

Testimony of the Friends of the National Institute on Aging (NIA)
Fiscal Year 2013
Senate Subcommittee on Labor, Health and Human Services and Education
National Institutes of Health/National Institute on Aging
April 27, 2012

Senator Harkin, Senator Shelby, and members of the Subcommittee, on behalf of the Friends of the National Institute on Aging (FoNIA) at the National Institutes of Health (NIH), thank you for the opportunity to provide testimony in support of the National Institute on Aging (NIA) and to comment on the need for sustained, long-term growth in aging research.

The FoNIA is a coalition of over 50 academic, patient-centered and not-for-profit organizations that conduct, fund or advocate for scientific endeavors to improve the health and quality of life for Americans as we age. As a coalition, 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 sponsored by the Institute.

To ensure that progress in nation's biomedical, social, and behavioral research continues, the Coalition endorses the Ad Hoc Group for Medical Research in supporting \$32 billion for NIH in fiscal year (FY) 2013. Given the unique funding challenges facing the NIA, and the range of promising scientific opportunities in the vast, diverse field of aging research, the FoNIA ask the subcommittee to recommend that NIA receive \$1.4 billion in FY 2013.

The NIA Mission

Established in 1974, NIA leads the national scientific effort to understand the nature of aging in order to promote the health and well being of older adults. NIA's mission consists of four components:

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging.
- Foster the development of research and clinician scientists in aging.
- Provide research resources.
- Disseminate information about aging and advances in research to the public, health care professionals, and the scientific community, among a variety of audiences.

The NIA fulfills this mission by supporting both extramural research at universities and medical centers across the United States and intramural research at laboratories in Baltimore and Bethesda, Maryland.

Research Activities and Advances

Adding to its strong record of progress throughout its 38-year history, recent NIA-supported activities and advances have contributed to improving the health and well-being of older people worldwide. Below is a summary of some of these most recent activities and advances.

Alzheimer's Disease

Alzheimer's disease (AD) is the most common cause of dementia in the elderly. Between 2.6 million and 5.1 million Americans aged 65 years and older may have AD, with a predicted increase to 13.2 million by 2050. While researchers have achieved greater understanding of the disease, there is no cure. In light of the exploding aging population, which will more than double between 2010 and 2050 to 88.5 million or 20 percent of the population, scientists are in a race against time to prevent an unprecedented AD epidemic threatening our older population.

NIA is the lead federal research agency for Alzheimer's disease (AD). In this regard, the Institute coordinates trans-NIH AD initiatives and encourages collaboration with other federal agencies and private research entities. As illustration of its leadership role, NIA is leading the Alzheimer's Disease Research Summit on May 14 and 15, 2012 at which officials representing federal agencies, scientific researchers, providers, caregivers, patients and their families will convene to develop final recommendations to the National Alzheimer's Project Act Advisory Council.

The NIA's support of important AD research has contributed to important recent advances. For example, the identification of relevant Alzheimer's Disease (AD) biomarkers through the groundbreaking Alzheimer's Disease Neuroimaging Initiative, along with a deeper understanding of the disease's pathology and clinical course, have facilitated the first revision of the clinical diagnostic criteria for AD in 27 years. These new criteria address for the first time the use of imaging and biomarkers in blood and spinal fluid, and unlike the previous guidelines they cover the full spectrum of the disease, from mild cognitive impairment (MCI) through clinical dementia. To expand and intensify the translation of basic research findings into clinical studies and human trials, NIA, the National Institute of Neurological Diseases and Stroke, and the National Institute of Mental Health support an AD Translational and Drug Discovery Initiative that currently funds over 40 projects, including a number of pilot clinical trials. In a recent, highly promising pilot trial, a nasal-spray form of insulin delayed memory loss and preserved cognition in people with cognitive deficits ranging from MCI to moderate AD. A larger-scale study to confirm and extend these results is under development.

Increasing Healthy Life Span

Through its Division of Aging Biology, NIA supports research to improve understanding of the basic biological mechanisms underlying the process of aging and age-related diseases. The program's primary goal is to provide the biological basis for interventions in the process of aging, which is the major risk factor for many chronic diseases affecting older people. Recent significant findings that could help advance understanding of a range of chronic diseases, include the discovery of the drug rapamycin, which has been shown to extend median lifespan in a mouse model. Grantees supported by this program have also identified genetic pathways that regulate the maintenance of the stem cell microenvironment in aging tissues.

