

**Supplementary Table S1. Summary of Significant Effects of Genetic Polymorphisms, Cannabis, and Hemisphere on Hippocampal Subregional Volumes**

COMT (df = 1,54, 1,56) <sup>a,b</sup>	CB <sup>b</sup>	COMT	CB × COMT	Hemisphere	CB × hemisphere	Hemisphere × COMT	Hemisphere × CB × COMT	Hemisphere × ICV
Total hippocampus	F = 0.64, p = 0.43	F = 1.29, p = 0.28	F = 0.74, p = 0.48	F = 0.70, p = 0.41	F = 0.94, p = 0.34	F = 0.07, p = 0.93	F = 1.25, p = 0.30	F = 1.17, p = 0.28
Subiculum <sup>c</sup>	F = 1.61, p = 0.21	F = 0.02, p = 0.88	F = 0.03, p = 0.86	F = 0.18, p = 0.67	F = 4.16, p = 0.05	F = 0.58, p = 0.45	F = 1.90, p = 0.17	F = 0.21, p = 0.65
Presubiculum <sup>c</sup>	F = 0.19, p = 0.67	F = 0.001, p = 0.97	F = 0.16, p = 0.97	F = 2.16, p = 0.15	F = 2.17, p = 0.15	F = 0.16, p = 0.69	F = 2.00, p = 0.16	F = 1.17, p = 0.15
CA1 <sup>c</sup>	<b>F = 3.95, p = 0.05,</b> CB>HC	F = 0.45, p = 0.51	F = 0.21, p = 0.65	F = 0.04, p = 0.85	F = 0.59, p = 0.45	F = 0.25, p = 0.62	F = 0.31, p = 0.58	F = 0.00, p = 0.99
CA2/3 <sup>c</sup>	<b>F = 5.14, p = 0.03,</b> CB>HC	F = 0.08, p = 0.78	F = 0.003, p = 0.96	F = 0.28, p = 0.60	F = 1.85, p = 0.18	F = 0.17, p = 0.68	F = 0.27, p = 0.60	F = 0.22, p = 0.64
CA4 <sup>c</sup>	<b>F = 4.44, p = 0.04,</b> CB>HC	F = 0.18, p = 0.67	F = 0.40, p = 0.53	F = 0.17, p = 0.69	F = 2.77, p = 0.10	F = 0.22, p = 0.64	F = 0.45, p = 0.50	F = 0.11, p = 0.74
Fimbria <sup>c</sup>	F = 2.78, p = 0.10	F = 2.25, p = 0.14	F = 0.01, p = 0.92	F = 0.25, p = 0.62	F = 0.00, p = 0.99	F = 0.21, p = 0.65	F = 0.01, p = 0.94	F = 0.09, p = 0.77
Fissure <sup>c</sup>	F = 1.87, p = 0.18	F = 1.54, p = 0.22	F = 3.61, p = 0.06	F = 3.03, p = 0.09	<b>F = 8.92, p = 0.004</b>	F = 0.06, p = 0.80	<b>F = 5.15, p = 0.03</b>	F = 3.34, p = 0.07
DAT1 (df = 1,48, 1,52) <sup>a,b</sup>	CB	DAT1	CB × DAT1	Hemisphere	CB × hemisphere	Hemisphere × DAT1	Hemisphere × CB × DAT1	Hemisphere × ICV
Total hippocampus	F = 0.43, p = 0.51	F = 0.4, p = 0.29	<b>F = 4.93, p = 0.03</b>	F = 0.70, p = 0.41	F = 3.70, p = 0.06	F = 1.05, p = 0.31	F = 3.17, p = 0.08	F = 1.17, p = 0.29
Subiculum	F = 0.30, p = 0.59	F = -0.52, p = 0.72	F = 0.27, p = 0.77	F = 0.001, p = 0.98	F = 0.41, p = 0.52	F = 1.13, p = 0.36	F = 0.44, p = 0.65	F = 0.02, p = 0.89
