DOMINANTLY INHERITED ALZHEIMER NETWORK TRIAL: AN OPPORTUNITY TO PREVENT DEMENTIA

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Country

USA

Title of project or programme

DOMINANTLY INHERITED ALZHEIMER NETWORK TRIAL: AN OPPORTUNITY TO PREVENT DEMENTIA

Source of funding information

NIH (NIA)

Total sum awarded (Euro)

€ 6,764,142.20

Start date of award

20/09/2013

Total duration of award in years

4

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... Clinical Trials and Supportive Activities... Dementia... Genetics... Neurodegenerative... Neurosciences... Prevention... Trans-NIH Collaboration for MCS... Translational Research

Research Abstract

DESCRIPTION (provided by applicant): Autosomal dominant Alzheimer’s disease (AD) has informed the field of AD research about the molecular and biochemical mechanisms that are believed to underlie the pathological basis of AD. Further, mutations from autosomal dominant AD have provided animal and cellular models that are utilized to develop anti-A? drugs. Due to the rarity of autosomal dominant AD, the Dominantly Inherited Alzheimer Network (DIAN; U01 AG032438) was launched in 2008 to establish an international, multicenter registry of individuals at risk or with a known causative mutation of AD in the amyloid precursor protein (APP), presenilin 1 (PS1), or presenilin 2 (PS2) genes. DIAN evaluates participants at entry and longitudinally thereafter with clinical and cognitive batteries, structural, functional, metabolic,and amyloid imaging protocols, and biological fluid (blood; cerebrospinal fluid) collection with the goal of determining the sequence of imaging and biomarker changes in presymptomatic gene carriers who are destined to develop AD. Because the clinical and pathological phenotypes of dominantly inherited AD appear similar to those for the far more common late-onset “”sporadic”” AD, the nature and sequence of brain changes in dominantly inherited AD are also likely relevant for sporadic AD. The trial design is a randomized, blinded placebo controlled four arm trial of a fibrillar anti-A? antibody, a soluble anti-A? antibody, and a beta-secretase inhibitor i 160 (n=40 per arm) asymptomatic to mildly symptomatic ADAD mutation carriers. Subjects will receive either drug of placebo for two years to determine engagement of the CNS mechanism of action and downstream AD biomarkers.

Lay Summary

PUBLIC HEALTH RELEVANCE: The proposed grant will initiate a trial of 3 anti-amyloid drugs in individuals with known causative mutations for dominantly inherited Alzheimer’s disease (AD). Although this dominantly inherited form of AD is rare, the symptoms and brain changes are similar to those observed in the far more common late-onset sporadic AD. The results of the trial provides a test of the amyloid hypothesis, and may delay, prevent or reverse cognitive impairment from AD.

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