

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Demographic and neuropsychological tests of white matter analysis sample.**

	<i>APOE ε4</i> carriers(n=53)	<i>APOE ε4</i> noncarriers (n=58)	Main <i>APOE</i> <i>ε4</i> effect	Main age effect	Age× <i>APOE ε4</i> interaction
Male/Female	22/31	29/29	0.45 <sup>a</sup>		
Age (years)	65.53±7.71	64.72±6.52	0.55		
Education (years)	11.79±3.08	11.07±3.37	0.24		
General mental status	27.19±2.48	27.74±1.61	0.39	0.12	0.45
Memory	0.088±0.84	-0.061±0.66	0.63	0.02	0.68
Visuo-spatial ability	0.042±0.79	0.095±0.64	0.80	0.002	<0.0001
Attention	0.051±0.73	-0.006±0.71	0.52	0.23	0.36
Language	0.124±0.85	0.022±0.77	0.70	0.103	0.06
Executive function	0.139±0.63	-0.106±0.91	0.735	0.201	0.61

Values are mean±standard deviation or Nos. of participants.

**Supplementary Table 2. Correlation between cognition and white matter integrity in noncarriers.**

		Hip.L	Hip.R	FM	SLF.R
Low-age noncarriers	MMSE	r	0.187	0.229	-0.217
		p	0.352	0.250	0.277
	memory	r	0.064	-0.013	-0.234
		p	0.750	0.949	0.241
	Visuo-spatial	r	0.139	0.242	-0.010
		p	0.491	0.224	0.962
	language	r	-0.068	0.127	0.197
		p	0.737	0.528	0.326
	attention	r	0.078	0.204	<b>0.572</b>
		p	0.698	0.308	<b>0.002</b>
	executive	r	0.197	0.057	0.370
		p	0.326	0.779	0.057
High-age noncarriers	MMSE	r	-0.193	-0.330	0.389
		p	0.367	0.115	0.060
	memory	r	-0.137	-0.179	0.215
		p	0.522	0.404	0.312
	Visuo-spatial	r	-0.097	-0.131	<b>0.706</b>
		p	0.652	0.543	<b>&lt;0.0001</b>
	language	r	-0.095	-0.188	<b>0.515</b>
		p	0.659	0.378	<b>0.010</b>
	attention	r	0.153	-0.296	0.374
		p	0.474	0.161	0.072
	executive	r	0.072	-0.383	0.072
		p	0.739	0.064	0.739
					0.401