African AMERICANS Fighting Alzheimers In Midlife

https://neurodegenerationresearch.eu/survey/african-americans-fighting-alzheimers-in-midlife/

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Country

USA

Title of project or programme

African AMERICANS Fighting Alzheimers In Midlife

Source of funding information

NIH (NIA)

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01/08/2016

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)... Behavioral and Social Science... Brain Disorders... Clinical Research... Clinical Research - Extramural... Dementia... Health Disparities for IC Use... Minority Health for IC Use... Neurodegenerative... Neurosciences... Prevention

Research Abstract

Recognizing that risk for Alzheimer's disease (AD) is multidimensional, the long-term goal of the AA-FAiM project (African Americans Fighting Alzheimer's in Midlife) is to identify modifiable targets for midlife intervention. Toward this, we will combine previously collected data and expand data collection in: (1) the Wisconsin AD Research Center (ADRC) and (2) the R01-funded Wisconsin Registry for Alzheimer's Prevention (WRAP) study for a total cross-sectional sample of ~500 subjects, age 45–65 at study entry. Additionally, we will collect optional biomarker data from no less than 40% of the cohort (n~200). Because biomarker data are a major focus of AD research, we will evaluate a recruitment and retention strategy for biomarker participation. We will also examine the interplay of risk and resilience factors, predicting longitudinal change in cognition. Our long-term goal is to build a unique cohort committed to the continued collection of longitudinal cognitive and biomarker data. Hypotheses and Specific Aims are as follows: Cross-sectional Hypothesis: When well-established fixed predictors, including genetic risks and parental history are held constant, preclinical AD pathology (inferred from disease markers) will be greater in cognitively healthy, middle-aged African Americans with (1) high CVD burden (estimated with ASCVD score), (2) with low self efficacy, social support, PiL, and an external LoC, (3) from disadvantaged neighborhoods, as measured with an index of neighborhood disadvantage, and the Area Deprivation Index (ADI).4 Aim 1: Examine the association of predictors listed above with an index of within subject variability, IICV. Aim 2: In a sub-set of AA-FAiM participants (~40% of cohort), examine the association of above predictors with neuroimaging and CSF biomarkers: hippocampal volume (HV) and the ratio of CSF A?42/P-tau181. Exploratory Aim 2.1: Conduct qualitative analysis of interview data gathered from participants who have participated in Biomarker substudies, as well as those who declined to participate, in order to explore efficacy of a Research – Community – Clinical (RCC) model of research recruitment and retention. Exploratory Aim 2.2: Examine the cross-sectional association of the above predictors with a novel neuroimaging outcome assessing cerebral blow flow: Phase Contrast – Vastly undersampled Isotropic Projection (PC-VIPR).5 Longitudinal Hypothesis: When well-established fixed predictors are held constant, longitudinal change in preclinical AD pathology (inferred from a cognitive disease marker) will be greater in cognitively healthy, middle-aged African Americans with a greater risk burden (described above). Aim 3: Examine the association of predictors listed above with rate of change in cognitive outcomes. Developmental Aim 3.1: Lay foundation for collection of longitudinal collection of neuroimaging and CSF biomarkers, i.e., hippocampal volume loss (HVL); and rate of change in the ratio of CSF A?42/P-tau181.

Lay Summary

New strategies are urgently needed to reduce Alzheimer’s disease’s (AD) devastating human and socio- economic costs. This urgency is magnified for individuals from under-represented groups (URGs). For example, African Americans (AA) are nearly twice as likely to develop as whites, yet they diagnosed later in the disease course and less likely to receive treatment. There is also a disparity in research participation in that AAs are less likely to participate in AD research compared to whites, especially biomarker research. This NIH R01 proposal titled, African Americans Fighting Alzheimer’s in Midlife (AA-FAiM) will work toward addressing these disparities. Consistent with objectives outlined in the Funding Announcement, scientific contributions from the AA-FAiM cohort could potentially disambiguate associations between risk factors (i.e., cardiovascular disease, neighborhood disadvantage) and resilience. Also, the proposed project will examine strategies for recruitment and retention, particularly toward enhancing participation in AD biomarker studies.

Further information available at:

Types:
Investments > €500k

Member States:
United States of America

Diseases:
Alzheimer's disease & other dementias

Years:
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Database Categories:
N/A

Database Tags:
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