



"Scholarships lifted a large burden — I can pursue my degree with less worry about finances."



Cameron Dahlin '22, civil engineering Thief River Falls. Minnesota

NORTH DAKOTA STATE UNIVERSITY

FOUNDATION MAGAZINE —

VOLUME 1 | ISSUE 1 | FALL 2021

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EX-OFFICIO

NDSU President Dean Bresciani NDSU Foundation President/CEO John Glover Hello Bison Friends,

Welcome to the inaugural issue of the NDSU Foundation Magazine, a publication showcasing the impact and difference NDSU alumni and friends have on the life of North Dakota State University. Philanthropy has helped advance NDSU since the near founding of the university in 1890, after all, and it's a story worth telling. Just 11 years after North Dakota Agricultural College opened its doors, a group of early graduates formed an alumni group designed to engage, network, advocate for, and eventually support the state's land-grant college. Since that time, it is safe to say Bison alumni and friends have made a difference in their chosen fields, communities, and families, and many keep NDSU in the center of it all.

From humble beginnings in 1890 to nearly 100,000 living alumni around the world today, the local and global relevance of NDSU has never been more powerful. We aspire to be one of the country's most relevant public research universities, and the opportunities ahead are unlimited. Advancing NDSU's landgrant mission and fueling our country's future requires your continued attention and support. Earlier this year, we surpassed the \$400 million goal of In Our Hands: The Campaign for North Dakota State University. At the time of publication, benefactors have gifted nearly \$440 million — an unparalleled success in institution and state history.

Here in the upper Midwest, we're often accused of not telling our story loud enough; after all, our ancestral roots come from places where the belief is that we shouldn't get "too big for our britches," whatever the subject matter or excellence might be. Even if we all believed — and knew — that we were better than others thought we are, all too often we were told to just keep it to ourselves. While there may be some truth to these legends — or variation thereof — it doesn't mean we aren't proud of where we're from, what we've accomplished, and how we're making a difference.

This magazine will be about telling our stories. It will be a work in progress, and we want to hear from you. Inside this issue, we feature stories about our students, faculty, and programs, and we



unveil the latest class of distinguished alumni and friends who are being honored at Homecoming this fall. We'll also take you on a field trip to the Albert K. Ekre Grassland Preserve, a 1,600-acre site gifted to NDSU years ago; we're guessing not many of you know about it.

Rare is there a profession where one has the opportunity to work with really remarkable people in especially meaningful ways. You — graduate, parent, friend, businessperson, fan — truly make a difference. Thank you for the honor of inviting us into your lives, sharing your NDSU story, and allowing us to help you support your campus passions. This magazine will bring stories to all of Bison Nation, so you all can spread the word about NDSU; it's time to be loud! We hope you enjoy reading.

Go Bison,

John R. Glover President/CEO

NDSU Foundation













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You're invited on a field trip to the Albert K. Ekre Grassland Preserve. Embark on an exciting search for the rare and endangered western prairie fringed orchid and learn about the rich history connected to the 1,600-acre preserve gifted to NDSU in 1987.

20 Where Champions Are Made

NDSU student-athletes Jalen Bussey '23 and Katrina Patscot '24 can't wait to start practicing in the Nodak Insurance Company Football Performance Complex. This new, state-of-theart indoor practice facility is estimated for completion in the fall of 2022.



About The Cover

Cover art by Leah Ecklund featuring Minard Hall, Old Main, the Babbling Brook, Library, the campus gates, and the bison statue gifted by Jim and Sandra Roers, with contributions from Ronald G. and Kaye S. Olson and NDSU Student Government, which is dedicated to the memory of Dr. Les Pavek, Vice President of Student Affairs, and Michael William Barner.





"Without NDSU, specifically the Nice Center, I wouldn't be doing this because I got a lot of opportunities I couldn't afford to do by myself," Dieumerci, a business management major and entrepreneurship minor, said.

Before enrolling at NDSU, Dieumerci started his business, Enlightapp, which "helps teachers become experts on their students by allowing students to share their uniqueness through self-created student profiles." Dieumerci was inspired to create the tool for teachers based on his own educational experiences after immigrating to the U.S. when he was 13.

"I wasn't the best student in the world," Dieumerci said with a grin. "I was a C student by choice because I felt like my education and my interests and passions were getting in the way of each other."

Dieumerci recalled feeling alone in his educational journey because he didn't feel teachers understood his living situation. As the third youngest of nine children, the home computer sometimes wouldn't free up until 2 a.m. for Dieumerci to complete homework. When teachers said they cared about him and his success, he struggled to believe them because they neither knew him personally nor appreciated his passions — he calls it an "empathy gap" between teachers and students. As he began telling his story, he learned it resonated with U.S.-born students, too, so he started researching. Through online conversations with teachers from across the country, Dieumerci began to better

understand the struggles teachers are facing with large class sizes and demands of meeting state and national standards.

"I found out a lot of them go into teaching to make a difference — they want to change the lives of kids and they love the lightbulb moments," Dieumerci said. "For me, I wanted to discover how I could help teachers create more lightbulb moments."

Dieumerci used his skills in photography and graphic design to build student profiles based on questionnaires students completed. The questions ranged from student interests and aspirations to learning styles and needs.

"I took that data and started building student profiles for teachers. It's all because I truly believe that there're a lot of kids in school that go unseen," Dieumerci said. "They may be passionate about something but they're a little scared to tell their teacher because they're afraid the teacher might not care. There are a lot of lost Einsteins, there are a lot of lost artists. My product is basically the pinnacle of how we can ignite students' potential by asking, 'Who are you?'"

After a year at Minnesota State Community and Technical College in Moorhead, Minnesota, Dieumerci transferred to NDSU and began to discover how his passions and his education could align and propel his business, but undergraduate opportunities for entrepreneurship were limited until the Nice Center opened.

"Philanthropy started the Nice Center and almost its entire budget is supported by philanthropy today," Scott Beaulier, the Ronald and Kaye Olson Dean of Business at NDSU, said. "Philanthropic support allows us to create dynamic programs. In entrepreneurship, we need to be able to change quickly and adjust to needs — philanthropy lets us do that."

The Nice Center offers courses and programs to get students started and build a bridge between campus and the community.

"I wanted something that would encompass everything. Entrepreneurship is the only thing that does that," Dieumerci said.

