

Supplemental Table 1. Localization of Xenon-induced Decreases (Baseline vs. Anesthesia) in Regional Cerebral Blood Flow. Absolute SPM -analysis (T=3.75, k=1000)

Lobe	Region	Side	Proportion of Cluster Volume (%)	Proportion of the Region Covered by the Cluster (%)	Cluster Voxels	Maximum Voxel MNI Coordinates
CLUSTER 1					25717	0 -68 -24
Occipital Lobe	Lingual Gyrus	L	2.11	25.22	543	
	Middle Occipital Gyrus	R	0.21	2.15	54	
	Lingual Gyrus	R	2.06	24.14	530	
Temporal Lobe	Inferior Temporal Gyrus	L	0.64	12.02	165	
	Fusiform Gyrus	L	2.04	30.02	525	
	Middle Temporal Gyrus	L	4.4	22.57	1132	
	Superior Temporal Gyrus	L	0.48	2.36	123	
	Fusiform Gyrus	R	2.19	32.01	563	
Parietal Lobe	Precuneus	L	2.85	19.86	733	
	Precuneus	C	0.46	69.59	118	
	Inferior Parietal Lobule	R	2.18	18.97	561	
	Superior Parietal Lobule	R	1.79	55.34	460	
	Precuneus	R	3.82	25.46	982	
Frontal Lobe		L	0.21	0.16	54	
		R	0.44	0.34	113	
Limbic Lobe	Parahippocampal Gyrus	L	2.15	27.04	553	
	Cingulate Gyrus	L	0.96	7.75	247	
	Posterior Cingulate	L	0.5	13.9	129	
	Parahippocampal Gyrus	R	2.64	33.53	679	
	Cingulate Gyrus	R	1.76	12.8	453	
	Posterior Cingulate	R	0.6	15.3	154	
Paracentral Lobule		L	0.19	6.94	49	
		R	0.41	13.73	105	
Cerebellum	Declive	L	6.05	69.39	1556	

	Culmen	L	6.09	61.52	1566
	Cerebellar Lingual	L	0.22	78.08	57
	Culmen	C	0.42	97.32	108
	Declive	R	6.13	70.43	1576
	Culmen	R	6.91	68.31	1777
Thalamus	Pulvinar	L	0.88	84.96	226
	Medial Dorsal Nucleus	L	0.45	95.08	116
	Pulvinar	R	0.83	79.48	213
Subthalamus	Medial Globus Pallidus	L	0.26	76.74	67
	Medial Globus Pallidus	R	0.22	68.29	57
	Lateral Globus Pallidus	R	0.5	56.64	129
Brain Stem	Pons	L	0.59	15.26	152
	Midbrain	L	3.5	89.37	900
	Midbrain	C	0.32	62.41	82
	Midbrain	R	1.3	31.05	334
Extra-nuclear		L	3.34	16.21	859
		R	3.61	17.17	928
Corpus Callosum			0.31	6.84	80
Lentiform Nucleus		L	0.4	8.9	103
		R	1.03	22.94	265
Putamen		R	0.31	9.61	80
Total % of the Cluster			78.76		20255

Lobe	Region	Side	Proportion of Cluster Volume (%)	Proportion of the Region Covered by the Cluster (%)	Cluster Voxels	Maximum Voxel MNI Coordinates
CLUSTER 2					19931	-26 62 22
Frontal Lobe	Orbital Gyrus	L	0.32	18.26	64	
	Rectal Gyrus	L	0.29	16.48	58	

	Precentral Gyrus	L	0.75	3.66	149
	Inferior Frontal Gyrus	L	3.88	16.77	773
	Middle Frontal Gyrus	L	16.91	46.28	3370
	Superior Frontal Gyrus	L	15.85	54.5	3159
	Medial Frontal Gyrus	L	6.43	32.21	1282
	Subcallosal Gyrus	R	0.33	22.26	66
	Rectal Gyrus	R	0.4	21.88	80
	Precentral Gyrus	R	0.37	1.8	74
	Inferior Frontal Gyrus	R	5.88	25.1	1172
	Middle Frontal Gyrus	R	14.13	38.78	2816
	Superior Frontal Gyrus	R	9.17	31.11	1828
	Medial Frontal Gyrus	R	8.83	42.32	1760
Limbic Lobe	Anterior Cingulate	L	0.46	6.23	92
	Anterior Cingulate	R	0.55	6.83	110
Total % of the Cluster			84.55		16852

Lobe	Region	Side	Proportion of Cluster Volume (%)	Proportion of the Region Covered by the Cluster (%)	Cluster Voxels	Maximum Voxel MNI Coordinates
CLUSTER 3					3767	-48 -68 -44
Occipital Lobe	Superior Occipital Gyrus	L	0.48	8.7	18	
	Angular Gyrus	L	6.93	65.91	261	
	Supramarginal Gyrus	L	11.97	51.08	451	
Temporal Lobe	Middle Temporal Gyrus	L	2.36	1.77	89	
	Superior Temporal Gyrus	L	0.88	0.63	33	
Parietal Lobe	Inferior Parietal Lobule	L	40.48	51.47	1525	
	Precuneus	L	9.29	9.47	350	
	Superior Parietal Lobule	L	9.03	40.57	340	
	Postcentral Gyrus	L	5.57	6.97	210	
Total % of the Cluster			86.99		3277	

R = Right Hemisphere, L = Left Hemisphere, C = Center, T = Height Threshold, k = Extend Threshold. Proportions that were not identifiable or sized < 50 were excluded.