## **SUPPLEMENTARY INFORMATION**

Gait improvement via rhythmic stimulation in Parkinson's disease is linked to rhythmic skills

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## <u>Supplementary Table 1</u>: Performance in paced tapping and adaptive tapping tasks for IPD patients obtained pre-, post-training and at the follow-up, and for matched controls.

	Controls	Patients			Comparisons (significance)		
		Pre	Post	Follow-up	Pre vs Control	Post vs Pre	Follow-up vs Pr
Paced tapping	Mean (SEM)	Mean (SEM)	Mean (SEM)	Mean (SEM)	Р	Р	Р
450 ms							
Inter-step interval (ms)	450.3 (.3)	449.8 (.2)	449.8 (.2)	450.0 (.2)	p = .22	p = .36	p = .26
Sync. accuracy (% of IOI)	4.9 (.6)	6.8 (1.3)	5.4 (.5)	7.0 (1.1)	p = .11	p = .29	p = .43
Sync. variability (% of IOI)	.59 (.09)	.54 (.04)	.55 (.04)	.52 (.05)	p = .37	p = .48	p = .21
600 ms							
Inter-step interval (ms)	599.7 (.2)	599.8 (.2)	603.7 (3.6)	599.8 (.1)	p = .38	p = .10	p = .35
Sync. accuracy (% of IOI)	6.8 (1.1)	6.3 (.8)	6.8 (1.2)	5.8 (1.1)	p = .28	p = .50	p = .33
Sync. variability (% of IOI)	.52 (.04)	.52 (.02)	.60 (.1)	.47 (.03)	p = .11	p = .33	p < .05
750 ms							
Inter-step interval (ms)	749.8 (.2)	750.1 (.5)	749.8 (.3)	749.7 (.3)	p = .30	p = .38	p = .18
Sync. accuracy (% of IOI)	3.9 (.5)	5.4 (.9)	5.7 (1.4)	4.3 (.8)	p = .09	p = .20	p < .05
Sync. variability (% of IOI)	.47 (.03)	.55 (.04)	.76 (.3)	.54 (.06)	p = .08	p = .25	p = .29
daptive tapping							
Deceleration							
Adaptation index	1.3 <i>(.1)</i>	1.2 (.2)	1.2 <i>(.1)</i>	1.3 (.2)	p = .27	p = .40	p = .31
Phase	.51 (.07)	.71 (.1)	.53 (.1)	.59 (.1)	p = .20	p = .09	p = .18
Period	.92 (.1)	.78 (.1)	.99 (.1)	1.1 <i>(.1)</i>	p = .16	p = .34	p = .05
Acceleration							
Adaptation index	1.5 <i>(.1)</i>	1.6 (.08)	1.4 (.1)	1.5 (.1)	p = .29	p = .07	p = .23
Phase	.50 (.07)	.58 (.07)	.59 (.07)	.50 (.09)	p = .22	p = .36	p = .28
Period	1.2 <i>(.1)</i>	.96 (.09)	.85 <i>(.09)</i>	1.1 <i>(.1</i> )	p = .19	p = .22	p = .27