Through funding from the Nice Center, Dieumerci was able to travel across the country and participate in the prestigious Techstars Austin Accelerator program, a WeFunder Fellowship, and a How I Built This fellowship.

"Dieumerci is a great example of betting on yourself — not waiting for opportunity, but making opportunity for yourself," Scott said.

With an NDSU degree, a wealth of knowledge, and extensive experience, Dieumerci leaves NDSU ready to go wherever he's needed to grow his business and continue making a difference.





HORIZON AWARD Lance Cayko & Alex Gore

Story by Nicole Thom-Arens

The Horizon Award recognizes alumni who have graduated within the past 15 years and have attained great success in their profession or have been engaged in outstanding community service.

ance Cayko '07, '08 from Trenton, North Dakota, and Alex Gore '07, '08, '11 from Rochester, Minnesota, met during their second year as architecture majors at NDSU. While they didn't initially hit it off, the two classmates soon realized they each had qualities to complement the other, and by their third year, the go-getters were working together on all the projects they could and earned the title "Renaissance Team" from Professor Darryl Booker.

By the time they graduated, Lance and Alex knew they'd someday run a business together, but first they went their separate ways with Lance landing in Boulder, Colorado, and Alex in New York City. Then the 2008 recession hit. Both junior architects found themselves out of work. Alex returned to NDSU and earned his construction management degree. By 2010, architecture and construction industries across the country were still struggling, so he joined Lance in Colorado, renting the apartment above him, and the two founded F9 Productions.

"NDSU showed us that the answers are always out there," Alex said. "If you boil something down to the fundamentals and then research through books, through history, through anything, you can come up with a good solution that solves the problem."

The company has steadily grown as an architecture, construction, and development firm in Longmont, Colorado from the co-founders to a staff of 14. In 2016, Lance and Alex won the Architizer award for Architecture and Living Small popular vote for their tiny home, Atlas, the build of which was featured on season one, episode 14, of HGTV's Tiny House Big Living.

"One of the big reasons we have been successful has to do with our generation,"

Lance said. "We're a millennial-led and millennial-hired firm. We gravitate toward using the internet so much, especially for marketing. That was one of the early things we did right from the get-go. No other architect was online, treating it like a business online."

Being business savvy allowed them to earn top ratings, becoming the highest-rated firm for customer satisfaction in Colorado. They've also positioned themselves to build their own projects the way they want, including their new business headquarters. Their education at NDSU taught them the balance between the science and art of architecture to enhance lives through design.

"Architecture is not just art. It's not just science. That has become so critical to what we do as a design build firm," Lance said. "Being respectful of the science that goes into a building — all the structural engineering, all the mechanical, the plumbing — but at the same time having a balance and bringing the art to it is what has allowed us to become an international, award-winning architecture firm that people seek to hire to enhance their lives through a design."

As they've grown the business, Lance and Alex strive to empower the people they hire. They pride themselves on developing employees and growing them into leaders to add to the fabric of professionals in architecture.





ALUMNI ACHIEVEMENT AWARD

Sandra Strand

Story by Nicole Thom-Arens

The **Alumni Achievement Award** recognizes alumni who have attained outstanding professional accomplishments.

andra Strand '77 knew she wanted to be an interior designer before she entered high school. Her passion and love for the industry blossomed from an assignment in eighth grade during a six-week program on interior design. She was the only one in her class to score 100%.

"I remember one of my friends complaining, 'Why didn't I get a 100%? I had all the pictures,'" Sandy recalled, "and Mrs. Herstad said, 'Yes, but Sandy had them all right."

At that point, Sandy decided to pursue a career in interior design. She never wavered and has enjoyed every part of the career.

While at North Dakota State University, Sandy learned the importance of a global perspective and that "good" design is about exposure. Through university programs, she was able to go to Chicago and Atlanta while an undergraduate. The faculty in the interior design program at the time also offered diverse influences with professors from Hungary, Texas, and the U.K. bringing their unique world views to the classroom.

At NDSU, Sandy joined Kappa Delta and, at the advisement of her mom, sought out jobs in the field while earning her degree. Upon graduation, Sandy set a career goal to have a project published in a magazine, so after a year in Fargo post-graduation, she left for Texas to gain the experience she knew she needed to advance her career.

Sandy worked in Houston, Denver, and Dallas in her first 10 years out of college, and she accomplished her goal of being published by age 27 while she was an associate at Neville Lewis Associates — one of three Hall of Fame Designers she worked for along with Andre Staffelbach and Art Gensler.

WHILE AT NDSU, SANDY LEARNED THE IMPORTANCE OF A GLOBAL PERSPECTIVE.

In the mid-1980s, she became a vice president at Ellerbe Becket in Minneapolis, and she earned her MBA at the University of Minnesota. At Ellerbe Becket, Sandy began a specialty designing control rooms, but her biggest project was the Hewlett-Packard campus in Delaware. The 365,000-square-foot project took three years to complete. This was Sandy's first lab project, and through creative design solutions, the team won R & D Magazine's laboratory of the year.

In the late 1990s, Sandy joined HOK in St. Louis. Shortly after moving, she jumped at the opportunity to transfer to HOK Hong Kong. She credits her

Norwegian heritage for her sense of adventure, saying she believes she's never lost the wandering Viking spirit.

"I thought, 'When will I ever have the chance to go to Hong Kong?' So I did it, and I was in Asia for 20 years," Sandy said.

After 9/11, Sandy moved to Shanghai, China, to work for Perkins and Will and Gensler, where her team won the company's first major project with Mary Kay.

Also at Gensler, Sandy and her new team landed the interior design of the new 765,000-square-foot Dow Chemical campus. This project, upon completion, won the 2007 Gensler's Design Excellence Award, which was awarded to one internal project per year.

In 2009, Sandy sought a new adventure working as an independent consultant with her colleague Chris Yang of CJ2 Design. Her first project was for Beijing Rail designing a control room for 300 people — the largest in the world.

For five years, she led the China-NDSU Interior Design Intern program, which resulted in one intern being hired by CJ2 Design in Shanghai.

In the years since graduating from NDSU, Sandy has traveled to more than 40 countries. Her belief that the success of design is rooted in exposure inspires her to continue traveling to see the beautiful designs of man and nature.



