

# NORTH DAKOTA MEDICINE

THE UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES

## Active Learning

Involve Me  
and I Learn

Keeping  
Science  
Honest

What's in  
a Name?

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

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# Challenges and Opportunities



This is a time both of excitement—regarding the opening of the new building and the many accomplishments of our students, faculty, and researchers—and some circumspection and reflection given the budget challenges that the state is facing. As you undoubtedly know, North Dakota's revenue collections to support state agencies are about a billion dollars below target, and the School, like all other institutions in higher education, needs to trim around 4 percent from our current budget. Since we are well into the 2015–17 biennial budget cycle, the actual cut is about 6 percent of remaining dollars (specifically, about \$3 million out of \$50 million). And at this point, there is little reason to think that the budget trimming this biennium won't continue to be required for the 2017–19 biennial budget that the Legislature will begin debating and preparing less than a year from now. So the cuts are real, and likely to be a factor for the foreseeable future.

So what are the implications for our various educational, research, and service-oriented programs? It is clear that we will need to make some hard choices and will face difficult decisions. But what I will resist doing to the maximum extent possible is an across-the-board type of budget-balancing approach. Rather, we will be selective and mission-oriented in deciding between the various options that will face us. To be sure, we will—we must—live within our means, and that means delivering a balanced budget. We will look for any and all opportunities to increase efficiency, achieve economies of scale, and maximize value. But in my opinion, we already run a pretty tight ship; however, we will need to identify—and probably downsize or eliminate—those components of our programs that return less value than others. It will necessitate some real pain and affect some of our colleagues. After all, almost three-quarters of the School's budget is composed of

personnel costs (salary and fringe benefits), so it is not going to be possible to achieve a 6 percent budget cut without directly affecting some people. Nevertheless, to put the budget situation in some focus, state appropriations account for a little over a third of our overall budget. So a budget cut of around 6 percent for the remainder of the current biennium amounts to a reduction of around 2 percent of our entire budget—still real money, but not the end of the world! We will work through this challenge, and continue to deliver outstanding educational programs, high-quality scholarship and research, and service to North Dakota and the region.

And perhaps nothing is more symbolic of that commitment to the well-being of North Dakota and North Dakotans than the new building, which is nearing completion. The building should be substantially complete by mid-May, with a projected opening date of July 15, 2016—just in time for the incoming medical school class of 2020 along with arriving freshman in the various health sciences programs. Mark your calendars for the grand opening celebration for the building that will take place during UND Homecoming 2016. The official ceremony will begin at 1:00 p.m. on Friday October 14, 2016, to be followed by directed tours of the building. We anticipate a most memorable and noteworthy event, and one that ushers in a new era of healthcare workforce preparation and training. I'm really looking forward to it, and hope that you will be able to join us for this important thank you to the citizens of North Dakota for their foresight in investing for the future.

After all, training future healthcare providers is our fundamental focus. That's why I was especially pleased to hear recently from the Liaison Committee on Medical Education (LCME), the agency that accredits the medical education

programs of schools in the United States and Canada. The LCME complimented the School on the way we addressed the previously noted citations, and put us back on the regular cycle of review. While there may well be some suggestions for continued monitoring and improvement in a few areas, we no longer have the “warning” label associated with us, remain fully accredited and in good status, and our next LCME visit will be in 2022.

And based on changes that we’ve made to our entire accreditation process, I anticipate that future visits by the LCME survey team will be less stressful and problematic. The major change is that we now incorporate accreditation preparation and compliance activities into our routine curricular management process (rather than waiting to prepare for an LCME visit in the one or two preceding years). Under the overall direction of Assistant Dean for Medical Accreditation and Chief Medical Accreditation Officer Dr. Steven Tinguely, our LCME-related activities are ongoing, iterative, and continuous. We are in a minority (but increasing number) of schools that now handle things in this proactive and forward-looking manner, but looking back, one has to wonder why almost all schools (ours included) handled accreditation visits the way we did in the past. I certainly anticipate that the 2022 visit will be smooth sailing indeed!

The positive LCME review is yet another indication of the value that your SMHS delivers. The main reason that I’m so optimistic about the future of healthcare in North Dakota—even given our current budget woes—is that through the Healthcare Workforce Initiative (HWI), we have a plan for beginning to address our workforce issues. It will not be the entire answer. We will continue to struggle to deliver high-quality accessible healthcare to various rural communities in the state. But unlike many other states, at least we have a plan that already has begun to help.

Because of the budget situation, it is likely that we’ll have to scale back or delay some of the provisions of the HWI. But the essence of it will continue to be implemented, and should positively address the state’s long-standing healthcare delivery challenges.

So despite the news about the economy, I remain excited and upbeat about the healthcare situation in North Dakota. While we are not immune to the national—let alone worldwide—triple healthcare challenges of cost, quality, and access, I am confident that we are on a path to dealing more effectively with those challenges—even in a budget-challenged future. I look forward to continuing to work with our students, faculty, staff, and stakeholders from around the state to design and deliver a brighter healthcare future. Thank you for being a part of it all!



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

“  
Mark your calendars  
for the grand celebration  
for the building  
that will take place during  
**UND Homecoming 2016**”

## Bradley receives Research ND Bio grant to study treatment of influenza

David Bradley, PhD, an immunologist and executive director of the Center of Research Excellence for Avian Therapeutics for Infectious Diseases at the University of North Dakota School of Medicine and Health Sciences, received a peer-reviewed Research ND Bio grant of \$1 million from the North Dakota Department of Commerce to pursue research on an avian-derived therapy for influenza A that could help human patients as well as poultry farmers and dog owners to effectively combat the flu. Avianax LLC is matching the Research ND Bio grant with \$1 million that will also be dedicated to this research.

The public-private partnership between the University of North Dakota and Avianax has demonstrated the ability to rapidly generate antibodies for several viruses by using goose eggs. The partnership has ongoing research developing antibodies for human and animal diseases, such as West Nile, avian flu, and parvovirus.

“We have demonstrated the therapeutic potential of goose-derived antibodies for several viruses known to be pathogenic

in humans, birds and other mammals, including dogs,” Bradley said. “One of these antibodies, parvoOne, is specific for fighting canine parvovirus type 2. We are currently obtaining a United States Department of Agriculture conditional license for the treatment of CPV2 infections in dogs.”

Research ND Bio grants are a part of the Research ND Program, whose goal is to spur partnerships between North Dakota’s research universities—North Dakota State University and the University of North Dakota—and private partners. Research ND Bio grants are focused on research to develop and commercialize vaccines and antibodies to prevent, treat, or cure cancer, infectious disease due to viruses, or other pathogens, including bacteria, mycobacteria, fungi, and parasites.



David Bradley

## Seeking a Better NET Result—NIH grants \$1.7 million to Jyotika Sharma

The National Institutes of Health has granted \$1.7 million to Assistant Professor Jyotika Sharma, PhD, in the Department of Biomedical Sciences at the University of North Dakota School of Medicine and Health Sciences, to pursue research on a possible mechanism that causes a life-threatening reaction in pneumonia patients. The five-year R01 grant is the highest level of research supported by the NIH.

Funded by two R21 grants, an American Heart Association grant, and a UND Faculty Research Seed grant since she joined UND in August 2011, Sharma’s research focuses on sepsis, which is a life-threatening medical condition that results from a systemic inflammatory response by the body to fend off a severe infection or to recover from a traumatic injury.

“Sepsis is a medical condition where your immune system gets overactivated,” said Sharma, a microbial immunologist. “The mortality rate is very, very high: 20 to 50 percent of people admitted to an ICU with sepsis are at risk of dying,” she said. “Half of the ICU resources in this country are spent on these patients. The annual expenditure is around \$20 billion.”

Sharma’s work in this R01 grant examines the most common type of infection-fighting white blood cell—neutrophils—that are the first responders for combatting bacterial infections like pneumonia. Neutrophils fight pneumonic bacteria in two ways. Primarily, they engulf and destroy the bacteria. Or they can form NETs outside of cells. NETs are neutrophil extracellular traps in which the neutrophils expel DNA fibrils with molecules attached that can trap and kill bacteria. But the factors controlling NET formation are not well understood.

Sharma’s team has identified a molecule called “Mincle,” which is acting as a central regulator of NET formation in pneumonia and sepsis. In the absence of Mincle, the neutrophils don’t form NETs, which allows the bacteria to grow unchecked, ultimately leading to hyperinflammation and sepsis.

“Our observation of Mincle-mediated NET formation

through a novel signaling pathway presents an exciting opportunity to understand NET formation and its role in sepsis at an unprecedented level.”

However, NET formation comes at a cost. Uncontrolled NET formation can also lead to collateral damage from inflammation. Hyperactive immune response because of too many NETs has now been identified in many diseases like lupus, COPD (chronic obstructive pulmonary disease), arthritis, and even Alzheimer’s disease.

“In the future, when we are equipped with the understanding of NET formation from this work along with unique ways to manipulate NET formation that we are trying to develop currently, we will be able to harness the beneficial outcome of NETs while avoiding their potentially harmful effects. It’s a goal that has remained elusive so far.”

Assisting Sharma with this project has been her postdoctoral fellow Atul Sharma, PhD (not related). Sharma’s project will have a clinical component as well. Associate Professor Mary Aaland, MD, who is the director of rural surgery and the director of clinical research in the UND SMHS Department of Surgery, will be coordinating the acquisition of patient samples from Altru Clinic in Grand Forks with the help of UND SMHS Associate Professor of Surgery and Altru Hospital Surgeon Randy Szlabick, MD.

“Determining the relevance of NET formation in a clinically relevant pneumonic sepsis model as well as in sepsis patients will not only provide possible therapeutic interventions for this deadly immune disorder,” Sharma said, “but it also may possibly provide treatments for a variety of disease conditions where unregulated NET formation is an underlying cause.”



Jyotika Sharma

## Continuing Medical Education Gathers Accreditation with Commendation

The Accreditation Council for Continuing Medical Education (ACCME) has announced that the University of North Dakota School of Medicine and Health Sciences Continuing Medical Education (CME) has earned not only full accreditation but accreditation with commendation.

The UND SMHS strives to improve human health by educating students who focus on patients and communities and by conducting research that translates into better care for patients. The office of Continuing Medical Education at the School provides continuing medical education to physicians and interprofessional healthcare teams to promote lifelong learning that will enhance professional competence and performance and improve patient outcomes.

“Congratulations on this terrific achievement,” said President and CEO of the ACCME Graham McMahon, MD, MMSc, in a personal note attached to the letter announcing UND’s achievement. “Thank you for the work you do every day to deliver high-quality education; our professions and patients are better for it. Your commitment to great learning shines through—it’s a passion and joy we share.”

The content of the UND SMHS’s CME activities addresses the needs of practicing physicians and interprofessional teams. CME includes all areas of biomedical knowledge, clinical skills and patient care, interpersonal and communication skills, ethics and professionalism,

practice-based learning and improvement, and systems-based practice. This educational content is provided through conferences, seminars, simulation scenarios, and through online modules.

Faculty, resident physicians, community physicians, and healthcare professionals within the state, region, and nation benefit from the educational services of Continuing Medical Education at the School.

Senior Associate Dean for Education Gwen W. Halaas, MD, MBA, was the director of the Continuing Medical Education office during this accreditation cycle. Associate Dean for Medicine Marc Basson, MD, PhD, MBA, is the current director and is assisted by Mary Johnson, program coordinator, and Nancy Hostetter, program coordinator.

“We are proud to help provide meaningful educational offerings to the healthcare providers of our state that improve quality of care and the health of our citizens and communities,” Halaas said. “Our staff works very hard to assure that the educational content is up to date, relevant and provided in a convenient and effective manner.”

“Our CME program is very important to us,” Basson said, “because it allows us to have a direct impact on the health of North Dakotans in almost real time by providing continuing education and skills development to physicians and other healthcare providers throughout the state.”

