

# Why Parkinson's tremor has a variable dopaminergic response – cerebral differences between dopa-responsive and dopa-resistant tremor.

<https://neurodegenerationresearch.eu/survey/why-parkinsons-tremor-has-a-variable-dopaminergic-response-cerebral-differences-between-dopa-responsive-and-dopa-resistant-tremor/>

## **Name of Fellow**

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## **Institution**

## **Funder**

Hersenstichting | Dutch Brain Foundation

## **Contact information of fellow**

## **Country**

The Netherlands

## **Title of project/programme**

Why Parkinson's tremor has a variable dopaminergic response - cerebral differences between dopa-responsive and dopa-resistant tremor.

## **Source of funding information**

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## **The project/programme is most relevant to:**

Parkinson's disease & PD-related disorders

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Parkinson's disease | tremor | fMRI

**Research Abstract**

Resting tremor is a core symptom of Parkinson's disease (PD). Unlike other motor symptoms, the response of tremor to levodopa varies greatly between PD patients. The reason for this variability is unclear, preventing treatment and development of new therapies. We showed that PD tremor arises from interactions between the basal ganglia and the cerebello-thalamo-cortical circuit. Here we compare tremor-related activity in these circuits between PD patients with dopa-responsive and dopa-resistant tremor, using MR spectroscopy and combined EMG-fMRI, and testing both groups ON and OFF levodopa.

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