malignant brain tumor type in the United States, and glioma cell interactions with the surrounding vasculature are thought to be critical for both diseased cell dispersal within the brain as well as the potential conduit for therapeutic intervention."

"This grant will allow our lab to establish a new line of investigation tackling an important unsolved problem: how do genes integrate signals from multiple sources," added Department of Biology Professor Manu. "Lying near most genes in our genome are DNA sequences called enhancers. Although we know how individual enhancers control genes, we don't understand how genes integrate signals from multiple enhancers. This problem is important for understanding leukemogenesis, since genome rearrangements in cancer cells align genes with enhancers, causing the genes to be expressed [problematically]."

Takaku, Manu, and Darland are but three faculty among more than a dozen whose work has benefitted directly from the university's decision to focus on epigenetics and epigenomics over the past decade.

"Epigenetics and Epigenomics research at UND has simply exploded since the first CoBRE Phase I grant was awarded, and I anticipate an even greater expansion now that the Phase II has been funded," Darland added. "We have brought on so many new investigators into the group from new hires, to internal collaborations, to building professional networks across the region. These types of expanding research conversations will not only bring recognition to the high quality of research being conducted at UND, but also will allow us to conduct timely and important research regarding the epigenetics of development and disease. It's an exciting time to be part of the research team!"

It is an exciting time in biomedical sciences, admitted Vaughan, in so far as epigenetics seems to be the hub around which many of the biomedical research projects at universities and research facilities around the world rotate these days.

"[Epigenetics] isn't 'everything,' but these mechanisms are fundamental to multiple types of tissues and most cell types," she said. "Epigenetics scientists utilize approaches from many disciplines including biochemistry, molecular biology, and cell biology to address questions about how genes work in normal and disease pathology. And that cross-disciplinary character in science is the future."

*By Brian James Schill*

# TO BE CONTINUED...

The SMHS Office of Continuing Education contributes to the ongoing education of thousands of North Dakota health providers each year

“Commit yourself to lifelong learning,” oft-quoted motivational speaker Brian Tracy once noted in a cliché repackaged as insight. “The most valuable asset you’ll ever have is your mind and what you put into it.”

Hearing such aphorisms, Mary Johnson tries hard not to roll her eyes.

As Program Administrator for the UND School of Medicine & Health Sciences (SMHS) Continuing Medical Education Program, Johnson knows just how much continuing education providers in North Dakota and around the country commit themselves to each year—and have been doing so decades in advance of the “lifelong learning” movement Tracy helped monetize in the 1990s.

“We provided nearly 15,000 continuing education hours to nearly 8,000 area health workers in 2018,” said Johnson of a program first accredited in 1984 and whose mission statement references specifically the lifelong learning concept. “All of that came out of the more than 300 live continuing education events we approved and the 30 online programs we managed. We do this as a service to the state and our providers, who serve us as clinical faculty for our third- and fourth-year medical students.”

In all states, professional health providers are required to do a minimum number of continuing medical education (CME) hours to maintain their licensure and/or board certification. The average number of required hours for most physicians, for example, is 30, but some specialties require more. And although private health organizations in North Dakota are able to provide such hours for their own employees, the SMHS is the only institution in the state that provides hours to most disciplines and institutions.



## LIFELONG LEARNING

Participants of a recent CME event at the UND School of Medicine & Health Sciences.

### Medicine’s History of Lifelong Learning

Long before CME was formalized, though, provider groups sought to increase their medical knowledge as early as the nineteenth century through grand rounds events and annual meetings to discuss patient cases and papers published in medical journals.

Formal continuing medical education came into being in the United States in the 1920s. The first mandatory CME program was initiated by the American Urological Association in 1934—two decades before the American Medical Association codified CME standards for professionally trained physicians.

After some providers and patient advocates raised concerns over the fact that CME was growing increasingly reliant on pharmaceutical industry funding in the twentieth century, the Accrediting Council for Continuing Medical Education (ACCME) was established in 1981.

“Hospitals can go through the [ACCME], but it’s less onerous on them to go through their state medical association,” continued Johnson. “So that’s what they do. This is why the private providers don’t offer full scope of CME services. That leaves a statewide institution like UND to pick up the slack.”

It is through the ACCME, then, that the SMHS picks up the slack, not only because it’s the right thing to do for area providers, but because such activity is embedded in the School’s mission. As section 15-52-01 of the North Dakota Century Code notes, “The primary purpose of the University of North Dakota School of Medicine and Health Sciences is to educate physicians and other health professionals for subsequent service in North Dakota and to enhance the quality of life of its people. Other purposes include the discovery of knowledge that benefits the people of this state and enhances the quality of their lives.”





Mary Johnson

For example, Johnson's team is sponsoring a one-day CME symposium titled "Oh, My Aching Back!" during UND's 2019 Homecoming that will give participants of all health backgrounds an opportunity to increase their knowledge and skills in the treatment and rehabilitation of back injury. The complimentary symposium will be held in Room W202 of the School of Medicine & Health Sciences, 1301 N. Columbia Rd.

### **Beyond all borders**

"One of my professors used to joke that 20 years from now, the questions on the exam would be the same, but the answers would all be different," added Dr. Marc Basson, the School's senior associate dean for Medicine and Research. "Our ability to provide continuing medical education, both in person and online, allows us to fulfill our mission by helping health care providers stay up to date with medical knowledge and techniques. The online CME portfolio is particularly powerful since it allows providers to learn on their own schedule in their own homes rather than traveling to Grand Forks."

Online courses aside, the reach of UND's CME program extends beyond North Dakota. The office is partnering with the multi-institution Dakota Cancer Collaborative on Translational Activity (DaCCoTA) to offer training opportunities in clinical research as well. The team, which in addition to UND includes local health providers, NDSU, and the University of South Dakota, is funded by a \$20.3 million grant from the National Institutes of Health and is designed to assemble researchers and clinicians with diverse experience from across the region to develop unique and innovative means of combating cancer in the Dakotas.