## Mohr achieves national certification from TBLC

Peggy Mohr, PT, PhD, a professor in the Doctor of Physical Therapy program at the University of North Dakota School of Medicine and Health Sciences, achieved certification from the international Team-Based Learning Collaborative (TBLC). The TBLC recognized Mohr’s achievement at its 15th annual meeting March 3–5 in Albuquerque, N.Mex.

The Team-Based Learning Collaborative is an international, not-for-profit, and volunteer-supported organization that encourages the use of team-based learning (TBL). TBL is an evidence-based educational tool where student teams are responsible for researching, developing, and conveying course concepts. The students are guided by an instructor who has specialized training in TBL.

In his letter announcing Mohr’s certification, Paul Koles, MD, the chair of the TBLC Training and Certification Committee, noted that the reviewers at the TBLC were impressed with the quality of Mohr’s portfolio. Koles, the chair of the Department of Pathology at the Boonshoft School of Medicine at Wright State University in Dayton, Ohio, said, “We congratulate you on this well-deserved achievement.”

Through the help of her colleagues, Mohr transitioned a traditional lecture course to a team-based learning approach in 2013. Since that time, she has continued to work with her physical therapy colleagues to incorporate active-learning strategies in additional courses. This collaborative work was the basis of Mohr’s acceptance into the TBLC Training and Accreditation Program in 2014. She completed her rigorous two-year development program and earned her certification as a TBLC Training Consultant

in January 2016 after demonstrating her capability in developing and facilitating the delivery of TBL courses and in mentoring and supporting others in implementing TBL. As a training consultant, Mohr joins an international network of trainers and mentors who support faculty and institutions in implementing and improving TBL course delivery.

“The physical therapy program has always incorporated active-learning strategies for clinical skills,” said David Relling, PT, PhD, associate professor of physical therapy and chair of the SMHS Department of Physical Therapy. “With team-based learning, Dr. Mohr brought the same student engagement, collaboration, and higher order thinking into the classroom. She has skillfully transitioned multiple courses into the TBL format because it promotes critical attributes for today’s healthcare environment, such as problem-solving skills, communication, personal accountability, and collaboration. Dr. Mohr’s recognized expertise in development and implementation of TBL will be a tremendous asset for the Department and School as we move to a building where the design facilitates active-learning strategies.”

“My peers during TBL training were amazed when they learned that the UND SMHS’s new building is designed to enhance and foster active-learning pedagogies,” Mohr said. “The new building for the UND School of Medicine and Health Sciences is evidence that North Dakota is at the apex of teaching healthcare professionals.”



Peggy Mohr

## SMHS selected to join AMA Accelerating Change in Medical Education Consortium

The American Medical Association (AMA) announced that the University of North Dakota School of Medicine and Health Sciences has been selected to join the AMA's Accelerating Change in Medical Education Consortium, which seeks to enhance the innovative work underway to create the medical school of the future and quickly spread these



innovations to additional medical schools throughout the country. The UND SMHS and 19 other schools have been selected to join the original 11 institutions in the consortium. Only 18 percent of eligible medical schools in the United States have been invited to join the consortium; the same percentage of schools that were selected from the more than 100 proposals submitted this year.

"The American Medical Association is funding a limited number of medical schools that are developing and sharing best practices and lessons learned in their commitment to bringing innovation to medical education," said UND SMHS Senior Associate Dean for Education Gwen W. Halaas, MD, MBA, who will direct the project. "This is a wonderful opportunity for the School of Medicine and Health Sciences to develop innovative ways of preparing our students to use technology to address the healthcare needs of rural communities and to partner with and learn from other medical schools as they transform medical education."

"Training medical and healthcare professionals for team-based, interprofessional healthcare delivery is a significant challenge," said Associate Dean for Teaching and Learning Richard Van Eck, PhD, the founding Dr. David and Lola Rognlie Monson Endowed Professor in Medical Education at the UND SMHS. "Doing so for professionals who will work in rural healthcare settings is even harder because teamwork looks very different in large urban medical facilities where multiple specialties are represented than it does in low-resource rural settings with few healthcare practitioners on staff."

As a co-principal investigator on the grant, Van Eck will assist Halaas with the project as design consultant, research coordinator, and project evaluator. He has more than 25 years of experience as an educator, evaluator, curriculum designer, and technology innovator.



Richard Van Eck

The AMA selected UND's project for its unique approach in blending the School's interprofessional and patient-centered curricular approaches with patient simulations in new rural scenarios that focus on the core competencies of values and ethics, roles and responsibilities, communication, and teamwork and team-based care, with a particular emphasis on telemedicine using ROBOTS, Remotely Operated Biomedical Telepresence Systems that can be used for distance participation of students or faculty in telemedicine scenarios. These ROBOTS are computer tablets on Segway-like pedestals that allow audiovisual and mobile participation from a desktop or laptop computer.

"We will design, develop, and evaluate interprofessional simulations using this technology to incorporate telemedicine and the core competencies within the context of rural healthcare," Halaas said. "No other institution is working on promoting interprofessional competencies in rural telemedicine contexts."

The UND SMHS is uniquely positioned to do so not only through its interprofessional healthcare initiatives, and expertise in education and telemedicine but also through the School's North Dakota Simulation, Teaching, and Research (ND STAR) training facility.

The ND STAR and its academic faculty and staff of 20 are led by Jon Allen, MD, associate professor of medicine, who is also the director of SIM-ND and Year-2 clinical skills for medical students. Allen will coordinate implementing ND STAR scenarios and provide scenario design support. Eric Johnson, MD, is an associate professor of family and community medicine, and director of interprofessional education at the School. Johnson will serve as scenario design consultant.

## New Sports Physical Therapy Residency receives accreditation from American Board of

The American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) has announced that the University of North Dakota School of Medicine and Health Sciences' new Sports Physical Therapy Residency has earned full accreditation until December 31, 2020. The ABPTRFE is the accrediting body for the American Physical Therapy Association (APTA) for postprofessional residency and fellowship programs in physical therapy.

"Congratulations on this terrific achievement," said John DeWitt, PT, DPT, SCS, ATC, chair of the ABPTRFE in announcing UND's achievement. "The Board and APTA as a whole are proud of your accomplishments. We look forward to a mutually rewarding relationship with the University of North Dakota Sports Residency program, and again, we congratulate you."

Physical therapy residency programs are for licensed physical

therapists who want to advance their knowledge and skills in a specific area of clinical practice. There are approximately 205 accredited physical therapy residency programs in the United States and only two in North Dakota. The UND SMHS residency program is the first sports physical therapy residency accredited in the state. The Sports Physical Therapy Residency was developed through collaboration between the Department of Physical Therapy and the Department of Sports Medicine. The residency offers physical therapists the opportunity to advance their knowledge and skills in the area of sports physical therapy.



Gary Schindler

## Forensic Pathology Facility earns NAME accreditation



Shown with the NAME Accreditation Certificate are (from left) Mary Ann Sens; Ed Bina, forensic investigator; Sarah Meyers; Walter Kemp; and Mark Koponen.

The National Association of Medical Examiners (NAME) has announced that the University of North Dakota School of Medicine and Health Sciences Forensic Pathology Facility has earned full accreditation. UND's facility is the first to achieve NAME accreditation in North Dakota and South Dakota; it is the sole accredited forensic pathology provider between Minneapolis, Minn., and Spokane, Wash.

UND SMHS professionals at the facility perform full medicolegal death investigations and forensic autopsies for Grand Forks County and eight counties in northwestern Minnesota: Kittson, Lake of the Woods, Mahnommen, Marshall, Norman, Polk, Red Lake, and Roseau. In addition, they serve as consultants to North Dakota coroners and perform forensic autopsies for 21 counties in North Dakota. The facility aids investigations for issues in public health, occupational safety,

law enforcement and other agencies. Most importantly, the office serves North Dakota families at a time of need, personal loss, and tragedy.

"NAME-accredited offices represent the highest quality of death investigation system," said Barbara Wolf, cochair of the NAME Inspection and Accreditation Committee, in a letter announcing UND's achievement. "The citizens of North Dakota can be proud of the hard work, dedication, and leadership of you and your staff in attaining this accreditation."

"We have a great team serving the citizens and community," said Mary Ann Sens, MD, PhD, professor and chair of the Department of Pathology at the UND SMHS, and past president of NAME. "NAME Accreditation is validation on a national level of our high standards of death investigation and forensic pathology. We are proud and honored by this recognition, reflective of our commitment to the communities we serve."

Faculty members assisting Sens at the forensic pathology facility are Associate Professor and Assistant Medical Examiner Mark Koponen, MD, Assistant Professor and Assistant Medical Examiner Sarah Meyers, MD, and Associate Professor and Assistant Medical Examiner Walter Kemp, MD, PhD.

Sens has been chair of the Department of Pathology since 2002 and was president of NAME in 2011, where she was a past member of the Board of Directors and Executive Committee as well as serving on several committees within NAME.

She is certified by the American Board of Pathology in Anatomic and Forensic Pathology and licensed to practice medicine in North Dakota, Minnesota, South Dakota, and South Carolina.

In addition to her work at UND, Sens serves as the Grand Forks County Coroner and is the medical examiner for Kittson, Lake of the Woods, Marshall, Mahnommen, Norman, Polk, Red Lake and Roseau counties in Minnesota. She was recently appointed to the Federal Interagency Working Group in Forensic Research, Development, Testing, and Evaluation.

## Physical Therapy Residency and Fellowship Education

After the resident completes the intensive one-year program, they qualify to take the American Board of Physical Therapy Specialties sports certification examination.

Assistant Professor Gary Schindler, PT, DPT, OCS, SCS, ATC, is the director of the Sports PT Residency.

"Dr. Schindler initiated the program development and spearheaded the process through the first residency graduate and the accreditation process," said Associate Professor David Relling, PT, PhD, chair of the Department of Physical Therapy at the SMHS. "Most notable is that the residency includes practice opportunities at the UND Center for Sports Medicine and Altru Health System and provides opportunities for mentoring from expert clinicians at the UND Center for Sports Medicine, Altru, and the Sanford POWER Center in Fargo."

"This is a great opportunity for two professions to come together to provide advanced didactic and clinical skills in the area of sports rehabilitation," Schindler said. "The program enhances the resident's ability to critically analyze and problem solve, which in turn will prepare the resident for taking and passing the sports certified specialist exam. This is exciting, especially since there are currently fewer than ten sports certified specialists in the state of North Dakota."

If you have any further questions or would like additional information regarding the UND SMHS Sports Physical Therapy Residency, please visit <http://www.med.und.edu/physical-therapy/sports-residency.cfm>.

# Active Learning

“Tell me and I forget, teach me and I may remember, involve me and I learn.”  
—Benjamin Franklin

By Juan Pedraza



Keynote speaker Adam Finkelstein addresses participants at the School's Active Learning Conference on January 16, 2016.

**O**n May 18, 2010, Joshua Wynne, MD, MBA, MPH, was sworn in as the new University of North Dakota vice president for health affairs and thirteenth dean of the UND School of Medicine and Health Sciences (SMHS).

Since then, Wynne has shepherded the School through a big overhaul of its academic structure, built a forward-looking leadership team, and captained a multiyear effort that resulted in the construction of the new \$124 million medical school and health sciences facility.

But perhaps most telling is Wynne's energized focus on students, student learning, and effective teaching—as underscored by a recent hire: Associate Dean for Teaching and

Learning Richard “Rick” Van Eck, the founding Dr. David and Lola Rognlie Monson Endowed Professor in Medical Education.

