

TABLE S1 Intrinsic Functional Connectivity (iFC) Secondary Analysis Group Comparisons (Major Depressive Disorder [MDD] vs. Controls) and Correlations With MDD and Anhedonia Severity (MDD Only)

Region	Side	Connectivity Peak	Cluster Size	Peak (MNI)			Peak Z	p
				X	Y	Z		
MDD > Controls								
Caudate	Left	dmPFC	2,224	10	40	44	4.50	2.03×10^{-6}
	Right	dmPFC and ACC	6,273	-16	42	30	4.99	8.64×10^{-12}
Putamen	Left	dmPFC	654	6	26	48	3.92	4.77×10^{-3}
	Right	dmPFC	1,419	4	38	46	4.41	1.39×10^{-4}
Nucleus accumbens	Right	dmPFC and ACC	2,594	-22	46	26	4.59	1.79×10^{-7}
Controls > MDD								
Caudate	Left	Superior temporal lobe	1,530	-64	-24	14	4.54	8.82×10^{-5}
	Right	Occipital fusiform cortex	1,444	-30	-78	-16	4.36	7.12×10^{-4}
	Right	Temporal/occipital fusiform cortex	1,209	42	-62	-22	3.92	2.42×10^{-3}
Putamen	Right	Cuneal cortex	1,620	28	-82	30	4.67	2.97×10^{-4}
	Left	Lateral occipital cortex	1,261	60	-62	16	4.70	2.37×10^{-5}
	Right	Lateral occipital cortex	2,879	46	-84	-4	4.13	5.76×10^{-8}
MDD: Negative CDRS-R Correlations								
Caudate	Left	Precuneus	994	-4	-62	64	4.49	1.08×10^{-3}
	Right	Precuneus	550	-6	-64	58	3.48	9.47×10^{-3}
MDD: Positive Anhedonia Correlations								
Caudate	Left	Middle occipital gyrus	563	-38	-70	6	3.49	< 0.001
	Right	Supplementary motor area	559	-10	-24	62	3.65	0.001
Putamen	Right	Perigenual ACC	618	-10	16	26	4.08	0.002

Note: ACC = anterior cingulate cortex; CDRS-R = Children's Depression Rating Scale-Revised; dmPFC = dorsomedial prefrontal cortex; MNI = Montreal Neurological Institute; PCC = posterior cingulate cortex.

TABLE S2 Intrinsic Functional Connectivity (iFC) Without Global Signal Regression Group Comparisons (Major Depressive Disorder [MDD] vs. Controls) and Correlations With MDD and Anhedonia Severity (MDD Only)

Region	Seed	Connectivity Peak	Cluster Size	Peak (MNI)			Peak Z	p
				X	Y	Z		
MDD > Controls								
Caudate	Left VC	dmPFC	535	-12	40	42	4.11	.005
	Right DC	dmPFC	2,430	-12	42	38	4.83	< .001
	Right VC	dmPFC and ACC	5,911	-18	40	36	4.82	.003
Putamen	Left DRP	dmPFC	903	8	26	52	4.10	< .001
	Right DRP	Inferior frontal gyrus	951	-60	28	14	4.06	.003
	Right VRP	dmPFC and paracingulate gyrus	2,618	6	24	48	4.25	.008
Nucleus Accumbens	Left NAc	dmPFC	425	-6	30	56	4.02	.003
	Right NAc	dmPFC	2,945	-22	46	26	4.69	.002
Controls > MDD								
Caudate	Left DC	Occipital cuneal cortex	771	8	-78	30	3.78	.027
	Right DC	Occipital lingual gyrus	877	-26	-60	-2	3.88	.018
	Right DC	Occipital/temporal fusiform cortex	763	42	-62	-22	3.55	.050
Putamen	Right VC	Occipital cuneal cortex	2,799	-22	-68	24	4.59	.037
	Left DRP	Occipital fusiform cortex	867	36	-72	-18	4.45	.006
	Right DRP	Occipital fusiform cortex	1,300	36	-78	-18	4.55	.050
	Right DRP	Lateral occipital cortex	988	-40	-90	2	4.71	.033
Nucleus Accumbens	Right VRP	Occipital fusiform cortex	1,172	-24	-74	-10	3.89	.029
	Right NAc	Middle temporal gyrus	1,277	50	-54	-2	4.14	.022
	Right NAc	Middle occipital gyrus	722	26	-80	14	4.16	.030
	Right NAc	Occipital fusiform gyrus	711	-28	-60	-4	4.51	.050
MDD: Positive CDRS-R Correlations								
Putamen	Right VRP	Precuneus and PCC	889	-2	-56	32	4.19	.086
MDD: Negative CDRS-R Correlations								
Caudate	Left DC	Precuneus and PCC	1,716	6	-66	62	4.29	.007
	Left DC	Middle frontal gyrus	709	28	14	52	4.09	.031
	Right DC	Precuneus and PCC	656	-4	-62	62	4.38	.020
Putamen	Left DRP	dmPFC	449	-32	42	40	4.33	.025
	Left VRP	Lateral occipital cortex	389	10	-66	60	3.52	.076
	Right VRP	dmPFC	462	46	60	-4	4.61	.041
Nucleus accumbens	Right NAc	Precuneus	435	-6	-62	62	3.53	.094
MDD: Positive Anhedonia Correlations								
Caudate	Left DC	Supplementary motor area	2,248	10	2	52	4.18	.057
	Left VC	Supplementary motor area	679	10	2	52	4.14	.090
	Left VC	Precuneus	620	-30	-52	52	3.88	.057
	Right DC	Middle frontal gyrus	600	-18	-16	54	4.92	.047
	Right VC	Supramarginal gyrus	648	-54	-38	42	3.58	.042
MDD: Negative Anhedonia Correlations								
Caudate	Right DC	Precuneus and PCC	1,006	30	-66	52	4.34	.017
Nucleus accumbens	Left NAc	Subgenual ACC and left caudate	939	-8	10	14	4.70	< .001

