

## Supplementary Information

**Table S1.** Correlations between plasma extracellular vesicle cytokines with various clinical assessment scores in patients with Parkinson's disease.

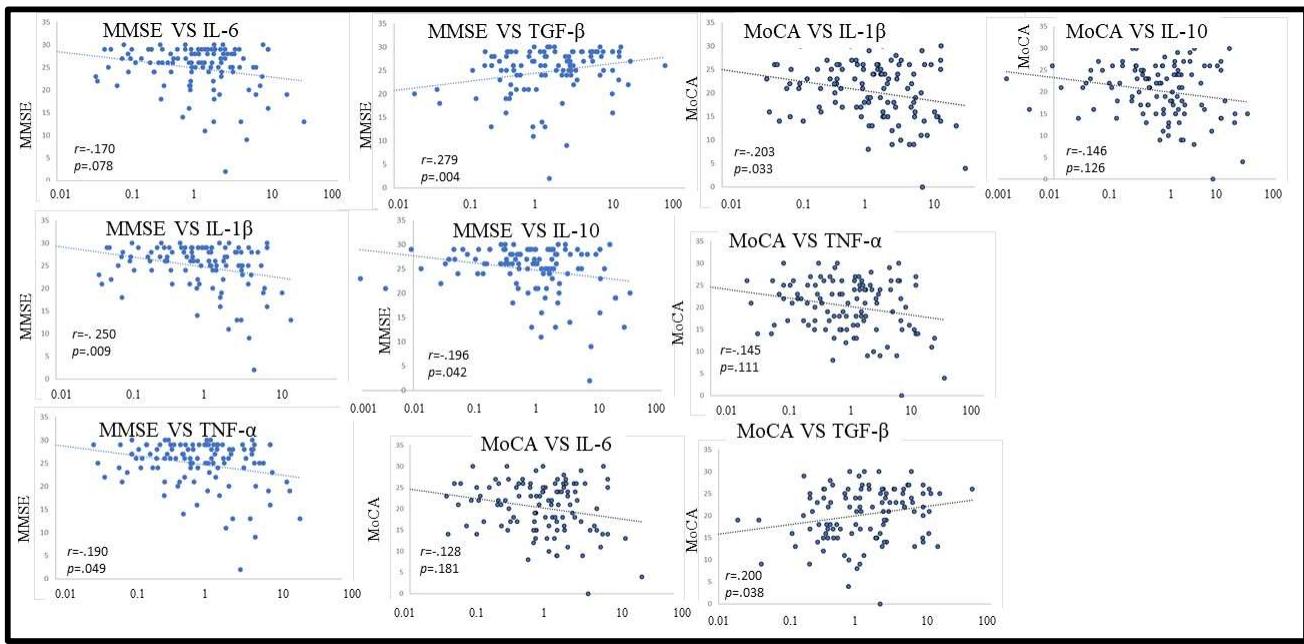
	UPDRS-I	UPDRS-II	UPDRS-III	MMSE	MoCA
IL-6	-0.008	0.135	0.015	-0.170	-0.128
pro-IL-1 $\beta$	0.051	0.176*	0.045	-0.250**	-0.203*
TNF- $\alpha$	-0.066	0.112	-0.015	-0.190*	-0.145
TGF- $\beta$ 1	-0.095	-0.083	0.195*	0.279**	0.200*
IL-10	-0.018	0.103	-0.050	-0.196*	-0.146

MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment; UPDRS, Unified Parkinson's Disease Rating Scale. \*,  $p < 0.05$ , \*\*,  $p < 0.01$ .

**Table S2.** Correlations between plasma extracellular vesicle cytokines with cognition in control participants after adjustment for age and sex.

	MMSE			MoCA		
	Std. $\beta$	<i>p</i> value	95% CI	Std. $\beta$	<i>p</i> value	95% CI
IL-6	-0.006	0.969	-0.11 to 0.01	-0.010	0.95	-0.05 to 0.05
pro-IL-1 $\beta$	-0.103	0.524	-0.14 to 0.07	-0.031	0.848	-0.06 to 0.05
TNF- $\alpha$	0.036	0.820	-0.09 to 0.11	0.155	0.324	-0.02 to 0.07
TGF- $\beta$ 1	-0.166	0.300	-0.16 to 0.05	0.235	0.142	-0.01 to 0.08
IL-10	-0.134	0.394	-0.15 to 0.06	-0.131	0.408	-0.07 to 0.03

MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment; Std, standard; CI, confidence interval.



**Figure S1.** Association between plasma extracellular vesicle cytokines with the cognitive scale in patients with Parkinson's disease.