

# Healthy Aging and Senile Dementia

<https://www.neurodegenerationresearch.eu/survey/healthy-aging-and-senile-dementia/>

## Principal Investigators

MORRIS, JOHN

## Institution

WASHINGTON UNIVERSITY

## Contact information of lead PI

### Country

USA

## Title of project or programme

Healthy Aging and Senile Dementia

## Source of funding information

NIH (NIA)

## Total sum awarded (Euro)

€ 11,289,063.30

## Start date of award

01/01/1997

## Total duration of award in years

33

## 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... Diagnostic Radiology... Neurodegenerative... Neurosciences... Prevention

## Research Abstract

? DESCRIPTION (provided by applicant): The overarching aim of this Program Project Grant is to determine the indicators that characterize the progression from cognitive normality to the

earliest stages of cognitive impairment caused by Alzheimer disease (AD). The AD field is shifting toward the goal of prevention strategies, but these efforts depend not only on therapeutic development, but also on a detailed understanding of which individuals are at high risk for symptomatic AD in order to target them for clinical trials, disease-modifying therapies, and to monitor therapy success. The overall Specific Aims are to: 1. Follow current participants in HASD and add new enrollees to maintain the sample size at ~250. 2. Obtain longitudinal data from the HASD participants on an annual basis for clinical and psychometric measures and at 3 year intervals with the following measures: a. Novel measures of attentional control and neural network integrity (Project 1) b. Amyloid imaging with [18F] florbetapir (Imaging Core) c. Assays of CSF analytes (Project 2) d. Structural MRI and resting state functional connectivity MRI (Imaging Core) e. Measures of sleep efficiency (Project 2) f. SNPs that predict rate of progression (Project 3) g. Tau imaging with [18F] T807 (Project 4) h. [18F] FDG-PET (Project 4) . At autopsy, correlate measures of A $\beta$  and tau burden, synaptic integrity, and neuronal loss with variables from Projects 1, 2 and 4, and from the Imaging Core 3. Characterize the cognitive, imaging, molecular biomarker, and genetic factors that distinguish cognitively normal older adults, with and without preclinical AD, and individuals with symptomatic AD. 4. Analyze associations among rates of change of all disease markers from all Cores and Projects (Biostatistics Core).

### **Lay Summary**

**PUBLIC HEALTH RELEVANCE:** Alzheimer disease (AD) is preceded by at least a decade of clinically silent brain changes (termed “preclinical AD”) that ultimately result in declines in memory and thinking. The current application proposes to use brain imaging tests to identify individuals with preclinical AD at the cusp of developing clinical symptoms so that these individuals can best be targeted for eventual preventative therapies.

### **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