

# Pathways to Brain Health for African Americans: A Community-Based Participatory Research Study

<https://neurodegenerationresearch.eu/survey/pathways-to-brain-health-for-african-americans-a-community-based-participatory-research-study/>

## Principal Investigators

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## Institution

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### Country

USA

## Title of project or programme

Pathways to Brain Health for African Americans: A Community-Based Participatory Research Study

## Source of funding information

NIH (NIA)

## Total sum awarded (Euro)

€ 534,678.90

## Start date of award

15/09/2016

## 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)... Basic Behavioral and Social Science...

Behavioral and Social Science... Brain Disorders... Clinical Research... Clinical Research - Extramural... Dementia... Epidemiology And Longitudinal Studies... Health Disparities for IC Use... Mental Health... Minority Health for IC Use... Neurodegenerative... Neurosciences... Physical Activity... Prevention... Sleep Research

## **Research Abstract**

**PROJECT SUMMARY** The proposed studies will use community-based participatory research methods to investigate (1) the relative contributions of different modifiable health and lifestyle factors to age-related cognitive decline in African Americans, and (2) identify early predictors of cognitive decline and conversion to aMCI and AD, and understand how the health and lifestyle behaviors influence risk for subsequent cognitive decline. Older African Americans are at elevated risk for age-related cognitive decline and memory loss, being twice as likely to develop Alzheimer's Disease (AD) as white Americans. While this may be due to various modifiable health and lifestyle factors, little is known about their relative importance (and interactions) specifically for African Americans. To investigate these questions, the proposed work will involve partnerships with churches, senior centers, public housing, the African-American community of Newark, and the State of New Jersey. We will recruit 240 African Americans age 55 and above, who will be tested at two time points, once at baseline and two years later. Half of these participants (120) will receive brain imaging (structural, resting state and diffusion tensor) and a third of the participants (80) will participate in a one-week home-based monitoring of sleep, activity, and movement. The initial cross-sectional analysis (Aim 1) will characterize the behavioral, biological, and physical correlates of brain health, in order to understand the relative contributions of different modifiable health and lifestyle factors (stress, sleep deprivation, sedentary lifestyles, poor cardiovascular fitness, depressive symptoms, high body mass), education, social support and genetics, to age-related cognitive decline in African Americans. This will lead up to the longitudinal analysis (Aim 2) will determine the cognitive assessments and underlying brain changes that differentiate normal aging, aMCI, and AD and how these changes are modulated by health and lifestyle factors, education and genetics. Overall, there is a dearth of data on the various factors which influence individual differences in cognitive resilience among older African Americans, especially for those living on low incomes and in public housing. Our study attempts to resolve this issue by examining the cognitive, neural, and lifestyle factors associated with cognitive resilience and, conversely, those that predict early cognitive decline in older African Americans.

## **Lay Summary**

**PROJECT NARRATIVE** With this R01 proposal for "Pathways to Brain Health in African Americans: A Community-Based Participatory Research Study" the African-American Brain Health Initiative (AABHI) at Rutgers University- Newark seeks to investigate (1) the relative contributions of different modifiable health and lifestyle factors to age-related cognitive decline in African Americans, and (2) identify early predictors of cognitive decline and conversion to aMCI and AD, and understand how the health and lifestyle behaviors influence risk for subsequent cognitive decline. Older African Americans are at elevated risk for age-related cognitive decline and memory loss, having double the prevalence of Alzheimer's Disease (AD) as white Americans. While this is most likely due to environmental, lifestyle and behavioral factors, such as stress, sleep deprivation, sedentary lifestyles, and poor cardiovascular fitness, little is known about their relative importance (and interactions) specifically for African Americans. Overall, there is a dearth of data on the various factors which influence individual differences in cognitive resilience among older African Americans, especially for those living on low incomes and in

public housing. Our study attempts to resolve this issue by examining the cognitive, neural, and lifestyle factors associated with cognitive resilience and, conversely, those that predict early cognitive decline in older African Americans.

**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