"And we're working with the South Dakota medical association on a leadership series, providing them credits for a Health Leadership Institute," concluded Johnson, noting that SMHS CME credit is approved worldwide. "Through our ProjectECHO program we have an online opioid series accessible to anyone and are building another mental health CME series that will go online soon."

Such a fact is especially important to SMHS Simulation Center Director Jon Allen, MD.

"The CME program here is accessible throughout the state allowing those practitioners who teach medical professional students to have access to current information pertinent to clinical practice and medical education," added Allen, whose own center relies on distance learning and "preceptors" accessing the Simulation Center at a distance. "For physicians licensed in North Dakota, the wide variety of CME opportunities allows physicians of any specialty to find the appropriate educational events to fit their needs and meet the CME requirements for maintenance of licensure."

*By Brian James Schill*

## **OFFICE OF CONTINUING MEDICAL EDUCATION**

UND's CME program was originally accredited by CACME in 1976 and has been continuously accredited by the Accreditation Council for Continuing Medical Education (ACCME) since 1984. The annual number of CME programs directly sponsored or jointly sponsored has averaged over 300 during the current accreditation cycle.

### **CME Purpose**

The CME office exists for the purpose of improving the broad practice of medicine including patient care, biomedical and healthcare research, medical education, public health, healthcare administration, innovation, and leadership and this includes the following:

- To foster desirable physician attributes such as ACGME and IOM core competencies.
- To encourage interdisciplinary education that promotes collaborative practices.
- To encourage understanding of the ethical issues affecting the practice of medicine.

### **Expected Program Results**

Within the framework of the challenges of a rural state, the ultimate goal of the CME program at the University of North Dakota is to help physicians gain the knowledge, skills, and attitudes necessary to provide safe, high quality health care to their patients. The CME OFFICE offers the physicians of North Dakota the opportunity to improve their essential clinical medical knowledge and competencies by:

- Dissemination of new medical knowledge
- Assisting in the maintenance of professional certification and license
- Enhancing the quality of the educational process through collaboration and continued improvement in compliance with accreditation standards/criteria

# IT'S TIME TO COME HOME

## School of Medicine & Health Sciences to host multiple events for Homecoming 2019

Fall. Football. Friends. All are in the air this time of year as colleges and universities across the country gear up for Homecoming celebrations of all sorts.

The UND School of Medicine & Health Sciences is no exception, and will play host to a series of Homecoming 2019 events we hope you can attend. Whether you're a legacy grad—'69, '79, '89, '99, '09—or not, we'd love to see you back in Grand Forks in October!

Friday, October 4, 2019, is the School's big day as it hosts not only a daytime Continuing Education Symposium but a banquet later that evening.

### Continuing Education Symposium

From 8:30 a.m. to 11:30 a.m. the "Oh, My Aching Back!" symposium will give participants of all health backgrounds an opportunity to increase their knowledge and skills in the treatment and rehabilitation of back injury. The complimentary symposium will be held in Room W202 of the School of Medicine & Health Sciences, 1301 N. Columbia Rd. Speakers from departments across the School, and some from outside

UND, will be on hand to discuss the latest developments in lumbar injury. The event will provide participants with 2.5 educational credit hours.

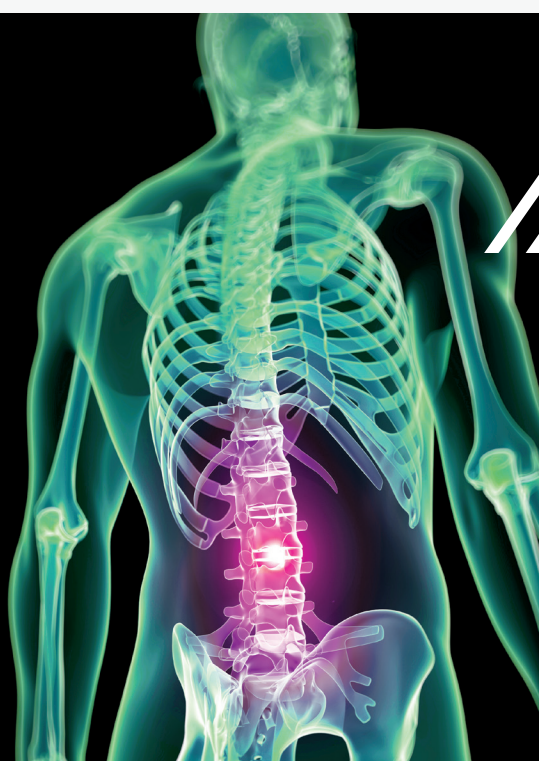
### Building Tours

Then, from 1 p.m. to 3 p.m. the Office of Alumni & Community Relations will host tours of the School of Medicine & Health Sciences building at 1301 N. Columbia Road. Tours will begin every 20 minutes in the School's main Lobby and take approximately 30 minutes.

### Banquet

Finally, the School will host a banquet for all SMHS alumni from 5 p.m. to 8 p.m. in the Grand Forks Hilton Garden Inn's Buchli/Dahl Banquet Room. RSVP is required for the banquet as seating is limited. The Inn is located at 4301 James Ray Dr. in Grand Forks.

To RSVP for any of these events, where required, or for more information, please contact Kristen Peterson at [kristen.peterson@UND.edu](mailto:kristen.peterson@UND.edu) or 701.777.4305 or visit [med.UND.edu/events/homecoming](http://med.UND.edu/events/homecoming).



