

# INSTALZ: Genomic Instability in Alzheimer's Disease and Related Disorders: a Single-Cell Approach

<https://www.neurodegenerationresearch.eu/survey/instalz-genomic-instability-in-alzheimer%20s-disease-and-related-disorders-a-single-cell-approach/>

## Principal Investigators

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## Institution

Multiple

## Contact information of lead PI

### Country

France|United Kingdom|Belgium|Denmark|Sweden

## Title of project or programme

INSTALZ: Genomic Instability in Alzheimer's Disease and Related Disorders: a Single-Cell Approach

## Source of funding information

JPND-JPcofuND

## Total sum awarded (Euro)

€ 1,837,608

## Start date of award

01/01/2016

## Total duration of award in years

3.0

## The project/programme is most relevant to:

Alzheimer's disease & other dementias

## Keywords

### Research Abstract

Increasing evidence suggests that the genetic information in our bodies can vary from cell to cell. Such variation has also been found in the brain, although its consequences for brain

function or disease remain largely unknown. In this project, we will study the role of genomic instability in Alzheimer's disease and related tauopathies. The INSTALZ consortium aims to understand how altered stability of the neuronal genome in the developing and adult brain determines the risk of developing these chronic disorders in late adulthood. In particular, we will investigate how and when during life this cell-to-cell genomic variation could be generated by applying single-cell sequencing of neurons derived from patient brains and several mouse and fly models. The expected impact is to genetically explain the pathogenesis of a consistent part of sporadic cases, for which no pathogenic cause is yet known and to discover the underlying molecular mechanisms that will lead to new early therapeutic tools.

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k, JPND Projects

#### **Member States:**

Belgium, Denmark, France, JPND, Sweden, United Kingdom

#### **Diseases:**

Alzheimer's disease & other dementias

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A