

# SYNACTION: Unravelling the pathophysiological role of alpha-synuclein aggregation, transmission and neuroinflammation in neurodegeneration

<https://neurodegenerationresearch.eu/survey/synaction-unravelling-the-pathophysiological-role-of-alpha-synuclein-aggregation-transmission-and-neuroinflammation-in-neurodegeneration/>

## Principal Investigators

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## Institution

Multiple

## Contact information of lead PI

### Country

Belgium|France|Germany

## Title of project or programme

SYNACTION: Unravelling the pathophysiological role of alpha-synuclein aggregation, transmission and neuroinflammation in neurodegeneration

## Source of funding information

JPND-JPcofuND

## Total sum awarded (Euro)

€ 948,291

## Start date of award

01/01/2016

## Total duration of award in years

3.0

## The project/programme is most relevant to:

Parkinson's disease and PD-related disorders|Alzheimer's disease & other dementias

## Keywords

## Research Abstract

Several neurodegenerative disorders, including Parkinson's disease (PD), dementia with Lewy bodies (DLB) and multiple system atrophy (MSA) are caused by aggregates of a single protein, known as alpha-synuclein, in different brain regions and cell types.

For a long time, researchers have been puzzled by how a single protein can be involved in these different diseases. Now, recent intriguing findings by our consortium (Peelaerts et al. 2015, Nature) propose that the shape of the alpha-synuclein aggregates might explain this clinical heterogeneity. Moreover, these diseases are accompanied by different neuroinflammation profiles in humans and in animal models.

In this project, we will use alpha-synuclein aggregates from human brain samples of PD, DLB and MSA patients and study their pathological and inflammatory effects in advanced experimental rodent and non-human primate models. These new insights will contribute to early diagnosis, prevention and the development of novel therapeutic strategies for alpha-synuclein-related disorders

### **Lay Summary**

**Further information available at:**

#### **Types:**

Investments > €500k, JPND Projects

#### **Member States:**

Belgium, France, Germany, JPND

#### **Diseases:**

Alzheimer's disease & other dementias, Parkinson's disease & PD-related disorders

#### **Years:**

2016

#### **Database Categories:**

N/A

#### **Database Tags:**

N/A