# OH, MY ACHING BACK!

Continuing Education Symposium

Friday, October 4

8:30—11:30 am

Room W202

**Speakers:** Hamid Abbasi, MD, PhD, Lindsey Ebertowski, DPT, Daryl Sieg, MPAS edu, Schawnn Decker, DPT, Steve Halcrow, DPT, Jake Thompson, PT, ATC

Upon completion of this program, the learner will be able to provide up-to-date, evidence-based, appropriate care for patients requiring pain management for lumbar injury; understand physical and occupational therapy options for lumbar injury; and identify the latest surgical and non-surgical treatment options spine injury.

# THANK YOU TO OUR THOUGHTFUL DONORS

who recently gave gifts or made pledges

**Norma Peltier** of Fargo, N.D., continues to support the Joe and Norma Peltier Medical School Endowment, which provides scholarships for medical students with preference given to students who practice in rural North Dakota. Norma's late husband Joe was a state legislator, serving in the House of Representatives 1979-1985. He was also a member of the State Board of Higher Education 1993-2000, serving as vice president 1997-1998. Joe and Norma's daughter Suzette earned her medical degree from UND in 1985.



### GIVING BACK

Norma (left) with Signe Thorpe and Dr. Joshua Wynne at the 2018 Adopt-a-Med-Student Luncheon.

## Adopt-a-PA-Student Program launches

Following the success of the School's nine-year-old Adopt-a-Med-Student Program, the Office of Alumni & Community Relations is launching an Adopt-a-PA-Student Program in conjunction with the PA Department's upcoming 50th anniversary, to be celebrated in 2020.

Since 2011, generous donors have provided engraved stethoscopes for first-year medical students (see list of donors in the upcoming Holiday 2019 issue of North Dakota Medicine). The SMHS is expanding that program to provide the professional white coats for second-year physician assistant students who are about to begin their clinical experiences. The white coats will be formally presented during a ceremony in January 2020.

Similar to the Adopt-a-Med-Student Program, the School encourages donors to write letters to the students to be included in their coat pockets. The ultimate goal is to provide a lasting, supportive connection between students and donors.

To participate, gifts of \$100 per student can be:

- 1) Mailed to the UND Alumni Association & Foundation at 3501 University Ave., Stop 8157, Grand Forks, ND 58202 (please include "PA White Coat" in the check's memo line). Or
- 2) Submitted through [undalumni.org/smhs](http://undalumni.org/smhs). Under Comments, please put "PA White Coat."

Letters to students can be included in Option 1 above or emailed to [kristen.peterson@UND.edu](mailto:kristen.peterson@UND.edu).

All gifts and letters must be received by Dec. 13. Any gifts received after that date are greatly appreciated and will be included in the 2021 Adopt-a-PA-Student Program.

If you have any questions, please contact Kristen Peterson at 701.777.4305 or the email address above.



**Jeff Dodson**  
Director of Development  
701.777.5512  
[jeffd@UNDfoundation.org](mailto:jeffd@UNDfoundation.org)



**Jessica Sobolik, '02, '17**  
Director of Alumni & Community Relations  
701.777.6048  
[jessica.sobolik@UND.edu](mailto:jessica.sobolik@UND.edu)

## Doctor of Medicine Class of 2023 begins studies at UND School of Medicine & Health Sciences with White Coat Ceremony

Seventy-seven first-year medical students, members of the Doctor of Medicine (MD) Class of 2023, began their journey in August to become physicians at the University of North Dakota School of Medicine & Health Sciences (UND SMHS).

Orientation concluded with the White Coat Ceremony, held in the Alerus Center Ballroom in Grand Forks where students received their first white coats, the physician's traditional garment, which have been donated by the North Dakota Medical Association. Students also recited the Oath of Hippocrates, a vow physicians have been taking for more than 2,000 years to uphold basic ethical principles of the medical profession.

David Skorton, M.D., president and CEO of the Association of American Medical Colleges (AAMC), a not-for-profit association whose membership is comprised of all 154 accredited U.S. and 17 Canadian medical schools and nearly 400 teaching hospitals and health systems, was the event's keynote speaker.

The 31 women and 46 men, ranging in age from 21 to 34 years and most of whom are from North Dakota, come to medical school with experience in an array of fields, including: biochemistry, biology, biotechnology, business, chemistry, medical laboratory science, psychology, science education, Spanish, and zoology. Many of these first-year students already hold advanced degrees, including master's degrees in biomedical science, pharmacology and physiology, and public health.

### MD Class of 2023 Names and Hometowns:

- Mitchell Annis, Corcoran, Minn.
- Collin Asheim, West Fargo, N.D.
- Hannah Balderas, Twin Buttes, N.D.
- Heidi Bau, Slayton, Minn.
- Summer Bernard, Grand Forks, N.D.
- Ryan Bjerke, Fargo, N.D.
- Kirsten Bokinskie, Fargo, N.D.



