Improving prevention trials in Alzheimer’s disease through imaging

https://neurodegenerationresearch.eu/survey/improving-prevention-trials-in-alzheimer%c2%92s-disease-through-imaging/

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Contact information of lead PI
Country

United Kingdom

Title of project or programme

Improving prevention trials in Alzheimer’s disease through imaging

Source of funding information

Alzheimer's Society

Total sum awarded (Euro)

€ 338,903

Start date of award

01/03/2016

Total duration of award in years

2

Keywords
Research Abstract

There is increasing interest in secondary prevention therapeutic trials in Alzheimer’s disease (AD). These studies will enrol asymptomatic individuals at high risk of AD by virtue of their family history, genetic status or evidence of cerebral amyloid deposition and incorporate imaging and fluid biomarkers. They urgently need more evidence to support the most effective use of these markers.
We will analyse imaging and other data from the Dominantly Inherited Alzheimer’s Network (DIAN) study and use these findings to provide

an evidence-base to inform prevention trials. DIAN participants are studied longitudinally with serial clinical, neuro-psychometric, and CSF-based measures as well as comprehensive imaging including amyloid PET and MR (structural, diffusion and functional) imaging. DIAN has recruited individuals for over six years from 13 centres and will make available multiple time point assessments from ~200 subjects.
We will optimise the pre-processing and analysis methods for the imaging modalities including intra-subject and inter-modality registration; we will assess the use of these derived measures for inclusion and end-point purposes; we will compute means and variances for rates of change for each of the different outcomes; we will assess composite end-points; we will model different trial design scenarios using these and other inclusion/outcome approaches.
We will determine sample sizes required to provide appropriate statistical power for a range of potential trial scenarios and determine the impact of different inclusion criteria, trial enrichment, follow-up duration, and the benefits of using run-in designs. Ultimately we aim to enhance and guide future prevention trials.

Further information available at:

Types:
Investments < €500k

Member States:
United Kingdom

Diseases:
N/A

Years:
2016

Database Categories:
N/A

Database Tags:
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