HENRY L. BOLLEY ACADEMIC ACHIEVEMENT AWARD

Alex Tröster

Story by Nicole Thom-Arens

The Henry L. Bolley Academic Achievement Award honors individuals who have attained noted achievements in the area of education as teachers, researchers, and/or administrators.

hen Alex
Tröster '86
came to NDSU
from Zimbabwe in the mid1980s, he was expecting to see
live bison and a soccer team
instead of American football.
His first winter in Fargo saw
the historic blizzard of 1984,
during which he was famous for
wearing sandals around campus.

Despite these few miscalculations, Alex remembers his time at NDSU fondly. Born in Austria, where he lived for his first 10 years, Alex spent much of his teens and early twenties in Zimbabwe, Botswana, and South Africa and was part of one of the first graduating classes from the newly renamed University of Zimbabwe. His interest in the brain inspired him to study psychology, and his pursuit of graduate studies in neuropsychology and health psychology led him to NDSU.

"I came to NDSU because it was one of the few programs that actually had neuropsychology and health psychology at a master's level," Alex recalled.

After earning his master's degree, Alex continued his education at the University of California San Diego and San Diego State University thanks in part to a recommendation from NDSU professor Bill Beatty.

"Bill Beatty was my main mentor at NDSU. He had

actually been at San Diego and done research there, so it helped me to establish a connection with the people in San Diego, and I'm sure his recommendation was pretty instrumental in me getting a place in San Diego for a Ph.D. program," Alex said.

Alex's area of expertise is neuropsychology and much of his research deals with deep brain stimulation in people with movement disorders such as Parkinson's disease. He developed a questionnaire on quality of life for essential tremor exams, which is used to assess effects of treatments. The questionnaire has been adopted by the Movement Disorder Society as a standard instrument used around the world.

Alex's career has taken him across the U.S. with positions held at various universities, including the University of North Carolina School of Medicine where he served as co-director of the National Parkinson Foundation Center of Excellence. Since 2012, he's been at the Barrow Neurological Institute in Phoenix, where he is chair of the neuropsychology department. He served the National Academy of Neuropsychology for five years as president elect, president, and past president and has served on the International Parkinson's Disease and Movement

Disorders Society taskforce for mild cognitive impairment of Parkinson's Disease.

Alex has published more than 200 scientific journal articles and book chapters and edited two books. He also served as a reviewer for the National Institute of Health and is an associate editor for the Journal of International Neuropsychological Society. Alex is the recipient of the National Academy of Neuropsychology's Early Career Award and its award for research contributions to clinical neuropsychology.

Through all his work, Alex says his first major stop in the U.S. — Fargo — left such an impression that he's stayed in America all these years — of course, his then wife-to-be, Kristy, also had a hand in this decision.

"There are lots of stereotypes when you come from a different country," Alex recalled. "Fargo taught me that the stereotypes don't always fit and it's not just somebody's culture that counts but also their individual differences. People can just be marvelous — you sometimes get the unexpected."

Alex credits NDSU for its excellent teaching and marvelous people.



SERVICE AWARD

John Wold

Story by Micaela Gerhardt

The Service Award recognizes individuals who have played a vital role as volunteer fundraisers.

ooking back, John Wold '66 says there was never really any question of where he'd go to college. Growing up four blocks from campus, he loved to watch the North Dakota State University Homecoming parade make its way past his childhood home. Many NDSU students also worked at his dad's drugstore in Moorhead, Minnesota, and John, who says he worked there from the time he was old enough to see over the counter, always admired them.

"I've been a Bison fan since I was a fan of anything," John said. "NDSU has always been a part of my life."

While attending NDSU, two faculty members encouraged John to get involved in undergraduate research. He seized the opportunity and conducted research on the invention of ACE inhibitors, a medication used to treat high blood pressure.

"I had lots of opportunities to learn and to make mistakes," John said, laughing, "and that encouraged me to take a lot of additional courses which were available but not necessarily required in the curriculum at the time — and that just set me off on my career in research."

After graduating from NDSU with a degree in pharmacy and earning his Ph.D. in pharmacology from the University of Iowa, John secured a postdoctoral fellowship in biochemistry at St. Mary's Hospital Medical School

in London, England. When his fellowship ended, he took a job with the pharmaceutical company Eli Lilly and moved to its headquarters in Indianapolis, Indiana. John worked with Eli Lilly for 28 years, beginning in a laboratory, then serving in several research management positions in Indianapolis and Greenfield, Indiana, and as managing director of Lilly Research Centre Limited near Windlesham, England. He retired from the position of Vice President of Research Acquisition in 2000.

"I'VE BEEN A BISON FAN SINCE I WAS A FAN OF ANYTHING."

JOHN WOLD

As an alumnus, John has remained highly involved with NDSU. He and his wife, Susan, have helped connect alumni back to NDSU and increased philanthropic support for the University. Early on, John made a gift to the Pharmacy Building Excellence Campaign to support the renovation of Sudro Hall. He was awarded the Alumni Achievement Award in 1991 and joined the NDSU Foundation as a Trustee in 2001. In 2002, he began serving as chair of the NDSU Foundation Grants Committee where he gained insight into campus programs and initiatives in need of support.

"It provided a great window into all the things that were going on at the University and the kinds of needs there were," John said.
"I had a really good feel for the sort of things students were doing because the grants often went to support research projects that employed undergraduate students."

In 2005, he and Susan established a scholarship endowment to support students studying abroad. Because John's own experience of traveling abroad and conducting research was so impactful, he felt it was a natural way to give back and extend life-changing opportunities to current and future NDSU students.

"NDSU opened me up to new possibilities with my pharmacy degree, and that's what got me started on my career," John said. "I feel I owe NDSU for that, and I like to see other students have that kind of opportunity as well."

Throughout the years, John and Susan have supported Bison Bidders Bowl by donating personally-guided fishing charters near Marco Island, Florida, and custom-designed fishing rods for the auction, which helps raise funds to support scholarships.

In addition to his philanthropy, John enjoys connecting people with NDSU. He stays in touch with friends he made in Kappa Psi, NDSU's pharmacy fraternity, and other NDSU alumni. He also gladly organizes trips to Frisco, Texas, hosts alumni events at his home in Florida, and shares stories about NDSU with people he meets on his travels.





ate City Bank's unique partnership with North Dakota State University stems, in large part, from Steve Swiontek '78, '06, chair of the board at Gate City Bank, who served as student body president while at NDSU.

rational philanthropic giving to the university.