- KC Braaten, Minot, N.D.
- Peter Bueide, Fargo, N.D.
- Therese Carson, Fargo, N.D.
- Brett Cornforth, Rochester, Minn.
- Natisha Corum, Grafton, N.D.
- Allison Cwikla, Fargo, N.D.
- Danielle Dearing, Athena, Ore.
- Erin Eidsness, Moorhead, Minn.
- Caleb Ellingson, Jamestown, N.D.
- William Fedje-Johnston, Grand Rapids, Minn.
- Mitchell Floura, Paynesville, Minn.
- Chase Gauthier, Elk River, Minn.
- Rylan Graber, Wolford, N.D.
- Sarah Grindberg, Mapleton, N.D.
- Emily Grob, New Ulm, Minn.
- Olivia Harris, Upper Fruitland, N.M.
- Liana Haven, Maple Grove, Minn.
- Alex Hecker, Dickinson, N.D.
- Leesha Heitkamp, Bismarck, N.D.
- Mikaela Herberg, Mandan, N.D.
- Brandi Hoffart, Grand Forks, N.D.
- Christy Jesme, Northfield, Minn.
- Annabel Jiran, Grand Forks, N.D.
- Merrick Johnson, Moorhead, Minn.
- Sa Kong, Bismarck, N.D.
- Wyatt Lutt, Harvey, N.D.
- Wyatt Limke, Carpio, N.D.
- William Litchfield, Bismarck, N.D.
- Cooper Love, Park City, Mont.
- Jonah Lund, Grand Forks, N.D.
- Talus McCowan, Manhattan, Kan.
- Alexandria McLearn, Anchorage, Alaska
- Zachary Miller, Williston, N.D.
- Timothy Moore, Rochester, Minn.
- Brandon Morehart, Fargo, N.D.
- Judge Muskrat, Webbers Falls, Okla.
- Jessica Nelson, Minot, N.D.
- Ann Marie O'Connell, Edina, Minn.
- Kayla Olson, Bismarck, N.D.
- Tracer Overland, Williston, N.D.
- Amanda Palme, Brooklyn Park, Minn.
- Mikayla Patel, Jamestown, N.D.
- Devon Pekas, Hawley, Minn.
- Anne Pius-Stewart, Nigeria
- Zain Qarni, Fargo, N.D.
- Mishell Quiridumbay Verdugo, Minneapolis, Minn.
- Cody Riggle, Ogema, Minn.
- Parker Rosenau, West Fargo, N.D.
- Keaton Rummel, Bismarck, N.D.
- Karan Saravana, Fargo, N.D.
- Justin Schafer, Mandan, N.D.
- Natalie Scherr, Bismarck, N.D.
- Zachary Sebens, Milnor, N.D.
- Anja Selland, Rugby, N.D.
- Jordan Shearer, Fargo, N.D.
- Seth Sherlock, Dazey, N.D.
- Calvin Slaubaugh, Leeds, N.D.
- Oliver Sogard, Williston, N.D.
- Michael Solc, Grand Forks, N.D.
- Jacob Stern, Rosemont, Minn.
- Luke Teigen, Fargo, N.D.
- Wyatt Telken, Grand Forks, N.D.
- Mitchell Thelen, Albany, Minn.
- Drew Thompson, Moorhead, Minn.
- Nadia Toumeh, Fargo, N.D.
- Cody Weisel, Alexandria, Minn.
- Sarah Wherley, Velva, N.D.
- Joseph Wood, Custer, S.D.
- Marissa Wold, Maplewood, Minn.
- Morgan Zander, Fargo, N.D.

## Undergrads present posters at UND Summer Undergraduate Research Experience

The UND School of Medicine & Health Sciences (SMHS) hosted its annual Summer Undergraduate Research poster session on Thursday, Aug. 1.

Over the course of the summer, 40 students from UND, as well as from rural and tribal colleges in North Dakota, Minnesota, and across the nation, conducted research and participated in a number of related educational activities. Students worked shoulder-to-shoulder with their mentor scientists from the UND Department of Biology, the UND Departments of Pathology and Biomedical Sciences, and Cankdeska Cikana Community College.

In weekly professional development sessions, undergraduates learned about a variety of research areas, how to conduct research responsibly, the particulars of

science writing, and the basics of the graduate and medical school application process. At the end of the summer, students presented their research work in an on-campus poster session. Their research has implications in the areas of cancer, drug addiction, epigenetics, Lyme disease, and neurological disease. Other research projects included environmental influences on regulation of cortical development and function, dynamics of cell-fate choice and cell state transitions, immune/brain system interactions, learning and memory, neural stem cell fate, sex-determination in turtles, and wing development in moths.

Funding for the students came from a variety of organizations, including the National Institutes of Health, National Science Foundation, and Office of the Dean at the UND SMHS.

## Roller named chair of Department of Radiology

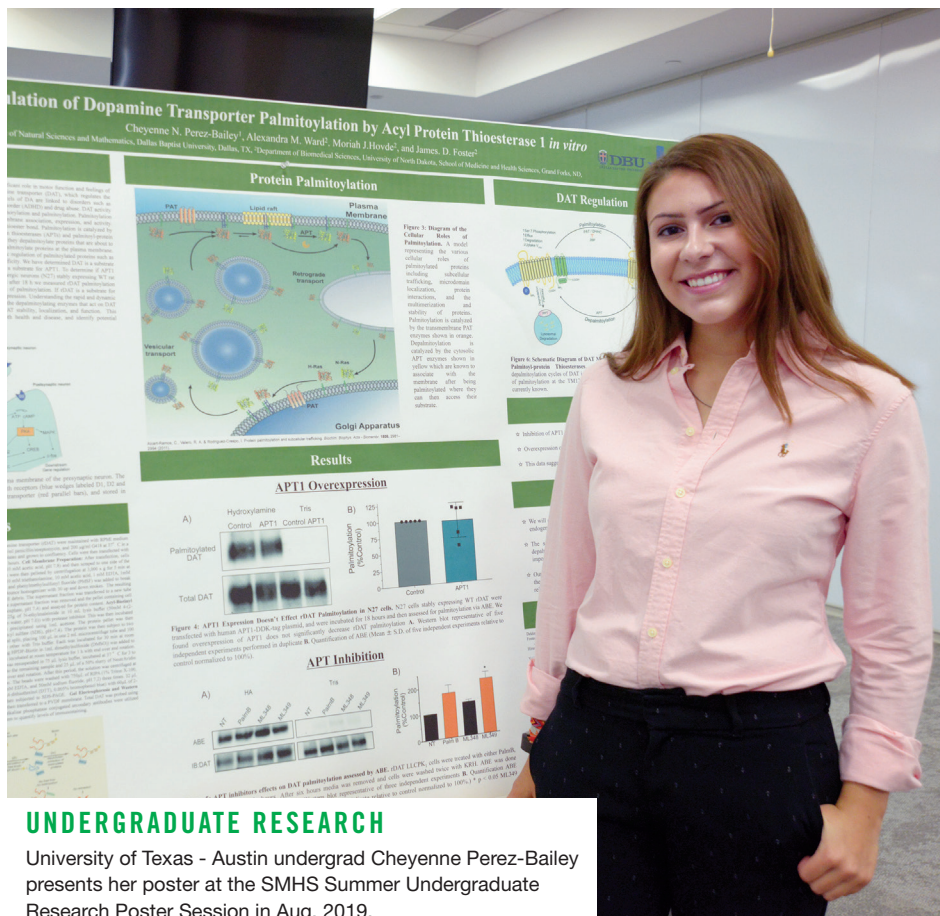
Luke Benedict Roller, M.D., a physician at Bismarck Radiology Associates, has been selected as the new chair of the UND School of Medicine & Health Sciences (SMHS) Department of Radiology.

