

The integration of biomedical research, describing the biological processes relevant to Parkinson's, into the Gene Ontology database

<https://www.neurodegenerationresearch.eu/survey/the-integration-of-biomedical-research-describing-the-biological-processes-relevant-to-parkinsons-into-the-gene-ontology-database/>

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Contact information of lead PI Country

United Kingdom

Title of project or programme

The integration of biomedical research, describing the biological processes relevant to Parkinson's, into the Gene Ontology database

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Parkinson's UK

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€ 257,602

Start date of award

01/01/2014

Total duration of award in years

3

Keywords

Research Abstract

Genome wide association studies, next generation sequencing, proteomics and transcriptomic datasets are currently being employed in many research laboratories to identify the genetic modifiers that regulate the penetrance of Parkinson's and the genetic interactions that cause this polygenic condition. The constructive interpretation of the resulting high-throughput datasets will depend on the quality of annotations that are available for the identified gene products to

detect relevant pathways, regulatory networks and biomarkers. Yet, there is a surprising and unacceptable gene annotation deficit within the neurological and immunological domains, both of which are relevant to Parkinson's. We therefore request support to carry out a systematic and comprehensive functional annotation of human proteins in these domains through the generation and population of Gene Ontology (GO) terms that can then be integrated into widely accessed public resources, including the GO Consortium database, UniProt and NCBI Gene, as well as freely available functional analysis tools, such as ALIGATOR, BioProfiling and GeneMania. The generation of this resource, at a fraction of the cost of genome wide association studies, will further our understanding of the molecular mechanisms underlying Parkinson's and help researchers identify new targets for therapy. All annotations will be attributed to Parkinson's UK to help raise awareness for Parkinson's.

Further information available at:

Types:

Investments < €500k

Member States:

United Kingdom

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A