Van Eck is part of an education-focused team that recently staged an Active Learning Conference for SMHS in the UND SCALE-UP (Student-Centered Active Learning Environment for Undergraduate Programs) classroom. The conference was coordinated by Chester Fritz Distinguished Professor and Associate Dean for Health Sciences Tom Mohr, PT, PhD, and Professor Peggy Mohr, PT, PhD, who teach in the Department of Physical Therapy at the SMHS. The conference is the first in a new series of teaching and education scholarship activities entitled Advancing Educational Innovation and Scholarship

(AEIS, pronounced “ace”). SCALE-UP classrooms are designed to leverage (scale up) the power of small-group, collaborative learning experiences such as problem-based and team-based learning for use with the larger class sizes that often typify undergraduate education. The plan is straightforward: build and extend on the current active learning strategies like the patient-centered curriculum in medical education and the team-based learning in physical therapy as the SMHS prepares for the move to the new facility built, in part, to leverage such forward-looking approaches to teaching and learning.

Wynne, who led the opening remarks at the conference and spent a good part of the day at one of the SCALE-UP classrooms’ “pods,” recounted his own educational experience.

“When I was in medical school, it was pretty straightforward: teaching equals learning,” said Wynne, a board-certified cardiologist. “That is, the role of the teacher was content expert who transferred knowledge from the teacher to the student. That was it!”

“A good teacher was someone who transferred that knowledge most effectively,” Wynne said.

That’s not the model Wynne and his team are advancing today. The structure and layout of the new medical school and health sciences building attests to the turnaround from what was once considered A-1 lecture- and textbook-based pedagogy.

“I think we’ve learned since I graduated from medical school that it’s a lot more complex than that, and it’s more important than that,” Wynne said. “To have effective learning, we really have to look at the role of teacher and student and what that relationship is. It’s clearly more than simply a transfer of knowledge from expert to trainee.”

It’s all about “optimizing learning,” Wynne said.

“The focus shouldn’t be on the teaching part; the focus clearly needs to be on the learning part,” Wynne said.

And that, in a nutshell, is what Active Learning is all about.

Van Eck, who came to the UND SMHS after several years as a faculty member and digital game-based learning researcher at the UND College of Education and Human Development, sees active learning as a family of teaching tools and learning strategies.

“Active learning is a continuum of strategies,” said Van Eck. “You pick and choose those strategies according to your needs and your intended outcomes. It’s not about replacing lecture-based teaching, as some people may think,” says Van Eck.

“Lectures can be very effective when used for the right learning outcomes. The problem is that we tend to use lectures too often and for the wrong learning outcomes.” Even when lectures are appropriately matched to learning outcomes, Van Eck points out that we still overuse them. “Research shows that the maximum amount of time for sustained focus in lecture is nine minutes—one-fifth as long as the typical higher education lecture.”

A lot of higher education goals focus on outcomes like problem solving and critical thinking, and those outcomes require hands-on approaches, a concept heartily endorsed by Wynne.

“Most of the education that we do at SMHS is outside of the classroom; for most students in medicine and health sciences, that means clinic and hospital settings,” Wynne said.

For SMHS Senior Associate Dean for Education, Gwen W. Halaas, MD, MBA, a family medicine physician who’s also worked as a healthcare administrator, the conference signaled a key opportunity to boost faculty awareness about this relatively new pedagogy.

“Active learning opportunities are for all of us,” she told the audience during her initial conference speech. “It’s been a dream for a long time, even before the new building was a glimmer in our eyes. There’s such a huge opportunity for us as teachers and learners to be engaged with each other across our disciplines and across our professions as we engage with our students in continuous active learning.”

That’s the vital first step.

“It’s about the positive activity that’s going to be visible in the new building both in the hallways and in the classrooms—many of which have glass walls—to see, participate, and engage with all of the learning that is taking place,” Halaas said. “I think it’s going to be more satisfying for everybody.”

Halaas says learning of this type is essentially a collaborative endeavor.

“The reason we’re in an institution of learning is to learn with and from each other,” she said, mentioning the School’s Active Learning Group, which will advance the cause of active learning with future seminars and presentations.

But Active Learning isn’t an all-or-nothing or take-it-or-leave-it pedagogical trick.

It’s also not a strategy that’s used for “struggling” students.

“It’s true that active learning reduces failure rates by 50 percent, but it is also true that the top 30 percent gain the most in conceptual knowledge, as opposed to mere facts and memorization, as measured by nationally recognized standardized tests of learning,” Van Eck said.

What Active Learning isn’t is a visible, touchable technology—although technology can be a key part of this strategy.

“Active learning is not really a room or a technology, which is another perception that many of us have when we’re first learning about this,” Van Eck said.

“Rooms and technologies can support and enhance particular active learning strategies and approaches,” Van Eck said. “But by themselves rooms and technologies cannot make much of a difference in your teaching practice; it is the pedagogy, what you do with those spaces, that makes the difference.”

One of the big questions you’ll hear is “What is the evidence for active learning?”

“A National Science Foundation-funded study among 16,000 undergraduate students in mathematics, physics, engineering, and chemistry found that, unequivocally, active learning resulted in higher scores on final exams in all courses and on domain-specific nationally recognized tests,” Van Eck said.

These findings have been replicated and supported consistently in more than 380 studies over the last 15 years, including three meta-analyses (rigorous statistical analyses that combine the results of multiple studies). The smallest effects found in these analyses would move a student from the 50th



Gwen W. Halaas



Rick Van Eck

percentile (failing) to the 70th (passing). The research results are so strong and consistent that the authors of a recent analysis of 225 studies suggested, “If the experiments analyzed here had been conducted as randomized controlled trials of medical interventions, they may have been stopped for benefit—meaning that enrolling patients in the control condition might be discontinued because the treatment being tested was clearly more beneficial.”

“Anytime you have these kinds of powerful and consistent benefits—improved attitudes, higher class attendance, reduced failure rates overall and for at-risk students, and consistently higher scores on final exams and national tests—those are significant findings worth paying attention to,” said Van Eck. “It would be unethical for us not to consider where and when to use them.”

Among the more than 120 participants in the conference was Janna Schill, assistant professor of medical laboratory science (MLS) and MLS assessment coordinator. Schill holds master’s degrees in medical lab science and instructional design and a PhD in education. She got interested in active learning when she worked on a team preparing for the MLS program reaccreditation process.

“Active learning sure makes sense for many of us in hands-on professions such as MLS,” said Schill. “It helps students connect more to the content.”

“There are lots of different ways to share information,” Schill said.

“But let’s ask how students best store, retain, and apply what they learn to a scenario,” Schill said. “This kind of learning goes well beyond preparing students to take quizzes and then move on. We aim to prepare students who can apply what they learn to their work life.”

Essentially, this family of teaching/learning strategies is geared toward results in the workplace.

“We’re not teaching students to perform (on a test) at one point in time, we want them to be effective professionals in the workplace,” Schill said.

Active learning strategies also help instructors get through the process of understanding where students are at.

“You want to make sure that whatever

it is you set as a teaching goal is both attainable and relatable,” Schill said.

That is indeed the main goal of active learning, Van Eck agreed.

“Active learning is set of strategies that, when aligned with the right kinds of learning outcomes—conceptual or procedural knowledge and problem solving—are highly effective,” he said.

Adam Finkelstein, academic associate and educational developer, Teaching and Learning Services at McGill University, and one of the keynote speakers at the SMHS Active Learning Conference, delivered a presentation titled “Learning Is Not a Spectator Sport: Why We Need to Get Our Students Active and Why Space Matters”

“Students who engage in deep learning report greater educational gains and success,” Finkelstein said. “However, in order to create opportunities for meaningful deep learning, students need to be actively engaged in the classroom.”

Active Learning, then, is about actively encouraging students to become and stay engaged in their own learning.

Finkelstein doesn’t believe in banning lecturing. The challenge for instructors is that lecture-based teaching methods are what is traditionally described as the “fire hose model” that often excludes student feedback.

“Learning should not be done to them; it needs to be done with them,” he said.

Active learning classrooms—such as UND’s SCALE UP classroom—are designed with several key features, including large, open areas, multi-seat computer stations, and round (or octagonal or similar) tables that aim to encourage student engagement and interaction. Such classrooms, according to experts including Van Eck and Finkelstein, are specifically targeted to strengthen such interactions.

Practitioners of Active Learning suggest that most teachers are more interested in active learning than lecturing.

“Active Learning is more about applied knowledge and knowledge acquisition than it is about a multiple choice exam,” said Schill, the MLS faculty member and MLS assessment coordinator. “Don’t teach toward the test, teach toward the body of knowledge.”

According to Van Eck, the School is already making strides toward more active

learning. Pre- and post-conference scores on a measure of active-learning “readiness” showed that attendees were more open to active learning after the conference. “I’ve worked with three faculty members from the conference to help them integrate active learning into their classrooms for the first time. We plan to offer many more workshops in the AEIS series, including one next month called “Active Learning for Lecturers in Five Easy Pieces.” He knows it’s a long process rather than an overnight transition, however. Research may show that active-learning strategies are worth the effort to change how people teach, but that change requires careful planning, support, and continual evaluation. “There’s a reason it

takes four-plus years to make a doctor, therapist, or laboratory scientist; becoming a good teacher is no different, especially since so much learning happens on the job.”

It’s a challenge and an opportunity that the SMHS is looking forward to as they move into the new building and the future of medical education in North Dakota.



### John Shabb

In the latest issue of the UND Office of Instructional Development’s *On Teaching* newsletter,” John Shabb, associate professor, SMHS Department of Biomedical Sciences, writes about his experience with active learning, which he now uses extensively in the curriculum.

Here are several excerpts from “The Five Stages of Change: A Journey Toward Evidence-based Teaching” (you can find the whole article here: <http://und.edu/academics/instructional-development/on-teaching-vol25-4.pdf>) that underline the why and wherefore of his decision to switch to this pedagogy:

- ◆ The steps I went through in my transformation from a teacher-centered to learner-centered practitioner are not unlike the five stages of behavior change that are associated with smoking cessation: pre-contemplative, contemplative, preparation, action, and maintenance.
- ◆ My first real exposure to active learning was in 1998 when the medical school curriculum went through a major overhaul. Part of the traditional discipline-specific lectures were replaced with patient centered problem-based learning activities.
- ◆ Eleven years later, my teaching buddy, Kathy Sukalski (associate professor, biomedical sciences) somehow convinced me to go to the first American Society for Biochemistry and Molecular Biology Symposium on Student-centered Learning in the Molecular Life Sciences. What I encountered was an almost militant group of biochemists whose mission was to transform the teaching of biochemistry.
- ◆ I went to the symposium to learn how to rescue an advanced undergraduate biochemistry course serving a handful of chemistry majors who were completing an emphasis in biochemistry. They were being taught alongside first year biomedical sciences graduate students in a traditional team-taught lecture-based fire hose of a course. In the fall of 2009, Kathy and I separated the undergraduates for the first half of the course. When the students returned to traditional lecture for the second half of the course, the contrast was stark in how they responded to the two teaching strategies. Whereas students actively worked in groups in the POGIL [Process Oriented Guided Inquiry Learning <https://pogil.org/about/what-is-the-pogil-project>] experiment, they sat passively and in isolation in the lecture hall.
- ◆ The undergraduate course has since remained entirely lecture-free and has evolved with its own unique theme, goals, objectives and activities.
- ◆ Implementing pedagogical change on this scale is hard work. Is it worth it? What are student perceptions now that we are three years in and about to go for round four? Are they learning biochemistry concepts better? We observe that at 7:30 in the morning, from the dark cold of January to the warm green of May, attendance hovers around 95 percent in a large enrollment class. Students are alert and on task in class and they work outside of class too, as measured by assignment completion on Blackboard.
- ◆ One last word. When Kathy and I switched to active learning, we did it wholesale, which amplified the risk, effort, and student resistance. It doesn’t have to be that way. Some experienced practitioners recommend incremental change. In the end, any introduction of evidence-based teaching practices into the classroom is a step in the right direction.

# Keeping Science Honest

Researcher Eric Murphy is an active voice for scientific ethics—in his own and everyone else’s research.

By Juan Pedraza



Eric Murphy

Cheaters, beware!

