

Supplementary Table. Model parameters for individual subjects for grey matter CBF. Using the same model applied to the group average data, individual response parameters were quantified. Unfortunately the reduced SNR of this approach limits the interpretation of this data; however, it is nonetheless important to note the individual heterogeneity of the hypoxic response parameters.

	CBF _B	CBF _H	CBF _R				
	(mL/100 g	(mL/100 g	(mL/100 g	k _H	k _R	δ _H	δ _R
	/min)	/min)	/min)	(/s)	(/s)	(s)	(s)
S01	76.3	86.4	43.7	0.0039	0.0009	228	46
S03	81.9	91.5	80.2	0.0148	0.0497	228	20
S04	85.4	94.5	82.3	0.0077	0.0092	300	20
S05	76.1	89.8	82.5	0.4545*	0.4499	32	182
S06	56.9	74.3	65.6	0.0008	0.3310	91	135
S07	75.6	85.6	80.3	0.0036	0.4180	300	253
S08	56.2	95.3	56.9	0.0008	0.0866	32	20*
S09	62.6	132.0	54.6	0.0004	0.0046	259	240
S10	61.5	72.5	40*	0.0064	0.0012	20*	20*
S11	76.7	88.5	70.8	0.2387	0.0119	298	62
S12	70.9	91.0	65.7	0.07316	0.1363	179	100

Note subject 02 was not included in this analysis as the hypoxic challenge was stopped early, parameters that were estimated at the boundaries included in the non-linear signal fitting routine are marked with an *