Note: ACC = anterior cingulate cortex; CDRS-R = Children's Depression Rating Scale-Revised; DC = dorsal caudate; DCP = dorsal caudal putamen; dmPFC = dorsomedial prefrontal cortex; DRP = dorsal rostral putamen; MNI = Montreal Neurological Institute; NAc = nucleus accumbens; PCC = posterior cingulate cortex; VC = ventral caudate; VRP = ventral rostral putamen.

TABLE S3 Intrinsic Functional Connectivity (iFC) Controlled for Mean Framework Displacement (FD) Group Comparisons (Major Depressive Disorder [MDD] vs. Controls) and Correlations With MDD and Anhedonia Severity (MDD Only)

Region	Seed	Connectivity Peak	Cluster Size	Peak (MNI)			Peak Z	p
				X	Y	Z		
MDD > Controls								
Caudate	Right DC	dmPFC	1,899	-12	42	38	4.73	5.48 × 10 ⁻⁶
	Right VC	dmPFC and ACC	6,117	-18	40	36	4.74	5.88 × 10 ⁻¹²
Putamen	Left DRP	dmPFC	1,037	8	26	52	3.98	1.87 × 10 ⁻⁴
	Right DRP	Inferior frontal gyrus	988	-60	28	14	3.95	2.29 × 10 ⁻³
	Right VRP	dmPFC and paracingulate gyrus	2,615	6	24	48	4.08	1.79 × 10 ⁻⁷
Nucleus Accumbens	Right NAc	dmPFC	3,273	-18	44	26	4.60	1.34 × 10 ⁻⁸
Controls > MDD								
Caudate	Left DC	Superior temporal gyrus	1,379	-68	-26	12	4.59	5.85 × 10 ⁻⁵
	Right DC	Occipital pole	1,735	-10	-90	26	4.41	1.41 × 10 ⁻⁵
	Right DC	Occipital lingual gyrus	928	-26	-60	-2	3.99	2.51 × 10 ⁻³
	Right DC	Occipital/temporal fusiform cortex	824	42	-62	-22	3.56	5.36 × 10 ⁻³
Putamen	Right VC	Occipital fusiform cortex	4,919	-36	-80	-14	4.65	3.23 × 10 ⁻¹⁰
	Left DRP	Occipital fusiform cortex	855	36	-72	-18	4.31	8.85 × 10 ⁻⁴
	Right DRP	Occipital fusiform cortex	1,320	36	-78	-18	4.46	2.70 × 10 ⁻⁴
	Right DRP	Lateral occipital cortex	1,068	34	-80	12	4.51	1.34 × 10 ⁻³
	Right DRP	Lateral occipital cortex	1,013	-40	-90	2	4.64	1.94 × 10 ⁻³
	Right VRP	Lateral occipital cortex	3,609	30	-80	12	4.64	1.77 × 10 ⁻⁹
	Right VRP	Occipital lingual gyrus	1,275	-22	-54	-8	3.77	3.11 × 10 ⁻⁴
Nucleus Accumbens	Right NAc	Middle temporal gyrus	1,156	50	-54	-2	4.00	8.41 × 10 ⁻⁴
	Right NAc	Occipital lingual gyrus	951	-28	-58	-4	4.53	3.23 × 10 ⁻³
MDD: Positive CDRS-R Correlations								
Caudate	Left DC	Superior temporal gyrus	1,008	-42	16	-36	4.03	1.85 × 10 ⁻³
Putamen	Right VRP	Precuneus and PCC	850	-2	-56	32	4.08	4.40 × 10 ⁻⁴
MDD: Negative CDRS-R Correlations								
Caudate	Left DC	Precuneus and PCC	1,734	6	-66	62	4.14	2.06 × 10 ⁻⁵
	Right DC	Precuneus and PCC	706	-4	-62	62	4.28	1.64 × 10 ⁻³
