aSynProtec: Alpha-synuclein pathology propagation in Parkinson’s disease and quest for novel protective strategies

https://neurodegenerationresearch.eu/survey/asynprotec-alpha-synuclein-pathology-propagation-in-parkinson%c2%92s-disease-and-quest-for-novel-protective-strategies/

Principal Investigators

J.Li, TF.Outeiro, O.Reiss, P.Kallunki, D.Otzen, R.Wade-Martins, H.Lashuel, J.Raes

Institution

Multiple

Contact information of lead PI
Country

Sweden|Germany|Denmark|United Kingdom|Belgium|Switzerland

Title of project or programme

aSynProtec: Alpha-synuclein pathology propagation in Parkinson’s disease and quest for novel protective strategies

Source of funding information

JPND-JPcofuND

Total sum awarded (Euro)

€ 2,730,721

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 & PD-related disorders

Keywords
Research Abstract
Parkinson’s disease (PD) is the most common movement disorder and the second most common neurodegenerative disease after Alzheimer’s disease. The neuropathological

hallmarks of PD are loss of dopaminergic neurons in the substantia nigra of the midbrain and protein aggregation, called Lewy bodies and Lewy neurites, which are primarily contributed by misfolded a-synuclein. Increasing evidence shows that exogenous human a-synuclein fibrils originating from the PD patient brain, trans- genic mouse brain or recombinantly synthesized from bacteria, can be taken up into neurons and stimulate the aggregation of endogenous a-synuclein in cell models or in laboratory animal models after injection into the central and peripheral nervous systems.This consortium aims to address fundamental questions on the origin and the molecular mechanisms causing the development of synucleinopathies and to design innovative protective strategies, with combined cutting-edge technologies and complementary and multidisciplinary approaches, such as protein chemistry, biochemistry and biophysics, cell and molecular biology, PD patient-derived iPS cells, microbiome analysis and imaging techniques. The fulfillment of this program will contribute signi- ficantly to advancing our understanding of the interplay between genetic and environmental risk factors and their role in the initiation of a-synuclein aggregation and pathology spreading in PD and related synucleinopathies. The findings may also be generally applicable to other neurodegenerative diseases

Lay Summary
Further information available at:

Types:
Investments > €500k, JPND Projects

Member States:
Belgium, Denmark, Germany, JPND, Sweden, Switzerland, United Kingdom

Diseases:
Parkinson's disease & PD-related disorders

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