Friends of the National Institute on Aging Testimony on FY 2008 National Institutes of Health Appropriations

Submitted to: Senate Subcommittee on Labor, Health and Human Services, Education and Related Agencies

Submitted by:

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Chairman Harkin and members of the Subcommittee, thank you for the opportunity to submit testimony on the important role that the National Institutes on Aging (NIA) plays at the National Institutes of Health (NIH) and the urgent need for increased appropriations to advance research conducted and supported by the NIA.

The Friends of the NIA is a coalition of some 50 academic and not-for-profit organizations that conduct, fund or advocate for scientific endeavors to improve the health and quality of life for Americans as they age. We support the continuation and expansion of NIA research activities and seek to raise awareness about important scientific progress in the area of aging research currently guided by the Institute. Our testimony highlights recent advances resulting from NIA funding and the negative consequences that could occur if Congress does not provide sufficient appropriations for NIA research and training activities in FY 2008.

As you know, the NIA's mission is to conduct biomedical, behavioral, and social science research in order to prevent disease and other complications of the elderly and to maintain the health and independence of Americans as they age. One area where this mission is best reflected is the extensive research efforts spearheaded by the NIA in the area of Alzheimer's disease and the neuroscience of aging. The goal of this research is to facilitate early diagnosis of Alzheimer's disease and develop more effective therapies and strategies for Alzheimer's prevention.

The NIA continues to improve on efforts to speed delivery of novel Alzheimer's therapies to patients through pre-clinical, translation, and clinical research. In addition to these efforts, the NIA has advanced Alzheimer's research in two crucial areas – genetics and neuroimaging. Only one risk factor gene for Alzheimer's disease had been identified up until the end of 2006. Late last year, through the NIA's Genetics Initiative (GI), researchers uncovered variations of a different gene that could provide new clues on the development of Alzheimer's disease. Compounds have also been identified in recent years that allow for the visualization of processes in the brain that result in Alzheimer's. The Alzheimer's Disease Neuroimaging Initiative (ADNI) has provided necessary neuroimaging tools to view these processes and assist researchers in developing and monitoring emerging treatments. The need for progress in these areas becomes ever more important as the extraordinary costs to patients and families continue to

grow and as Medicare spending on beneficiaries with Alzheimer's climbs steadily, reaching more than \$189 billion over the next decade.

GI and ADNI have been identified as priorities by the NIA's Director this year, however adequate sustained resources must be provided by Congress in order for these programs to one day provide relief to the 5.1 million patients and their families currently living with Alzheimer's (Alzheimer's Association, Alzheimer's Disease Facts and Figures 2007) and hope to the 16 million Americans who may be diagnosed with Alzheimer's in the future (Herbert et al. Alzheimer's Disease in the U.S. Population, 2003).

Alzheimer's disease is just one of the NIA's important focus areas. Other promising biomedical research efforts supported by the NIA include projects to discover new Parkinson's susceptibility genes; studies of age-related bone loss and osteoporosis; and research on bone marrow failure diseases. All of these occur in higher incidence among older populations and exact shocking tolls on patients, their families and the nation.

NIA investigators are conducting parallel research to extend an individual's years of health. By capitalizing on successful animal studies to extend healthspan, investigators hope to delay the onset of disease and disability associated with aging in humans. Projects aimed at achieving this goal include the Comprehensive Assessment of the Long-Term Effects of Reducing Intake of Energy Project (CALERIE) and the Intervention Testing Program. CALERIE is a NIA supported study that will assess the beneficial age-related effects of reducing caloric intake in humans. Through the Intervention Testing Program, investigators test compounds with the potential to extend a person's years of disease-free life. Both of these approaches have produced promising results in a number of different species, and may be beneficial to human studies. The NIA also continues to search for genes and biological pathways that influence longevity and aging through the Longevity Associated Gene initiative. To date this initiative has identified over one hundred new longevity-associated genes and pathways that regulate longevity. Further coordinated advances in these areas could yield tremendous health and economic benefits, by shortening the period during which humans suffer from costly, debilitating diseases.