Associate Professor Eric Murphy, PhD, and a growing cohort of researchers are vigilant truth sleuths.

Ethics is really about being consistently honest, truthful, and forthright with your science—and what you report about it, says Murphy, a biochemist at the UND School of Medicine and Health Sciences and editor-in-chief of *Lipids*, an international scientific journal.

Running an active research program in lipid biochemistry with a focus on fatty acid binding proteins, and brain lipid metabolism, among other areas of inquiry, Murphy also is active in higher education and faculty governance. And,

of course, he writes frequently about ethics in science, research, and publications.

“As the editor of a journal that’s widely read in the field, I make decisions daily concerning honesty in scientific reporting—research ethics are very real to me,” said Murphy.

And that subject area boils down to two primary areas:

- Fabrication, falsification, plagiarism, the kind of immediately reportable offenses of primary concern to the U.S. Office of Research Integrity (ORI), <https://ori.hhs.gov/>, part of the U.S. Department of Health and Human Services.

- “Minor” offenses that the ORI is less focused on.

“Well the ORI may not be primarily concerned with minor offenses, but I am,” says Murphy, who’s produced seminal research on the nature and evolution of lipid chemistry as key building blocks of life.

Murphy and his editorial team watch out for incomplete abstracts—which leave out key findings or cautions.

“Abstracts should accurately reflect the work,” said Murphy, whose own current research is focusing on how and when the dietary intake of certain lipids turns genes on or off.

Authorship is another “minor” area that Murphy watches. This should clearly

and unequivocally include the names of people directly involved in producing the work—but it should avoid the capricious listing of people who haven't substantially contributed anything of intellectual value to the work.

"We're also looking for clues about how animals are used in a particular research project," Murphy said. And that includes dropping animals that don't quite meet the required or expected experimental outcomes. That, said Murphy, is tantamount to "massaging" data.

Statistics and statistical graphics—they're areas for potential lapses in scientific ethics.

"Many journals now include a statistician in the review process to detect the incorrect or inappropriate use of statistics," Murphy said. "We have added a colleague here at UND, Kurt (Ke) Zhang, to the *Lipids* board to aid in this process."

Murphy considers that tracking and noting "minor" lapses in judgment and ethics is vital to the overall discipline of scientific ethics.

"Once someone gets away with even small stuff, it leads into other areas, so my journal works extensively with authors to curtail minor offenses," Murphy said. "I check every one of the 360 to 380 submissions that *Lipids* receives annually—a fraction of what the giants in the business, such as *Science* and *Nature* get. And before I pass an article along to a senior editor for further processing, I get a plagiarism detection report."

He notes that, today, many offenses are required reporting in the United States and in Europe—and that involves research integrity officers at many institutions. All of this takes time—a single case of scientific misconduct may take 40 or more hours to deal with, and that's not counting all the time spent detecting it, Murphy noted.

Because of the increased vigilance, including the widespread use of digital plagiarism detection software systems such as Authenticate—and that includes self-plagiarism—retractions are becoming commonplace.

"This suggests that our current research reporting and publishing system globally is flawed," Murphy said. "Every retraction is a problem. Today, and this makes sense because of the volume of

submissions they receive, most retractions are happening in the bigger journals." According to a report in the journal *Nature*, such retractions have increased around 1,200 percent in the last 10 years, a meteoric increase compared with the 44 percent rise in total published scientific papers.

Murphy's own research in collaboration with Matthew Picklo at the Grand Forks Human Nutrition Laboratory is aiming toward understanding how lipids—fatty acids—affect or turn on genes. And that area of inquiry, he notes, broadly ties into his thinking about scientific ethics—in particular how scientific research can lead to popular dietary "recommendations," for example, about what foods one should eat and which to avoid.

"My current research is in a relatively new area, and it's exciting because we're starting to drill down to the reality that not all fatty acids are the same; they have profound effects; and what we discover will have major impact on future dietary recommendations," Murphy said.

"We've seen this kind of research-related information impacting diet recommendations: for instance, for years cholesterol was deemed totally bad, but eggs turn out to be one of the best foods we can eat," he said. "And we figured out that cholesterol taken into your body as part of what you eat doesn't really modify plasma cholesterol levels much, so the recommendation was reversed years later—that's really confusing."

So he poses broader ethical questions relating to dietary advice; for example, that high carb diets and artificial sweeteners are bad.

"Everyone jumps on board," Murphy said.

And that's not necessarily a good thing.

"Science is a test of time—it takes a lot of time to really repeat the work, explore different approaches, and reproduce the results before you can say anything with certainty," Murphy said.

Murphy's longer view of this worrisome scientific ethics scenario is optimistic.

"I believe in the goodness of humanity, and my experience has been that almost all authors are ethical and honest, but certainly there are some that are clearly dishonest and unethical," he wrote in a widely read editorial essay about scientific ethics in *Lipids*.

“Research ethics are very real to me.”

# Passing the Baton

The architects and construction teams ready the new building for occupancy by students, faculty, and staff.

**By Lonnie Laffen  
President and CEO, JLG Architects**

After years and years of hard work by hundreds of people across the state, the future of healthcare in North Dakota is finally here.

By the time you read this, we will be putting the finishing touches on the new School of Medicine and Health Sciences (SMHS) building at the University of North Dakota. We officially kicked off the project on June 12, 2013—three years after the initiation of the Health Care Workforce Initiative (HWI), which was developed by the School of Medicine and Health Sciences Advisory Council and the 2013 North Dakota Legislative Assembly in order to train and retain professionals and improve the



The view looking east from the third floor of the south atrium of the new SMHS building. Photo courtesy of JLG Architects.

efficiency of healthcare across the state. As a part of this effort, JLG Architects and Perkins+Will conducted a space utilization study of the existing UND School of Medicine and Health Sciences building, a 60-year-old converted hospital, to determine what space the School had, how well they used it, and what else was needed to make the HWI a reality.

The results were staggering. The School was beyond the maximum capacity to accommodate current enrollment, let alone increase it—for example, the teaching wet labs were scheduled at 174 percent of their available utilization. The study analyzed three options for growth, which ranged from an addition and renovation with minimal financial investment and a minimal increase in educational opportunities and space to a new building that would meet the HWI target of a 24 percent increase in class size and allow the School to elevate their top-tier educational model even further. The 2013 North Dakota Legislative Assembly selected the latter option and provided \$122.45 million in funding to incorporate most of the SMHS's academic and research functions for the first time under one new roof.

The design process began with hundreds of workshop discussions with faculty, staff, students, and administrators, who told us what they liked and didn't like in their current facility and how the new facility could better serve their functions. By the end of these workshops, the School of Medicine and Health Sciences and the architectural team had developed the ten core themes that would lay the groundwork for the entire building:

1. Collaboration
2. Flexibility
3. Welcoming
4. Identity
5. Living Laboratory
6. Health and Wellness
7. Embodiment of Values
8. Interdisciplinary Hub
9. Health Campus
10. Community Asset

All of these concepts were embodied in the design of the learning communities, which will integrate new ways of learning,

researching, and collaborating not found anywhere else in the country. These eight communities will each house 100 interdisciplinary students—medical, graduate, occupational therapy, physical therapy, and others—paired around a shared student lounge and practice exam room space with their own group study rooms, tutoring rooms, open work environments, and individual study stations and lockers designed to encourage collaboration and promote interprofessionalism. The anatomy lab will be shared across professions, and the standard small, fixed, and “owned” lab spaces will also become large, open, and flexible to act as a chassis for a research-focused enterprise.

In addition to changing the way students and professionals interact, the new SMHS building was also designed for growth. Occupancy will be increased by 20 percent compared to the existing school, with a 20 percent increase in teaching functions, a 24 percent increase in research functions, a 29 percent increase in offices in carrels, and a staggering 112 percent increase in clinical spaces. At the same time, administrative space will decrease by 13 percent in favor of more open, collaborative space.

The site, a highly visible parcel on the corner of Columbia Road and Gateway Drive in front of the Ralph Engelstad Arena, was selected in July 2013, and pile driving, the first true piece of construction, began in early February 2014. The formal groundbreaking took place on June 12, 2014, and the final structural beam was put in place on May 19, 2015. The building will officially open in October—500,000 construction worker hours later. And, as promised, on time and on budget.

As a legislator, an architect, and a North Dakotan, I am so proud and grateful to be a part of such a life-changing event for so many. I hope you have the opportunity to experience the new School of Medicine and Health Sciences building in person. If you are able to make your way to Grand Forks, please call on JLG to give you a tour. Until then, thank you. 🌱



Lonnie Laffen

# Teaching to Recruit

Rural family medicine doctors practice what they teach about their all-encompassing specialty.

By Stacy Kusler



Jacinta Klindworth

At any given time of the day, month, or year, you can walk into Coal Country Community Health Center in Beulah, or Sakakawea Medical Center in Hazen, North Dakota, and see a medical student or resident working alongside the patient care staff. Many healthcare facilities around the state offer learning experiences for up-and-coming health professionals, but what's special about the Beulah and Hazen area is that it is not just about teaching—it's a way of recruiting doctors to practice in rural areas.

Dr. Aaron Garman, a 1996 UND SMHS graduate and Williston, North Dakota, native, is a family medicine physician who began working in Beulah in 1999. He incorporated teaching medical students and residents into his practice in 2001. Garman said, "It's very rare for us not to have a student here with us. We see a lot of third-year medical students for their family medicine rotation, and some fourth-years for an elective rotation. I even had a student from Washington come here for a rotation."

One particular resident who did a rotation in Beulah in 2001 is still there today and not only practices but has joined the teaching team as well. Dr. Jacinta



Aaron Garman

Klindworth is a family medicine physician who did a rural rotation in Beulah during her time at the Bismarck Family Medicine Residency program. Garman was part of the staff who recruited Klindworth after her rotation was finished. While a Bismarck-based practice was at the top of her list initially, Klindworth and her husband, who is also employed by the clinic, ultimately decided to move to Beulah. "We made the decision, and we haven't looked back," Klindworth said. "We came here when our daughter was in kindergarten, and she will be graduating this year. We love it."

Beulah and Hazen, which are just 15 miles apart, are located 75 miles northwest of Bismarck and have a combined population of over 5,500. They are both considered rural communities, and when you talk about rural doctors, usually the word "busy" is peppered into the conversation. Most rural doctors are part of a smaller practice, where they may have heavy patient loads in addition to covering ER and nursing home responsibilities; a schedule that doesn't lend much time for other things. So how does a rural doctor have time to devote to adding one more thing, like teaching medical students, to their list?

More specifically, why do rural doctors want to devote their time to teaching?

“We have a responsibility, as doctors, to give back to our profession,” said Klindworth.

“I had great teachers both in medical school and residency, and they helped shape me as a doctor. It’s my responsibility to do the same,” Garman said. In addition to recalling several influential teaching doctors during his own training, Garman also said his motivation is to make the process both meaningful and impactful. “Medicine is a process of experiences. You have to see and experience different things in order to learn. If we don’t have people willing to offer or teach those experiences, then medicine fails.”

In Beulah, in particular, both Garman and Klindworth pay close attention to making sure students and residents get a worthwhile experience. “Every doctor you talk to has had a teaching doctor in their lives,” Garman said. “I just hope that we can give them [the students] a good basis here and good experiences to build from.”

According to one medical student in particular, a good experience is exactly what she got. Anna Kozlowski is a second-year medical student from Fargo, North Dakota, who trained with Garman and Klindworth last summer through the Don Breen program. In seeking out ideas on how to use her summer, Kozlowski heard through some upper classmen that a great way to get some hands-on patient experience was to participate in the Don Breen Rural Externship in Family Medicine, a program that offers participants a stipend for a four-week experience at one of 16 sites around the state of North Dakota. Kozlowski quickly applied and was assigned to do her four-week experience in Beulah. Shortly after arriving for her first day, Garman was there to greet Anna.

