

**Increased levels of CSF total but not oligomeric or phosphorylated forms of alpha-synuclein in patients diagnosed with probable Alzheimer's disease**

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## Supplementary Table 1

Spearman correlations between CSF biomarkers in OND and AD groups (\*p <0.05, \*\*p <0.01, \*\*\*p <0.001).

		A $\beta_{42}$	t-Tau	p-Tau	t- $\alpha$ -syn	p-S129- $\alpha$ -syn	o- $\alpha$ -syn	o-/t- $\alpha$ -syn	p-S129-/t- $\alpha$ -syn
<b>OND</b>	A $\beta_{42}$	1.00							
	t-Tau	0.10	1.00						
	p-Tau	0.07	0.47***	1.00					
	t- $\alpha$ -syn	-0.09	0.13	0.14	1.00				
	p-S129- $\alpha$ -syn	-0.13	-0.14	-0.29	0.15	1.00			
	o- $\alpha$ -syn	-0.12	-0.10	-0.19	0.03	-0.02	1.00		
	o-/t- $\alpha$ -syn	-0.05	0.08	0.16	-	0.11	-	1.00	
	p-S129-/t- $\alpha$ -syn	-0.10	-0.18	-0.30*	-	-	0.84***		1.00
<b>AD</b>	A $\beta_{42}$	1.00							
	t-Tau	0.00	1.00						
	p-Tau	0.06	0.72***	1.00					
	t- $\alpha$ -syn	0.10	0.31***	0.30***	1.00				
	p-S129- $\alpha$ -syn	0.02	0.12	0.13	0.12	1.00			
	o- $\alpha$ -syn	0.00	-0.10	-0.01	0.20**	0.03	1.00		
	o-/t- $\alpha$ -syn	0.10	0.26	0.22**	-	0.04	-	1.00	
	p-S129/t- $\alpha$ -syn	-0.05	-0.04	-0.04	-	-	0.81***	-	1.00

## Supplementary Table 2

Spearman correlations between CSF biomarkers, age, education and MMSE in OND and AD groups (\*p <0.05, \*\*p <0.01, \*\*\*p <0.001).

		Age	Education	Disease years	MMSE
<b>OND</b>	A $\beta$ <sub>42</sub>	-0.20	-0.28	0.52*	0.29
	t-Tau	0.35	-0.17	-0.38	-0.38*
	p-Tau	-0.07	-0.19	-0.18	-0.08
	t- $\alpha$ -syn	0.03	0.01	-0.24	-0.01
	p-S129- $\alpha$ -syn	0.00	0.24	-0.15	0.00
	o- $\alpha$ -syn	-0.04	0.17	-0.43	-0.13
	o-/t- $\alpha$ -syn	-0.05	-0.10	-0.01	0.15
	p-S129-/t- $\alpha$ -syn	0.03	0.28	0.23	0.07
<b>AD</b>	A $\beta$ <sub>42</sub>	0.21**	-0.17	0.12	-0.08
	t-Tau	-0.04	0.18	0.10	-0.47***
	p-Tau	-0.15	0.18	0.10	-0.65***
	t- $\alpha$ -syn	0.14	-0.02	0.11	-0.21**
	p-S129- $\alpha$ -syn	0.03	-0.02	0.09	-0.06
	o- $\alpha$ -syn	-0.09	0.11	0.03	0.01
	o-/t- $\alpha$ -syn	0.13	-0.13	0.01	-0.14
	p-S129-/t- $\alpha$ -syn	-0.05	0.04	0.01	0.04