

**Supplementary Table 1** Group comparison of radial and axial diffusivity. Mean (standard deviation) per diagnostic group and results from univariate ANCOVAs controlling for age, sex, and diffusivity from the white matter control mask. P-values from post-hoc tests are Bonferroni-corrected for multiple comparisons. All P-values from pairwise post-hoc comparisons that are not listed are >0.1

	Controls	MCI-AD	AD	MCI-LB	DLB	Group comparison
<b>Medial NBM pathway</b>						
Radial diffusivity	0.00062 (0.00005)	0.00065 (0.00007)	0.00067 (0.00006)	0.00063 (0.00005)	0.00065 (0.00006)	F(4,230)=1.4, P=0.24
Axial diffusivity	0.00132 (0.00005)	0.00135 (0.00007)	0.00138 (0.00007)	0.00135 (0.00005)	0.00137 (0.00007)	F(4,230)=8.5 P<0.001  P(controls, AD)<0.001 P(controls, DLB)=0.001
<b>Lateral NBM pathway</b>						
Radial diffusivity	0.00079 (0.00007)	0.00084 (0.0001)	0.00089 (0.00008)	0.00085 (0.00008)	0.00086 (0.0001)	F(4,230)=9.0, P<0.001  P(controls, MCI-AD)=0.01 P(controls, AD)<0.001 P(controls, MCI-LB)<0.001 P(controls, DLB)=0.003
Axial diffusivity	0.00133 (0.00008)	0.00138 (0.0001)	0.00144 (0.00008)	0.00139 (0.00008)	0.00140 (0.00009)	F(4,230)=13.0, P<0.001  P(controls, MCI-AD)=0.07 P(controls, AD)<0.001 P(controls, MCI-LB)=0.003 P(controls, DLB)<0.001

AD, Alzheimer's disease dementia; DLB, dementia with Lewy bodies; MCI-AD, mild cognitive impairment due to Alzheimer's disease; MCI-LB, MCI with Lewy bodies; NBM, nucleus basalis of Meynert