After earning his M.D. degree from the SMHS in 2012, Dr. Roller went on to complete residencies in both diagnostic and interventional radiology at the University of Minnesota. An accomplished clinician and clinical instructor, he is certified by the American Board of Radiology and a member of the American College of Radiology, Radiological Society of North America, and Society of Interventional Radiology.

“I love North Dakota,” said Dr. Roller, who has served as a Bismarck-based clinical faculty member with the SMHS since 2018. “The School of Medicine & Health Sciences has a sacred duty to help ensure that high quality affordable health care is readily available locally to the residents of this state. As chair of the Department of Radiology, I am humbled by this responsibility, and I am eager to do my part to fulfill this duty to the people of North Dakota.”

As Radiology chair, Dr. Roller will be tasked with not only advising and mentoring medical students on radiology careers, but teaching pre-clinical and clinical UND students; advising faculty in integrating radiology into the evolving medical school curriculum; recruiting and retaining clinical faculty in radiology and managing the affairs of the Department; and encouraging scholarship in radiology by departmental faculty and associated learners.

“We’re excited to have Dr. Roller on board in a more formal, administrative way,” added SMHS Dean and UND’s Interim President Dr. Joshua Wynne. “I’ve known Luke for years and am excited about the skill set he brings to our School in this role and what those skills will mean for our students.”



### UNDERGRADUATE RESEARCH

University of Texas - Austin undergrad Cheyenne Perez-Bailey presents her poster at the SMHS Summer Undergraduate Research Poster Session in Aug. 2019.

## UND's Doctor of Physical Therapy Class of 2021 begins clinical studies

In July, 49 physical therapy students, members of the University of North Dakota School of Medicine & Health Sciences (SMHS) Doctor of Physical Therapy (DPT) Class of 2021, started the clinical studies portion of their journey to become doctors of physical therapy. The students received their white coats at the Entrance Into Professional Service Ceremony on Thursday, July 11, 2019, at the Alerus Center in Grand Forks.

The students, 38 women and 11 men, range in age from 20 to 30 years, with an average age of 22.6. Many are from North Dakota, and most completed their pre-PT coursework at UND.

The ceremony's keynote speaker was Beverly Johnson, P.T., D.Sc., GCS, CEEAA. Dr. Johnson is associate professor emeritus of the SMHS Department of Physical Therapy where she was on faculty for over 30 years and was director of clinical education for 26 of those years.

"The ceremony emphasized to the students the professionalism required in the clinic and within the physical therapy profession," said David Relling, P.T., Ph.D., professor and chair of the SMHS Department of Physical Therapy.

"Students are making the transition from being a student to being a health care professional," Relling added. "With that transition comes a great deal of responsibility and accountability to these new professionals and to their clients. For many students, this will be the first life experience they will have had that requires such a high level of professionalism and responsibility. We have trained them well, they have worked hard, and we anticipate they will do a great job working within a comprehensive, interprofessional health care team."



### FARE THEE WELL

Retiring SMHS Professor of Physical Therapy Renee Mabey poses one last time with a PT student at the Department's Entrance into the Profession Ceremony in July 2019.

#### The students and their hometowns are:

- Kaiann Arellano, Jamestown, N.D.
- McKinley Bender, Minot, N.D.
- Ashley Bergerson, Esko, Minn.
- Morgan Bicker, Roseau, Minn.
- Hannah Brennan, Sartell, Minn.
- Morgan Burrer, Wahpeton, N.D.
- Zachary Burtsfield, West Fargo, N.D.
- Erin Bussman, Mandan, N.D.
- Alissa Dahle-Koch, Maple Grove, Minn.
- Hannah DeKrey, Fargo, N.D.
- Mackenzie Dumm, Grand Rapids, Minn.
- Brianna Erickson, Fargo, N.D.
- Delaney Faiman, West Fargo, N.D.
- Jacob Fixell, Cambridge, Minn.
- Mark Geerdes, Northome, Minn.
- Mary Gray, Grand Forks, N.D.
- Hannah Gregg, Bemidji, Minn.
- Ellie Hagen, Fargo, N.D.
- Brienne Halstead, Riverdale, N.D.
- Mary Haman, Crary, N.D.
- Brian Illing, Fargo, N.D.
- Lydia Jacobson, Fargo, N.D.
- Lucas Keller, Bismarck, N.D.
- Brita Kihle, Salol, Minn.
- Kelsey Knutson, Dunn Center, N.D.
- Martina Mack, Lead, S.D.
- Kaitlyn McClafin, Glyndon, Minn.
- Lauren McIntosh, Clearbrook, Minn.
- Samantha Miller, Bottineau, N.D.
- Winter Monette, Belcourt, N.D.
- Paige Mriden, Sioux Falls, S.D.
- Anna Murphy, Fergus Falls, Minn.
- Taylor Nord, Bemidji, Minn.
- Brooke Rehm, Henning, Minn.
- Stacy Remer, Grand Forks, N.D.
- Colin Renfandt, Minot, N.D.
- Hannah Riveland, Moorhead, Minn.
- Riley Ryan, Sheridan, Wyo.
- Megan Siebert, Waconia, Minn.
- Cassidy Stienessen, St. Cloud, Minn.
- Kaley Stotz, West Fargo, N.D.
- Abigail Stroup, Fargo, N.D.
- Austin Stueve, Dumont, Minn.
- Amy Svir, Thief River Falls, Minn.
- Erin Syverson, Bismarck, N.D.
- Alyssa Theede, Fairmount, N.D.
- Jacob Todd, Grand Forks, N.D.
- Kayana Trottier, Belcourt, N.D.
- Jayce Turner, Grand Forks, N.D.