The U.S. spends \$26 billion per year on Medicare beneficiaries who lose the ability to remain fully independent. To combat the disability and frailty commonly associated with old age, NIA researchers are actively seeking ways to maintain physical function longer. Several recent studies suggest that physical exercise may prevent disability and impaired mobility in older adults. To develop definitive evidence regarding the effectiveness of such interventions, NIA researchers have designed the Lifestyle Interventions and Independence in Elders study (LIFE). LIFE is a clinical trial to study the effects of physical activity and health education among older Americans in preventing major forms of disability. A successful pilot study showed positive preliminary results that researchers hope to build on in this large-scale clinical trial.

Other work of critical importance conducted and funded by the NIA is in the area of behavioral and social science research. The NIA's behavioral and social science research programs have been instrumental in providing essential economic and demographic population information to a number of federal agencies. NIA's Centers on the Demography of Aging are

responsible for both the Health and Retirement Survey (HRS) and the National Long-Term Care Survey (NLTCS). The HRS and the NLTCS produce information on the health and economic status of the older population that is critical to the larger research community and is also utilized by the Centers for Medicare and Medicaid Services and the Social Security Administration. Data from these surveys are particularly important for understanding the budgetary impact of population aging. They also help Congress in budgetary considerations of population aging as it deliberates potential changes to public programs such as Social Security, Medicare, and Medicaid. With consistent funding these surveys can continue to be seminal sources of information on the health and socioeconomic status of older Americans.

Many challenges will present themselves as Americans reach retirement age in increasing numbers. Currently, there are approximately 36 million Americans aged 65 and older. That group is expected to double in size within the next 25 years, at which time nearly 20% of the U.S. population will be older than 65 (*Federal Interagency Forum on Aging Related Statistics*, *Older Americans*, 2004). Of particular concern is the dramatic growth that is anticipated among those age 85 and over (65+ in the U.S., U.S. Census Bureau, 2004). By 2050, 19.4 million Americans will be over the age of 85. If discoveries are not made now to reduce the prevalence of debilitating age-related disorders, the health-related costs associated with caring for the oldest and sickest Americans will place an unmanageable burden on patients, their families, the labor force and a fragile health care system. In fact, the Congressional Budget Office recently estimated that spending on Medicare and Social Security will reach 15% of the country's GDP by 2030, compared to 8.5% in 2006.

If the onset of Alzheimer's could be delayed by five years, the projected population that is expected to suffer from the disease could be cut in half. If researchers are successful in achieving a modest delay in the rate of aging, health and economic benefits would be achieved that are greater than what would result from the elimination of cancer or heart disease alone. To achieve these powerful results, meaningful investments in aging research must be made now. Scientists are poised to make breakthroughs in the prevention and treatment of a host of age-associated diseases and conditions, but without sufficient funding for aging research, Americans are unlikely to see these breakthroughs occur during their lifetime.

Since 2003, funding for the NIH has been on a downward trajectory. For the past four fiscal years, the President has proposed NIH funding levels that fail to meet the necessary 3.5% to keep pace with inflation. These proposals have resulted in a loss of purchasing power for the NIH and an inability to fund increasing numbers of research grants each year. As a result, the Institutes and Centers that make up the NIH have been forced to implement cost containment policies that decrease the funding levels for new grants and reduce the funding levels of existing grants. The NIA specifically has experienced an 18% reduction in budgets for competing grants. If the President's FY 2008 budget proposal were enacted, the NIH's ability to conduct and support life-saving research will be cut by more than 13 percent (since FY 2003 adjusted for inflation). In order to preserve clinical trials and maintain cost management policies, the NIA will only be able to support a total of 1,511 Research Project Grants (RPG). This represents a 3% decrease from the previous year despite growth in promising new scientific opportunities. (Fiscal Year 2008, National Institutes on Aging, Budget Justification).

Declining budgets strain momentum and affect future research. Continued cuts would impact the start up of new clinical trials and development of new interventions that could have the significant public health benefits mentioned earlier. To halt the erosion of the nation's research base, the Friends of the NIA recommends that Congress provide a 6.7 percent increase in funding for the NIH in FY 2008. A 6.7 percent increase for the NIA specifically would allow for increased funding of new and existing investigator initiated research projects and facilitate the acceleration of discoveries to further prevent, better treat, and potentially cure a wide range debilitating age-related diseases and conditions.

Mr. Chairman, the Friends of the NIA thanks you for this opportunity to outline the challenges and opportunities that lie ahead as you consider the FY 2008 appropriations for the National Institutes of Health and we would be happy to furnish additional information upon request.

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