

Testimony
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Chairman Blunt, Ranking Member Murray, 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, 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 2016 National Institutes of Health (NIH) budget to support biomedical, behavioral, and social sciences aging research efforts at the NIH.** 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 overall NIH research progress continues, the Coalition endorses the Ad Hoc Group for Medical Research in supporting at least \$32 billion for NIH in FY 2016.**

NIA's mission is urgent. The number of Americans aged 65 and older is growing at an unprecedented rate. By 2030, there will be 72 million Americans in this age group; more than double the number from 2000. The number of "oldest old"—people age 85 or older—is expected to more than triple between 2010 and 2050. Age is a primary risk factor for many disabling diseases and conditions—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. 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 and 2015 Research Summits, and allocation of additional funds from the NIH Director in 2012 and 2013 have accelerated momentum in this field. In 2016, several exciting trials incorporating biomarkers of disease will be active. NIA will also continue to support treatment trials to slow the disease or alleviate its symptoms, such as the recent study in which NIA-supported researchers found that the anti-depressant citalopram may be a safer and more effective treatment for disruptive agitation in AD than the treatments currently in use.

Efforts in AD research have been bolstered by the advent of new technologies to generate and analyze enormous data sets. These new technologies have been particularly effective in identifying risk and protective genes for AD. Researchers can now access the first batch of genome sequence data from the [Alzheimer's Disease Sequencing Project](#) (ADSP), a collaboration between the NIA and the National Human Genome Research Institute to facilitate identification of risk and protective genes. NIH recently awarded grants to eight academic medical centers around the nation for using innovative new technologies and computational methods to analyze the genome sequencing data generated during the ADSP's first phase. The investigators will use ADSP data to identify rare genetic variants that protect against or contribute to Alzheimer's; explore differences in data from different racial/ethnic groups; and examine how brain images and other biomarkers are associated with genome sequences.

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. [Recommendations from the 2013 GSIG Summit](#) entitled “Advances in Geroscience: Impact on Healthspan and Chronic Disease” continue to energize researchers in this field.

NIA maintains an ongoing commitment to supporting basic behavioral and social research in aging. The NIA-supported [Health and Retirement Study](#) remains the world's premier multidisciplinary source of data on the health and well-being of older Americans, linking objective and subjective measures of health with information about retirement, economic status, family structure, and personality, as well as health behaviors and service utilization. Funds from ARRA facilitated expansion of the study, including genotyping DNA samples from participants. In FY 2016, research will be ongoing to take advantage of the newly available genetic data to advance understanding of how genetic, behavioral, and psychosocial factors affect health and well-being. NIA remains an active participant in the [trans-NIH Science of Behavior Change](#) initiative and the [Basic Behavioral and Social Science Opportunity Network](#). NIA has also established an initiative to elucidate why the United States lags behind most other industrialized countries in health at older ages and longevity.

The Institute continues to place a strong emphasis on translating scientific discovery into health. For example, researchers with the [Lifestyle Interventions and Independence for Elders](#) study found that a carefully structured, moderate physical activity program can reduce the risk of losing the ability to walk without assistance, perhaps the single most important factor in whether vulnerable older people can maintain their independence. This is the first specific intervention proven in a randomized trial to prevent mobility disability. Other NIA-supported investigators have recently proposed

the first diagnostic criteria for age-related sarcopenia, a loss of muscle mass that is often associated with weakness and is a frequent contributor to frailty in older age. NIA is also 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.

NIA also supports several innovative programs dedicated to training the next generation of aging researchers. The [Advancing Diversity in Aging Research through Undergraduate Education Program](#), which supports creative and innovative undergraduate-level research education programs to diversify the workforce in aging; the [Grants for Early Medical/Surgical Specialists Transition to Aging Research](#) program to encourage specialists to consider geriatrics research careers; a new initiative combining medical school with a Ph.D. in behavioral or social science; and the [Paul Beeson Career Development Awards in Aging Research](#) for outstanding clinician-scientists, all exemplify NIA's commitment to excellence and diversity in aging research.

Unfortunately, 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 more than 20 percent in the last 10 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 2016, NIA can achieve greater parity with its NIH counterparts and expand promising, recent research activities, such as:

- Implement new prevention and treatment clinical trials, research training initiatives, care interventions, and genetic research studies developed to meet the goals of the National Plan to Address Alzheimer's disease;
- bolster trans-NIH initiatives developed by the NIH GeroScience Interest Group to understand basic cellular and molecular underpinnings of aging as a principal risk factor for chronic disease and to explore common mechanisms governing relationships between aging and chronic disease;
- understand the impact of economic concerns on older adults by examining work and retirement behavior, health and functional ability, and policies that influence individual well-being; and
- support family caregivers by enhancing physician-family communication during end-of-life and critical care.

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.

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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