

Supplemental Table 1. Interaction between FC and Group on Cognitive Function						
	Memory		EF		MOCA	
	Wald's χ^2	p value	Wald's χ^2	p value	Wald's χ^2	p value
ACC-Rparahippocampus	6.08	.033	6.74	.034	2.73	.26
MCC-LSTG	1.06	.59	1.35	.51	0.77	.68
MCC-RMFG	7.18	.028	1.50	.47	4.24	.12
MCC-Rthalamus	1.26	.53	1.54	.46	2.57	.28
PCC-Lprecuneus	6.80	.033	1.22	.54	4.99	.08
Controlled for age, education, group, and FC. None remained significant after FDR correction.						

Supplemental Table 2. Group[#] Comparison in the Background Characteristics				
	Supernormal (n = 9)	HC (n = 9)	MCI [#] (n = 7)	F or χ^2 test (p value)
EM, M (SD)	1.83 (0.23)	1.03 (0.13)	-0.10 (0.35)	123.12 (< .001)
EF, M (SD)	1.16 (0.85)	0.73 (0.65)	0.45 (0.79)	1.89 (.18)
MOCA, M (SD)	28.22 (1.48) ^a	25.56 (2.13) ^b	21.44 (2.74) ^c	33.54 (< .001)
SUVR, M (SD)	1.04 (0.09) ^a	1.16 (0.17) ^{a,b}	1.25 (0.09) ^b	5.56 (.011)
• SUVR+, n (%)	2 (22.2) ^a	4 (44.4) ^a	7 (100) ^b	9.87 (.007)
ACC-Rparahippocampus	0.14 (0.09) ^a	-0.18 (0.10) ^b	-0.14 (0.13) ^b	22.14 (< .001)
MCC-LSTG	0.26 (0.12) ^a	0.003 (0.01) ^b	0.07 (0.12) ^b	17.77 (< .001)
MCC-RMFG	-0.14 (0.15) ^a	0.02 (0.03) ^b	0.17 (0.09) ^c	17.68 (< .001)
MCC-Rthalamus	-0.15 (0.05) ^a	0.01 (0.07) ^b	0.17 (0.18) ^c	17.21 (< .001)
PCC-Lprecuneus	0.42 (0.10) ^a	0.16 (0.08) ^b	0.15 (0.16) ^b	21.01 (< .001)
# excluding two MCI cases being amyloid negative.				
^{a, b, c} means with different superscripts are significantly different from each other; means with the same superscript are not significantly different (Least Significant Difference's post hoc test, p < .05).				

Supplemental Table 3. Interaction between FC and Group# on Cognitive Function

	Memory		EF		MOCA	
	Wald's χ^2	p value	Wald's χ^2	p value	Wald's χ^2	p value
ACC-Rparahippocampus	7.38	.025	4.08	.13	2.05	.36
MCC-LSTG	0.51	.78	1.74	.42	0.35	.84
MCC-RMFG	9.97	.007*	2.97	.23	10.49	.005*
MCC-Rthalamus	0.37	.83	1.28	.53	4.30	.12
PCC-Lprecuneus	5.16	.076	1.72	.42	12.073	.002*

excluding two MCI cases being amyloid negative.
Controlled for age, education, group, and FC.
* remained significant after FDR correction.

Supplemental Figure. Participants' Longitudinal Cognitive Profile from Baseline to up to 4 years follow up. A. group trajectories with mean and standard error; B. individual trajectories.

EM and EF here were standardized composite scores across all ADNI participants (see Crane et al., 2012; Gibbons et al., 2012 for more info). For display purpose only, MOCA here were standardized across participants in the present study; in the actual analysis, raw MOCA score was used. SN = supernormal; HC = healthy control; MCI = mild cognitive impairment; EM = episodic memory; EF = executive function; MOCA = Montreal Cognitive Assessment.