Presubiculum	F = 1.20, p = 0.28	F = 0.27, p = 0.89	F = 0.88, p = 0.42	<b>F = 4.10, p = 0.05,</b> L<R	F = 0.75, p = 0.39	F = 1.66, p = 0.18	F = 0.06, p = 0.94	F = 3.11, p = 0.08
CA1	F = 1.52, p = 0.22	F = 2.25, p = 0.08	F = 0.70, p = 0.50	F = 0.04, p = 0.84	F = 0.01, p = 0.91	F = 1.10, p = 0.37	F = 0.12, p = 0.89	F = 0.04, p = 0.84
CA2/3	F = 1.68, p = 0.20	F = 1.25, p = 0.30	F = 0.50, p = 0.61	F = 0.04, p = 0.84	F = 0.15, p = 0.70	F = 1.15, p = 0.34	F = 0.23, p = 0.80	F = 0.12, p = 0.74
CA4	F = 1.28, p = 0.26	F = 1.49, p = 0.22	F = 0.18, p = 0.84	F = 0.04, p = 0.85	F = 0.51, p = 0.48	F = 0.95, p = 0.44	F = 0.06, p = 0.94	F = 0.08, p = 0.78
Fimbria	F = 2.71, p = 0.11	F = 1.80, p = 0.15	F = 0.33, p = 0.72	F = 0.10, p = 0.75	F = 0.01, p = 0.91	F = 0.75, p = 0.57	F = 0.07, p = 0.94	F = 0.05, p = 0.82
Fissure	F = 0.23, p = 0.63	F = .25, p = 0.91	<b>F = 4.05, p = 0.02</b>	F = 2.89, p = 0.10	F = 1.52, p = 0.22	F = 1.06, p = 0.39	F = 0.61, p = 0.55	F = 2.47, p = 0.12
BDNF df = 1,48 <sup>a,b</sup>	CB	BDNF	CB × BDNF	Hemisphere	CB × hemisphere	Hemisphere × BDNF	Hemisphere × CB × BDNF	Hemisphere × ICV
Total hippocampus	F = 0.25, p = 0.62	F = 0.11, p = 0.74	F = 0.01, p = 0.91	F = 0.44, p = 0.51	<b>F = 4.32, p = 0.04</b>	F = 0.11, p = 0.75	F = 0.34, p = 0.56	F = 0.80, p = 0.38
Subiculum	F = 0.76, p = 0.39	F = 0.22, p = 0.64	F = 0.02, p = 0.90	F = 0.08, p = 0.78	F = 2.26, p = 0.14	F = 0.68, p = 0.41	F = 0.37, p = 0.55	F = 0.14, p = 0.71
Presubiculum	F = 0.07, p = 0.80	F = 1.62, p = 0.21	F = 0.30, p = 0.58	F = 1.93, p = 0.17	F = 0.46, p = 0.50	F = 3.76, p = 0.06	F = 0.08, p = 0.77	F = 1.09, p = 0.30
CA1	F = 2.69, p = 0.11	F = 0.003, p = 0.95	F = 0.81, p = 0.37	F = 0.01, p = 0.94	F = 0.63, p = 0.43	F = 1.35, p = 0.25	F = 0.10, p = 0.76	F = 0.01, p = 0.95
CA2/3	<b>F = 5.23, p = 0.03,</b> CB>HC	F = 0.17, p = 0.68	F = 0.53, p = 0.47	F = 0.70, p = 0.41	F = 2.17, p = 0.15	F = 0.43, p = 0.52	F = 0.01, p = 0.93	F = 0.59, p = 0.45
CA4	F = 2.71, p = 0.11	F = 0.15, p = 0.70	F = 0.18, p = 0.68	F = 0.43, p = 0.52	F = 2.48, p = 0.12	F = 0.98, p = 0.33	F = 0.003, p = 0.96	F = 0.34, p = 0.57
Fimbria	F = 2.10, p = 0.15	F = 0.003, p = 0.96	F = 0.06, p = 0.81	F = 0.15, p = 0.70	F = 0.17, p = 0.69	F = 3.18, p = 0.08	F = 0.96, p = 0.33	F = 0.06, p = 0.81
