

Cognitive Function and Proteomic Changes in Patients with Autoantibody-Positive Neurodegenerative Dementia

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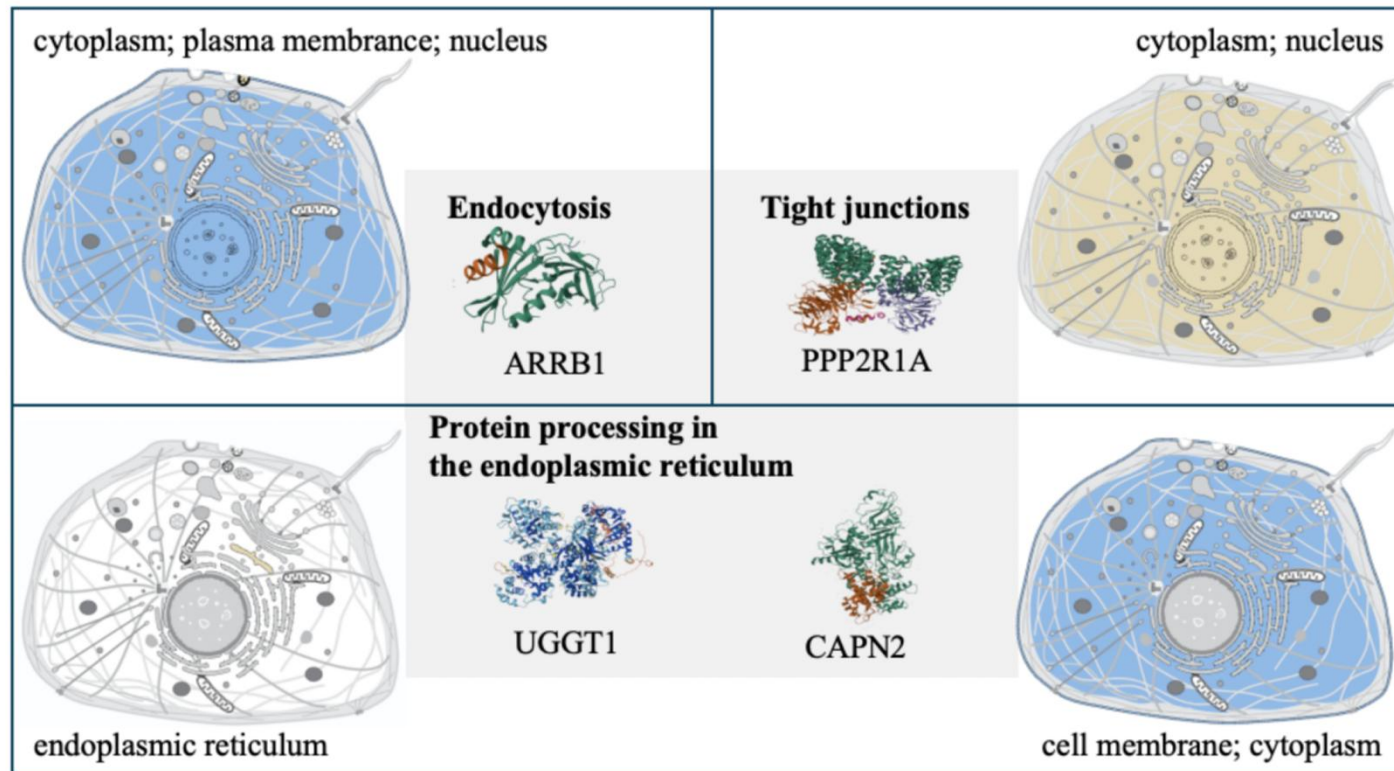
Table S1. Cognitive function of participants

