

**Testimony**  
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**President & CEO, Alliance for Aging Research**  
**Senate Appropriations Committee**  
**National Institutes of Health/National Institute on Aging**  
**April 23, 2014**

Chairwoman Mikulski, Vice Chairman Shelby, and members of the Committee, this testimony is being submitted on behalf of the Friends of the National Institute on Aging (FoNIA), [www.friendsofnia.org](http://www.friendsofnia.org), a coalition of more than 50 academic, patient-centered and non-profit organizations that supports the research and training missions of the National Institute on Aging (NIA) by promoting and advocating for the NIA and its initiatives as public policies in health and research take shape. We appreciate the opportunity to provide testimony in support of the NIA and to comment on the need for sustained, long-term growth in aging research funding. Considering the resources the federal government spends on the health care costs associated with age-related diseases, we feel it makes sound economic sense to increase federal resources for aging research. **Specifically, given the unique funding challenges facing the NIA, and the range of promising scientific opportunities in the field of aging research, the FoNIA recommends an additional \$500 million in the FY 2015 National Institutes of Health (NIH) budget to support aging research.** We believe that this funding is the minimum essential to sustain research needed to make progress in attacking the chronic diseases that are driving significant increases in our national healthcare costs. **In addition, to ensure that progress in the 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 FY 2015.**

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 threefold, to 19 million. As the 65+ population increases, so will the prevalence of diseases disproportionately affecting older people—most notably, Alzheimer's disease (AD). The NIA is the primary federal agency responsible for AD research and receives nearly 70 percent of the NIH Alzheimer's disease research funding. Yet, we know that as many as 5 million Americans aged 65 years and older may have AD with a predicted increase to 13.2 million by 2050. NIA's comprehensive AD research program spans the spectrum of discovery, from basic neuroscience through translational research and clinical application. The National Alzheimer's Plan, 2012 Research Summit, and allocation of additional funds from the NIH Director in 2012 and 2013 have accelerated momentum in this field. The Institute has recently awarded a number of grants to support innovative translational and clinical research on the disease. In addition, investigators have found that a combination of brain imaging and biomarker testing can be used to predict which cognitively normal individuals will eventually develop AD; in a separate study, investigators found that a decline in mobility may precede AD's cognitive decline. Because treatment for the disease may be most effective before clinical symptoms are evident, the ability to identify at-risk individuals is critically important.

The NIA's efforts in AD research have been bolstered by the advent of new technologies to generate and analyze enormous data sets. These advances in "big data" have been particularly effective in identifying risk and protective genes for AD. For example, an international group of researchers supported in part by the NIA recently collaborated to scan the DNA of over 74,000 volunteers—the largest genetic analysis ever conducted in Alzheimer's research—and discovered 11 new genetic risk factors linked to late-onset Alzheimer's, the most common form of the disorder. By suggesting or confirming processes that may influence Alzheimer's disease development—such as inflammation and synaptic function—the findings point to possible targets for the development of drugs aimed directly at prevention or delaying disease progression.

Because aging is the single biggest risk factor for the development of many chronic diseases, a better understanding of the basic biology of aging may open up new avenues for prevention and cures. The establishment of the trans-NIH GeroScience Interest Group (GSIG) to facilitate discovery on the common risks and mechanisms behind age-related diseases and conditions has invigorated the field of basic geroscience, as have groundbreaking recent findings such as the discovery that the protein GDF-11 can reverse aging-related cardiac hypertrophy (a dangerous thickening of the heart muscle) in mice—the first time a circulating factor has been shown to reverse age-related damage in a mammal. In October, an historic gathering of more than 50 scientists and 500+ registrants for *Advances in Geroscience: Impact on Healthspan and Chronic Disease*, took place at the Natcher Conference Center on the NIH campus. The summit was opened by NIH Director Dr. Francis Collins, and seven scientific sessions explored common mechanisms governing relationships between aging and chronic diseases. For more information, please see the [program booklet](#) or view the videocast for [day 1](#) and [day 2](#). In addition, on the day before the summit started, the U.S. Senate Special Committee on Aging sponsored a [Roundtable](#) on Capitol Hill for an advance briefing on the Summit.

NIA's current budget does not reflect the tremendous responsibility it has to meet the health research needs of a growing U.S. aging population. 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. 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. With an infusion of much needed support in FY 2015, NIA can achieve greater parity with its NIH counterparts and expand promising, recent research activities, such as:

- implementing new prevention and treatment clinical trials, research training initiatives, care interventions, and genetic research studies developed as part of the National Alzheimer's Action Plan;
- launching trans-NIH research initiatives developed by the NIH Geroscience Interest Group to reduce the burden of age-related disease;

- understanding the impact of economic concerns on older adults by examining work and retirement behavior, health and functional ability, and policies that influence individual wellbeing;
- supporting family caregivers by enhancing physician-family communication during end-of-life and critical care; and,
- increasing healthy lifespan in humans by testing and applying evidence derived from animal models.

NIA is poised to accelerate the scientific discoveries that we as a nation are counting on. With millions of Americans facing the loss of their functional abilities, their independence, and their lives to chronic diseases of aging, there is a pressing need for robust and sustained investment in the work of the NIA. In every community in America, healthcare providers depend upon NIA-funded discoveries to help their patients and caregivers lead healthier and more independent lives. In these same communities, parents are hoping NIA-funded discoveries will ensure that their children have a brighter future, free from the diseases and conditions of aging that plague our nation today.

Research focused on “precision medicine”—personalized, effective interventions in disease prevention, diagnosis, and treatment—is another area of emphasis at NIA. For example, NIA is partnering with the Patient-Centered Outcomes Research Institute on a major intervention study to prevent injurious falls, a key cause of disability in older people. Ongoing studies such as Lifestyle Interventions and Independence for Elders, in which researchers are testing an intervention to preserve mobility in older people, and the ASPirin in Reducing Events in the Elderly trial to determine whether aspirin’s benefits outweigh its risks in people over 70, exemplify NIA’s commitment to reducing disease and disability in the elderly.

NIA also maintains an ongoing commitment to supporting basic behavioral and social research in aging. NIA has established an initiative to uncover the causes of why the USA has lagged behind almost all other industrialized countries in health and longevity at older ages.

NIA-supported research findings have also proven relevant to public policy. For example, the Oregon Health Insurance Experiment capitalized on a statewide lottery from a waiting list for Medicaid to examine the effects of the program using a rigorous randomized controlled design. It showed that Medicaid coverage for uninsured low-income adults increased access to care, improved self-reported health, reduced rates of depression, and reduced bad debt and financial strain, but did not yield measurable improvements in physical health outcomes in the first two years of coverage.

We do not yet have the knowledge needed to predict, preempt, and prevent the broad spectrum of diseases and conditions associated with aging. We do not yet have sufficient knowledge about disease processes to fully understand how best to prevent, diagnose, and treat diseases and conditions of aging, nor do we have the knowledge needed about the complex relationships among biology, genetics, and behavioral and social factors related to aging. Bold, visionary, and sustainable investments in the

NIA will make it possible to achieve substantial and measurable gains in these areas sooner rather than later, and perhaps too late.

We recognize the tremendous fiscal challenges facing our nation and that there are many worthy, pressing priorities to support. However, we believe a commitment to the nation's aging population by making bold, wise investments in programs will benefit them and future generations. Investing in NIA is one of the smartest investments Congress can make.

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