“Basically, it was a brief hello, and then we went in to see our first patient,” Kozlowski said. “Even though I had just finished my first year of medical school, I felt like Dr. Garman gave me a chance to get in there and experience things. That was a real confidence booster, and it allowed me to be more comfortable in building my skills.”

Kozlowski’s four weeks in the Beulah and Hazen area were filled with experiences, mostly because her teachers possessed all the right qualities that made for a perfect learning environment. “I wasn’t looking for a glorified job shadow,” Kozlowski said. “Dr. Garman and the staff were patient with me, and were willing to let me do things while they took a back seat. I felt like they were excited to have a student there learning, and that’s what made it so great.”

So how does all of this tie back into rural recruitment? According to Garman, it’s all about opening the students’ and residents’ eyes to the possibilities in a rural practice, especially in family medicine. Oftentimes, a rural practice and family medicine are one in the same. However, family medicine is not typically a first-choice specialty for many new doctors, partly because of a misconception that it can be a stale or monotonous practice. Both Klindworth and Garman couldn’t disagree more. When Garman was choosing a specialty, he knew he didn’t want to be doing the same thing day after day. Family medicine was his ultimate choice because of the variety and change that it provided. “I like that I can mold my practice into what I want to do. I couldn’t do that if I went into a sub-specialty,” Garman said.

For both doctors, what they have seen and what they hope to continue seeing is an increased open-mindedness about rural practice. “We have students coming to us who have written off family medicine and are only here with us as a requirement,” Klindworth said. “After they are done here, though, family medicine seems to be a lot higher on their list because they see that we can do everything.”

And what impression did rural Beulah and Hazen leave on a girl from the largest city in the state? “I didn’t know rural could be so fun!” Kozlowski said. And, although she isn’t sure what specialty she will choose yet, she is now more open to the possibility of working in a rural community, and she most definitely will be incorporating teaching into her future medical practice.

“We have a responsibility,  
as doctors,  
to give back to our profession.”



# What's in a Name?

High-level service is still as sweet with new name.

By Nikki Massmann



Staff members of RHIhub.

Grand Forks, North Dakota, is home to a national program with a big reputation in the rural health world. The Rural Health Information Hub (RHIhub), located in the Center for Rural Health at the School of Medicine and Health Sciences, serves as a first stop for rural health information. Customers can find current and reliable resources to help them learn about rural health needs and work to address them. Anything from topic guides to funding opportunities to toolkits are easily accessible from the RHIhub website. If customers can't find what they are looking for or aren't quite sure what it is they need, an information specialist is ready to help them.

Information specialists work one-on-one with customers through phone calls or e-mails. In addition to Web resources and

customized searches for reliable information, the RHIhub can connect callers with an expert who can fully answer their questions and provide insight and knowledge on the specific health issue the customer wants to address.

During the course of the year, these information specialists receive around 600 phone calls requesting personalized assistance in finding resources and information on rural health. The majority of their customers work in rural healthcare facilities or not-for-profit organizations, but every once in a while a recognizable name is on the phone.

"The Office of the Vice President of the United States called us once to get some statistics," says Kristine Sande, RHIhub director. "Another time, we were

listed in *Newsweek* as a resource for information on methamphetamine use in rural areas.”

At the time of these inquiries, the RHIhub was known as the Rural Assistance Center. Its reputation was built on that name since it was established in 2002. While rebranding a reputable and recognizable name may sound like a risky idea, for the RHIhub it was essential.

“From the very beginning, we had calls from people who didn’t really understand what we did,” said Sande. “Sometimes customers were calling because they thought we were a social services organization. As time went on, the issue became more pressing, especially in terms of making sure that we rank well with Web search engines so that people working in rural health can find our resources. It was important for our name to be descriptive of what we do.”

In 2015, the program received continued funding from the Federal Office of Rural Health Policy, and the Rural Assistance Center decided it was a good time to make the leap to the Rural Health Information Hub. After months of meetings, research, and preparation, the Rural Health Information Hub was officially launched in December with much fanfare. A press conference was held, and national rural health leaders from the Federal Office of Rural Health Policy and the National Organization of State Offices of Rural Health were present in North Dakota to celebrate the program’s successes.

“Transitioning from one name to another was a big endeavor,” said Sande. “The annual National Rural Health Day in November served as a perfect platform for announcing the name change, and to assure our customers that while they had to learn a new acronym, our services were here to stay.”

And those services are in high demand throughout the nation. This demand is evident in the growth the RHIhub has experienced in the last 13 years. When the program launched in 2002, there were only a handful of temporary staff to handle the 1,200 calls they were receiving in the course of a year. Now, there are 22 full- and part-time

employees involved with the program. With this growth, the RHIhub is able to provide even more resources to an even broader audience.

While it’s true that the number of calls received per year has decreased, Sande said that is an indicator of success. “It means we are putting our information out there, and that it is easily accessible through our website. We’ve filled a gap in information available to our customers—they know where to find it on our website thanks to the work of our entire team. The Web is full of resources, but not all of them are reliable. The RHIhub staff work diligently to ensure our resources are current and credible. We are able to provide an actual person on the phone to guide our customers through what can be an overwhelming amount of information.”

Talking with customers one-on-one is what keeps the RHIhub team motivated to do the work they do. They know they are making a difference in the lives of rural citizens when they hear anecdotes from rural healthcare organizations that heard about a funding opportunity through the RHIhub website or found statistics they needed to receive a grant through customized assistance from an information specialist. No matter what its name, the program will continue to serve rural communities and healthcare workers for years to come.

For more information about the Rural Health Information Hub and its resources, visit their website at [ruralhealthinfo.org](http://ruralhealthinfo.org). 

“It was important for our name to be descriptive of what we do.”

# UND Sports Physical Therapy Residency Program Recognizes Its First Graduate

Jeffrey Ferguson is the first person to complete the program.

By Amanda Menzies



Jeffrey Ferguson (on left) with Brady Solie a year-three Doctor of Physical Therapy student.

Jeffrey Ferguson, a 2014 Doctor of Physical Therapy graduate of the University of North Dakota School of Medicine and Health Sciences, was the first person to

complete the UND Sports Physical Therapy Residency Program, which recently became the first sports physical therapy residency accredited in the state.

Ferguson started the program August 1, 2014, and ended July 31, 2015. Ferguson grew up in Drayton, N.Dak. He had attended sporting events at UND from a young age and became passionate about the athletic teams. When it came to choosing what career he wanted to pursue, he knew UND was where he wanted to be.

Ferguson played basketball, baseball, and golf in high school.

"I still play basketball and golf nearly every day, but it is starting to take its toll," Ferguson said. Growing up he had many injuries, which is among the reasons why he was interested in physical therapy.

The UND Sports Physical Therapy Residency Program gave Ferguson the best of both worlds: the ability to work in sports as well as physical therapy. "I want to be involved in the decision for return to play for athletes and have the opportunity to interact with coaches, team physicians, athletic trainers, and others. A sports residency allowed this experience," Ferguson said.

Luckily for Ferguson, UND's Department of Physical Therapy hired a faculty member, Gary Schindler, PT, DPT, OCS, SCS, ATC, who was interested in developing a sports residency at UND. Ferguson jumped at the chance to get involved on the rehabilitative side with the athletic programs at UND.

Ferguson was always active in his education at UND.

"Ferguson displayed a great work ethic when it came to his education and the education of others," said Schindler, assistant professor of physical therapy and program director of the UND Sports Physical Therapy Residency.

"He is a hard worker and put a lot of time and effort into his studies and the program," Schindler said. "He wanted to learn as much as possible, so he provided additional hours both in the form of clinic and event coverage, which assisted in his growth as a licensed physical therapist. This, along with his demeanor and love for learning made him a great fit for our program."

"I wouldn't have the position or experience I currently have if it were not for Gary Schindler," Ferguson said. "He provided so many great opportunities, and

his willingness to teach and give up time in his incredibly busy schedule was something I appreciated tremendously."

"Having the privilege to learn from team physicians such as Dr. Greg Greek, MD '85, and Dr. William Mann as well as surgeons Joffrey Thompson and Jeremy Gardner was one of the most influential aspects of the sports residency," Ferguson said. "They were so approachable and willing to share their knowledge and experience about sports medicine that gave me knowledge that I'm not sure I would have learned anywhere else."

With any first-year program, there are bound to be some challenges.

One of the challenges included aligning advanced learning opportunities from local medical experts with Ferguson's schedule. At times, it was difficult to organize learning when dealing with different entities. Another challenge was organizing a consistent mentoring schedule.

"Both Ferguson and the core faculty and mentors were very patient and understanding when ironing out the kinks. Once mentoring strategies and the schedule were solidified, greater teaching and learning occurred," Schindler said.

The Sports Physical Therapy Residency Program hopes to continue to add educational opportunities that may include a variety of associations and events such as Red River Valley Gymnastics, the Fargo Marathon, and Special Olympics.

"I hope to continue providing educational opportunities for our faculty and members regarding residency education and mentoring," Schindler said. "In addition, I am hoping to include additional healthcare professionals to provide a vast variety of hands-on experience that will solidify the overall learning of our residents."

"Learning how to collaborate with the different healthcare providers to provide the most effective, efficient, and evidence-based care to the athlete translated well to my current position at the Sanford Power Center," Ferguson said.



Gary Schindler

“... his demeanor and love for learning made him a great fit for our program.”

# Physician Assistant Program to Present New Class with White Coats

By Denis MacLeod



Physician Assistant Class of 2017.

Photo by Shawna Noel Schill.

**Front row (from left):** Kathryn Dietz, Lindsay Venn, Charlie Wood, Elizabeth Morton, Lisa Steers, Rebekah Dunn, Rachel Watson.

**2nd row:** Katherine McFarland, Alyson Dahl, Nicole Lemieux, Katayoon Mohammadi, Brianna Strube, and Agatha Ottem.

**3rd row:** Travis Booke, Rebecca Hoistad, Togan Cottrell, Boris Davydov, Matthew Ryba, and Mitchel Leers.

**4th row:** Benjamin Beuchler, Michael Butler, Angela Schuster, Jessica Anderson, Vicki Andvik, and Brian Steen.

**Back row:** Emil Trutwin, Leslee Graff, Pamela Flavin-Lee, Savannah Prodzinski, Annette Larson, Dennis Stewart, Brian Adams, and Tim Olsen.

Thirty-three health professionals began the clinical portion of their studies to earn the Master of Physician Assistant Studies degree at the University of North Dakota School of Medicine and Health Sciences at the White Coat Ceremony on Friday, Jan. 15, in the Reed T. Keller Auditorium at the School.

Heidi Olson-Fitzgerald, PA-C, presented the keynote address, focusing on the role of the physician assistant in primary care. Olson-Fitzgerald, a UND PA alumna of the Class of 1997, is a practicing primary care physician assistant for Essentia Health in Moorhead, Minn. Welcome remarks were given by SMHS Senior Associate Dean for Education Gwen W. Halaas, MD, MBA; SMHS Associate Dean for Health Sciences Tom Mohr, PT, PhD; and Interim Dean of the UND School of Graduate Studies Wayne Swisher, PhD. Closing remarks were delivered by SMHS Associate Professor Eric Johnson, MD, medical director for the SMHS Department of Physician Assistant Studies.

“The presentation of the white coat is symbolic of the new profession the students are entering,” said Department Chair Jeanie McHugo, PhD, PA-C. The coats will be worn by students through the clinical phase of their training and denote their involvement with the Physician Assistant Program at UND.

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

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

Enrolled students come from throughout the United States, from Utah to Virginia, but this particular class is very regional, with 61 percent of the students from the tristate area of North Dakota, South Dakota, and Minnesota. Students

range in age from 23 to 54 years, with an average age of 33; the class includes 11 men and 22 women.

