

Understanding the genome-wide gene expression landscape in Dementia with Lewy Bodies

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Title of project or programme

Understanding the genome-wide gene expression landscape in Dementia with Lewy Bodies

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Parkinson's UK

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2

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Research Abstract

Dementia with Lewy Bodies (DLB) is one of the most underserved common disorders. Despite the fact that it shares so many similarities with Parkinson's (PD) and Alzheimer's disease (AD), very little is known about the etiology of this disorder. A better understanding of DLB will inform us not only about this disease, but possibly about mechanisms in PD, AD and PD with dementia. We have recently shown that there is a genetic component to DLB and that this component shares some similarities with both AD and PD. However, a striking result was the

different association profile between DLB and PD at two loci: SNCA and SCARB2. We hypothesized that this different association has implications in regulation of gene expression between these diseases, giving us a window to the understanding of their pathophysiology. In this project we will assay the transcriptome of 5 different brain regions from 24 neuropathologically proven DLB cases. Because of our ongoing studies in this area, we have, separately funded projects that aim to study the genetics of DLB at a large-scale as well as genetic and expression studies in neuropathologically normal individuals. We will use these datasets to perform integrative and comparative analyses. We will generate data on transcript expression, splicing and expression quantitative trait loci, novel transcript identification and allele-specific expression. These data will allow us to have a first look at the immediate mechanistic effects of genetic variability in DLB and dementia in general.

Further information available at:

Types:

Investments < €500k

Member States:

United Kingdom

Diseases:

N/A

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Database Categories:

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