The role of the nuclear transport system in frontotemporal dementia.

https://neurodegenerationresearch.eu/survey/the-role-of-the-nuclear-transport-system-in-frontotemporal-dementia-2/

Name of Fellow

Tammaryn Lashley

Institution
Funder

Alzheimer's Research UK

Contact information of fellow
Country

United Kingdom

Title of project/programme

The role of the nuclear transport system in frontotemporal dementia.

Source of funding information

Alzheimer's Research UK

Total sum awarded (Euro)

€ 231,465

Start date of award

01/02/13

Total duration of award in years

3.3

The project/programme is most relevant to:

Alzheimer's disease & other dementias

Keywords

Brain Circuits and Synapses | Selective Vulnerability

Research Abstract

Frontotemporal lobar degenerations (FTLDs) are collectively the second most common form of

young onset dementia, characterised by progressive nerve cell loss in the frontal and temporal lobes, and neuropathological hallmarks formed from proteins (TAR-DNA binding protein (TDP-43) and fused in sarcoma (FUS)) becoming defective. The normal function of the TDP-43 and FUS proteins are involved in the movement of ribonucleic acid (RNA, genetic information which directs the production of proteins) from the cell nucleus (control centre) to the outer part of the cell, the cytoplasm. We have shown for the first time that additional proteins involved in the movement of RNA are also found in the neuropathological hallmarks of FTLDs, suggesting these may play a role in the disease progression. Utilising our unique collection of post mortem FTLD cases this study aims to identify brain areas that are vulnerable to developing pathology and compare them to areas that are pathologically unharmed. By identifying these additional proteins and the changes in protein levels we hope to highlight pathological events occurring early in the development of FTLDs, which potentially could be targeted for early therapeutic interventions to prevent or slow the progression of the disease.

Types:
Fellowships

Member States:
United Kingdom

Diseases:
Alzheimer's disease & other dementias

Years:
2016

Database Categories:
N/A

Database Tags:
N/A