Students have completed their first two semesters of basic sciences and spent their first four weeks in Grand Forks before returning to their home communities, where most of their training will take place under the supervision of physician and physician assistant preceptors. Over the next 18 months, they will return to UND for several weeks at different junctures for education and training.

#### **Physician Assistant Class of 2017**

*Brian Adams*, St. George, Utah  
*Jessica Anderson*, Fargo, North Dakota  
*Vicki Andvik*, Barnesville, Minnesota  
*Benjamin Beuchler*, Brooklyn Center, Minnesota  
*Travis Booke*, Dickinson, North Dakota  
*Michael Butler*, Cold Spring, Minnesota  
*Togan Cottrell*, Du Quoin, Illinois  
*Alyson Dahl*, Moorhead, Minnesota  
*Boris Davydov*, Minneapolis, Minnesota  
*Kathryn Dietz*, Moberly, Missouri  
*Rebekah Dunn*, West Branch, Michigan  
*Pamela Flavin-Lee*, Williamsburg, Virginia  
*Leslee Graff*, Bowdle, South Dakota  
*Rebecca Hoistad*, Oakes, North Dakota  
*Annette Larson*, Warroad, Minnesota  
*Mitchel Leers*, Beulah, North Dakota  
*Nicole Lemieux*, Rugby, North Dakota  
*Katherine McFarland*, Boonville, Missouri  
*Katayoon Mohammadi*, Garland, Texas  
*Elizabeth Morton*, Fairmont, Minnesota  
*Tim Olsen*, Sturgis, South Dakota  
*Agatha Ottem*, Cavalier, North Dakota  
*Savannah Prodzinski*, Jamestown, North Dakota  
*Matthew Ryba*, Menomonie, Wisconsin  
*Angela Schuster*, St. Cloud, Minnesota  
*Brian Steen*, Sweet Springs, Missouri  
*Lisa Steers*, Hugoton, Kansas  
*Dennis Stewart*, Slocomb, Alabama  
*Brianna Strube*, Oakes, North Dakota  
*Emil Trutwin*, St. Cloud, Minnesota  
*Lindsay Venn*, Idaho Falls, Idaho  
*Rachel Watson*, Sioux Falls, South Dakota  
*Charlie Wood*, Henderson, Texas

For more information, please contact the PA program at (701) 777-2344, or visit [www.med.und.edu/physicianassistant/](http://www.med.und.edu/physicianassistant/). 

# Donald Kosiak Jr.

Wishek, N.Dak., native followed in his father's footsteps, now extends medicine's global reach.

By Juan Pedraza



Donald Kosiak Jr.

It's only been 15 years since Don Kosiak, MD, MBA, FACEP, CPE, graduated from the University of North Dakota School of Medicine and Health Sciences.

But in that brief span, medical education has changed significantly, notes the emergency physician and nationally known expert in telemedicine and electronic records management.

"I was in the last class to go through the traditional medical curriculum at UND," said Kosiak, a native of Wishek, N.Dak., where his father, Donald Sr., also a UND SMHS alum, practices rural family medicine.

"Since that time, medical education has become much more holistic and medical students learn much earlier how what they're learning applies to patient care," said Kosiak, who until recently worked at Avera Health in South Dakota; he was recently hired to be chief medical officer at Leidos Inc., a Reston, Va.-based \$5 billion company with 19,000 employees globally.

Today's medical students, Kosiak observed, are more tech savvy and less robotic about how things work.

"They're more in tune to the whole picture; they're not so book-driven," said Kosiak, who did his residency at the Mayo Graduate School of Medicine.

"That's appropriate because we're using a lot more technology to get answers

instead of having to remember every piece of data," said Kosiak, who developed his interest in medicine and emergency practice as an emergency medical technician and ambulance driver during high school. "I firmly believe that in medicine, technology is a game-changer."

Among his many accomplishments, Kosiak spearheaded the development of and directed the eEmergency system at Avera Health. It's the world's largest telemedicine system, centered at Avera's facilities in Sioux Falls, S.Dak. The eEmergency system, with more than 15 emergency doctors and 25 critical care nurses, electronically delivers care—within 20 seconds—across 10 states 24/7, year-round to nearly 110 hospital emergency rooms covering a geography of more than 600,000 square miles.

"Telemedicine helps us reach patients in unique settings, especially in rural areas," Kosiak said. "No longer does geography dictate the quality of healthcare delivered."

Which isn't to say bedside care is gone: quite the contrary, Kosiak noted.

"The purpose of telemedicine isn't to set aside the role of clinicians at the bedside," Kosiak said. "It's to provide additional support and expertise and to facilitate a healthcare team's care of patients."

And there's a cost impact, too.

"I believe that telemedicine provides a positive impact on cost to patients," he said.

Kosiak provided an example: If you live in Wishek, for example, a small community in rural North Dakota, and you want to see a dermatologist at 1 p.m. in Bismarck or Aberdeen, you have to leave a couple of hours ahead of the appointment, then drive home.

"That's a lot of time away from home and work," he said. "But when you're able to visit your local clinic and your family

practitioner and you can consult with the dermatologist by telemedicine, you save time, mileage, and money.

“I see telemedicine as a big win for everyone,” he said.

of enhanced team effort in healthcare delivery.

“The knowledge base for medicine is so large that it’s impossible for anyone to master all the changes,” Kosiak said.

“**Telemedicine**  
helps us reach patients in unique settings,  
especially in rural areas.”

That’s confirmed by federal studies indicating telemedicine not only helps to save lives, it saves big money. The Center for Information Technology—part of the National Institutes of Health—issued a report that concluded telemedicine technology in emergency rooms has the potential to cut patient transfers by about 40 percent and would cut transportation costs by about \$540 million—technology, in other words, that would more than pay for itself.

Now heading for a key position at Leidos, Inc.—Kosiak was recruited to the job earlier this year—he aims to put all that knowledge of hands-on medical practice, electronic health information, telemedicine, and business management to work on a much larger scale. Leidos bills itself as a health, national security, and engineering solutions company. Kosiak will be the company’s chief medical officer.

There, Kosiak will be responsible for providing clinical subject matter expertise and perspective, knowledge, experience, leadership, and direction to ensure collaboration and alignment to business strategy across the Health Solution Group and entire Leidos organization. He will also provide clinical domain support in the pursuit of new market and business development activities, strategic business initiatives, and new product and solution development.

“At Leidos, I’ll use the same skill set with a different population, in a government and federal space with some commercial applications, to answer challenges such as bringing the best care to people across the globe,” Kosiak said.

Part of that job is to spread the sense

“There are more than 3,000 medical journals published monthly, so there’s no way you can keep up, even in your own specialty,” Kosiak said. “So medicine is adapting to the team sport concept. Though the final arbiter may still be the physician, that person no longer has to come up with all the details, for example, in chronic disease management. The clinical team can help manage the patient; the physician can serve as the team captain, and she may be thousands of miles away while doing it.”

Ultimately, Kosiak said, it’s about focusing on health, not illness.

“We’re moving toward a new health-management model to replace the model of managing sick patients,” Kosiak said. “We’re getting closer to truly managing health.”

'10s

**Matthew Cappetta, MOT '10**, rehabilitation director at Holy Spirit Retirement Community in Sioux City, Iowa, has been assisting resident Ann Monnig in a “Walk Across America.” With the support of staff at the facility and under Matt’s direction, the walk through the halls that started as a “walk across Iowa” transitioned into a more ambitious project. Monnig tracks her five to six miles a day on a wall map in the hallway and anticipates that she will complete the project in approximately five years.

'10s

**Jennifer Brekhus, DPT '06**, has been promoted to physical therapy manager at CHI Mercy Hospital, Devils Lake, N.Dak. Brekhus began her career at CHI Mercy Hospital in 2010.



**Jessica Ruhland, MD '05**, was recently named to the “40 under 40” by *Prairie Business* magazine. Ruhland specializes in radiology and breast imaging at Mid Dakota Clinic in Bismarck, N.Dak., where she has provided care since 2011.

'90s



**Sara E. Bjerke, BS AT '95, MS, ATC, LAT**, an instructor and assistant athletic trainer in the Department of Sports Medicine, was announced as a winner of a National Athletic Trainers' Association (NATA) Service Award. She will be accepting the award this summer at the national convention in Baltimore, Maryland. The Service Award recognizes NATA members for

their contributions to the athletic training profession as a volunteer at the local and state levels. Recipients have been involved in professional associations, community organizations, grassroots public relations efforts, and service as a volunteer athletic trainer. Sara has been very active in the state of North Dakota by serving as past president of the North Dakota Athletic Trainers' Association (NDATA). Currently, Bjerke is the executive director of the NDATA and serves on the Board of Directors of the Mid-America Athletic Trainers' Association.

**Erik Dickson, MD '97**, now has the role of chief physician executive at Hospital Sisters Health System Sacred Heart Hospital in Eau Claire, Wis. Dickson has worked at Marshfield Clinic-Cornell Center since 2000 and also has been involved in Marshfield Clinic’s hospital medicine program at St. Joseph’s Hospital in Chippewa Falls, Wis. He has held numerous medical directorships for several local EMS services and nursing homes as well as being a member of the hospital board’s quality care committee since 2003.



**Aaron Garman, MD '96**, has been awarded the North Dakota Family Physician of the Year by the North Dakota Academy of Family Physicians. Garman is a physician with Coal Country Community Health Center in Beulah, N.Dak. and serves on the Blue Cross Blue Shield ND clinical quality committee.

**Cathy Lyons, PA '95**, has joined the Urgent Care Center at Marshall Browning Hospital in Du Quoin, Ill. Lyons is a board-certified physician assistant. She completed an Associate Degree in Nursing from Southeast Missouri State University and worked as an ICU staff RN before earning her physician assistant degree from the University of North Dakota. Cathy brings over 20 years of experience as a physician assistant in the southern Illinois area.

'70s

**Russ Kuzel, MD '79, FM Res '82**, has been named the vice president and chief medical officer for SelectHealth, Murray, Utah. Kuzel will be responsible for SelectHealth clinical operations and services and will serve as a member of the SelectHealth Executive Team.



*"We shape our buildings,  
and afterwards our buildings shape us."*

- Winston Churchill

Save the date for the  
**GRAND OPENING**  
celebration of the new  
UND School of Medicine and  
Health Sciences building

Friday, October 14, 2016  
UND Homecoming Week  
1:00 PM  
1301 N. Columbia Rd.  
Grand Forks, ND

Tours of the new building will follow  
the program and ceremonial ribbon cutting.  
Details for a black-tie dinner that evening will follow.



**Phillip Owen Dahl, BS Med '49**, age 89, passed away Saturday, January 9, 2016. Phillip was born in Jessie, N.Dak., to Clarence (C. P.), the former North Dakota lieutenant governor and Ovidia Dahl. Phillip was schooled in Jessie, but completed his high school education in Cooperstown, N.Dak., where he graduated valedictorian of the Class of 1943. During his first semester at the University of North Dakota, he was called to active duty in the Naval Air Corps. He returned to UND to complete his B.A. degree and received Phi Beta Kappa honors. It was here that he met and married Vivian L. Stenerodden. Phillip was accepted to the UND School of Medicine. He spent the first two years there and finished his MD degree at Northwestern University, Chicago, with election to Alpha Omega Alpha Honor Medical Society in 1951. He did his internship at Denver General Hospital. In 1952, they moved to Bismarck, N.Dak., where he was one of the founders of Missouri Valley Clinic, which eventually became Mid Dakota Clinic. He was board-certified in internal medicine and family practice. He retired in 1988. Phillip served his community in many ways throughout his life. His service to the state of North Dakota included president of the Board of Directors of North Dakota Blue Cross Blue Shield, chair of the State Board of Medical Examiners, and president of the North Dakota Medical Association. He was instrumental in the development of the four-year degree program at the UND School of Medicine and was asked to give the commencement address to the last two-year class.

