

Patient-specific treatment for Parkinson's disease using reprogrammed skin cells

<https://neurodegenerationresearch.eu/survey/patient-specific-treatment-for-parkinsons-disease-using-reprogrammed-skin-cells/>

Principal Investigators

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Contact information of lead PI Country

Sweden

Title of project or programme

Patient-specific treatment for Parkinson's disease using reprogrammed skin cells

Source of funding information

Swedish Research Council

Total sum awarded (Euro)

€ 1,088,139

Start date of award

01-01-2012

Total duration of award in years

5.0

The project/programme is most relevant to:

Parkinson's disease & PD-related disorders

Keywords

Research Abstract

We have developed a new reprogramming technique that bypass the pluripotent stage and directly converts fibroblasts into dopamine neurons. Our findings open up for possibilities to generate patient specific neurons on demand. In this proposal, we will build on our recent achievements, with the aim to develop direct neural conversion for use in cell therapy for Parkinson's disease. Our team consists of basic scientists, medical ethicists, neurologists and

neurosurgeons all with documented expertise in translational research and cell replacement therapy in PD. Working together, our team will guide the basic science and pre-clinical evaluation work such that issues critical for clinical application of directly reprogrammed neurons are adequately and specifically addressed. Additionally, we will define and analyze new ethical and societal issues related to the use of directly converted fibroblasts as a source of neurons for brain repair in PD and provide a road map for translating directly programmed DA neurons for use in patients with PD in the clinic. As cellular reprogramming becomes more finely controlled, efficient and safe, it seems inevitable that patients will some day be treated with healthy versions of their own cells. The outcome of this project will aid this process both by developing the technique so that it is efficient, safe and compatible with clinical use and by developing the ethical and clinical framework and guidelines required for such clinical applications.

Lay Summary

Further information available at:

Types:

Investments > €500k

Member States:

Sweden

Diseases:

Parkinson's disease & PD-related disorders

Years:

2016

Database Categories:

N/A

Database Tags:

N/A