## 2019 MLS scholarships for 2019

The UND Department of Medical Laboratory Science has awarded scholarships to several medical laboratory science students for the upcoming academic year. Funds for the scholarships are given from various private sources, endowments, and scholarship funds. Winners for 2019-2020 include:

- Marcia and Gary Anderson MLS Scholarship Award - Nicole Cielinski, St. Cloud, Minn., Aerielle Capes, Fertile, Minn., and Rachel Davis, Oak Park, Ill.
- Janice and Clifford d'Autremont Scholarship Award - Sarah Burns, Fargo, N.D.
- Dr. Cyril J. Dillenburg Memorial Medical Scholarship - Megan Bryn, Fertile, Minn., and Grand Forks, N.D.
- Jean Holland Saumur Award - Rachel Knutson, Minneota, Minn.
- Janice Schuh-Horysh Scholarship Award - Kayla McCreary, Grand Forks, N.D.
- Duane and Judy Lee Scholarship Award - Mika Bordak, Buffalo, Minn., and Jady Koppenhaver, Plymouth, Minn.
- Miltza (Mitzi) Luper Biochemistry Award - Rachel Knutson, Minneota, Minn.
- Eileen Simonson Nelson Scholarship Award - Megan Bryn, Fertile, Minn., and Grand Forks, N.D.
- The Ralph and Hazel Rohde Award - Joan Lin, Grand Forks, N.D., and Meghan Hintz, Grand Forks, N.D.
- Mary Stanghelle Coleman MLS Scholarship Award - Rachel Knutson, Minneota, Minn., and Sarah Burns, Fargo, N.D.
- David and Linnea Veeder MLS Scholarship - Triana Anderson, Grand Forks, N.D., Briana Ashworth, Dickinson, N.D., Elise Jacobson, Hillsboro, N.D., and Hannah Stewart, West Fargo, N.D.

### Non-UND Awards:

- Alpha Mu Tau Fraternity and Education and Research Fund Scholarships - Rachel Knutson, Minneota, Minn., Sarah Burns, Fargo, N.D., and Alexa Gathman, Devils Lake, N.D.

## Chen and Geiger awarded \$2.2 million R01 grant from National Institute of Mental Health



**Jonathan Geiger**



**Xuesong Chen**

the University of North Dakota School of Medicine & Health Sciences, where Dr. Geiger is a Chester Fritz Distinguished Professor. This five-year grant has a total value of about \$2.2 million.

Making the award notice more remarkable is the fact that the researchers 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. NIH R01 grants are considered one of the most prestigious grants for which researchers can apply, and funding for these grants is extremely competitive.

This latest grant will focus on determining the mechanisms responsible for neurological complications that occur in people living with HIV-1.

“Although great progress has been made in treating HIV-1 such that people living with HIV-1 are now living almost full life spans, almost 50 percent still experience a syndrome termed HIV-1 associated neurocognitive disorder, or HAND,” Dr.

The National Institute of Mental Health, a division of the National Institutes of Health (NIH), has awarded an R01 grant titled “Tat endolysosome escape and HIV-1 associated neurocognitive disorder” to Drs. Xuesong Chen and Jonathan Geiger. Both are faculty members in the Department of Biomedical Sciences at

Chen said.

One HIV-1 protein that has been implicated in the pathogenesis of HAND is the transactivator of transcription (Tat). This non-structural protein is required for replication of the virus, and is actively secreted from HIV-1 infected cells. It can also directly excite neurons and cause nerves to be dysfunctional.

“We have worked on HIV-1 Tat neurotoxicity for almost 20 years, and much is now known about the mechanisms by which Tat affects neurons,” Dr. Geiger said.

Over the past five years, Drs. Chen and Geiger have focused much of their research on the involvement of the intracellular organelles—subunits within cells that have specific functions—known as endosomes and lysosomes (or “endolysosomes”) in the actions of HIV-1 Tat.

“The current grant is specifically focused to determine the mechanisms by which Tat escapes endolysosomes and the extent to which this escape contributes to neuronal injury,” Geiger continued. “The results are expected to provide us with new targets and rationale for preventative and therapeutic interventions against HAND. It goes without saying that the outcome of the proposed studies could have a substantial global impact economically, socially, and clinically.”

**Dr. Donald W. Dippé, BS Med '48**, passed away at his home on Tuesday, April 9, 2019. He was born in Glendive, Mont., on Aug. 3, 1926, the son of Anna K. (Simundson) and Walter W. Dippé. Don graduated from Neche High School in 1943, and attended the University of North Dakota (UND) for one year before entering the Navy's V-12 college program at the University of Washington. He was discharged at the end of World War II and returned to UND, receiving a Bachelor of Science in Medicine on June 11, 1948. Don entered the University of Illinois School of Medicine on Sept. 27, 1948, but after the Korean War began he joined the Army in 1952, and was eventually sent overseas. He served in Korea and Japan, where he met Yu Ai Chen, whom he later married, in 1954. Following his discharge from the Army in 1958, Don entered UW Medical School to finish his studies, and received an MD degree on June 11, 1960.

