

Table S3 – Longitudinal DTI studies

Author	Year	Follow-up (months)	Participants			ROI analysis				Whole-brain analysis				Threshold
			Con trols	PreHD	HD	FA	MD	AD	RD	FA	MD	AD	RD	
Weaver	2009	12	7	4	3	HDGC: ↓ in CC	N/A	N/A	N/A	HDGC: ↓ IC, CC, CR	N/A	HDGC: ↓ IC, CC less extensive than FA	HDGC: No differences	p<0.05 TFCE corrected
Sritharan	2010	12	17	Not includ ed	18	HD: No differences	N/A	N/A	N/A	N/A	N/A	N/A	N/A	p<0.005 Bonferroni corrected
Dominguez	2013	18	28	29	29	PreHD: No differences HD: ↑ in BG	PreHD: No differences HD: ↑ in BG	N/A	N/A	N/A	N/A	N/A	N/A	p<0.05 corrected for multiple compariso ns
Hobbs	2015	15	40	Not includ ed	61	HD: No differences	HD: ↑ in BG	HD: ↑ in BG	HD: ↑ in BG	N/A	N/A	N/A	N/A	p<0.05 uncorrecte d
Gregory	2015	15	36	Not includ ed	48	HD: ↓ in CC, CR, IC	N/A	HD: ↑ in CC and IC	HD: ↑ in CC	N/A	N/A	N/A	N/A	p<0.05 FDR corrected
Poudel	2015	18	27	28	25	N/A	N/A	N/A	N/A	PreHD: No differences HD: ↓ FA in CC and cingulum	N/A	PreHD: No differences HD: No differences	PreHD: No differences HD: ↑ CC, IC, striatal projection s of WM	p<0.05 TFCE corrected
Dominguez	2016	30	36	40	36	PreHD: No differences	PreHD: No differences HD: No	N/A	N/A	N/A	N/A	N/A	N/A	p<0.05 Bonferroni corrected

						HD: ↑ in BG	differences							
Harrington	2016	24	37	67	Not included	PreHD: No differences	PreHD: ↑ in SFOF	PreHD: No differences	PreHD: No differences	N/A	N/A	N/A	N/A	p<0.05 FDR corrected
Sweidan	2020	7	11	Not included	13	HD: ↓ in CC	HD: No differences	N/A	N/A	HD: No differences	HD: No differences	N/A	N/A	p<0.05 TFCE corrected
Pflanz	2020	12	19	Not included	19	PreHD: No differences	PreHD: ↑ in BG	N/A	N/A	PreHD: No differences		N/A	N/A	ROI: p<0.05 Bonferroni corrected Whole brain: p<0.05 TFCE corrected

AD: Axial Diffusivity, AF: Arciform Fibers, ATR: Anterior Thalamic Radiations, CC: Corpus Callosum, CP: Cerebral Peduncles, CR: Corona Radiata, CST: CorticoSpinal Tract, DTI: Diffusion Tensor Imaging, FA: Fractional Anisotropy, IC: Internal Capsule, EC: External Capsule, HD: Huntington's disease, HDGC, Huntington's disease gene-carriers, IFOF: Inferior Fronto Occipital Fasciculus, ILF: Inferior Longitudinal Fasciculus, MD: Mean Diffusivity, preHD: Premanifest Huntington's disease, PTR: Posterior Thalamic Radiations, RD: Radial Diffusivity, SS: Sagittal Stratum, SLF: Superior Longitudinal Fasciculus, SFOF: Superior Fronto Occipital Fasciculus, UNC: uncinat fasciculi