

**Supplementary Table 1: Correlation between the blood and brain metabolites in regard to the ratio of the levels of post- to pre- sulforaphane treatment.**

We observed a significantly positive correlation in GSH levels in the blood and THAL brain region ( $\rho = 0.943$ ;  $p = 0.017$ ,  $q = 0.051$ ).

region	Molecule	Rho	p-value
ACC	GABA	0.550	0.133
ACC	Gln	0.600	0.097
ACC	Glu	0.517	0.162
ACC	GSH	0.383	0.313
ACC	NAA	0.433	0.250
HP	GABA	0.000	1.000
HP	Gln	-0.400	0.750
HP	Glu	-0.200	0.917
HP	GSH	-0.600	0.417
HP	NAA	-0.400	0.750
THAL	GABA	0.714	0.136
THAL	Gln	0.600	0.242
THAL	Glu	0.829	0.058
THAL	GSH	0.943	0.017*
THAL	NAA	0.486	0.356