

# Testing a combination therapy with Ras-ERK and mTor inhibitors for L-DOPA induced dyskinesia

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## Principal Investigators

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## Contact information of lead PI Country

United Kingdom

## Title of project or programme

Testing a combination therapy with Ras-ERK and mTor inhibitors for L-DOPA induced dyskinesia

## Source of funding information

Parkinson's UK

## Total sum awarded (Euro)

€ 203,370

## Start date of award

01/12/2014

## Total duration of award in years

2

## Keywords

### Research Abstract

L-DOPA remains the most effective treatment for alleviating Parkinson's disease (PD) symptoms but causes currently untreatable severe motor side effects, collectively known as levodopa-induced dyskinesia (LID). Recent evidence indicates that a key pathogenic factor for LID, linked to abnormally high dopamine-mediated responses, is the hyperactivation in the striatum of both the Ras-ERK and the mTor signalling pathways. Previous work by the

applicant, funded by Parkinson's UK, identified a clinically relevant Ras-ERK inhibitor that, given systemically, is not only able to block cell signalling in a mouse model of PD and LID but also to partially revert already established dyskinesia. Since the inhibition of LID with maximal doses of this Ras-ERK inhibitor is incomplete, we hypothesise that a combination approach with a selected mTor inhibitor may provide a better therapeutic outcome. Hence, in this project we will test 5 distinct mTor inhibitors, already in advanced stage of clinical development for cancer treatment, for their ability to prevent in mice abnormal involuntary movements (AIMs), the rodent correlate of LID.

**Further information available at:**

**Types:**

Investments < €500k

**Member States:**

United Kingdom

**Diseases:**

N/A

**Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

N/A