**James R. Emch, BS Med '62**, passed away peacefully with family by his side on October 11, 2015, at the age of 79. He was born in 1936 in North Dakota to Glenn and Irene Emch and spent his youth in the small but progressive town of Hettinger, N.Dak. Having been born with a congenital heart defect and being told by doctors nothing could be done to fix his problem, Jim put all his energy into school. He had excellent teachers and enjoyed learning. After graduating at the top of his class at Hettinger High School, he went on to earn an engineering degree at South Dakota School of Mines and Technology in 1958. His first job was in Michigan in a large engineering firm and later in a sub-group designing an atomic power plant. Life was good and work was stimulating. Draft notices from the military arrived, and during a physical exam at the Detroit Armory, Jim met a young doctor who had just finished his cardiology training at the University of Minnesota. He said that doctors were now repairing ventricular septal heart defects with a new cardiac bypass pump and technique. In 1959, Jim had open heart surgery at the University of Minnesota, and his life changed forever. Being given a new healthy life, Jim was intrigued by the medical world and decided to pursue a career in medicine. He graduated from the two-year program at the University of North Dakota School of Medicine in 1962 and then from the University of Washington School of Medicine in 1964. In 1963, Jim married Margaret O'Brien, a new graduate nurse working at University Hospital. Jim did his internship at Anker Hospital in St. Paul, Minn. In 1965, the family returned to the Northwest, where Jim entered a pathology residency at the University of

Washington School of Medicine. He eventually returned to patient care and became board-certified in both family medicine and emergency medicine. He taught for the new Physician Assistant/Medex Program as an associate professor at the University of Washington, and shortly thereafter was granted a two-year leave of absence to help initiate the Medex Program at Penn State University School of Medicine in Hershey, Pa., 1973–74. The family returned to Seattle, where Jim spent the next 30 years in emergency medicine, primarily in King County. He particularly enjoyed assisting with the evolution of emergency medicine as a board-certified specialty. He also enjoyed working with the University of Washington Support Group for families of children born with congenital heart disease.

**Alice Elvira (Alin) Hanson** passed away peacefully on Saturday, October 31, 2015. At the age of 108 years and seven months, her generous heart had given all it could. Alice was born near Fullerton, N.Dak., on March 14, 1907, to Astrid and Frank Alin. She taught for several years in one-room schools in North Dakota before accepting a teaching job in New Rockford, N.Dak., where she met Lawrence Hanson, also a teacher. They married in 1931 and moved to Grand Forks, where she lived for 45 years. She was an administrative assistant to the dean of the School of Medicine for 15 years. Following Lawrence's death in 1973, Alice moved to southern California, where she lived for 30 years. In 2006, Alice moved to Northbrook, Ill.

**Robert (Bob) Lowell Jennings, BS Med '60, MD**, passed away peacefully of natural causes the morning of November 6, 2015. Robert was being comforted by family members at the Baptist Home in Bismarck, N.Dak., at the time of his passing. Bob was 81 years old. Robert Jennings was born in the town of Minot in Ward County, North Dakota, on September 18, 1934. He was the only child of Jen (Arnold) and Leroy Jennings. He grew up in Mandan, N.Dak., and graduated from Mandan High School in 1953. He attended the University of North Dakota, where he met his wife Edna (Bunting) Jennings from Lignite, N.Dak. They married on December 27, 1955. After graduation, they moved to Burlington, Vt., so Bob could attend medical school at the University of Vermont. There they had their first child, Marie, in 1961. Upon achieving his Doctorate in Medicine, Bob served honorably as a captain in the Air Force where he was moved around several times before being permanently stationed in Minot, N.Dak. While stationed at the Minot Air Force Base, Bob and Edna had their second child, Pamela. After Robert was honorably discharged from military service, the family moved to Bismarck in 1966, and he started in private practice. In 1967, his son Scott was born. In 1971, Robert joined with several other prominent physicians in the area to cofound Mid Dakota Clinic, where he served as a board member for many years and built a thriving practice until his eventual retirement in 1997. During his career, he filled many roles in addition to his regular practice, including serving as North Dakota delegate to the American Medical Association for several years, acting as physician to the Legislature when needed, and helping out as sideline physician

for the local high school basketball games. Bob always seemed to have that “small town” doctor in him, carried his physician bag with him wherever he went, and was known for stopping and offering his services wherever he was needed. In addition to his practice, Bob served on the Bismarck School Board for many years and was active in building Century High School.

**Jay Kasner, BS Med ’72**, age 73, died unexpectedly and peacefully on Saturday, January 2, 2016. Beloved husband and friend of Joanne Carpentier-Kasner. Dear brother of Gary Kasner (Carolyn Ball). Special friend and relative to numerous people, especially those of the Community of St. Anskar’s Episcopal Church, Hartland, Wis., Wauk-asha Sunrise Rotary, Westwood fitness buddies, and alumni and fans of Badger hockey and football. Jay graduated from Southwest High School and received degrees from the University of Minnesota, the University of North Dakota, and his medical degree from the University of Wisconsin–Madison. Jay overcame addiction and devoted the next 30 years of his life to helping and healing others who faced this disease. He was the medical director of Addiction Services at Rogers Memorial Hospital and then the attending physician at the Ocono-mowoc Campus.

**Rodger William Lambie, BS Med ’57**, age 85, of The Villages, Florida, passed away January 12, 2016, at home. He was born April 26, 1930, in Denver, Colorado, to John Lambie and Hilda Flaatt Lambie. Rodger’s family moved to Grand Forks, North Dakota, where he graduated from Grand Forks Central High. He served two years on active duty with the Air National Guard. A Bachelor of Science degree from North Dakota State was achieved in 1954. After farming for a year, he decided to enter medical school. He met his wife Marlene Lybeck and was married August 22, 1954. He received his Bachelor of Science in Medicine from the University of North Dakota in 1957. He and Marlene moved to Kansas City in 1957 so he could continue his medical education at the University of Kansas School of Medicine. He received his MD in 1959. Rodger’s internship was at Menorah Medical Center. He became a top radiologist and was a pioneer in CT scanning and mammography. He founded Diagnostic Imaging Center and opened four imaging centers. Rodger retired in 1997 and moved to the Lake of the Ozarks. He was preceded in death by wife Marlene after 53 years of marriage. On Valentine’s Day on February 14, 2008, Rodger married Linda Fanning.

**Dr. Clem Jacob Mattson, BS Med ’61**, age 77, of Cherry, formerly of Tomah, Wis., passed away July 20, 2014, in St. Francis Medical Center, Peoria. Clem was born May 11, 1937, in LaMoure, N.Dak., to Jul and Dorothy (McGregor) Mattson. He married Rose Marie Marconi on Sept. 18, 1970, in Grafton, N.Dak. He received his medical degree from the University of Wisconsin–Madison in 1963 and was board-certified in family practice. He practiced medicine in Grafton, Sandwich, and at Iowa State University; and retired from the Tomah VA Medical Center.

**Loraine J. Olson, 72**, Grand Forks, N.Dak., died Thursday, January 14, 2016, at the University of Minnesota Medical Center.

Loraine Jean Jenson was born November 26, 1943, in Minot, N.Dak., the daughter of Oscar and May (McFarlen) Jenson. She was raised and educated in Minot and graduated from Minot High School in 1961, then worked for Westlie Motors in Minot. Loraine married Darell Olson on July 1, 1962, at Christ Lutheran Church in Minot. They moved to Grand Forks in 1965, where they raised three children. Loraine worked at the University of North Dakota Medical School for 25 years before her retirement in 2004.

**C. Gary Pramhus, BS Med ’67**, Pelican Rapids, Minn., formerly of Fargo and Cooperstown, N.Dak., passed away peacefully on November 5, 2015, at Rosewood on Broadway. Gary was born on July 25, 1942, in Cooperstown. He graduated from Cooperstown High School in 1960. He completed his undergraduate education at the University of North Dakota and attended medical school at Northwestern University Medical School in Chicago, Illinois. He did his ophthalmology residency at the Brooke Army Medical Center in San Antonio, Texas. He had a long and distinguished medical career, beginning as a flight surgeon in the U.S. Army in the Republic of Vietnam and at Fort Wolters, Texas. He continued with the U.S. Army as staff ophthalmologist until his military discharge in 1977. He joined the Fargo Clinic (later MeritCare Medical Group) and served as the department head for 17 years. He finished his career at Eye Professionals, where he continued to work until 2010.

**Michael James Schlosser, MD ’87**, age 59, died on November 21, 2015, from injuries sustained in a motor vehicle accident near Mina, S.Dak. A loving husband, son, father, brother, doctor, soldier, and teacher, he will surely be missed. Michael James Schlosser was born March 21, 1956, to Henry and Rose (Kokkeler) Schlosser in Mandan, N.Dak. One of seven siblings, he grew up and attended school in Mandan. Michael went on to get his master’s degree in chemical engineering at the University of North Dakota. He continued his education there, receiving his medical degree from the University of North Dakota School of Medicine and Health Sciences. Dr. Schlosser did his residency at the University of North Dakota Family Practice Center in Bismarck. He also served as an instructor with the American College of Surgeons. In 1990, he began his career as a family practice doctor in Linton, N.Dak., for three years. Michael was united in marriage to Cynthia Rausch on May 18, 1991, in Linton, and together they raised five children. In 1993, Dr. Schlosser transitioned into emergency medicine at MeritCare/Sanford in Fargo. He practiced there for 19 years, before joining Avera in Aberdeen, S.Dak., for another three years. He served as a lieutenant colonel in the North Dakota Army Reserve as a physician with four tours of duty, including two tours in Iraq and one in Afghanistan. During that time, he served six years with the 164th Engineering Battalion in the National Guard, Minot, N.Dak. In the National Guard, Dr. Schlosser was a medical officer and assistant state surgeon. He participated with the medical support staff for the Honor Flight Program in Fargo, N.Dak. 

# Remembering Her Roots

Linda Redmann's gift to her home state.

By Gabriella Fundaro

Though she may have spent the better part of her adult years away from the state, Linda Redmann always had North Dakota in her blood.

"She'd been away from North Dakota for quite a while, but she always remembered her roots," said Mark Hall, a longtime friend and trust adviser to Linda.

Born in Illinois, Linda was raised on a farm near Crystal, N.Dak., and graduated from the University of North Dakota with a degree in home economics in 1967. After pursuing educational and professional opportunities in Wisconsin, Arizona, and South Carolina, it was her desire to remember those North Dakota roots, even in her passing.

Once she had earned a master's degree and a PhD from the University of Arizona, Linda's career as a teacher began at the North Dakota School for the Blind. Following stints at the Wisconsin School for Technical, Vocational, and Adult Education; the University of Arizona; and the University of South Carolina, she eventually landed at Clemson as an extension residential housing specialist.

Linda retired from Clemson as Professor Emerita of Family and Youth Development, but remained in Seneca, S.C. In 2012, Linda was diagnosed with a terminal brain tumor. She asked Hall and his colleague Claire Herland to travel to Seneca to help her get her affairs in order.

"We reviewed some ideas, and she basically said to us, 'Help me coordinate my philanthropy,'" Hall said.

Included in Linda's plans of where to direct her funds was a gift through her trust of \$617,000 to UND's School of Medicine and Health Sciences to be used for research in the areas of cancer, rural health, and consumer health.

"She wanted to help UND out with a couple of areas in the medical school, and so that's how we gave her direction to the new medical school."

Cancer and rural health were both issues that were personal to

her, but her willingness to make a difference in consumer health stemmed from her professional background.

"She got involved very much in environmental health dealing with buildings and mold and things that are made out of chemicals," Hall said.

"She was real big in that, especially when Grand Forks went through the flood back in 1997. She was really concerned about how buildings were going to become mold-infested from the water, and how that was going to affect people."

As a tribute to Linda and her wonderful gift, the UND SMHS will name the Linda L. Redmann Pathology Research Lab in the new building.

