



Research Project Proposal
Academic year 2018-2019

Project Nº 33

Title: *Cinematic and neuroimaging study of gait in aging and Parkinson's disease*

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Summary

We aim to examine kinematics of gait using a free stepping task in a group of Parkinson's disease (PD) patients and age-matched controls and correlate gait parameters with an fMRI motor task that involved bilateral stepping movements.

The first stage of the project involves the characterization of free gait in ageing and PD.

PD patients' kinematic displacements would reflect a common symmetric and anti-phase stepping pattern similar than HC in terms of precision and stability. However, PD patients performed smaller amplitude movements than HC in all conditions.

We aim to analyse the differences in connectivity between PD patients and aged controls and also correlations between gait cinematic parameters and BOLD.

yes	
no	x

Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?