

Racial Disparities in Alzheimers Disease and Related Dementias: The Role of Blood Pressure Throughout Adulthood

<https://neurodegenerationresearch.eu/survey/racial-disparities-in-alzheimers-disease-and-related-dementias-the-role-of-blood-pressure-throughout-adulthood/>

Principal Investigators

MAYEDA, ELIZABETH ROSE

Institution

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Contact information of lead PI

Country

USA

Title of project or programme

Racial Disparities in Alzheimers Disease and Related Dementias: The Role of Blood Pressure Throughout Adulthood

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 231,759.63

Start date of award

01/09/2016

Total duration of award in years

1

Keywords

Acquired Cognitive Impairment... Aging... Alzheimer's Disease... Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD)... Brain Disorders... Cardiovascular... Clinical Research... Clinical Research - Extramural... Dementia... Epidemiology And Longitudinal Studies... Health Disparities for IC Use... Hypertension... Minority Health for IC Use... Neurodegenerative... Neurosciences

Research Abstract

PROJECT SUMMARY Alzheimer's disease and related dementias are a major public health burden and disproportionately affect African Americans. The mechanisms underlying this disparity are not well-understood, but elevated blood pressure could be key. Compared with whites, African Americans have higher prevalence, earlier age of onset, and greater severity of hypertension. Thus, older African Americans tend to have greater cumulative exposure to elevated blood pressure throughout adulthood than older whites. No prior research, however, has quantified the contribution of hypertension to racial disparities in Alzheimer's disease and related dementias. There are significant methodological challenges to addressing this important question, including (1) measurement of cumulative exposure to elevated blood pressure from the age of onset of hypertension through late adulthood, (2) measurement of cognitive function in diverse populations, and (3) possible survival bias, which is likely to differentially affect African Americans. The scientific objective of this research plan is to identify the extent to which elevated blood pressure from mid- through late- adulthood mediates racial disparities in Alzheimer's disease and related dementias. This project uses an innovative approach to examine this important question with existing data from two diverse Northern California cohorts: the University of California, Davis Aging Diversity Cohort and the Kaiser Permanente Northern California Multiphasic Health Checkup cohort, which links mid-adulthood physical examinations with long-term medical record information. Analyses will address the three major methodologic challenges outlined above by examining cumulative exposure to elevated blood pressure as measured at multiple points in adulthood, developing a novel neuroimaging-based brain health index in a diverse population, and quantifying the potential magnitude of survival bias using comprehensive midlife data to account for differential survival. This research plan is complemented by a training plan that builds on the applicant's background in epidemiology and biostatistics and includes new training in (1) measuring and modeling cognitive function in diverse populations, (2) clinical assessment and diagnosis of Alzheimer's disease and related dementias, (3) assessing brain health with neuroimaging, and (4) the biology of vascular disease relevant to Alzheimer's disease and related dementias. The combined research and training plans will prepare the applicant for a successful independent research career focused on identifying modifiable determinants of Alzheimer's disease and related dementias in diverse populations. The methodological challenges addressed in this project are common to many areas of research on disparities in aging and cumulative exposure to risk factors throughout the lifecourse for Alzheimer's disease and related dementias.

Further information available at:

Types:

Investments < €500k

Member States:

United States of America

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A