In 2011, the NIA Division of Aging Biology led the formation of the Trans-NIH GeroScience Interest Group (GIG). This working group, which is comprised currently of 19 NIH Institutes and Centers was formed to encourage trans-NIH discussion and coordination of research activities focusing on mechanisms underlying age-related changes, including those that could lead to increased disease susceptibility (e.g. stress, inflammation, etc...). Another major goal of

the GIG is to raise awareness both inside and outside the NIH of the relevant role aging biology plays in the development of age-related processes and chronic disease. To achieve this goal, the working group is planning seminars that will feature internal and external speakers, as well as symposia and workshops. With additional funding, the GIG could play an instrumental role in developing trans-NIH initiatives, including funding opportunities and Common Fund initiatives, to encourage research on basic biology of aging and its relationship to earlier life events, exposures, and diseases. The FoNIA believe the GIG is an important development that will result in greater coordination of aging research activities and resources across the NIH.

Behavioral and Social Science Research

The Division of Behavioral and Social Research Program supports social and behavioral research to increase understanding of the aging process at the individual, institutional, and societal levels. Research areas include the behavioral, psychological, and social changes individuals undergo throughout the adult lifespan; participation of older people in the economy, families, and communities; the development of interventions to improve the health and cognition of older adults; and the societal impact of population aging and of trends in labor force participation, including fiscal effects on the Medicare and Social Security programs.

One of the Division's signature projects, the Health and Retirement Study (HRS), is recognized as the nation's leading source of combined data on health and financial circumstances of Americans over age 50. HRS data have been cited in over 1700 scientific papers and have informed findings regarding the effects of early-life exposures on later-life health, variables associated with cognitive and functional decline in later life, and trends in retirement, savings, and other economic behaviors. It is so respected that the study is being replicated in 30 other countries. In March 2012, HRS took an important step forward by announcing that genetic data from approximately 13,000 individuals were posted to dbGAP, the NIH's online genetics database. The data are comprised of approximately 2.5 million genetic markers from each person and are immediately available for analysis by qualified researchers. These data will enhance the ability of researchers to track the onset and progression of diseases and conditions affecting the elderly.

NIA also continues to support research on the economic implications of aging and health care reform. In an ongoing study, the state of Oregon randomly assigned 10,000 low-income uninsured adults to the state's Medicaid program (out of a pool of 90,000 individuals who applied). The initial results from this study indicate that enrollees increased use of health care services and therefore program costs, but also reported improved health and well-being and reduced financial strain.

Funding Challenges

Despite its ability to support important research projects and programs, the NIA faces unique funding challenges. While the current dollars appropriated to NIA seem to have risen significantly since FY 2003, when adjusted for inflation, they have decreased almost 18 percent in the last nine years. Further, according to the NIH Almanac, out of each dollar appropriated to NIH, only 3.6 cents goes toward supporting the work of the NIA-compared to 16.5 cents to the National Cancer Institute, 14.6 cents to the National Institute of Allergy and Infectious Diseases, 10 cents to the National Heart, Lung and Blood Institute, and 6.3 cents to the National Institute

of Diabetes and Digestive and Kidney Diseases. Finally, despite enacting cost cutting measures, such as differing paylines for projects costing above and below \$500,000 and a decrease in non-competing commitments, NIA's success rate remained below the average NIH success rate between 2008 and 2011.

The undeniable rise in the U.S. aging population is another factor justifying the need for increasing the NIA budget. According to the U.S. Census Bureau, the number of people age 65 and older will more than double between 2010 and 2050 to 88.5 million or 20 percent of the population; and those 85 and older will increase three-fold to 19 million. Aging is a major risk factor for numerous diseases and disorders. These factors justify the need to provide NIA with \$1.4 billion, an increase of \$300 million over the Institute's FY 2011 level, in FY 2013. It is important to note that this funding level is not only endorsed by the FoNIA and the Leadership Conference on Aging, but also was endorsed by over 500 scientists nationwide who signed a letter to Dr. Collins in December 2011, requesting this amount.

Conclusion

We thank you, Mr. Chairman, and the Subcommittee for supporting the NIA and, again, for the opportunity to express our support for the Institute and its important research.

Submitted by: Mary Jo Hoeksema, Chair Friends of the NIA, Population Association of America/Association of Population Centers, (202) 341-7283, paaapc@crosslink.net