

## Supplemental material

**Supplemental Table 1.** Group differences by age of death, sex, and ApoE status

**Supplemental Table 2.** Clinical diagnoses by neurodegenerative disease group

**Supplemental Table 3.** CPC associations with co-pathology

**Supplemental Table 1.** Group differences by age of death, sex, and ApoE status

Group	Age at death			Sex		APOE ε4		APOE ε2	
	t-stat	df	p-value	x2	p-value	x2	p-value	x2	p-value
<i>iAD</i>	-5.08	104	<0.001	0.00	0.962	2.08	0.124	19.24	0.003
<i>hAD</i>	-3.6	113	<0.001	2.65	0.102	118.33	<0.001	383.98	<0.001
<b>CBD</b>	2.19	66	0.016	3.18	0.083	4.87	0.085	1.88	0.230
<b>PiD</b>	0.80	20	0.215	0.23	0.641	2.44	0.223	4.05	0.139
<b>PSP</b>	-3.46	120	<0.001	1.67	0.210	4.36	0.079	0.82	0.395
<b>ALS</b>	3.36	135	0.001	2.96	0.094	4.37	0.061	30.20	<0.001
<b>FTD</b>	0.37	125	0.356	0.04	0.850	3.02	0.125	6.07	0.040
<b><i>h</i>FTD</b>	2.04	50	0.023	0.38	0.547	0.06	0.810	4.19	0.105
<b>MSA</b>	1.65	59	0.053	0.62	0.441	0.40	0.569	19.89	0.010
<b><i>b</i>LBD</b>	-2.55	53	0.007	4.70	0.060	0.28	0.582	1.51	0.287
<b><i>ILBD</i></b>	-5.50	106	<0.001	24.16	<0.001	1.92	0.217	15.64	0.008
<b><i>n</i>LBD</b>	-3.54	122	<0.001	17.00	<0.001	13.54	<0.001	169.22	<0.001

**Supplemental Table 2.** Clinical diagnoses by neurodegenerative disease group

Clinical/Group	MPG	<i>iAD</i>	<i>hAD</i>	PiD	CBD	PSP	ALS	FTLD -TDP	<i>hTDP</i>	MSA	<i>bLBD</i>	<i>ILBD</i>	<i>nLBD</i>
<b>Alzheimer's disease</b>													
<i>Possible</i>	2 <sup>1</sup>	10						2			1		4
<i>Probable</i>	15	107	0	1	1	1	1	6					5
<b>Amyotrophic lateral sclerosis</b>													
<i>Suspected</i>						1	3						
<i>Possible</i>								5					
<i>Probable</i>								10					
<i>Definite</i>							71		8				
<i>with MCI</i>							3		1				
<i>with FTD</i>							5	1	5				
<b>Cerebrovascular disease<sup>2</sup></b>		2							1	2			
<b>Cognitive impairment<sup>3</sup></b>	1	2	9								1		
<b>Corticobasal syndrome</b>	1	1	13	1	11	4		3	2				3
<b>Dementia NOS</b>		2				1		1					1
<b>Dementia with Lewy bodies</b>	3	11		1	2						1	3	18
<b>Frontotemporal degeneration</b>													
<i>bvFTD</i>	1		5	7	2	3		17	5				
<i>NOS<sup>4</sup></i>	1	1	6	5	2			10	2				
<i>PPA (Logopenic)</i>	3	9		1				2			1		
<i>PPA (NOS)</i>		1				1			1				
<i>PPA (PNFA)</i>		4		4	1				3				
<i>PPA (SD)</i>	3	1						8					1
<b>Motor neuron disease<sup>5</sup></b>	1				4								
<b>Multiple system atrophy</b>					1		1		17	1	1	1	1

<b>No impairment<sup>6</sup></b>	<b>64</b>	5	2							2	
<b>Parkinson's disease</b>											
<i>PD</i>	1	5	1		1	1		4	<b>5</b>	<b>13</b>	<b>7</b>
<i>PD/MCI</i>					1				<b>4</b>	<b>2</b>	<b>1</b>
<i>PDD</i>	4	3			1			1	5	<b>18</b>	<b>38</b>
<b>Posterior cortical atrophy</b>		<b>3</b>									1
<b>Progressive supranuclear palsy</b>				7	<b>32</b>			1	1		1
<b>Schizophrenia</b>			3								
<b>Rare<sup>7</sup></b>	3	1	2			2					
<b>Clinical unavailable</b>	3	5	1	1	5						
<b>Total</b>	72	46	201	15	29	51	108	55	25	26	20
<b>CPC specificity (n)</b>	64	17	119	13	11	32	101	42	21	17	9
<b>CPC specificity (%)</b>	89%	37%	59%	87%	38%	63%	92%	76%	84%	65%	45%
											97% 79%

<sup>1</sup> Cases highlighted in bold have a strong clinicopathological correlation.

<sup>2</sup> includes vascular dementia.

<sup>3</sup> includes amnestic and non-amnestic mild cognitive impairment.

<sup>4</sup> includes both FTLD-NOS and FTD-NOS.

<sup>5</sup> includes primary lateral sclerosis and progressive muscular atrophy.

<sup>6</sup> No cognitive or motor impairments.

<sup>7</sup> includes bipolar disease, depression, dystonia, hydrocephalus and other rare diagnoses of n<3.

**Supplemental Table 3. CPC associations with co-pathology**

<b>Group</b>	<b>OR<sup>1</sup></b>	<b>95% CI</b>	<b>p-value</b>	
MPG	2.47	0.47	12.90	0.28
<i>i</i> AD	0.68	0.19	2.45	0.55
<i>h</i> AD	1.00	0.53	1.90	0.99
PiD	0.39	0.01	14.82	0.61
CBD	0.28	0.04	1.94	0.20
PSP	0.20	0.04	1.06	0.06
ALS	0.64	0.03	12.80	0.77
FTD-TDP	0.68	0.16	2.91	0.60
<i>h</i> TDP	7.28	0.38	141.27	0.19
MSA	1.94	0.22	16.96	0.55
<i>b</i> LBD	0.37	0.03	5.10	0.45
<i>l</i> LBD	0.00	0.00	-	0.98
<i>n</i> LBD	0.00	0.00	2.8E202	0.96

<sup>1</sup> Predictor is CPC specificity and covariates are gender and age.