

On-line Table 1: MTR values for all brain regions

	Control Mean (SD)	PMGC Mean (SD)	MHD Mean (SD)	<i>P</i>		
				Control vs PMGC	Control vs MHD	PMGC vs MHD
White matter						
Peak height	1.080 (0.271)	1.118 (0.212)	0.860 (0.234)	0.859	0.006*	0.001*
Mean MTR	0.389 (0.017)	0.389 (0.015)	0.378 (0.017)	0.986	0.052	0.086
Cortical gray matter						
Peak height	0.769 (0.121)	0.723 (0.118)	0.610 (0.145)	0.435	0.000*	0.010*
Mean MTR	0.330 (0.131)	0.326 (0.125)	0.314 (0.174)	0.687	0.001*	0.010*
Right caudate						
Peak height	0.804 (0.209)	0.871 (0.198)	0.757 (0.198)	0.486	0.701	0.144
Mean MTR	0.349 (0.029)	0.341 (0.027)	0.325 (0.035)	0.603	0.020*	0.199
Left caudate						
Peak height	0.884 (0.203)	0.949 (0.207)	0.812 (0.231)	0.550	0.474	0.084
Mean MTR	0.367 (0.029)	0.359 (0.021)	0.346 (0.036)	0.586	0.041*	0.330
Right putamen						
Peak height	1.223 (0.388)	1.238 (0.292)	0.976 (0.288)	0.985	0.029*	0.023*
Mean MTR	0.341 (0.019)	0.333 (0.024)	0.325 (0.023)	0.448	0.034*	0.410
Left putamen						
Peak height	1.316 (0.329)	1.299 (0.241)	1.050 (0.290)	0.977	0.006*	0.014*
Mean MTR	0.358 (0.018)	0.351 (0.022)	0.356 (0.017)	0.475	0.932	0.711
Right pallidum						
Peak height	1.449 (0.400)	1.587 (0.296)	1.324 (0.400)	0.404	0.480	0.049*
Mean MTR	0.385 (0.022)	0.382 (0.014)	0.385 (0.022)	0.850	0.996	0.816
Left pallidum						
Peak height	1.563 (0.369)	1.514 (0.285)	1.268 (0.332)	0.868	0.008*	0.038*
Mean MTR	0.382 (0.027)	0.384 (0.015)	0.394 (0.018)	0.951	0.098	0.197
Right thalamus						
Peak height	0.995 (0.297)	1.027 (0.215)	0.864 (0.227)	0.896	0.173	0.078
Mean MTR	0.369 (0.028)	0.360 (0.025)	0.340 (0.038)	0.536	0.005*	0.093
Left thalamus						
Peak height	1.055 (0.253)	1.114 (0.241)	0.906 (0.278)	0.711	0.115	0.021*
Mean MTR	0.380 (0.035)	0.372 (0.018)	0.355 (0.040)	0.709	0.024*	0.168
Right amygdala						
Peak height	1.299 (0.318)	1.294 (0.228)	1.127 (0.263)	0.998	0.080	0.105
Mean MTR	0.362 (0.020)	0.361 (0.020)	0.355 (0.020)	0.977	0.463	0.607
Left amygdala						
Peak height	1.462 (0.343)	1.399 (0.231)	1.178 (0.280)	0.733	0.003*	0.032*
Mean MTR	0.373 (0.028)	0.374 (0.021)	0.368 (0.021)	0.997	0.679	0.648
Right hippocampus						
Peak height	1.220 (0.334)	1.266 (0.239)	1.081 (0.195)	0.821	0.170	0.054
Mean MTR	0.369 (0.025)	0.363 (0.016)	0.357 (0.021)	0.592	0.122	0.593
Left hippocampus						
Peak height	0.954 (0.273)	0.965 (0.207)	0.882 (0.230)	0.985	0.555	0.473
Mean MTR	0.390 (0.027)	0.382 (0.018)	0.383 (0.017)	0.400	0.540	0.972

Note:—MTR values for white matter, gray matter, subcortical gray matter structures. Peak height represents a normalized for volume peak height.