When he became the Bank's President and CEO in 2001, Steve recognized how closely Gate City Bank's mission aligned with NDSU's land-grant mission to the state.

"Steve and all of us at Gate City Bank truly believe in our purpose, which is to create a better way of life for customers, communities, and fellow team members," Kim Meyer, executive vice president, chief human resources officer, said. "It's remarkable how NDSU creates a better way of life for its students and communities every day, as well."

Gate City Bank has a rich history in Fargo and the region, and its dedication to creating a better way of life goes beyond banking. The first branch opened in Fargo in 1923. It has grown to serve 43 locations in 22 communities across North Dakota and

central Minnesota.

The Bank's commitment to NDSU is seen through academic and athletic sponsorships and support. One of the first projects Gate City Bank funded at NDSU was the remodel of Richard H. Barry Hall. Additionally, an endowment was established to ensure the facility's upkeep as time passes.

Gate City Bank continued its investment in NDSU with funds for a remodel of Stevens Auditorium, which is now Gate City Bank Auditorium. The Bank also created unique financing agreements, valued at more than \$2.5 million for Aldevron Tower and \$4.1 million for the Nodak Insurance Company Football Performance Complex.

Additionally, Gate City Bank Field at the Fargodome, home of NDSU Bison football, plays a vital role in the program's venue and fan experience. The Bank recognized the dominant force of Bison football before the dynasty's legendary FCS Division championship run.

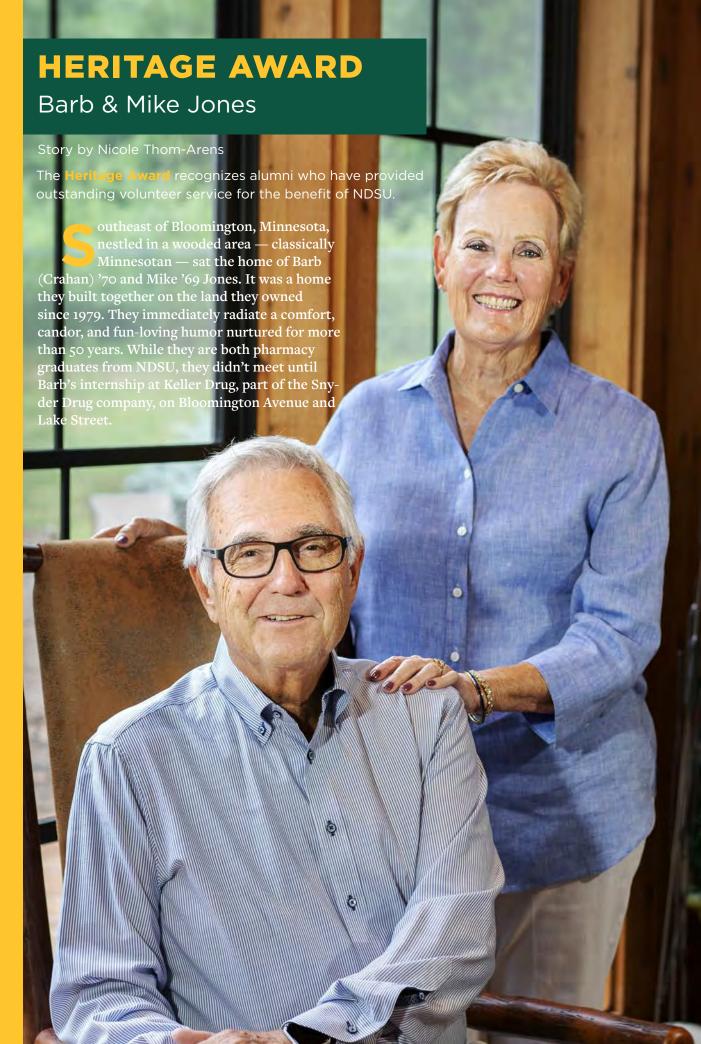
With the recent renovation of the Sanford Health Athletic Complex, the Bank again invest-

ed in NDSU student-athletes with the creation of the Gate City Bank Fueling Station, where they receive nutritional advice and all the ingredients needed to keep them performing at their best.

In 2019, the Bank supported those working to keep NDSU safe by investing in bullet-resistant helmets for campus police, an important safety upgrade that protects campus officers in the same way as city officers.

In addition, its commitment to NDSU's students, faculty, and staff extends to numerous volunteer opportunities, especially for international students, and internships. Plus, the Bank partners with the University to offer My School Spirit debit cards, customized with NDSU's iconic mascot. With each order, the Bank also donates \$10 to NDSU.

"Universities, businesses, and communities all play a crucial role in supporting education," Kim said. "We're on a unique journey to continually make things better together."



"Snyder Drug, at that time, filled all of its internships with NDSU grads because they knew we worked hard and were reliable," Barb recalled. "I waited and waited until one store was left to make my commitment to come down to Minnesota. Mike was a pharmacist there. I walked in and met him, and a year later we were married!"

Early in their relationship, Barb would escape down to the lower level of Keller Drug, where the merchandise was delivered and the women's restroom was located, to work on a project, a sweater for Mike, knitted in green and yellow — Bison colors, of course.

"Which I still have," Mike said.
"He wears it at Christmas — it has holes in it!" Barb added, and they both laughed.

Mike was born in St. Paul, Minnesota, and grew up in Bemidji, Minnesota, where he first attended college and majored in business and chemistry. He, along with three others, transferred to NDSU's pharmacy school. Growing up, Mike remembers how easy it was to visit with the pharmacists at the independent pharmacies in Bemidji.

"You could talk to them easily and find out more about pharmacy," Mike said. "Having access to the small pharmacies — the local drug stores — helped me decide."

Barb, a native Fargonian — born and raised — wanted a career but didn't want to go the traditional route. She was one of 10 women in the pharmacy program of about 110 at the time.

"We were the early trendsetters in a mostly male profession," Barb said. "I knew that I would come out with a strong education with an ability to have a job — a good profession, a lifelong profession. I knew pharmacy would be able to provide for me. I wasn't thinking I'd get married or anything; I just wanted to have a career, and I felt a career in pharmacy was a really strong avenue for me to pursue."

Barb lived at home and joined Kappa Delta sorority, and she's kept her strong affinity to NDSU all these years.

"She hasn't missed one Homecoming since we graduated," Mike said. "I missed one, but she's forgiven me. Even during COVID, we tuned into Bison Bidders Bowl virtually."

