JPND research
EU Joint Programme – Neurodegenerative Disease Research

EADB

A European DNA bank for deciphering the missing heritability of Alzheimer's disease

Understanding the genetics of Alzheimer's disease (AD) is one of the best ways of improving our knowledge of the disease's underlying pathophysiological processes. Indeed, genetic factors account for up to 70% of the attributable risk in common forms of AD. The advent of genomic approaches has led to the characterization of 26 genetic determinants. However, it has been estimated that less than 50% of the AD genetic attributable risk has been characterised. Substantial additional efforts are thus still needed to explore the AD genetic landscape.

However, exhaustively characterising the genetic factors of AD will require analysing large populations of cases and controls. Our objective is thus to significantly increase the generation of genetic data via the creation of a European Alzheimer's Disease DNA BioBank (EADB). Our project will collate 31,911 AD cases and 40,802 controls from 11 countries. This initiative will increase the number of AD samples available for genetic studies in Europe by more than 4-fold and worldwide by almost 2-fold.

In parallel, the EADB will collect DNA samples from Europe's largest longitudinal cohort of cases suffering from mild cognitive impairment (9,109 cases), with a view to identifying genetic markers that modulate the rate of disease progression and cognitive decline.

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EADB

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