Replication and Extension of ADSP Discoveries in African-Americans

https://www.neurodegenerationresearch.eu/survey/replication-and-extension-of-adsp-discoveries-in-african-americans/

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Country

USA

Title of project or programme

Replication and Extension of ADSP Discoveries in African-Americans

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 4,088,712.84

Start date of award

15/06/2016

Total duration of award in years

1

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Brain Disorders... Clinical Research... Clinical Research - Extramural... Dementia... Genetics... Health Disparities for IC Use... Human Genome... Minority Health for IC Use... Neurodegenerative... Neurosciences... Prevention... Translational Research

Research Abstract

? DESCRIPTION (provided by applicant): Alzheimer disease (AD) is the leading cause of dementia in the elderly and occurs in all ethnic and racial groups. A multitude of genetic studies in AD have identified multiple AD associated genes and loci, but a large portion of the genetic influence on AD remain unknown. The Alzheimer Disease Sequencing Project (ADSP) will use large-scale sequencing efforts to increase our knowledge about the genetic variation that influences AD, particularly rare genetic variants that enhance AD risk or protect against AD. Substantially underrepresented in these efforts, however, is the generalization of current and future findings in African Americans (AA). AA have a higher prevalence of dementia than non-Hispanic Whites (NHW). Despite steady improvement in the overall health of the U.S. population, individuals within these underserved groups continue to be vulnerable to lapses in care and are at increased risk for health problems. Health disparities have had an especially profound negative effect on the overall health of AA. AA have disproportionally higher health-risk factors, limited access to health services, and ultimately poorer health outcomes and life expectancies than NHW. The determinants of the health disparities seen in AA are many, including public health policy, clinical practices, and social, economic, cultural and/or language factors. One promising avenue for reducing health disparities is the use of precision medicine to improve disease prediction, prevention, diagnosis, and treatment. However, genomic medicine relies on participation from diverse populations in both research and clinical applications. Through this application, we will address this important issue by conducting genomic studies of AD in AA. In response to RFA AG-16-002, we are proposing a set of experiments that will complement and extend the activities and results of the ADSP Discovery and Replication phases, thereby addressing the issue of health disparities in AD research. Specifically we propose a family-based study in AA that parallels the family-based efforts in the ADSP Discovery phase and that will enhance and extend current ADSP efforts to a broader AD community. Specifically, we will 1) Expand our existing AA family dataset; 2.) Generalize and refine ADSP risk and protective loci in familial AA AD. 3.) Prioritize variants by admixture mapping and bioinformatics analysis and 4.) Perform multi-locus analyses providing insight into functional implications of the known risk and protective loci and identifying possible additional genic targets. Our overall goal is to identify targets for therapeutic development that will either prevent or significantly delay the onset of AD.

Lay Summary

PUBLIC HEALTH RELEVANCE: The Alzheimer Disease Sequencing Project (ADSP) is a presidentially initiated effort to understand the genetics of AD in hopes of developing new targets for therapies. Currently lacking in these efforts, however, is the inclusion of African American (AA) populations and the generalization of research findings to AA communities. In response to RFA AG-16-002, we propose a set of experiments that will complement the activities in the ADSP Discovery and Replication phases while addressing the issue of health disparities in AA AD research.

Further information available at:

Types:
Investments > €500k

Member States:
United States of America

Diseases:
Alzheimer's disease & other dementias

Years:
2016

Database Categories:
N/A

Database Tags:
N/A