

Characterization of a Parkinson's disease gene DJ-1 in regulatory T cells

<https://www.neurodegenerationresearch.eu/survey/characterization-of-a-parkinsons-disease-gene-dj-1-in-regulatory-t-cells/>

Principal Investigators

Egle Danileviciute

Institution

Université du Luxembourg

Contact information of lead PI

Country

Luxembourg

Title of project or programme

Characterization of a Parkinson's disease gene DJ-1 in regulatory T cells

Source of funding information

FNR

Total sum awarded (Euro)

€ 162,249

Start date of award

01/03/2014

Total duration of award in years

3

Keywords

Research Abstract

DJ-1, also known as PARK7, is one of the familial Parkinson's disease (PD) genes. Defects in human DJ-1 are the cause of autosomal recessive early-onset PD. DJ-1 is a redox-responsive protein and is long thought to mainly play an essential protective role in neurons. DJ-1 is ubiquitously expressed throughout the body including CD4+ T cells rather than only in brain and is involved in several biological functions. However, it is unclear whether DJ-1 plays a role in T cells. Our preliminary results show that DJ-1 might play a vital role in mediating the function of CD4+ T cells. We here seek to characterize a novel role of DJ-1 in regulatory CD4+ T cells, currently recognized as CD4+CD25+FOXP3+ regulatory T cells (Tregs), which are well-known

immune suppressor cells in many peripheral diseases and emerging to play a role in several neurodegenerative diseases. A systematic investigation on the role of DJ-1 in Tregs will provide deep insight into the question whether and how DJ-1 mediates Treg suppressor function and will pave the way for a potential therapeutic target for autoimmune and other related diseases.

Further information available at:

<https://www.fnr.lu/projects/characterization-of-a-parkinsons-disease-gene-dj-1-in-regulatory-t-cells-2/>

Types:

Investments < €500k

Member States:

Luxembourg

Diseases:

N/A

Years:

2016

Database Categories:

N/A

Database Tags:

N/A