	Right DC	dmPFC	595	-28	60	26	4.29	5.29 × 10 ⁻³
	Left VRP	dmPFC	610	2	68	14	4.51	2.85 × 10 ⁻³
Nucleus Accumbens	Right NAc	dmPFC	555	24	12	50	4.22	4.50 × 10 ⁻³
	Right NAc	Precuneus	509	-2	-62	64	3.47	7.85 × 10 ⁻³
MDD: Positive Anhedonia Correlations								
Caudate	Left DC	Precentral gyrus	1,382	-28	-16	66	4.17	1.98 × 10 ⁻⁴
	Left DC	Precentral gyrus	1,216	20	-18	66	3.78	5.52 × 10 ⁻⁴
	Right DC	Left posterior insula	1,769	-44	-14	0	4.23	7.81 × 10 ⁻⁶
	Right DC	Right posterior insula	1,357	50	-6	2	4.18	1.02 × 10 ⁻⁴
MDD: Negative Anhedonia Correlations								
Caudate	Left DC	PCC	1,179	2	-46	18	3.9	6.98 × 10 ⁻⁴
	Right DC	Precuneus and PCC	1,250	30	-66	54	4.34	2.07 × 10 ⁻⁴
Nucleus Accumbens	Left NAc	Subgenual ACC and left caudate	877	-10	10	16	4.81	2.01 × 10 ⁻³

Note: ACC = anterior cingulate cortex; CDRS-R = Children's Depression Rating Scale-Revised; DC = dorsal caudate; DCP = dorsal caudal putamen; dmPFC = dorsomedial prefrontal cortex; DRP = dorsal rostral putamen; MNI = Montreal Neurological Institute; NAc = nucleus accumbens; PCC = posterior cingulate cortex; VC = ventral caudate; VRP = ventral rostral putamen.

REFERENCES

1. Kennedy DN, Lange N, Makris N, Bates J, Meyer J, Caviness VS Jr. Gyri of the human neocortex: an MRI-based analysis of volume and variance. *Cereb Cortex*. 1998;8:372-384.
2. Makris N, Meyer JW, Bates JF, Yeterian EH, Kennedy DN, Caviness VS. MRI-based topographic parcellation of human cerebral white matter and nuclei II. Rationale and applications with systematics of cerebral connectivity. *NeuroImage*. 1999;9:18-45.
3. Stark DE, Margulies DS, Shehzad ZE, *et al.* Regional variation in interhemispheric coordination of intrinsic hemodynamic fluctuations. *J Neurosci*. 2008;28:13754-13764.
4. Kelly C, Biswal BB, Craddock RC, Castellanos FX, Milham MP. Characterizing variation in the functional connectome: promise and pitfalls. *Trends Cogn Sci*. 2012;16:181-188.
5. Leopold DA, Maier A. Ongoing physiological processes in the cerebral cortex. *NeuroImage*. 2012;62:2190-2200.
6. Carbonell F, Bellec P, Shmuel A. Global and system-specific resting-state fMRI fluctuations are uncorrelated: principal component analysis reveals anti-correlated networks. *Brain Connect*. 2011;1:496-510.
7. He H, Liu TT. A geometric view of global signal confounds in resting-state functional MRI. *NeuroImage*. 2012;59:2339-2348.