

## Supplementary Tables

**Supplementary Table 1. MSLT dominant and non-dominant stepping leg comparisons OFF and ON medication.**

OFF Medication (Normalized)				ON Medication (Normalized)			
	Dominant	Non-Dominant	p		Dominant	Non-Dominant	p
Forward	1.01 ± 0.23 (0.93, 1.08)	0.98 ± 0.25 (0.90, 1.06)	0.03	Forward	1.04 ± 0.22 (0.97, 1.11)	1.01 ± 0.24 (0.94, 1.09)	0.02
Backward	0.88 ± 0.22 (0.81, 0.95)	0.87 ± 0.23 (0.79, 0.94)	0.23	Backward	0.93 ± 0.22 (0.86, 1.01)	0.91 ± 0.23 (0.84, 0.98)	0.04
Lateral	0.95 ± 0.26 (0.87, 1.03)	0.97 ± 0.25 (0.89, 1.05)	0.13	Lateral	0.98 ± 0.27 (0.89, 1.07)	1.03 ± 0.27 (0.94, 1.11)	<0.001
Data presented as mean ± SD (95% Confidence Interval); Main effect of ANOVA: F(3,37)=4.22; p=0.012				Data presented as mean ± SD (95% Confidence Interval); Main effect of ANOVA: F(3,37)=9.56; p<0.001			
OFF Medication (Raw)				ON Medication (Raw)			
	Dominant	Non-Dominant	p		Dominant	Non-Dominant	p
Forward	82.23 ± 19.86 (75.88, 88.58)	80.32 ± 21.54 (73.43, 87.21)	0.03	Forward	84.96 ± 19.23 (78.81, 91.11)	82.87 ± 20.95 (76.17, 89.57)	0.015
Backward	72.27 ± 19.70 (65.97, 78.57)	70.82 ± 20.07 (64.40, 77.24)	0.18	Backward	76.46 ± 18.96 (70.39, 82.52)	74.31 ± 19.56 (68.05, 80.56)	0.03
Lateral	77.77 ± 21.63 (70.85, 84.69)	79.09 ± 21.14 (72.32, 85.85)	0.10	Lateral	80.14 ± 22.97 (72.79, 87.49)	83.85 ± 22.88 (76.53, 91.17)	<0.001
Data presented as mean ± SD (95% Confidence Interval); Main effect of ANOVA: F(3,37)=4.11; p=0.013				Data presented as mean ± SD (95% Confidence Interval); Main effect of ANOVA: F(3,37)=9.21; p<0.001			

**Supplementary Table 2. OFF medication correlations between Normalized MSLT Dominant/Non-Dominant legs and motor performance measures by direction.**

Forward			Backward			Lateral		
	Dominant	Non-Dominant		Dominant	Non-Dominant		Dominant	Non-Dominant
MDS-UPDRS III <sup>^</sup>	-0.37*	-0.39*	MDS-UPDRS III <sup>^</sup>	-0.52*	-0.61*	MDS-UPDRS III <sup>^</sup>	-0.33*	-0.41*
Mini-BESTest <sup>^</sup>	0.70*	0.72*	Mini-BESTest <sup>^</sup>	0.75*	0.84*	Mini-BESTest <sup>^</sup>	0.69*	0.75*
Mini-BESTest - APA <sup>^</sup>	0.55*	0.53*	Mini-BESTest - APA <sup>^</sup>	0.58*	0.68*	Mini-BESTest - APA <sup>^</sup>	0.47*	0.55*
Mini-BESTest - PR <sup>^</sup>	0.56*	0.56*	Mini-BESTest - PR <sup>^</sup>	0.64*	0.55*	Mini-BESTest - PR <sup>^</sup>	0.61*	0.60*
Mini-BESTest - SO <sup>^</sup>	0.43*	0.43*	Mini-BESTest - SO <sup>^</sup>	0.39*	0.45*	Mini-BESTest - SO <sup>^</sup>	0.38*	0.38*
Mini-BESTest - SG <sup>^</sup>	0.55*	0.52*	Mini-BESTest - SG <sup>^</sup>	0.57*	0.72*	Mini-BESTest - SG <sup>^</sup>	0.55*	0.62*
TUG	-0.53*	-0.59*	TUG	-0.60*	-0.62*	TUG	-0.62*	-0.68*
6MWT	0.74*	0.76*	6MWT	0.73*	0.71*	6MWT	0.80*	0.78*
ABC <sup>^</sup>	0.40*	0.41*	ABC <sup>^</sup>	0.49*	0.48*	ABC <sup>^</sup>	0.39*	0.47*
Gait Velocity	0.50*	0.47*	Gait Velocity	0.44*	0.47*	Gait Velocity	0.55*	0.59*

<sup>^</sup> - indicates Spearman correlation. \*Significant at p<0.05. APA - Anticipatory Postural Adjustment; PR - Postural Responses; SO - Sensory Orientation; SG - Stability in Gait

**Supplementary Table 3. ON medication correlations between Normalized MSLT Dominant/Non-Dominant legs and motor performance measures by direction.**

Forward			Backward			Lateral		
	Dominant	Non-Dominant		Dominant	Non-Dominant		Dominant	Non-Dominant
MDS-UPDRS III <sup>^</sup>	-0.32*	-0.30*	MDS-UPDRS III <sup>^</sup>	-0.55*	-0.57*	MDS-UPDRS III <sup>^</sup>	-0.23	-0.30
Mini-BESTest <sup>^</sup>	0.69*	0.67*	Mini-BESTest <sup>^</sup>	0.64*	0.71*	Mini-BESTest <sup>^</sup>	0.60*	0.63*
Mini-BESTest - APA <sup>^</sup>	0.40*	0.33*	Mini-BESTest - APA <sup>^</sup>	0.50*	0.56*	Mini-BESTest - APA <sup>^</sup>	0.23	0.33*
Mini-BESTest - PR <sup>^</sup>	0.55*	0.54*	Mini-BESTest - PR <sup>^</sup>	0.48*	0.52*	Mini-BESTest - PR <sup>^</sup>	0.44*	0.40*
Mini-BESTest - SO <sup>^</sup>	0.38*	0.39*	Mini-BESTest - SO <sup>^</sup>	0.32*	0.30	Mini-BESTest - SO <sup>^</sup>	0.42*	0.39*
Mini-BESTest - SG <sup>^</sup>	0.65*	0.65*	Mini-BESTest - SG <sup>^</sup>	0.67*	0.73*	Mini-BESTest - SG <sup>^</sup>	0.66*	0.73*
TUG	-0.64*	-0.62*	TUG	-0.66*	-0.67*	TUG	-0.60*	-0.68*
6MWT	0.76*	0.74*	6MWT	0.74*	0.74*	6MWT	0.75*	0.75*
ABC <sup>^</sup>	0.28	0.32*	ABC <sup>^</sup>	0.38*	0.41*	ABC <sup>^</sup>	0.31	0.30
Gait Velocity	0.56*	0.54*	Gait Velocity	0.61*	0.62*	Gait Velocity	0.56*	0.62*

<sup>^</sup> - indicates Spearman correlation. \*Significant at p<0.05. APA - Anticipatory Postural Adjustment; PR - Postural Responses; SO - Sensory Orientation; SG - Stability in Gait