That passion for their alma mater

"IF YOU'RE ABLE TO GIVE BACK AND YOU SEE HOW OTHER PEOPLE ARE GIVING BACK, YOU JUST GET INSPIRED BY THEIR STORIES."

BARB JONES

is part of the reason Barb and Mike are being celebrated as the 2021 Heritage Award recipients at Evening of Distinction. The award recognizes alumni who have provided outstanding volunteer service for the benefit of North Dakota State University. Barb has served as an NDSU Foundation Trustee since 1995, and she and Mike serve as *In Our Hands* campaign ambassadors.

"Meeting alumni with the same passion for NDSU at different events has been the most enjoyable and heartwarming — you're like a family," Barb said.

The couple's connection to NDSU has remained strong through the Twin Cities alumni group, hearing from NDSU students through the telemarketing program, and serving on the Dean's advisory committee for the College of Health Professions.

"We have three scholarships," Barb said. "We looked at our passions: we both love music, pharmacy was a no-brainer, and we both love golf, so we have scholarships for women's and men's golf, the arts, and pharmacy. Golf came first. I think that's kind of an unsung area — you're a team but you're an individual. It builds character, honesty, integrity."

"It's a sport where you'll call a penalty on yourself," Mike added.

Both Barb and Mike worked throughout college, and they understand students are facing different circumstances today with increased costs.

"When I was in school, I worked at the Elks Club as a bartender," Mike said. "It's nice to give to students so they don't have to worry about how to get the money to get through school."

"I worked at the metabolism lab as a student, so it just helps. It's so competitive for students right now and it's so expensive," Barb added.

Through their volunteering, they've also met fellow alumni who were giving back, and that was inspiring.

"The people that we got to know were all philanthropic — they were generous and were giving, too," Mike said.

"If you're able to give back and you see how other people are giving back, you just get inspired by their stories," Barb said.

While working as pharmacists, the Joneses also launched their own business. Mike, led by his entrepreneurial spirit, started developing products customers were asking for but were not available on the market. The first product he developed was cocoa butter bars. They slowly grew the company, Gallipot, and were eventually manufacturing a number of products. In 2010, a Dutch company, Fagron, purchased Gallipot, which now operates under the Fagron name.

"We had a good division," Barb said. "Mike was the mad scientist and did the regulatory issues and worked with the government and FDA. He had a calm, cool head about him. He was in charge of the manufacturing and production, and I was in charge of the purchasing, receiving, accounting, HR, and front office. It worked out really well because it balanced our strengths."

In 1990, Barb became president of the Minnesota Pharmacists Association — she was only the second woman president in the group's more than 100year history.

As they reflected on their successes, Mike made a clear connection back to NDSU.

"A lot of those skills, like compounding, we learned from NDSU, so it makes sense to give back what we received."

A love of NDSU was palpable in Barb and Mike as they reminisced about meeting people on vacations with connections to NDSU, running into strangers in the Twin Cities who knew former classmates, meeting young people from Minnesota who attend NDSU today, and recruiting their Arizona neighbors as Bison fans even though they're not alumni. The Joneses epitomize that something special about Bison Nation we often talk about as alumni and friends of the University.

MEET THE FACULTY

Named faculty positions give exceptional scholars the resources needed to advance education, research, and outreach in their classrooms, community, and the field. Benefactors who establish named positions help recruit and retain world-class educators and researchers so all NDSU students, departments, and programs can continue to innovate and excel.





DR. JULIE PASCHE NEIL C. GUDMESTAD ENDOWED CHAIR OF POTATO PATHOLOGY

Story by Nicole Thom-Arens | Illustration by Leah Ecklund



f asked to envision a potato, what do you see? A side of fries next to a burger? A mound of mashed spuds accompanying meatloaf? Maybe you'd see boiled baby Red River Valley Reds sprinkled with parsley next to grilled chicken? If breakfast is your jam, the word might inspire visions of hash or a skillet packed with cubed potatoes, peppers, and onions topped with an over easy egg. The versatility of the potato is vast, and in the upper Midwest, foodies continue to explore new ways to transform the humble root vegetable into something extraordinary. For many, it is difficult to imagine a balanced meal without them, and researchers in potato pathology at NDSU are working to ensure one never has to.

Seven-and-a-half years ago, the NDSU Foundation and Dr. Neil C. Gudmestad '78, '82 worked with benefactors to establish NDSU's first endowed chair — the Neil C. Gudmestad Endowed Chair of Potato Pathology — which supports "the exclusive efforts of those who will work on the causes, diagnosis, effects, and/or management of diseases of economic importance on the potato industry." At the time of fundraising for this endowed position, Neil was a university distinguished professor of plant pathology at NDSU. As a researcher, he was dedicated to helping manage potato diseases not just in North Dakota but across the U.S. and around the world. His long service of research, teaching, and outreach is legendary.

By the mid-2000s, acreage of potatoes in North Dakota had decreased, and Neil left a State Board of Agricultural Research and Education meeting with the overwhelming sense that the future of potato pathology research at NDSU was in jeopardy. Legislators were questioning the investment of two potato pathologists at NDSU since potatoes were a dwindling commodity in the state. Neil knew then that endowing his position would help secure it in the future and ensure critical potato research would continue long after his retirement. His efforts to secure funding were expedited when he learned he had cancer and faced only a 12%

chance of survival after five years. More than 40 donors across 15 states rallied behind Neil and the funding for the chair position came together in 2014. Fast-forward to winter 2020 — Neil's cancer was in remission, and he was ready to retire knowing it was time to pass NDSU's first endowed faculty position on to the next researcher who could continue his work and grow it.

"The concern was always, who would replace me?" Neil recalled. "I oversaw the largest potato pathology program, under one person, in the world and the committee wanted my successor in place a year prior to my retirement."

Enter Julie Pasche '93, '03, '12. Julie started working with Neil in 1995 as a full-time microbiologist studying bacteria of potatoes. She attended NDSU as an undergraduate majoring in microbiology and biotechnology while she played volleyball. While working full time and raising a family, Julie continued her education, earning her master's and Ph.D. under Neil's direction.

"I didn't have a background in agriculture," Julie said. "After I started working with Neil, his group, and the growers, I realized agriculture is much different than I knew. There are a lot of challenges and a lot of great people to work with. As a scientist, I think that's what you look for — opportunity — and all of those things were in agriculture for me."

