## Accepted Manuscript

Title: Spontaneous sensorimotor cortical activity is suppressed by deep brain stimulation in patients with advanced Parkinson's disease

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PII: \$0304-3940(18)30444-0

DOI: https://doi.org/10.1016/j.neulet.2018.06.041

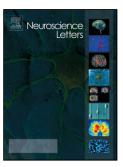
Reference: NSL 33672

To appear in: Neuroscience Letters

Received date: 11-1-2018 Revised date: 20-6-2018 Accepted date: 21-6-2018

Please cite this article as: Luoma J, Pekkonen E, Airaksinen K, Helle L, Nurminen J, Taulu S, Mäkelä JP, Spontaneous sensorimotor cortical activity is suppressed by deep brain stimulation in patients with advanced Parkinson's disease, *Neuroscience Letters* (2018), https://doi.org/10.1016/j.neulet.2018.06.041

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### ACCEPTED MANUSCRIPT

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# Spontaneous sensorimotor cortical activity is suppressed by deep brain stimulation in patients with advanced Parkinson's disease

Running title: DBS suppresses cortical spontaneous activity

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#### **Highlights**

- Deep brain stimulation (DBS) of subthalamic nucleus suppresses 5-25 Hz cortical oscillatory activity in patients with advanced Parkinson's disease (PD)
- The effect exceeds the sensorimotor region estimated by analysis of corticomuscular coherence
- DBS may alleviate motor symptoms in PD by reducing pathological synchrony in the sensorimotor network.

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