

# MIND Diet Intervention to Prevent Alzheimers Disease

<https://neurodegenerationresearch.eu/survey/mind-diet-intervention-to-prevent-alzheimers-disease/>

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### **Country**

USA

## **Title of project or programme**

MIND Diet Intervention to Prevent Alzheimers Disease

## **Source of funding information**

NIH (NIA)

## **Total sum awarded (Euro)**

€ 13,326,055.96

## **Start date of award**

01/04/2016

## **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... Cardiovascular... Clinical Research... Clinical Research - Extramural... Clinical Trials and Supportive Activities... Complementary and Alternative Medicine... Dementia... Dietary Supplements... Effectiveness Research... Hypertension... Neurodegenerative... Neurosciences... Nutrition... Obesity... Prevention... Translational Research

### **Research Abstract**

This R01 application, “MIND Diet Intervention to Prevent Alzheimer Disease,” is a Phase III randomized controlled trial designed to test the effects of a 3-year intervention of a hybrid of the Mediterranean and DASH diets, called MIND, on cognitive decline among 600 individuals 65+ years without cognitive impairment who are overweight and have suboptimal diets. The proposed MIND diet (Mediterranean-DASH Intervention for Neurodegenerative Delay) is a hybrid of the Mediterranean and DASH diets but with selected modifications based on the most compelling evidence in the diet-dementia field. The MIND diet has the same basic components of the DASH and Mediterranean diets, such as emphasis on natural plant-based foods and limited animal and high saturated fat foods, but uniquely specifies green leafy vegetables and berries as well as food component servings that reflect the nutrition-dementia evidence. There is a substantial body of evidence from epidemiological, animal and laboratory studies to link diet to brain health. Thus, the field is primed for the conduct of a large-scale prevention trial to establish a causal relation between diet and AD prevention. Establishing such a relation would greatly impact the public health and provide credibility to or refute numerous claims that various foods and dietary patterns are protective against AD. Dietary guidelines could be developed from the trial for use in clinical practice to inform patients about disease prevention. The proposed hybrid diet intervention has demonstrated effects on the prevention and treatment of most of the primary AD risk factors such as hypertension and diabetes, and the suppression of the two major underlying mechanisms of AD, oxidative stress and inflammation. The trial will employ a parallel group design comparing the effects on cognitive outcomes of the MIND intervention diet plus mild caloric restriction for weight loss to the control diet, usual diet with mild caloric restriction for weight loss. Biological effects of the MIND diet will be assessed by measurement of brain macro- and micro-structural integrity in 300 randomly selected participants. Other biochemical markers will be assessed in the entire cohort of 600 participants, including: plasma Aβ<sub>42</sub>/Aβ<sub>40</sub>, brain-derived neurotrophic factor (BDNF) and plasma markers of oxidative stress and inflammation. In addition, the trial will examine potential effect mediators and modifiers by a number of cardiovascular risk factors, AD biomarkers, and biological mechanisms. The proposed study has two clinical sites, one in Chicago (Rush University) and one in Boston (Harvard University), and centralized laboratories for data coordinating and analyses (Brigham & Women’s Hospital), neuroimaging analyses (Rush University), and specialized laboratories for tissue biochemical analyses.

### **Lay Summary**

There is great public demand for guidance on dietary prevention of Alzheimer’s disease. Currently these claims exist without the foundation of clinical trial evidence that substantiates causal inference. The current application proposes to conduct a Phase III randomized controlled trial designed to test the effects of a 3-year intervention of the MIND diet (Mediterranean-DASH Intervention for Neurodegenerative Delay) on cognitive decline and brain neurodegeneration among 600 individuals 65+ years without cognitive impairment who are overweight and have

suboptimal diets.

**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