**Jack Lees, BS Med '54**, passed away peacefully at home on June 13, 2019, after a 16 year battle with carcinoid syndrome. Jack was born November 20, 1930, to John and Gladys Lees in Jamestown, N.D. After living in Minot, the family moved to Fargo where Jack graduated from high school in 1948. He attended NDSU and UND before graduating from Northwestern University School of Medicine in Chicago. After an internship at Anker Hospital in St. Paul he spent two years in the Air Force as a flight surgeon. He returned to St. Paul and completed a residency in ObGyn. He started practice at the Marshfield Clinic but returned to St. Paul two years later to join Lilliburg and Adams in the practice later known as Adams, Lees, McCreary and Strom. He retired from practice in 1999 but his love of medicine brought him back as an OB hospitalist at United Hospital where he worked until the age of 80.

**Dr. Vaughn Meyer, MD '76**, and JoAnn (Kruse) Meyer were called together to Heaven on Christmas afternoon 2018. Vaughn Henry Meyer was born on January 2, 1950, in Tulare, S.D., the first born of six children, to Eugene Henry and Ruby (Binger) Meyer. JoAnn Kruse was born on March 20, 1950, in Hartley, Iowa, the youngest of two children, to Vernon and Evelyn (Steinbeck) Kruse. She was raised in Sutherland, Iowa. Vaughn and JoAnn met while attending college at the University of South Dakota. They were married on August 28, 1971. He was passionate about his plastic surgery practice and making a difference in each patient's life.

**Vyrn Paul Muir, BS Med '67**, beloved father, partner, and friend, passed away in Issaquah, Wash., on May 16, 2019. Vyrn was born July 2, 1943, in LaMoure, N.D., to parents Donald Muir and Vivian Lancaster, who lived in nearby Adrian. He was the youngest of four kids. Vyrn attended the University

of North Dakota, then received an MD from the University of Washington School of Medicine. He practiced medicine as a family physician in Washington state for many years and also pursued an MBA later in his career.

**Roger D. Natwick, BS Med '56**, age 86, of Menomonie, Wis., passed away Thursday, March 7, 2019, at his home. Roger was born December 12, 1932, to George and Mabel Natwick in Buxton, N.D. He graduated from high school in Buxton and then went on to earn an undergraduate degree in medicine from the University of North Dakota. He continued his education at Tufts University where he obtained his doctorate of medicine. He and his family moved to Akron, Ohio, where he pursued his internship and residency in surgery. Following the completion of his residency he moved his family to Menomonie, where he became the first and only surgeon in Dunn County at the time. He was well known and loved by many in the Menomonie area for the care he gave people.

**Dr. Richard Arlan Olafson, BS Med '57**, passed peacefully on July 27, 2019. Richard, also known by many in the community as Dr. O, was a loving husband, father, son, grandfather and a stalwart in North Dakota medicine and medical education for over 50 years. He had a deep love for his family, was engaged in numerous civic duties and touched many lives through his medical and educational careers while always striving to help improve the quality of life in his home state of North Dakota. Richard was born in Drayton, N.D., on October 18, 1933, and was raised in Minto, N.D. Richard attended the University of North Dakota and graduated Cum Laude with a Pre-Medicine degree in 1957. He attended the University of Pennsylvania School of Medicine, graduating with honors in 1960. Richard was accepted to be a resident at the Mayo Clinic in Rochester, Minn., where he completed his training as Senior Neurosurgical Fellow and Emergency Neurological Surgeon. While in Rochester, Richard met his beloved wife, Ann Marie Hemp, who at the time was completing her studies at the University of Minnesota in Elementary Education and was a Minnesota state tennis champion for many years. They were married on June 17, 1961, and their first child, Kathryn, was born in Rochester in 1963. Feeling a calling to his home state, Richard moved the family to Fargo in 1964, where he became one of the first neurosurgeons in North Dakota, working with a handful of colleagues at The Neuropsychiatric Institute (TNI). His two sons Paul and Eric were later born at St. Luke's Hospital in Fargo. Richard had a long and celebrated career in both neurosurgery and medical education where he pursued his passion for improving the quality of healthcare for North Dakota. He served as the President of the Neurosurgical Society of America in 1986-87 and had numerous other medical appointments while



also having published many medical papers and studies. In 1979, Dr. O began a prestigious career in medical education with the University of North Dakota School of Medicine as the Assistant Dean and Director of Health Education, and held many other titles there, including Professor and Chairman of the Department of Neuroscience. Dr. O retired in 1998 and was awarded an Honorary Doctorate from UND in 2001.

**Lila Cosy (Gandolf) Pedersen** passed away peacefully at age 76 on Tuesday, March 19, 2019. She lived her last years with pulmonary fibrosis until passing away at Valley Eldercare Center in Grand Forks, N.D., surrounded by family and friends. At Lila's request, her body will be donated to the University of North Dakota for the advancement of science. Lila was born on Friday, October 9, 1942, in Cleveland, Ohio, to Clifford and Rita Gandolf. She earned a Bachelor of Arts at Cleveland State University, majoring in English with a minor in philosophy, and subsequently earned a Master of Library Science at the University of Missouri Columbia. She began her career at the Health Center Library at the University of Connecticut, and went on to have a distinguished career as Director of The Harley E. French Library of the Health Sciences at the University of North Dakota. Lila loved music. She taught music to her children, and greatly encouraged the musical interests of her grandkids.