Linda gave to a number of other charities as well, not only in North Dakota but also South Carolina, Georgia, and Arizona.

"She was a very caring person," Hall said. "She loved North Dakota ethics, and how people were back here."



## What legacy will you leave?

Over the years, SMHS students have benefited immensely thanks to thoughtful planning done by alumni and friends of UND like Linda Redmann.

Please contact us for information about how you can leave a gift in your will, to discuss how you would want your gift to specifically benefit the SMHS, or any other questions you may have about how to leave your legacy at the University of North Dakota.

For additional information on how to best structure your gift to benefit the University of North Dakota, please contact

Dave Miedema, '76  
Senior Director of Development  
[davem@UNDfoundation.org](mailto:davem@UNDfoundation.org)  
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Jessica Sobolik  
Director of Alumni and  
Community Relations  
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701.777.6048

**UND** ALUMNI ASSOCIATION  
FOUNDATION

# *Thank you* to our thoughtful donors who recently gave gifts or made pledges.

**David and Linnea Veeder, MT '62**, of Billings, Montana, continue to support the Linnea J. Veeder Scholarship Endowment, which provides scholarships to first-year medical laboratory science students with a preference given to students from McIntosh County, North Dakota. Linnea is a native of Lehr, N.Dak.

**Michael, MD '92, and Donna Ebertz** of Orono, Minnesota, continue to support the Dr. Michael and Donna Ebertz Scholarship Endowment, which provides scholarships to medical students from North Dakota or Minnesota. Preference is given to students from Stutsman County, N.Dak., or Hennepin County, Minn. Dr. Ebertz is a native of Jamestown, N.Dak. He is CEO of Skin Care Doctors PA, which has several clinics in Minnesota.

**Several School of Medicine and Health Sciences faculty members** contributed to the new Faculty for Students Scholarship Endowment, which will provide equal annual scholarships to a graduate, medical, and health sciences student.

**Paul and Pamela Lander** of Boulder, Colorado, have established the Dr. William and Helene Powers Scholarship Endowment in honor of Pamela's parents.

Dr. Powers, BS Med '53, was a longtime family physician in Grand Forks before he retired. The endowment provides scholarships to fourth-year medical students who are interested in primary care with preference given to Grand Forks, N.Dak., or East Grand Forks, Minn., high school graduates.

**Marc and Linda Nagel, MD '89**, of Minneapolis, Minnesota, continue to support the Linda Well Nagel Scholarship Endowment, which provides scholarships to medical students who wish to do rotations in developing countries or underserved populations in any country. The Nagels have traveled to Central America several times to provide free medical services to underserved populations in Honduras. Linda is a native of Rugby, N.Dak.

**Senator Judy Lee, MT '64**, of Fargo, North Dakota, has established the Duane and Judy Lee Scholarship Endowment, which provides scholarships to medical laboratory science students. Senator Lee represents Fargo's District 13 in the North Dakota Legislature.

**Lori Martindale** of Fargo, North Dakota, has established the Dr. Donald Martindale Scholarship Endowment in

memory of her husband who earned his MD degree from UND in 1982. He worked as a family medicine physician at the Sanford Clinic in Moorhead, Minnesota, from 1991 until his passing in December 2014. Lori met Dr. Martindale at St Luke's Hospital in Fargo, where she was a nurse and he was a resident physician. Dr. Martindale also served as team physician for the Moorhead State Dragons football team and North Dakota State University.

The estate of **Donald Bahr, BS Med '49**, of Los Angeles, California, has established the Donald E. Bahr, MD, Scholarship Endowment, which will provide annual scholarships for medical students. Dr. Bahr was a family physician at Permanente Medical Group before his retirement in 2003. The Grand Forks, North Dakota, native passed away in 2013.

**David and VeAnna Selid** of Williston, North Dakota, continue to support the David and VeAnna Selid Endowment, which provides scholarships to medical students with preference given to North Dakota residents. VeAnna earned her nursing degree from UND in 1982. David and VeAnna's son Paul graduated from UND's medical school in 2014.

## HOSTS

The UND School of Medicine and Health Sciences' HOST Program (Housing Our Students as they Travel) aims to utilize its vast alumni network to find complimentary lodging, transportation, meals, or general information for its fourth-year medical students during residency interviews. Modeled after HOST programs at other U.S. medical schools, the UND program was established in 2011.

This year, several alumni agreed to host students:

- David Masuda, MD '80, of Seattle, Washington, hosted Josh Huhndorf.
- Paul, PhD '79, and Susan Stagno, MD '81, of Cleveland, Ohio, hosted Rachel Fearing.
- William Waswick, MD '87, of Wichita, Kansas, hosted Charles Crellin.
- Craig, MD '13, and Destiny Wolf of Tucson, Arizona, hosted Jared Sander.
- Eugene, BS Med '68, and Martha Fuchs of Portland, Oregon, hosted Josh Huhndorf.

To sign up for the HOST program, visit [www.med.und.edu/community/host-program.cfm](http://www.med.und.edu/community/host-program.cfm).

## Simlympics 2016 winners

On February 3 and 4, SMHS medical students competed in the Third Annual Simlympics competition. Organized by the SMHS Emergency Medicine Interest Group (EMIG) and the North Dakota Simulation, Teaching, and Research (ND STAR) Center team, this tournament-style competition featured teams of four to five medical students, each presented with patients they could realistically encounter in the ER. Students were scored by a panel of physician judges on their ability to collect information about the patient's history, work as a team, exercise sound clinical reasoning, and effectively communicate and empathize with the patient. A high-pressure, yet low-stakes environment gave medical students an opportunity to apply what they have learned in the classroom and gain valuable feedback on their successes and mistakes. The first-year's winning team was composed of students Britta Stjern, Mylan Panteah, Tasha Garcia, Melissa Gunderson, and Ciciley Littlewolf.



Second-year winning team, from left, Matt Glogoza, Jenn Glatt, Lisa Poole, and Whitney Bettenhausen.

## Matthew Glogoza awarded Looking to the Future Scholarship

Matthew Glogoza, a second-year medical student, was awarded a Looking to the Future Scholarship to attend the January 2016 annual meeting of The Society of Thoracic Surgeons in Phoenix, Ariz. This highly competitive award is given to medical students throughout the United States who are potentially interested in a career in thoracic surgery.

The Society of Thoracic Surgeons is a not-for-profit organization representing more than 7,100 surgeons, researchers, and allied healthcare professionals worldwide who are dedicated to ensuring the best possible outcomes for surgeries of the heart, lung, and esophagus, as well as other surgical procedures within the chest.

Glogoza, a Fargo, N.Dak., native, will be among 29 other students from schools such as Duke, Johns Hopkins, UCLA, and Michigan attending the meeting.



Matthew Glogoza

## Balwinder Singh receives AADPRT Award

The Department of Psychiatry and Behavioral Science is excited to announce that Balwinder Singh, MD, MS, third-year resident in the Psychiatry Residency Training Program at the UND SMHS, has been selected as an awardee for the American Association of Directors of Psychiatric Residency Training (AADPRT) International Medical Graduate (IMG) Fellowship Program. This program is designed to promote the professional growth of exceptional IMG psychiatry residents and fellows with leadership potential, particularly those interested in resident education.

Five outstanding IMG residents are selected nationwide each year for this award. Singh has been invited to attend the 2016 AADPRT Annual Meeting in Austin, Texas, March 3–5. There will be a recognition ceremony during the annual meeting, and Singh's expenses for attending the meeting will be paid by the AADPRT/IMG Fellowship Program.

### **Danyelle Osowski garners Pfizer SOT Undergraduate Student Travel Award**

Danyelle Osowski, a UND undergraduate student performing research in the laboratory of Associate Professor Jane Dunlevy, PhD, in the Department of Biomedical Sciences, has been awarded a Pfizer Society of Toxicology Undergraduate Student Travel Award to attend the 2016 Annual Meeting of the Society of Toxicology (SOT) in New Orleans, Louisiana.

The Society of Toxicology and Pfizer will provide complimentary registration for the meeting and access to all sessions, travel to and from the meeting, lodging, and a stipend to offset daily and miscellaneous food and travel expenses. The award provides for participation in the Undergraduate Education Program on Sunday, March 13, which includes special toxicology lectures, tips on graduate school admission, and an opportunity to meet with graduate program directors. The Pfizer Award will be recognized at the SOT Awards Ceremony on March 13 in the Convention Center. An opportunity to network with Pfizer scientists will also be provided as will recognition of the award at a special Pfizer event.

In addition, Osowski will also present her poster on research performed as part of the UND SMHS Summer Undergraduate Research Program. Her presentation is titled "Increased Expression of CD44 in Cadmium and Arsenite Transformed UROtsa Cells." Osowski's research was supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under grant number P20GM103442.



Danyelle Osowski

### **Van Gieson garners Graduate Student Travel Award from the Society of Toxicology**

Jamie Van Gieson, a graduate student in the laboratory of Dr. Seema Somji of the Department of Pathology, has been awarded a Graduate Student Travel Award from the Society of Toxicology (SOT). This award provides support for Van Gieson to attend the 55th Annual Meeting of the Society of Toxicology in New Orleans, Louisiana, from March 13 to 17 of 2016.

Among the events specifically targeted to graduate students is the Graduate Student/Postdoctoral Fellow Mixer and the Graduate Student In Vitro Lecture and Luncheon sponsored by Colgate-Palmolive. She is also invited to participate in the SOT "Chat with an Expert" program held throughout the annual meeting and "Tox Show Down," sponsored by the Graduate Student Leadership Committee.

In addition, Van Gieson will also present her poster on research performed as part of her PhD program at UND. Her presentation is titled "Role of Anterior Gradient 2 in a MCF-10A Cell Model of Arsenic Induced Breast Cancer." Van Gieson's research was partially supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under grant number P20GM103442.



Jamie Van Gieson

### **Seema Somji and Bethany Davis to serve as officers for Northland Chapter of Society of Toxicology**

The Northland Chapter of the Society of Toxicology elected Seema Somji, PhD, and Bethany Davis to serve as officers. Somji, an associate professor in the Department of Pathology, will serve as a councillor, and Davis is the graduate student representative. The Northland Chapter of the Society of Toxicology is one of 18 regional chapters dedicated to supporting the development and application of sound science in the field of toxicology.



Seema Somji and Bethany Davis



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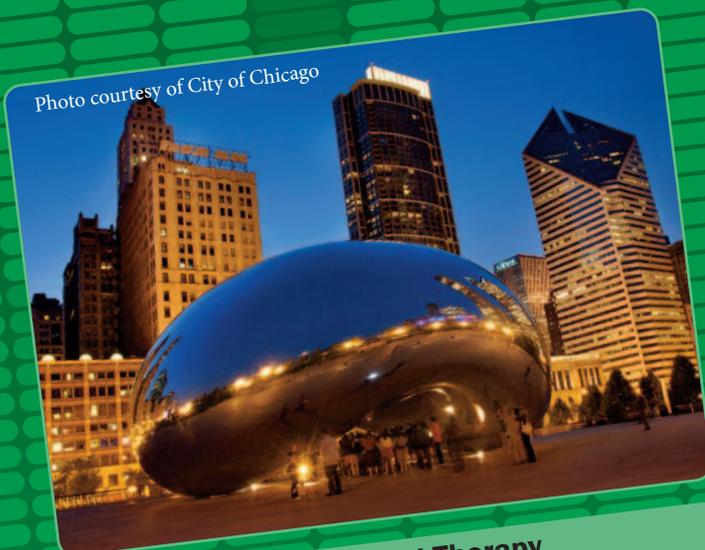


Photo courtesy of City of Chicago

**Occupational Therapy**  
April 8, 2016 – Hilton Chicago  
Additional information pending.



**Physician Assistants/FNPs**  
May 5, 2016 – Fargo  
[www.UNDalumni.org/pa2016](http://www.UNDalumni.org/pa2016)