

## **Olfactory Dysfunction and Its Relationship with Clinical Symptoms of Alzheimer Disease**

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# SUPPLEMENTARY DATA

**Supplementary Table 1.** Correlation between olfactory function and global cognitive function in AD patients

	MMSE		MoCA	
	r	P	r	P
TDI	0.630	<b>0.000**</b>	0.540	<b>0.000**</b>
THR	0.290	<b>0.004**</b>	0.227	<b>0.027*</b>
DIS	0.583	<b>0.000**</b>	0.490	<b>0.000**</b>
ID	0.617	<b>0.000**</b>	0.540	<b>0.000**</b>

\*,  $P < 0.05$ , \*\*,  $P < 0.01$

Abbreviations: **TDI**=Threshold+Discrimination+Identification; **THR**=Threshold; **DIS**= Discrimination; **ID**= Identification; **MMSE** = Mini-Mental State Examination; **MoCA** = Montreal Cognitive Assessment.

**Supplementary Table 2.** Correlation between olfactory function and memory in AD patients.

	AVLT- long delayed recall		AVLT- the first 5 times total recall		CFT- delayed memory	
	r	P	r	P	r	P
TDI	0.418	<b>0.000**</b>	0.462	<b>0.000**</b>	0.387	<b>0.002**</b>
THR	0.239	<b>0.027*</b>	0.248	<b>0.021*</b>	0.345	<b>0.007**</b>
DIS	0.334	<b>0.002**</b>	0.377	<b>0.000**</b>	0.392	<b>0.002**</b>
ID	0.411	<b>0.000**</b>	0.458	<b>0.000**</b>	0.180	0.168

\*,  $P < 0.05$ , \*\*,  $P < 0.01$

Abbreviations: **TDI**=Threshold+Discrimination+Identification; **THR**=Threshold; **DIS**= Discrimination; **ID**= Identification; **AVLT** = Auditory Verbal Learning Test; **CFT** = Complex Figure Test.

**Supplementary Table 3.** Correlation between olfactory function and attention and visual spatial function in AD patients.

	SDMT		TMT-A		CFT-imitation	
	r	P	r	P	r	P
TDI	0.308	<b>0.009**</b>	-0.447	<b>0.000**</b>	0.342	<b>0.005**</b>
THR	0.174	0.146	-0.100	0.364	0.242	0.051
DIS	0.286	<b>0.016*</b>	-0.427	<b>0.000**</b>	0.396	<b>0.001**</b>
ID	0.264	<b>0.026*</b>	-0.469	<b>0.000**</b>	0.180	0.149

\*,  $P < 0.05$ , \*\*,  $P < 0.01$

Abbreviations: **TDI**=Threshold+Discrimination+Identification; **THR**=Threshold; **DIS**= Discrimination; **ID**= Identification; **SDMT** = Symbol Digit Modalities Test; **TMT** = Trial Making Test; **CFT** = Complex Figure Test.

# SUPPLEMENTARY DATA

**Supplementary Table 4.** Correlation between olfactory function and MAES in AD patients.

	r	P
TDI	-0.249	<b>0.016*</b>
THR	-0.171	0.103
DIS	-0.225	<b>0.031*</b>
ID	-0.210	<b>0.044*</b>

\*:  $P < 0.05$

Abbreviations: **TDI**=Threshold+Discrimination+Identification; **THR**=Threshold; **DIS**= Discrimination; **ID**= Identification; **MAES** = Modified Apathy Evaluation Scale.

**Supplementary Table 5.** Correlation between olfactory function and ADL in AD patients.

	r	P
TDI	-0.513	<b>0.010*</b>
THR	-0.274	<b>0.009**</b>
DIS	-0.487	<b>0.000**</b>
ID	-0.468	<b>0.000**</b>

\*:  $P < 0.05$ , \*\*:  $P < 0.01$

Abbreviations: **TDI**=Threshold+Discrimination+Identification; **THR**=Threshold; **DIS**= Discrimination; **ID**= Identification; **ADL**= Activity of Daily Living