MOLECULAR LINKS BETWEEN DIABETES AND NEURODEGENERATIVE DISORDERS

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Country

Spain

Title of project or programme

MOLECULAR LINKS BETWEEN DIABETES AND NEURODEGENERATIVE DISORDERS

Source of funding information

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Total sum awarded (Euro)

€ 660,000

Start date of award

01/01/2015

Total duration of award in years

3.0

The project/programme is most relevant to:

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

Keywords
Research Abstract
Alzheimer's disease, Parkinson's disease, sporadic inclusion body myositis, Lafora disease, and Gaucher disease are age-related degenerative diseases increasing in worldwide prevalence due to population ageing, improved diagnostic and changes in lifestyle. Substantial epidemiological evidence and data from animal models show co-morbidity among these

diseases and type-2 diabetes. However, the underlying biological mechanisms that link the development of (neuro)degeneration and metabolic disturbances are not fully understood. Aberrant protein processing and accumulation in pancreatic islets, brain cells and/or skeletal muscle, abnormalities in insulin signaling, deregulated glucose metabolism, mitochondrial dysfunction and increased oxidative stress, the formation of advanced glycation end products, and the activation of inflammatory pathways are features common to most of these diseases. In this proposal, we have put together a consortium of research groups with leading expertise in relevant clinical, basic, and applied aspects of diabetes and highly-prevalent and rare neurodegenerative diseases, as well as in the development of advanced platforms for human disease modeling, early diagnosis and treatment. Our combined effort will allow the systematic interrogation of genuinely-human disease models to identify interacting pathogenic mechanisms linking diabetes and neurodegeneration, which will be further used as targets for novel therapeutic strategies and early diagnosis devices.

Lay Summary
Further information available at:

Types:
Investments > €500k

Member States:
Spain

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

Years:
2016

Database Categories:
N/A

Database Tags:
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