At the time of Neil's retirement, Julie had been working with pulse crops and dried beans, but she welcomed the opportunity to return to potato research. The endowment advisory committee wanted Julie to be Neil's successor, too. Because of her long tenure working alongside Neil, they were confident she would steward Neil's work and lead the research into the future.

"Julie was the face of the program early on," Neil said. "When I couldn't be somewhere, Julie presented on my behalf. She knew the program, how it was run, and she knew the people. Julie brings an intensity to everything she does; she is superb."

"It's a lot," Julie said regarding the honor of holding the endowed chair



position. "Philanthropy reflects the excitement around an institution and can really move places like NDSU to the next level. The endowed chair position opens us up to thinking outside the box to expand what we are doing to new areas."

Julie and the team continue asking critical questions about where to take risks while evaluating what they're seeing in the field. She also balances expectations of those who invested in the position and maintain donor intent.

"We're trying to protect yield and working toward doing it in a sustainable manner, and we want benefactors and growers to feel like they are getting value from their investment," Julie said. "My role is managing the research unit. The lab scientists and field scientists are doing the boots-on-the-ground work, and I'm bringing it all together from what the growers need to funding and distributing the results of

The research being conducted by Julie's team is critical to potato yield globally, and investigating how growers can produce safe food sustainably while continuing to feed the world guides their processes.

the research."



So, what is Julie's go-to way to enjoy potatoes?

"My favorite thing to do is put them on the grill," she said. "The potato industry in North Dakota and Minnesota originated in the Red River Valley. We're known for the deep soil color here; we're known for growing really high-quality red potatoes."

DR. LOKESH NARAYANAN | VETTEL FAMILY FELLOW

Story by Micaela Gerhardt



n 1997, a photograph emerged of one extraordinary mouse sitting inside a petri dish on a white laboratory table. Like most mice, it had four legs, one tail, and two eyes; unlike most mice, it had three ears.

What caught people so off guard was not necessarily that the Vacanti mouse *had* three ears, but that it's third ear, which grew on its back, looked exactly like a *human* ear. In fact, a team of medical researchers had constructed it this way. In an effort to contend with organ shortages for human patients, the researchers were studying the mouse and evaluating the potential for producing tissue-engineered organ replacements for people.

After a BBC News program highlighted the research, the photograph circulated rapidly, generating widespread recognition that making and molding tissues in a laboratory was possible; however, it stirred controversy among people who viewed animal testing or genetic engineering as unethical. In an interview with Newsweek in 2017, head researcher Joseph Vacanti reflected on some of the ethical debates surrounding his past experiment.

"In the world of medicine, there's a massive controversy about the use of animals," he said. "We're hoping to eliminate the need to use animals because we can now generate human structures and tissues using human cells, and we can study them without the use of animals. That's our long-term goal."

"THE JOY, TO ME, IS INVENTION.

I KNOW IT'S A BIT OUTLANDISH, BUT I WANT TO IMPROVE HUMAN LIFE."

DR. LOKESH NARAYANAN

Scientific advancements like the Vacanti mouse have inspired researchers like Dr. Lokesh Narayanan, assistant professor of industrial and manufacturing engineering at North Dakota State University. Lokesh envisions a world in which patients with an injury or illness can receive a customized organ grown from their own unique cells. As

an example, he points to a hypothetical patient with a torn ACL whose avascular tissues, when damaged, are unable to repair themselves. According to Lokesh, a patient's options for healing are limited and not ideal — those who opt for a corrective surgery or plastic implant rarely regain full functionality, he said, and those who require a transplant may wait for months, or even years, until one becomes available.

"So, what if we made tissues with your own cells, custom to your own tissue geometry?" Lokesh asked. "That's what regenerative medicine is all about."

Lokesh's process utilizes human cells collected from a small tissue biopsy and a special 3D printer, called a bioprinter, that creates a biodegradable scaffold to direct the shape of cell growth. A significant portion of his research is funded by the Vettel Family Faculty Fellowship, established by Matt '90 and Jenna Vettel to support a faculty member in the Department of Industrial and Manufacturing Engineering.

Before he received the fellowship, Lokesh found himself in a difficult position — he wanted to apply for grants to secure funding for his research, but in order for his grants to be successful, he needed to show pilot data. "To do pilot experiments, you need money," Lokesh said, "and without that money, you can't be successful. Now I am capable of doing some pilot experiments and showing data that can support the grants I'm writing, so this fellowship was a must for my research."

Despite the significant amount of time it takes to write grants (about six months), Lokesh continues to apply because his research is quite expensive. The 3D bioprinter used to print 3D tissue models cost \$130,000 and to run his experiment just once costs roughly \$7,000. His fellowship funding has covered a significant portion of those costs.

"The challenge here is any research involving living cells is really expensive," Lokesh said, "so the more money we have, the better quality the research will be."

The price of his research is one reason he says his faculty fellowship is so vital. But Lokesh also sees it as a growing investment that provides remarkable opportunities for students and the greater NDSU community to improve the quality of human life.

"This fellowship is like a seed — it starts everything," he said. "The money is going into labs, into equipment, into students, so it's going to come back to the university. It's going to increase the reputation of the university, and it's going to improve the college infrastructure as well. It's a seed that flourishes into a bigger investment."

In addition to his fellowship research, Lokesh received a grant that has allowed him to research how moisture affects the 3D printing process with NDSU graduate student and Ph.D. candidate Raihan Quader.

"Donor funding is really important because it actually broadens the exploration area," Raihan said. "When a project is funded, the department, faculty,

and students have the capability to think broadly."

In the first year of his fellowship, Lokesh generated pilot data and prepared for more student research assistants to join his team. Sri Teja Garapati, an M.S. mechanical engineering student, is working on building a biosensor platform, and Zaidur Rahman, a B.S industrial engineering student, is working on data collection and analysis. Caleb Wing, a B.S. mechanical engineering student, and Sydney Von Arb, a B.S. manufacturing engineering student, joined his team this fall. Through his research, Lokesh has also connected with Sanford doctors with whom he's currently collaborating on medical modeling.

"The joy, to me, is invention," Lokesh said. "I know it's a bit outlandish, but I want to improve human life. If I can invent something that is going to be used by millions and save their lives or improve their quality of life, if I can contribute in any way, it makes me happy."







