

## Supplementary Data

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# Longitudinal Changes in Fiber Tract Integrity in Healthy Aging and Mild Cognitive Impairment: A DTI Follow-Up Study

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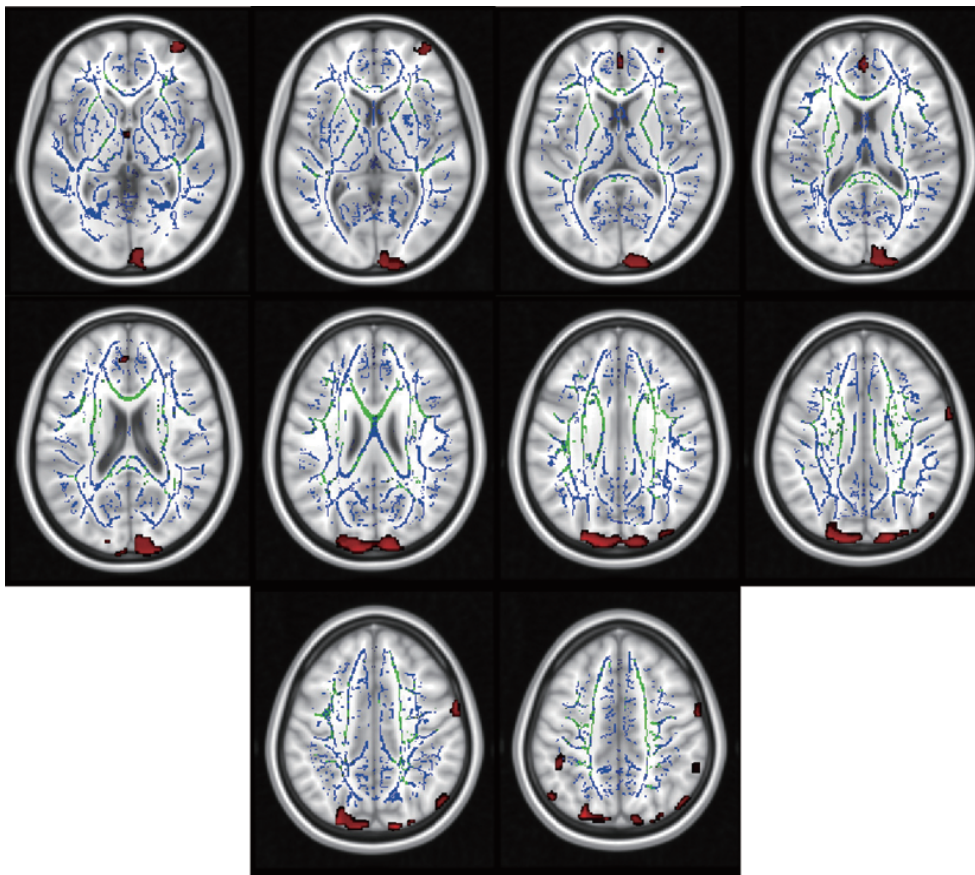
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Supplementary Table 1  
Cognitive changes in controls and MCI subjects (CERAD subtests)

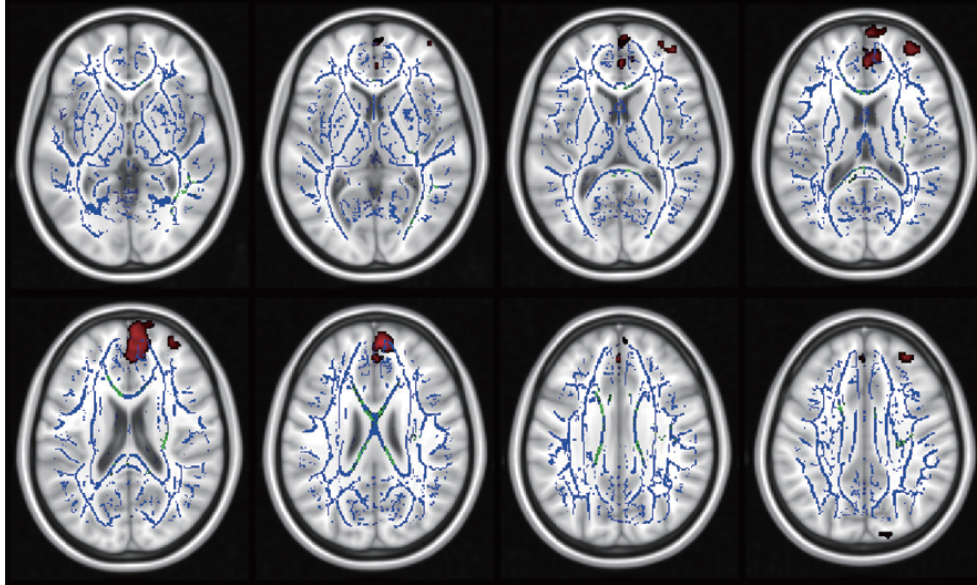
	time ( $F_{23}^1$ )	diagnosis ( $F_{23}^1$ )	time by diagnosis ( $F_{23}^1$ )
MMSE	n.s.	53.44***	n.s.
Verbal fluency	5.23*	10.56**	n.s.
Boston naming	n.s.	n.s.	4.37*
Word learning	n.s.	13.51***	n.s.
Word recall	n.s.	18.97***	n.s.
Word recognition	n.s.	7.38*	n.s.
Drawing	n.s.	n.s.	n.s.
Drawing recall	n.s.	12.08**	n.s.
Clock drawing test	n.s.	57.49***	n.s.

F-values with 1 denominator and 23 nominator degrees of freedom for the main effects of time and diagnosis and the interaction effect of time by diagnosis. The direction of the significant differences always indicates higher performance levels in controls.

n.s.- not significant; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .



Supplementary Figure 1. Projection of FA decline and grey matter atrophy in controls. Cluster of significant decline of grey matter (red) and FA decline (green) projected on the group specific anatomical MRI scan in MNI standard space. Axial slices go from MNI (Talairach-Tournoux) coordinate  $z = 0$  to  $z = 45$  and are 5 mm apart. Please note: The maximum t-value for the time effect on grey matter and FA values was comparable with  $t_{24} = 7$  for grey matter and 6 for FA. For the combined depiction of atrophy and fiber tract changes both measures were thresholded at an uncorrected level of  $p < 0.001$ . Left of image is left of brain.



Supplementary Figure 2. Projection of FA decline and grey matter atrophy in MCI subjects. Cluster of significant decline of grey matter (red) and FA decline (green) projected on the group specific anatomical MRI scan in MNI standard space. Axial slices go from MNI (Talairach-Tournoux) coordinate  $z = 0$  to  $z = 35$  and are 5 mm apart. Please note: The maximum t-value for the time effect on grey matter and FA values was comparable with  $t_{24} = 9$  for grey matter and 7 for FA. For the combined depiction of atrophy and fiber tract changes both measures were thresholded at an uncorrected level of  $p < 0.001$ . Left of image is left of brain.