

Supplementary Materials for “Sustained Anterior Cingulate Cortex Activation during Reward Processing Predicts Response to Psychotherapy in Major Depressive Disorder”

Table S1. Whole brain analyses of global activation (i.e., runs 1 and 2 combined) for the reward anticipation condition. Clusters are thresholded at $z > 4.0$, $p < 0.005$ (corrected), ≥ 10 contiguous voxels; MNI coordinates reflect the maximum voxel of intensity for each cluster; k = voxels in each cluster; R: right, L: left; ACC: Anterior Cingulate Cortex. There were no significant clusters reflecting group differences for this condition.

Control Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
Nucleus Accumbens	R	12	8	-10	52	4.46
Orbital Frontal Cortex	L	-34	20	-12	100	4.92
Subcallosal Cortex	L	-6	14	-12	53	4.60
Insula	R	36	16	0	428	5.31
Thalamus	R	4	-18	6	85	4.46
Lateral Occipital Cortex	R	48	-76	-4	281	5.22
	L	-38	-88	4	143	4.83
	L	-48	64	-12	68	4.68
Cuneus/Occipital Lobe	R	20	-74	10	61	4.60
	R	12	-92	16	135	5.06
Precuneus	R	14	-66	44	71	4.63
	L	-6	-76	50	38	4.56
Precentral Gyrus	L	-44	-4	54	40	4.92
Superior Parietal Lobe	R	30	-54	40	73	4.76
	L	-26	-54	68	32	4.71

MDD Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
<i>Local Maxima</i>	-	-	-		3866	-
Putamen	L	-26	-14	8	-	5.11
Pallidum	L	-16	-6	0	-	5.18
Insula	L	-30	20	-2	-	5.37
Thalamus	L	-10	-8	-2	-	5.47
ACC / Paracingulate Gyrus	R / L	2	6	52	1463	5.24
	R	8	32	20	38	4.84
Frontal Pole	R	34	48	22	75	4.53
	L	-38	50	18	85	4.35
Insula	R	36	4	-4	44	4.68
Lateral Occipital Cortex	R	48	-76	-6	423	5.58
	L	-44	-72	-6	662	5.51
	L	-26	-62	56	376	4.99
Occipital Pole	R	16	-94	18	103	5.24
	L	-8	-98	8	50	4.76
Precuneus Cortex	R	14	-68	38	612	5.44
Intracalcarine Cortex	L	-4	-76	16	105	4.54
Precentral Gyrus	R	54	0	48	64	4.45
	L	-44	-6	52	44	4.75
	L	-40	-20	60	44	4.34
Supramarginal Gyrus	L	-38	-40	40	166	4.82
	L	-52	-30	40	35	4.37
Superior Frontal Gyrus	R	18	2	54	115	4.81

Table S2. Whole brain analyses for global activation (i.e., runs combined) for the reward outcome condition. All clusters are thresholded at $z=4.5$, $p<0.005$ (corrected), ≥ 10 contiguous voxels; MNI coordinates reflect the maximum voxel of intensity for each cluster; k = number of voxels in each cluster; R: right, L: left; ACC: Anterior Cingulate Cortex. There were no significant clusters reflecting group differences for this condition. There were no significant clusters reflecting group differences for this condition.

Control Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
ACC	R	6	38	8	28	4.92
Orbital Frontal Cortex	R	32	18	-16	15	5.18
Subcallosal Cortex	R	2	16	-6	39	5.3

MDD Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
ACC	R	-2	38	14	23	4.93
ACC	R	8	38	20	10	4.80

Table S3. Within-group whole brain analyses for sustained activation (Run 1 > Run 2) for the reward anticipation condition. All clusters are thresholded at $z=2.8$, $p<0.005$ (corrected), ≥ 10 contiguous voxels; MNI coordinates reflect the maximum voxel of intensity for each cluster; k = number of voxels in each cluster; Area; R: right, L: left. There were no significant clusters for the control group for this condition. There were no significant clusters reflecting group differences for this condition.

MDD Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
Precuneus Cortex	R	2	-54	14	12	2.96
Posterior Cingulate	L	-4	20	40	19	3.36
	L	-2	-34	44	12	3.19

Table S4. Within-group whole brain analyses for sustained activation (Run 1 > Run 2) for the reward outcome condition. All clusters are thresholded at $z=4.0$, $p<0.005$ (corrected), ≥ 10 contiguous voxels; MNI coordinates reflect the maximum voxel of intensity for each cluster; k = number of voxels in each cluster; Area; R: right, L: left; ACC. There were no significant clusters for the control group for this condition. There were no significant clusters reflecting group differences for this condition.

MDD Group:

Region	Right/left	MNI coordinates			k	Peak z-score
		X	Y	Z		
Precuneus Cortex	L	0	-36	50	17	4.36