Wisconsin Registry for Alzheimers Prevention: Sex Differences in DNA Methylation

https://www.neurodegenerationresearch.eu/survey/wisconsin-registry-for-alzheimers-prevention-sex-differences-in-dna-methylation/

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Country

USA

Title of project or programme

Wisconsin Registry for Alzheimers Prevention: Sex Differences in DNA Methylation

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 4,076,934.86

Start date of award

01/06/2016

Total duration of award in years

9

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)... Biomedical Information Resources... Biomedical Information Resources and Informatics Research... Brain Disorders... Clinical Research... Clinical Research - Extramural... Dementia... Genetics... Neurodegenerative... Neurosciences... Prevention

Research Abstract
DESCRIPTION (provided by applicant): An estimated 5.3 million Americans currently have Alzheimer’s disease (AD), and the number is expected to increase rapidly with the aging of the baby boom generation. There is a growing consensus that AD represents an advanced state of brain failure that is preceded by many years of pathological changes. The limited effectiveness of current therapies and the failure of recent clinical trials to identify effective therapies for D suggest that current treatments are intervening at a late stage of the disease when significant improvement is less likely. A major barrier to early intervention is our lack of knowledge about which biologic or environmental factors are associated with cognitive decline and eventually result in the clinical syndromes of mild cognitive impairment (MCI) or AD. The Wisconsin Registry for Alzheimer’s Prevention (WRAP) is a longitudinal cohort study of 1,527 middle-aged persons with and without a family history of AD that is designed to identify genetic and environmental factors that are associated with the earliest signs of AD. The purpose of this research is to conduct cognitive, laboratory and neuroimaging assessments at 2-year intervals to identify the health, lifestyle and genetic risk factors that influence biomarker expression of A in persons who are currently asymptomatic, but are at an increased risk of developing the disease. This study will combine biomarker measurements collected over the past 10 years with biomarker, genetic and environmental data collected with this renewal to describe the neurobiology of preclinical AD. At the present time, the temporal course of biomarker changes in preclinical AD, and the factors that influence change during the decade before the development of clinical symptoms are unknown. This information is essential for the development of clinical trials evaluating disease-modifying therapies designed to delay the onset or slow the progression of AD.

Lay Summary
PUBLIC HEALTH RELEVANCE: The relevance of this study is that Alzheimer’s disease (AD) represents a major social and public health problem which will worsen as our population ages. The findings of this study have the potential to define the neurobiology of preclinical AD which is a prerequisite for developing and implementing interventions that will either delay the onset or slow the progression of the disease.

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