

## Thank You

The Geriatrics Department gratefully acknowledges the following individuals and families who have contributed to the UND Foundation on behalf of Geriatrics research, education and clinical programs. These generous gifts help the Department's mission and accelerate discovery in critical areas such as Alzheimer's Disease, Healthy Aging, and Recovery.

Dr. Eva L. Gilbertson Foundation  
Mary Aloï  
Gary S. Knowles  
Barbara Nugent  
Nancy Wardell  
Thomas Heinrich  
Mark Heinrich

## Meet Geriatrics staff, faculty and associates



Renee Kringlen



Mary Lizakowski



Holly Brown-Borg, PhD



Lindsey Dahl, MD



Darin Lang, MD



Tricia Langlois, MD



Rup Kumar Nagala, MD



Vani Nagala, MD



Guy Tangedahl, MD



Jane Winston, MD

# UND DEPARTMENT OF GERIATRICS

## NEWSLETTER

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## Message from the Department Chair

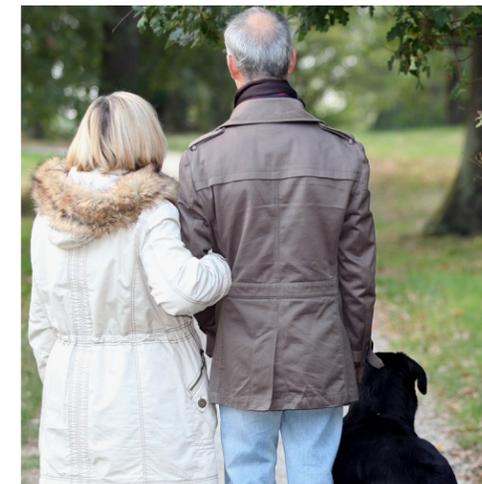


The UND Department of Geriatrics is still in its infancy, barely two years old. The UND program is among a handful of Geriatric Departments across the country at various medical schools. Historically, Geriatric Departments evolved from Sections or Divisions within medical school departments of medicine. The rise from a division to a full fledged department recognizes the unique knowledge – base of Geriatrics as well as its full range of health activities that include teaching, research, and clinical service.

The new UND Department of Geriatrics emerged from a \$5.2 million donation by a UND alumna, Dr. Eva Gilbertson to support an endowed chair in Geriatrics. Recognizing the challenges of recruitment, the UND School of Medicine matched the endowed chair with a commitment to UND's newest Department. The covenant for the Gilbertson pledge stipulated that the Distinguished Professor of Geriatrics should attend to the needs of the elderly population across all of North Dakota. This stipulation is timely in that North Dakota ranks second, as a percentage, in US "oldest old" and first in the US for the prevalence of Alzheimer's Disease.

According to the American Geriatrics Society, North Dakota is short 40 geriatricians. Thus, the Geriatrics department has considerable work to do building Geriatric expertise in the state.

Within this newsletter are reports and updates about progress with the Geriatrics Department. In a relatively short time, the Department has made substantial connections across the State, providing new educational opportunities, new research discoveries, and new clinical programs that address healthy aging and diseases in late life. As you get a chance to learn more about the UND Geriatrics Department, we very much welcome your feedback and suggestions for program development. Our goal is to become a top – ranked, nationally recognized program.



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## Departmental Vision and Mission

As a new Department, suggestions continue to be collected on defining the Department's vision and mission. The following list provides the scope of suggestions forwarded for consideration. Which ones do you find most appealing?

Vision (need one phrase that summarizes departmental overarching goal)

1. Extending healthy longevity
2. To extend healthy years further
3. Towards the best age ever
4. To halt aging
5. To make aging a thing of the past
6. To make aging better
7. To age beyond expectations

Mission (need several phrases to summarize departmental goals in discovery, clinical service, education, and policy)

1. Extend our health span
2. Combat age-dependent diseases
3. Improve recovery processes from acute illnesses
4. Reduce late life disability
5. Improve quality and lower costs of senior healthcare
6. Translate biology of aging into clinical interventions

Send your opinions to:  
renee.kringlen@med.und.edu



## Geriatric Education Update

Geriatrics made history in North Dakota by becoming the first advance medical training program in the state's history. While North Dakota has clinical training programs in surgery, psychiatry, family medicine and internal medicine it has never had fellowship training until now. Two Geriatric Fellowship programs have been inaugurated in Bismarck and Fargo at St. Alexius and Sanford Health Care Systems. These fellowship programs accept graduates of family medicine and internal medicine residency training programs who spend an additional year in clinical and research training. Trainees can get a degree in Public Health and they are prepared to become board certified in Geriatric Medicine. Little known is that the Geriatric Medicine boards are among the hardest to pass of all the subspecialties in Internal Medicine.

