Supplementary Materials

Supplementary Table S1

Supplementary Table S1: Description of the ten resting state networks used.

Component from HCP parcellation time series from NetMats d25	Corresponding RSN from Smith et al. (2009)	Spatial correlation (Pearson's r)	Description (Harvard-Oxford and Cerebellar Atlas)	Label of network (Abbreviation)
1	2	.57	Occipital pole	Visual occipital (VisOcc)
2	4	.57	precuneus, cingulate g., superior frontal g., middle frontal g., middle temporal g., temporal pole, lateral occipital cortex (c.) hippocampus, frontal orbital c., cerebellum (crus I, II)	Default mode (DMN)
3	1	.63	Lingual gyrus, cuneus, cerebellum (VI), occipital pole, precentral g.	Visual medial (VisMed)
4	3	.55	lateral occipital c., temporal occipital fusiform c.	Visual lateral (VisLat)
5	9	.57	Various areas in frontal and parietal c. right	Frontoparietal right (FrontParR)
10	10	.53	Frontal and parietal areas left	Frontoparietal left (FrontParL)
14	6	.39	Precentral g., postcentral g., operculum, cerebellum (V, VI, VIII)	Sensorimotor (SensMot)
18	5	.36	Cerebellum (posterior lobe), amygdala, thalamus, hippocampus, cingulate g. (anterior)	Cerebellar (Cerebell)
19	7	.41	Superior temporal g., operculum, supramarginal g., thalamus, superior frontal g., hippocampus, temporal pole	Auditory (Aud)
21	8	.42	medial frontal areas, anterior cingulate, paracingulate	Executive control (Exec)

Supplementary Table S2

Supplementary Table S2: Mean (SD) peak of HRF after stimulus onset in seconds for different interventions and nodes across 50 simulated datasets.

Simulation name (total offset between nodes)	τ node 1 and 4	τ node 2 and 5
< 0.4 s	0.98	0.98
0.4 s	1.27	0.75
0.8 s	1.57	0.61
1.1 s	1.96	0.49
1.4 s	2.35	0.41
1.7 s	2.74	0.35
1.9 s	3.14	0.31

Supplementary Table S3

Supplementary Table S3: Mean (SD) peak of HRF after stimulus onset in seconds for different interventions and nodes across 50 simulated datasets.

	< 0.4 s	0.4 s	0.8 s	1.1 s	1.4 s	1.7 s	1.9 s
Node 1	4.07(±0.25)	4.30(±0.31)	4.53(±0.32)	4.68(±0.31)	4.90(±0.32)	5.15(±0.40)	5.36(±0.45)
Node 2	4.10(±0.29)	3.89(±0.31)	3.76(±0.33)	3.67(±0.25)	3.61(±0.25)	3.57(±0.26)	3.55(±0.25)
Node 3	4.18(±0.36)	4.19(±0.31)	4.19(±0.31)	4.19(±0.31)	4.19(±0.31)	4.19(±0.31)	4.19(±0.31)
Node 4	4.28(±0.30)	4.47(±0.36)	4.78(±0.35)	5.03(±0.31)	5.13(±0.29)	5.27(±0.38)	5.46(±0.42)
Node 5	4.05(±0.35)	3.86(±0.25)	3.71(±0.25)	3.57(±0.28)	3.47(±0.25)	3.43(±0.23)	3.42(±0.23)

Supplementary Table S4

Supplementary Table S4: Peak offsets in seconds relative to first simulation (< 0.4 s)

	0.4 s	0.8 s	1.1 s	1.4 s	1.7 s	1.9 s
Node 1	+0.23	+0.46	+0.62	+0.84	+1.09	+1.29
Node 2	-0.21	-0.34	-0.43	-0.49	-0.53	-0.55
Node 3	+0.01	+0.01	+0.01	+0.01	+0.01	+0.01
Node 4	+0.19	+0.50	+0.75	+0.85	+0.99	+1.18
Node 5	-0.19	-0.35	-0.49	-0.58	-0.63	-0.63

Supplementary Table S5

Supplementary Table S5: Total offset in seconds between nodes with increased/decreased lags.

	0.4 s	0.8 s	1.1 s	1.4 s	1.7 s	1.9 s
node 1 and 2	0.44	0.80	1.04	1.32	1.62	1.85
node 4 and 5	0.38	0.84	1.24	1.44	1.62	1.82
node 1 and 5	0.43	0.81	1.10	1.42	1.71	1.93