* indicates a significant finding ($P < 0.05$).

On-line Table 2: Regression analysis per region of interest										
	Burden	TMS	TFC	Tap	Tongue	SDMT	Stroop	TMT	VF	UPSIT
WM										
Peak height	.204**	.257**	.074*	.168**	.110*	.097*	.060	.089*	.000	.151**
Mean MTR	.114*	.163**	.025	.080	.034	.057	.036	.037	.004	.160**
CGM										
Peak height	.193**	.189**	.061	.111*	.049	.062	.063	.092*	.003	.058*
Mean MTR	.083*	.152**	.110*	.098*	.062	.114*	.125*	.136**	.034	.122*
Right CN										
Peak height	.059	.054	.019	.040	.001	.021	.061	.009	.000	.014
Mean MTR	.076*	.153**	.036	.105*	.008	.050	.052	.034	.003	.101*
Left CN										
Peak height	.083*	.160**	.034	.116*	.104*	.038	.070	.010	.022	.104*
Mean MTR	.047	.111*	.017	.094*	.037	.012	.026	.025	.000	.141*
Right putamen										
Peak height	.055	.181**	.053	.112*	.044	.067	.067	.038	.001	.061
Mean MTR	.000	.077	.038	.013	.001	.021	.037	.005	.001	.002
Left putamen										
Peak height	.076*	.209**	.090*	.117*	.060	.054	.077*	.035	.000	.070
Mean MTR	.025	.000	.007	.010	.002	.041	.035	.006	.078*	.008
Right pallidum										
Peak height	.110*	.175**	.035	.174**	.051	.071	.048	.041	.004	.075
Mean MTR	.001	.017	.046	.003	.001	.001	.006	.019	.033	.010
Left pallidum										
Peak height	.104*	.164**	.043	.131*	.051	.060	.070	.080*	.000	.045
Mean MTR	.001	.001	.026	.000	.012	.036	.053	.011	.034	.004
Right amygdala										
Peak height	.145**	.128*	.023	.098*	.016	.037	.034	.020	.002	.116*
Mean MTR	.026	.033	.034	.058	.009	.025	.043	.044	.036	.041
Left amygdala										
Peak height	.252**	.184**	.060	.216**	.134*	.170**	.116*	.086*	.071	.172**
Mean MTR	.000	.000	.007	.003	.005	.038	.047	.068	.109*	.003
Right HC										
Peak height	.190**	.091*	.002	.075	.002	.073	.026	.010	.001	.061
Mean MTR	.015	.041	.075	.037	.012	.043	.073	.070	.025	.034
Left HC										
Peak height	.095*	.062	.000	.020	.015	.022	.085*	.026	.039	.011
Mean MTR	.003	.006	.002	.013	.001	.015	.027	.006	.010	.008
Right thalamus										
Peak height	.124*	.099*	.025	.100*	.007	.043	.055	.015	.002	.045
Mean MTR	.162**	.215**	.057	.172**	.033	.072*	.066	.061	.009	.156**
Left thalamus										
Peak height	.154**	.223**	.065	.167**	.122*	.075	.110*	.030	.032	.122*
Mean MTR	.117*	.156**	.027	.134*	.046	.035	.044	.042	.004	.158**

Note:—Regression analysis between 14 clinical and 2 MTI measures in regions of interest. Values stated are *R* square changes. WM indicates white matter; CGM, cortical gray matter; CN, caudate nucleus; HC, hippocampus; TMS, total motor score; TFC, total functional capacity; SDMT, Symbol Digit Modality Test; TMT, Trail-Making Test; VF, verbal fluency; UPSIT, University of Pennsylvania Smell Identification Test. *Bold* indicates significant finding ($P < 0.05$).
* $P < 0.05$. ** $P < 0.005$.