NORTH DAKOTA STATE UNIVERSITY FOUNDATION FIELD TRIP

The Albert K. Ekre Grassland Preserve

• 46°53′31.2″N, 96°48′06.7″W

THE NDSU FOUNDATION MAGAZINE INVITES YOU ON A FIELD TRIP TO THE ALBERT K. EKRE GRASSLAND PRESERVE. READ ON TO EXPERIENCE THIS SPECTACULAR 1,600-ACRE PRESERVE, WHICH ALBERT EKRE GIFTED TO NDSU IN 1987 FOR EDUCATIONAL AND RESEARCH PURPOSES.

Story and photos by Micaela Gerhardt | Illustrations by Leah Ecklund

In mid-July, I found myself riding south on Highway 18 with the NDSU Foundation creative team near Kindred, North Dakota, scouting out the window for the rare and endangered western prairie fringed orchid. I was told ditches were the place to look, but directions to turn east down a gravel road beside a cattle corral yielded nothing but cattails and tall grass for miles. Still, we drove on, slow-

ly, with held breath, fingers crossed that we had not missed the brief window in which, every summer, this threatened species blooms.

It was a butterfly that finally revealed the flower to us — as we traced its flight path, it skimmed over the strange, splayed white petals of the western prairie fringed orchid. We pulled over, and I bolted out of the car, camera in hand, and knelt to take its

photograph. Here, in this very place, something miraculous quietly existed — and we had the distinct pleasure of finding it.

Three days prior, I did not know the orchid existed, but as I talked with Dr. Shawn DeKeyser, Natural Resources Management Program Leader at NDSU, I learned about the biodiversity that exists in and around the Albert K. Ekre Grassland Preserve, which gives NDSU

students and faculty hands-on opportunities to study animal sciences, range sciences, plant sciences, and prairie and wetland restoration. It's a place where agricultural production and land stewardship are equally valued, where best practices are explored for the mutual benefit of the environment and the people who steward it.

The North Country National Scenic Trail, which stretches approximately 4,600 miles from Lake Sakakawea State Park in western North Dakota to Vermont, passes through the Albert K. Ekre Grassland Preserve on the Ekre/ Troop 214 hiking trail. On our visit, we parked at the trailhead, applied bug spray, and embarked on the two-mile loop that led past vibrant wildflowers and a cattle pasture, beneath bur oaks and cottonwood trees. Yellow songbirds flitted from tree to fencepost. Bumblebees lit delicately on flowers, taking sips of nectar.

What Albert Ekre so loved about this place is palpable. In his will, he wrote about the butterflies and prairie chickens; the pastures and cropland; the timber, river, and range; the sandhills, valleys, and grasslands; and its history, heritage, and practical uses. Because of his generosity and vision, people in the region can continue to experience its benefits and beauty in perpetuity.

MEET THE EKRE FAMILY

In 1888, Norwegian immigrants Knud and Kjerstie Ekre stepped off the train near Kindred, North Dakota, and set off on foot to stay with Knud's sister, Kari, and her husband, Endre, on their farm near Walcott, North Dakota. Knud and Kjerstie married shortly after their arrival, and a year later they began renting a property, which they called Happy Hollow, on the present-day Albert K. Ekre Grassland Preserve. Knud eventually purchased the land for \$1,600 about one dollar per acre.

Knud and Kjerstie had twelve children: Anna, Oscar, Geoline, Edwin, Carl, Selmer, Albert, and three boys and two girls who died in infancy. Kjerstie passed away in 1937, and Albert took over the farm in 1938. When his father passed away in 1941, Albert received the portion of land belonging to his family's



original homestead, and the rest was divided between his brothers and sisters. Over the years, he gradually bought their portions, raised Hereford cattle, and renamed it Happy Valley Ranch.

Albert recognized the ecological significance of the plants, pollinators, trees, and wildlife that were so abundant on his property. He also shared in the joy of helping young people study agriculture and welcomed 4-H and FFA club members to conduct livestock judging trials at his ranch. After successfully owning and operating the ranch for nearly 50 years, Albert made plans to gift his land to the NDSU Foundation for the use of NDSU students, faculty, and staff. In his will, he clearly stated that the land must be maintained as a unit and that NDSU must preserve the habitat for prairie chickens, butterflies, plants, insects, and wildlife. He also made special note of caring for his bur oak trees. Albert spent his entire life on the land and passed away in 1989 at the age of 81.

FIELD NOTES

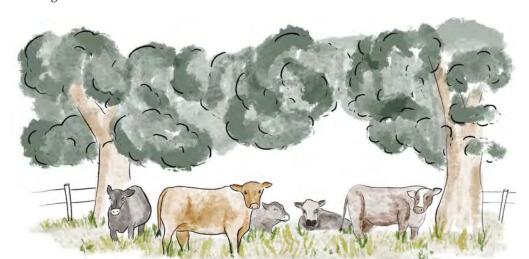
- The Albert K. Ekre Grassland Preserve was once part of the homeland of the Tsistisistas or Cheyenne people. It was also part of the homeland of the Wichiyena Dakhota, the Upper Yanktonai.
- Anthony Nolan, a Civil War veteran, and his sister, Netty, were the first white settlers to homestead on the land. Anthony built a log cabin on the property in 1868 and began an-Bur Oak other in 1871 that he never finished. A military road connected the Nolan homestead to Fort Abercrombie, where Anthony was stationed. In the mid-1800s, wagon trains, soldiers, and traders crossed the Sheyenne River near the property, which was popularly known as Nolan Crossing.
 - the only North Dakota plant listed on the Endangered Species Act. According to North Dakota Game and Fish, it was first documented by Lewis and Clark in present day Wyoming, but has since been eradicated in Wyoming, South Dakota, and Oklahoma due to habitat loss

and environmental degrada-

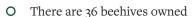
O The western prairie

fringed orchid is

Western Prairie Fringed Orchid



- O A portion of the Ekre/Troop 214 hiking trail loop follows the path of the Fort Abercrombie military road established in the 1860s. According to the State Historical Society of North Dakota, the fort guarded military supply wagon trains, stagecoach routes, and steamboat traffic.
- O Leafy spurge, Kentucky bluegrass, and smooth brome are invasive species that are major issues on the preserve. NDSU researchers are taking efforts to control these invasive species through burning, herbicide, and seeding to restore the prairie to its natural habitat.





ber-colored honey with floral hints.