**Robert (Bob) Jay Shook, MD '79**, 66, of Fargo, N.D., passed away on Wednesday, June 5, 2019. Robert was born on October 7, 1952, the son of Lester D. and Ann E. (Bergeson) Shook in Kansas City, Mo. He graduated from Fargo South High School, completed a Bachelor of Science degree at North Dakota State University in 1975, and received an MD degree in 1979 from the University of North Dakota School of Medicine. Robert married Susan Ann Krein on December 20, 1980, in Fargo. He finished his radiology residency in Iowa City, Iowa, in 1983 and joined his father and brother as a radiologist with Radiologists Ltd./Independent Radiology in Fargo. In 2010, he became a member of the radiology team at MeritCare (now Sanford), where he worked until his passing.

**William Lyle Schwartz, BS Med '55**, age 87, loving husband of Florette Schwartz, passed away at home on Sunday, May 5, 2019. He was the son of the late Samuel and Celia Schwartz, born in Cando, N.D., on May 7, 1931. Dr. Schwartz was a graduate of University of California, Berkeley and both University of North Dakota and University of Utah Medical Schools. He started his medical practice in San Mateo, Calif., after completing a residency in Miami, Fla., in 1961. After 32 years in private practice, Dr. Schwartz retired and was designated as a Clinical Professor at the University of California, San Francisco. In addition, Dr. Schwartz

collaborated with Samaritan House, San Mateo County's leading non-profit agency, and co-founded the first free medical clinic for individuals in need in San Mateo County, for which he received the Jefferson Public Service Award.

**Constance "Connie" M. (Vold) Strand**, 89, of Mayville, N.D., passed away Tuesday, March 19, 2019, at Sanford Health Center in Mayville, N.D. Connie was born on April 14, 1929, in Watertown, S.D., the daughter of John and Bernice (Hogstad) Vold. She had 6 brothers and sisters. She grew up in and attended school in Clark, S.D. She later graduated from Concordia College in Moorhead, Minn. She married Delbert Strand, June 7, 1953, in Montpelier, N.D. They raised five children. They had 7 grandchildren and 7 great-grandchildren. In Grand Forks Connie pursued a new career as a librarian, working for the Grand Forks public schools, City of Grand Forks public libraries, and for the University of North Dakota as the head of circulation at the UND medical library. Connie worked at UND for more than 30 years and retired at the age of 76!

**Alberta Martin Swartz**, 60, Jamestown, N.D., died June 5, 2019, after years of fighting cancer. In her own words: "was the seventh of nine children born to Ed (Pepper) and Mary (Doll) Martin. I attended Bismarck Junior College now (BSC) obtaining an Associates of Arts degree in Criminal Justice. I taught Special Education in Selfridge for one year and in McClusky for one year. In 2000, I was hired by Jamestown Public School District where I have been employed since as a Special Education Strategist. I received my master's degree in Education from UND in 2009. In the spring of 2002, I was diagnosed with cervical cancer. Thanks to the wonderful doctors at Mid Dakota Clinic and Fairview University in Minneapolis, I survived and cancer did not reoccur until the fall of 2015. I also survived that. The third reoccurrence came in late 2018. One of my most memorable experiences was given the opportunity to speak with first year medical students at the UND Medical School. I was able to talk to them for two years. I spoke to them about my decision on bequeathing my body to UND."

**Peggy Wardius, BS MT '71**, age 72, resident of Tolna, N.D. passed away Saturday, March 23, 2019, at her home with her daughters by her side. Peggy Sue Ward was born December 27, 1946, in Devils Lake, N.D., the daughter of Welly and Gen (Christofferson) Ward. She graduated from Tolna High School in 1964 and from UND in 1971 with a Bachelor's degree in medical technology. Peggy began her medical career in Cheyenne, Wyo. She worked in hospitals as a lab technician, including at United Hospital in Grand Forks and Hillcrest Hospital in Norman, Okla., where she became the laboratory manager for years.



**WE'RE NUMBER ONE**

Department of Sports Medicine Class of 2019 with its first place trophy at the annual Athletic Trainer Olympics.



**COLLABORATING ON CANCER**

Prof. Barry Milavetz speaking at the First Annual DaCCoTA Symposium at the SMHS in June 2019.

## INMED SUMMER

Students of the INMED Summer Institute on break in July 2019.



## INTO THE SUNSET

Retiring Associate Director of Human Resources, Jean Altepeter (left), shares a laugh with SMHS Dean Dr. Joshua Wynne at Jean's retirement reception in June 2019.



## CELEBRATING IDEAS

INMED director Dr. Don Warne spoke about American Indian health at the Aspen Ideas Festival in Aspen, Colo., in June 2019.



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# SAVE THE DATE



## UND HOMECOMING 2019

Oct. 4-5, 2019 - Grand Forks

[med.UND.edu/events/homecoming](http://med.UND.edu/events/homecoming)



Photo: Visit Phoenix

## UNIVERSITIES OF NORTH & SOUTH DAKOTA RECEPTION

Nov. 9, 2019 - Phoenix, AZ

[med.UND.edu/events/aamc-2019](http://med.UND.edu/events/aamc-2019)

## Alumni Receptions

### SAVE THE DATE : 2019 HOLIDAY PARTIES

December 3, 2019 - Humpback Sally's,  
Smith and Curran Room, Bismarck, ND

December 5, 2019 - Avalon West,  
Sheyenne Ballroom, Fargo, ND

December 10, 2019 - Gorecki Alumni Center,  
Gransberg Room, Grand Forks, ND

December 12, 2019 - Northwest Art Center,  
Minot, ND

[med.UND.edu/events/holiday](http://med.UND.edu/events/holiday)