Variables	ND+ (n = 13)	ND- (n = 13)	HCs (n = 13)	ND+ vs. HCs		ND-vs. HCs		ND+ vs. ND-	
				<i>P</i>	<i>P_{adjust}</i>	<i>P</i>	<i>P_{adjust}</i>	<i>P</i>	<i>P_{adjust}</i>
MMSE	18.38±4.84	17.23±5.42	29(28, 30)	<0.001	0.002	<0.001	0.001	0.572	0.785
MoCA	12.23±3.94	11.15±2.85	27(26, 28.5)	<0.001	0.002	<0.001	0.001	0.433	0.785
CDR	1(0.5, 2)	2(1, 2)	0(0, 0)	<0.001	0.002	<0.001	0.001	0.298	0.785
ADCS-ADL	68.08±6.84	46.46±14.26	72.70±3.33	0.039	0.05	0.068	0.068	<0.001	0.018
NPI	2(0.5, 17.5)	11.15±11.58	3(0, 6)	0.154	0.173	0.009	0.012	0.527	0.785
FBI	10.38±6.85	14.46±10.49	3(1, 7.5)	0.030	0.042	<0.001	0.001	0.252	0.785
FAB	11.07±3.40	7.08±3.12	18(17, 18)	<0.001	0.002	<0.001	0.001	0.005	0.045
Episodic memory									
AVLT Immediate Recall	11.62±3.93	10.31±4.27	24.77±7.40	<0.001	0.002	<0.001	0.001	0.424	0.785
AVLT Delayed Recall	4(0, 6.5)	1(0, 3)	9.08±3.75	<0.001	0.002	<0.001	0.001	0.272	0.785
Language									
BNT	17.08±7.32	16.00±5.94	26.15±1.91	<0.001	0.002	<0.001	0.001	0.684	0.785
Verbal Fluency Test Animal	10(6.5, 16.5)	10.31±4.44	17.54±3.71	0.007	0.011	<0.001	0.001	0.570	0.785
Verbal Fluency Test Fruits	6.78±3.77	7(4, 9)	14(12.5,16.5)	<0.001	0.002	<0.001	0.001	0.493	0.785

Attention									
DST – forward	7.08±1.85	6.23±2.01	7.85±1.34	0.236	0.236	0.024	0.029	0.274	0.634
TMT-A (time in seconds taken to complete task)	127(85.5,147.5)	146(72.5,150)	34(31, 50. 5)	<0.001	0.002	<0.001	0.001	0.698	0.504
Executive function									
DST-backward	3(2, 4)	3(2, 3.5)	5.15±1.28	0.002	0.003	<0.001	0.001	0.828	0.828
TMT-B (time in seconds taken to complete task)	212.69±77.49	300(103.5,300)	74(59.5,79)	<0.001	0.002	0.045	0.048	0.759	0.803
HAMD	9(4, 11)	11.31±7.08	6.54±4.03	0.168	0.178	0.032	0.036	0.634	0.828
HAMA	6(3.5, 13.5)	6(3, 23)	4(2, 7)	0.057	0.068	<0.001	0.001	0.504	0.785

Data are expressed as percentage, median [IQR], or mean±SD, as appropriate. ‘*P* adjust’ is the Benjamini–Hochberg false discovery rate (FDR) adjusted *P* value. Abbreviations: ADCS – ADL, Alzheimer’s Disease Cooperative Study – Activities of Daily Living; AVLT, Auditory Verbal Learning Test; BNT, Boston Naming Test; CDR, Clinical Dementia Rating; DST, Digit Span Test; FAB, Frontal Assessment Battery; FBI, Frontal Behavioral Inventory; HAMA, Hamilton anxiety scales; HAMD, Hamilton depression scales; HCs, healthy controls; MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment; ND – , autoantibody-negative neurodegenerative dementia; ND+, autoantibody-positive neurodegenerative dementia; NPI, Neuropsychiatric Inventory; TMT, Trail Making Test.

Figure S1. Subcellular localizations and KEGG pathway associations of the proteins associated with cognitive differences between the ND+ and ND– groups.



ARRB1: β -arrestin-1; CAPN2: calpain-2; PPP2R1A: Protein Phosphatase 2 Regulatory Subunit A Alpha; UGGT1: UDP-glucose: glycoprotein glucosyltransferase 1.