Fissure	F = 0.12, p = 0.74	F = 0.64, p = 0.43	F = 0.03, p = 0.87	F = 2.53, p = 0.12	<b>F = 6.01, p = 0.02</b>	<b>F = 9.11, p = 0.004</b>	F = 0.13, p = 0.72	F = 2.59, p = 0.11
COMT-DAT1 <sup>b</sup>	CB	COMT-DAT1	CB × COMT-DAT1	Hemisphere	CB × hemisphere	Hemisphere × COMT-DAT1	Hemisphere × CB × COMT-DAT1	Hemisphere × ICV
Total hippocampus	F = 0.71, p = 0.40	F = 1.35, p = 0.27	F = 1.89, p = 0.16	F = 0.61, p = 0.44	F = 1.14, p = 0.29	F = .95, p = 0.40	F = 0.30, p = 0.74	F = 0.92, p = 0.34
Subiculum	F = 1.73, p = 0.20	F = 0.02, p = 0.98	F = 0.23, p = 0.79	F = 0.59, p = 0.45	F = 0.45, p = 0.51	F = 0.53, p = 0.59	F = 0.81, p = 0.45	F = 0.64, p = 0.43
Presubiculum	F = 0.60, p = 0.44	F = 0.02, p = 0.98	F = 0.65, p = 0.53	F = 4.96, p = 0.03	F = 3.57, p = 0.07	F = 0.26, p = 0.77	F = 1.72, p = 0.19	F = 3.41, p = 0.07
CA1	F = 1.68, p = 0.20	F = 0.29, p = 0.75	F = 0.82, p = 0.45	F = 0.74, p = 0.39	F = 0.32, p = 0.57	F = 0.61, p = 0.55	F = 0.92, p = 0.40	F = 0.41, p = 0.53
CA2/3	F = 2.64, p = 0.11	F = 0.11, p = 0.90	F = 0.22, p = 0.80	F = 0.38, p = 0.54	F = 0.32, p = 0.58	F = 1.42, p = 0.25	F = 0.05, p = 0.95	F = 0.26, p = 0.61
CA4	F = 2.18, p = 0.15	F = 0.17, p = 0.84	F = 0.18, p = 0.84	F = 0.28, p = 0.60	F = 0.57, p = 0.45	F = 2.07, p = 0.14	F = 0.04, p = 0.96	F = 0.17, p = 0.68
Fimbria	F = 0.17, p = 0.68	F = 0.76, p = 0.47	F = 0.79, p = 0.46	F = 0.82, p = 0.37	F = 1.77, p = 0.19	<b>F = 4.39, p = 0.02</b>	F = 0.50, p = 0.61	F = 0.41, p = 0.52
Fissure	F = 3.35, p = 0.07	F = 0.04, p = 0.96	<b>F = 5.31, p = 0.008</b>	F = 1.89, p = 0.18	F = 3.23, p = 0.08	F = 1.63, p = 0.21	F = 1.32, p = 0.28	F = 2.21, p = 0.14

Bold characters indicate significant effects.

<sup>a</sup>Repeated-measures ANCOVAs with hippocampal volumes as dependent variables, hemisphere as repeated measure, cannabis-using group and genetic polymorphism as fixed factors, and intracranial volume (ICV) as covariate.

<sup>b</sup>COMT, catechol-O-methyltransferase; DAT1, dopamine transporter 1; BDNF, brain-derived neurotrophic factor; COMT-DAT1, COMT × DAT1 cross-product; CB, cannabis group; HC, healthy controls.

<sup>c</sup>Hippocampal subregions include the subiculum, presubiculum, cornu ammonis (CA) subfields CA1, CA2/3, and CA4, fimbria, and hippocampal fissure.

