

Supplementary Table 2 – Relationships between baseline PFC activation, demographic, cognitive and sensory outcomes in PD

		180° turn		360° turn		Two minute walk			
		Prior	During	Prior	During	Single		Dual	
Demographics	Age	-0.125 (0.552)	0.054 (0.796)	0.058 (0.789)	0.228 (0.284)	0.003 (0.989)	0.101 (0.637)	-0.042 (0.846)	-0.055 (0.800)
	UPDRS III	-0.371 (0.068)	-0.092 (0.663)	-0.092 (0.669)	-0.088 (0.683)	-0.072 (0.738)	-0.370 (0.075)	-0.039 (0.857)	-0.291 (0.168)
	nFOG	0.035 (0.868)	0.371 (0.068)	0.245 (0.249)	0.131 (0.540)	0.023 (0.916)	-0.080 (0.709)	-0.303 (0.150)	-0.155 (0.470)
	GDI	-0.024 (0.909)	-0.115 (0.583)	-0.117 (0.587)	-0.086 (0.689)	-0.092 (0.669)	0.123 (0.565)	-0.055 (0.797)	-0.195 (0.361)
	MFI	-0.330 (0.108)	-0.105 (0.617)	-0.193 (0.367)	-0.420 (0.041)	-0.056 (0.796)	-0.401 (0.052)	-0.170 (0.427)	-0.299 (0.156)
	OHQ	-0.257 (0.214)	0.014 (0.948)	-0.182 (0.395)	-0.300 (0.154)	0.036 (0.868)	-0.293 (0.165)	-0.247 (0.244)	-0.263 (0.215)
Cognition	MoCA	-0.243 (0.242)	-0.321 (0.118)	-0.061 (0.776)	-0.190 (0.374)	0.057 (0.790)	-0.020 (0.927)	0.228 (0.284)	-0.094 (0.663)
	FAB	0.187 (0.372)	0.139 (0.509)	-0.226 (0.288)	-0.093 (0.665)	0.223 (0.295)	0.236 (0.267)	0.203 (0.342)	0.371 (0.074)
	CLOX 1	0.473 (0.017)	0.384 (0.058)	0.220 (0.302)	0.234 (0.272)	0.557 (0.005)	0.327 (0.119)	-0.020 (0.927)	0.341 (0.103)
	CLOX 2	0.334 (0.103)	0.094 (0.655)	0.383 (0.065)	0.047 (0.826)	0.303 (0.150)	0.196 (0.359)	0.050 (0.817)	0.101 (0.639)
	TMT A	-0.521 (0.008)	-0.285 (0.167)	-0.122 (0.570)	-0.048 (0.823)	-0.293 (0.165)	-0.105 (0.626)	-0.022 (0.920)	-0.139 (0.516)
	TMT B	-0.341 (0.095)	-0.004 (0.984)	-0.039 (0.856)	-0.069 (0.748)	-0.046 (0.831)	-0.088 (0.683)	-0.231 (0.278)	0.044 (0.840)
Sensory	Taste/Smell	-0.121 (0.572)	-0.097 (0.651)	0.045 (0.840)	0.192 (0.381)	0.230 (0.291)	0.147 (0.503)	-0.235 (0.280)	0.113 (0.607)
	Movement Processing	-0.103 (0.633)	-0.324 (0.123)	-0.367 (0.085)	-0.166 (0.450)	-0.112 (0.609)	-0.089 (0.685)	-0.084 (0.702)	0.028 (0.901)
	Visual Processing	-0.388 (0.061)	-0.128 (0.551)	-0.162 (0.459)	0.017 (0.940)	0.031 (0.887)	-0.225 (0.301)	-0.161 (0.462)	-0.183 (0.403)
	Touch Processing	-0.599 (0.002)	-0.304 (0.149)	-0.369 (0.083)	-0.110 (0.616)	-0.208 (0.340)	-0.474 (0.022)	-0.052 (0.812)	-0.233 (0.285)
	Activity Level	-0.309 (0.142)	-0.074 (0.729)	-0.239 (0.271)	-0.339 (0.113)	-0.222 (0.308)	-0.312 (0.147)	-0.151 (0.492)	-0.034 (0.878)
	Auditory Processing	-0.377 (0.069)	-0.184 (0.390)	-0.007 (0.975)	-0.273 (0.207)	-0.320 (0.137)	-0.302 (0.162)	-0.381 (0.073)	-0.251 (0.247)

[Spearman's rho (p) correlations displayed. Significant p<0.05 correlations in Bold and italics]