Geriatrics took to the National stage recently when the department presented a new educational program for medical students at the annual scientific meeting for the American Geriatrics Society. At this meeting, data from the Geriatrics Twitter Poll was presented. In short, third year medical students accessed Twitter weekly to answer 10 questions during their internal medicine rotation. By doing so, we discovered that students increased their Geriatrics knowledge by 3 – 24%. The Geriatrics Twitter Poll shows that by simply asking questions, medical students can improve their understanding of Geriatric Principles of Assessment and Healthcare. This new knowledge is critical to their future clinical practices. Equally importantly, Geriatrics Twitter Poll helps the medical school meet accreditation metrics that deal with the 26 competencies in Geriatrics expected of students upon graduation.

The Geriatrics Department launched an 18 lecture series on Geriatric Medicine for UND residency training programs in Internal Medicine and Family Medicine. These monthly presentations cover a variety of Geriatric topics such as the Biology of Aging and Geriatric Syndromes. The lectures include evidenced – based medicine and questions that residents might encounter during their board examinations. These presentations will be archived on the UND Blackboard web site and are available to anyone who wishes to view or present them.



## Geriatric Clinical update

Geriatric clinical services have expanded rapidly. At Sanford Health in Fargo, Geriatric Services now include comprehensive geriatric assessment, gait and balance clinic, and a memory disorders clinic. Comprehensive Geriatric Assessment is an evidenced – based program whereby elderly are evaluated by a Geriatrics team that includes a Geriatrician, Occupational Therapist, Physical Therapist, Pharmacist, and Social Worker. The assessment takes up to two hours and provides a comprehensive overview of elderly physical, cognitive, and psychosocial function. The team offers various recommendations and oftentimes will reassess the older patient 2 to 3 months after the initial comprehensive evaluation. The goal of the clinic is to improve clinical diagnoses, strengthen healthy longevity, and better manage several chronic conditions common to the aging population such as falls, dementia, incontinence and mood disorders. The Geriatrics team works with patients, family members, and primary care providers to coordinate and optimize health care and social services for elderly. The goal is to help elderly age in place with as much independence and functionality possible. In other cases the Geriatrics program help patients transition to different parts of the continuum of care, including home based care, assisted living, long term care and palliative care.

As the only Comprehensive Geriatrics Assessment program in the state of North Dakota, efforts are being made to develop Geriatrics telehealth so the principles and practice of Geriatrics can be brought to rural and under – resourced areas of the State.

## Geriatric research update

Research in the Geriatrics Department focuses on how age and disease, such as Alzheimer's Disease, alters our body's ability to protect itself at the cellular level. The Geriatrics Research Laboratory evaluates a longevity factor called Heat Shock Factor 1 which is the master switch for controlling protective proteins called heat shock proteins. Two recent collaborations have revealed interesting information. In collaboration with Dr. Holly Brown – Borg, a nationally recognized gerontologist, we discovered that aging leads to an up – regulation of the cellular stress axis. This observation is the opposite of most aging processes which tend to decline with age. Curiously, the long lived Dwarf mouse, which is growth hormone deficient, does not manifest as dramatic of change in the stress axis with age. This observation provides new insights as to how we might be able to improve our ability to handle life – long accumulation of damaged proteins. Improving the cellular stress response with age may be a way to strengthen Healthy Longevity. Another collaborative discovery recently made relates to Alzheimer's Disease. In conjunction with Dr. Othman Ghribi's laboratory, the Geriatrics Research program found that fats such as cholesterol and saturated free fatty acids profoundly affect the longevity and stress factor, HSF1. Animals on a high fat diet mimic many of the features of Alzheimer's Disease, and in the process of neurodegeneration, the HSF1 protein levels totally disintegrate, thus leaving hippocampal neurons totally susceptible to injury and death. Preliminary data suggest that polyunsaturated fats such as fish oils can prevent the dismantling of HSF1 and the stress axis. Thus, nutritional modifications in late life may hold the key to neuroprotection and the prevention of dementia.

Finally, approval was obtained to study elderly recovering from an acute illness. This project examines a new, untested hypothesis that aging results in sustained inflammation after an illness such as pneumonia, thus preventing elderly from fully recovering. Past studies show that nearly 45% of elderly never fully recover their pre – hospitalization functional status. Even more impressive is the fact that only 15% of elderly ever recover their pre – hospitalization status if they entered the hospital with one or more functional impairments. This project should open new practical insights into how to improve functional recovery of elderly after an acute illness.

