NOVEL PET IMAGING MARKERS FOR THE EARLY AND PRO-DROMAL PHASE OF PARKINSON'S DISEASE.

https://neurodegenerationresearch.eu/survey/novel-pet-imaging-markers-for-the-early-and-pro-dromal-phase-of-parkinson%c2%92s-disease/

Name of Fellow

Per Borghammer

Institution
Funder

Lundbeckfonden

Contact information of fellow
Country

Denmark

Title of project/programme

NOVEL PET IMAGING MARKERS FOR THE EARLY AND PRO-DROMAL PHASE OF PARKINSON'S DISEASE.

Source of funding information

Lundbeckfonden

Total sum awarded (Euro)

€ 1,345,279

Start date of award

01/01/16

Total duration of award in years

5.0

The project/programme is most relevant to:

Parkinson's disease & PD-related disorders

Keywords
Research Abstract
In Denmark, 6000 people suffer from Parkinson's disease (PD) – a disabling brain disorder. The

cause of PD is still unknown. Most patients display constipation and problems with emptying their stomach – signifying that the parasympathetic nerves to the peripheral organs are damaged. Recent evidence suggests that PD may actually be initiated in parasympathetic nerve-endings in the gut, and then spread to the brain through parasympathetic nerves. At the PET centre, Aarhus University, we recently validated the world's first PET tracer to image the parasympathetic nerves and showed that PD patients display a marked decrease of parasympathetic nerves in the gut. In this research program, we will examine newly diagnosed PD patients and also patients with REM sleep behavior disorder (RBD). The majority of RBD patients will develop PD or a similar disorder after several years of follow-up, and RBD can therefore be considered pre-clinical PD. Using this approach, we can establish whether parasympathetic nerve damage is also present years prior to PD symptom onset. This knowledge will be a very important step towards a more complete understanding of PD, and can potentially guide future research into potential curative treatments, which ideally must be initiated at the early, pre-clinical disease-stage. In a second line of studies, we will utilize a novel PET tracer with the ability to detect diseased tau-protein in brains of patients. We will examine patients with the devastating tau-positive brain disorders PSP, which often mimic PD at the early disease-stages. Tau-PET imaging could have immediate clinical utility for this diagnosis. Also, studies suggest that tau-protein may be a very important factor in the development of PD-dementia. We will study a large cohort of non-demented PD patients at baseline and after 3 years of follow-up to examine the proposition that early deposition of tau-protein heralds the onset of dementia in PD patients.

Types:
Fellowships

Member States:
Denmark

Diseases:
Parkinson's disease & PD-related disorders

Years:
2016

Database Categories:
N/A

Database Tags:
N/A