You can visit the Albert K. Ekre Grassland Preserve year-round, but if you want to catch sight of the western prairie fringed orchid, the best time to visit is in June or July. Drive west on Highway 46 and turn south at the Highway 18 junction next to the West Prairie Free Lutheran Church in Kindred, North Dakota. Then, look for the Albert K. Ekre Grassland Preserve sign on the east side of the road and park at the trailhead. There are no restrooms or public water sources, so plan ahead and bring your own water. The trail is marked and rated as easy, but there are a few stairs to climb. Horses and bicycles are not permitted on the trail. Keep in mind seasonal changes may alter conditions and accessibility. If you follow the road next to the trailhead further east, you'll find the Happy Valley Ranch barn and cabins. Visitors are welcome to stop by and take photos.









MAKE AN IMPACT

The Albert K. Ekre Grassland Preserve is dependent on private support. You can help sustain the preserve and advance research efforts by making a gift to the Ekre Grassland Preserve Fund online at www.NDSUFoundation.com/donate/ekre-grassland-preserve.

Thank you to Shawn DeKeyser, Dakota Goodhouse, Tom Isern, Jack Norland, and Dennis Whitted for their help with this story and to Carleton College, whose own Field Guides inspired this series. Thank you also to Carolyn E. Grygiel and Mike Utt, whose articles on the preserve and the Nolan and Ekre families provided important historical context.



CONSTRUCTION BEGINS THIS YEAR ON THE NODAK INSURANCE COMPANY FOOTBALL PERFORMANCE COMPLEX, A NEW INDOOR PRACTICE FACILITY AT NORTH DAKOTA STATE UNIVERSITY. THE ESTIMATED \$37.2 MILLION BUILDING PROJECT FOR BISON ATHLETICS WILL BE ENTIRELY PRIVATELY FUNDED. AND THE FIRST PHASE IS PROJECTED FOR COMPLETION IN THE FALL OF 2022.

For NDSU student-athletes, the clock never stops. Jalen Bussey '23, a Bison running back, spent his summer on campus. Every Monday, Tuesday, Thursday, and Friday, he met his teammates in the weight room, at the Fargodome, or on the turf for strength and conditioning practice. To stay in shape for the season, NDSU student-athletes train nearly year-round — and the athletes are no strangers to each other. They all share practice spaces, and during the academic year, their practice schedules change constantly to accommodate the needs of a slate of talented teams, including women's soccer, men's and women's golf, men's and women's track and field, baseball, softball, and football.

Katrina Patscot '24, a defender and midfielder for women's soccer at NDSU, said facilities like the Sanford Health Athletic Complex (SHAC) and the Fargodome help NDSU student-athletes grow individually and as a team, but in the current environment a lot of teams share the few spaces

available, and although every team looks out for one another, many compromises have to be made.

Because of philanthropic support, things are about to change. Construction begins this year on the Nodak Insurance Company Football Performance Complex, a new, privately funded indoor practice facility at North Dakota State University.

"It's going to be great to have a new facility," Katrina said. "The energy is going to be high, and I'm very excited just to be in there with my team. I think our competitiveness, our strength, and our Bison mentality as a whole will just

skyrocket and really bring us far."

The project's first phase, estimated for completion in the fall of 2022, will include construction of the indoor practice facility and outdoor field, which will replace Dacotah Field's temporary bubble that is at the end of its life. The second phase, which still requires additional fundraising, will include locker rooms, a 10,000-square-foot weight room, sports medicine, and other needs for student-athletes and coaches.

"We've had a bubble over Dacotah Field for the last seven years, which has been fantastic, but we really need something more permanent," Matt Larsen,

"WHEN NDSU STUDENT-ATHLETES SEE THE BELIEF AND INVESTMENT FROM OUR **COMMUNITY AND THE DONORS WHO SUPPORT** THESE PROJECTS. IT'S SOMETHING THEY'RE REALLY EXCITED ABOUT."

> MATT LARSEN DIRECTOR OF NDSU ATHLETICS

Micaela Gerhardt

by 1





director of NDSU athletics, said. "The ability to have an indoor space where all of our outdoor sports can train essentially year-round is a huge benefit. It will take the pressure off the SHAC in terms of working around schedules, and it puts us on par with a lot of the institutions we're competing against from a recruiting standpoint, too."

This rings true for Jalen, a recruit from Tampa, Florida, who worried about practicing in extremely cold weather when he first joined the team.

"An indoor facility will bring in a lot more recruits," Jalen said. "I think it'll make everybody happy knowing that NDSU is growing, that we're starting to get the things we need as a big, competitive Division I school."

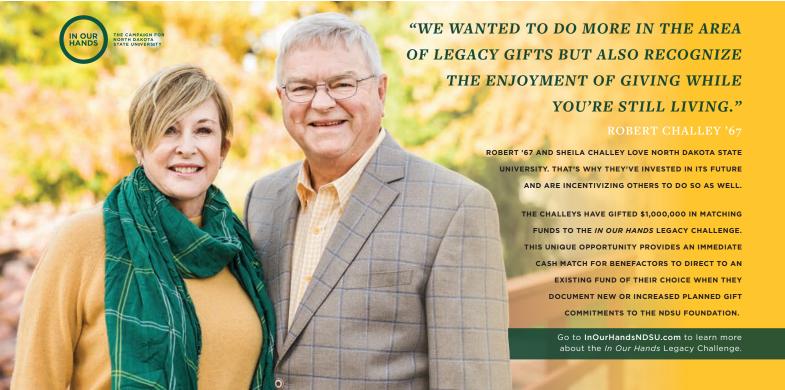
Nodak Insurance Company provided a lead gift and was awarded naming rights for the new facility.

"When NDSU student-athletes see the belief and investment from our community and the donors who support these projects, it's something they're really excited about," Matt said. "I'm looking forward to the positive impact the new indoor practice facility is going to have on their development and training."

Katrina looks forward to the ways a new, state-of-the-art environment will positively impact her team's mindset and performance, and Jalen is especially excited about the new locker room and weight room.

"You build that camaraderie in the locker room, and the weight room is where Bison football wins our championships," he said.

The Nodak Insurance Company Football Performance Complex is designed by Foss Architects and Interiors of Fargo in collaboration with Crawford Architects of Kansas City, which recently designed football practice facilities for the Minnesota Vikings and Seattle Seahawks.





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