

Peripheral tissue molecular signatures – providing new insights into Huntingtons Disease pathology

<https://neurodegenerationresearch.eu/survey/peripheral-tissue-molecular-signatures-providing-new-insights-into-huntingtons-disease-pathology/>

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Contact information of lead PI Country

Sweden

Title of project or programme

Peripheral tissue molecular signatures - providing new insights into Huntingtons Disease pathology

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Total duration of award in years

3

Keywords

Research Abstract

In addition to classical neurological symptoms, Huntington´s disease (HD) is complicated by peripheral pathology, including muscle atrophy, altered body composition and peripheral inflammation. The mutant gene and the protein are found throughout the body. This suggested project builds on our hypothesis that insights into peripheral pathology in HD will improve knowledge of key pathogenic mechanisms, possibly providing new biomarkers and novel

therapeutic targets. We believe that molecular analysis of across monocytes/macrophages, myocyte and adipocyte samples, obtained cross-sectionally from HD and control subjects as well as from HD mouse models, will provide insight into disease-specific pathway/network alterations. These cells express mutant htt, are post-mitotic and in this respect comparable to neurones. Samples will be analyzed looking for patterns of disease-related changes and we will investigate the functional importance of these changes, the relationship with expression of mutant Htt and the relationship with disease progression. Key findings will be evaluated further to identify disease state and trait markers. Pathways of interest will be examined in human CSF and plasma. Key targets will be investigated for disease modifying purposes once robust phenotypes have been identified relating to the expression of mutant htt itself. Our project is highly novel and of great interest to the research community, patient organizations as well as the drug industry.

Further information available at:

Types:

Investments < €500k

Member States:

Sweden

Diseases:

N/A

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