

Table 3. Top Category IV Genes

Mouse Accession Number	Symbol Description	Brain region Fold Change P value	Stopped by Co-Treatment	Multiple Brain Region	Convergent Functional Genomics	Biology
Methamphetamine Changed						
Upregulated						
X02801	GFAP glial fibrillary acidic protein	CP 4/ 2.83 0.000004/ 0.00014		NA 1.62/ 1.41 0.00013/ 0.000005	17q21.31 BP D17S1860 0.065 cM (Segurado et al 2003)	YES Decrease (J...
M31811	MAG myelin associated glycoprotein	CP 1.41/ 1.32 0.000007/ 0.00061			19q13.12 RDP D19S217 9.82 cM (Pittock et al 2000)	YES Decrease
AJ238309	DAT1 – SLC6A3 solute carrier family 6 (neurotransmitter transporter, dopamine), member	VT 1.41/ 1.74 0.000011/ 0.000017			5p15.3 BP D5S1981 0.77 cM (Kelsoe et al 2001)	YES Decrease subject
Downregulated						
X55573	BDNF brain-derived neurotrophic factor	PFC 0.76/ 0.71 0.000023/ 0.000001			11p14.1 BP (Sklar et al 2002, Neves-Pereira et al 2002 – both papers are about BDNF)	YES Reduced (2003). treated w time of elev
X57497	GRIA1 glutamate receptor, ionotropic, AMPA 1	VT 0.76/ 0.66 0.000007/ 0.000025			5q33.2 SZ (Lewis et al 2003-NCBI)	YES Abnormal
Valproate Changed						
Downregulated / Upregulated						
AF058799	14-3-3 gamma (YWHAG) 3-monooxygenase /tryptophan 5-monooxygenase actation protein, gamma polypeptide	AMY 0.43/ 0.31 0.000005/ 0.000027		CP 1.87/ 24.3 0.00001/ 0.000006 VT 1.32/ 1.41 0.0021/ 0.00011	7q11.23 SZ D7S2212 7.38 cM (Blouin et al 1998)	YES Association diffuse I
AI842094	CGEF2 cAMP-regulated guanine nucleotide exchange factor II	AMY 0.54/ 0.54 0.000001/ 0.0020		CP 1.52/ 2.64 0.000021/ 0.000031	2q31.1 BP D2S1391 9.44 cM (Ewald et al 2003)	YES
Upregulated						
Z23077	AMD1 S-adenosylmethionine decarboxylase 1	PFC 1.62/ 1.62 0.000029/ 0.000009		CP 1.52/ 2.14 0.00050/ 0.00014	6q21 BP D6S1021 7.08 cM (Ewald et al 2002)	YES
J04192	CHRM1 cholinergic receptor, muscarinic 1	CP 1.52/ 3.03 0.00019/ 0.00001			11q12.3 SZ D11S4196 8.09 cM (Lewis et al 2003)	YES Decrease
AI847120	GRIN1 (NMDA-1) glutamate receptor, ionotropic, N-methyl D-aspartate 1	CP 2.14/ 12.13 0.00004/ 0			9q34.3 BP (Mundo et al 2003 – paper is about GRIN1)	YES Increase
AB004315	RGS4 regulator of G-protein signalling 4	CP 1.52/ 10.56 0.000004/ 0.000006			1q23.3 SZ (Chowdari et al 2002 – paper is about RGS4)	YES Decrease
AF100956	DAXX death-associated protein 6	AMY 1.32/ 1.32 0.0015/ 0.00090			6p21.3, SZ D6S1610 5.34 cM (Fallin et al 2003)	YES Increase
M21041	MAP2 microtubule-associated protein 2	CP 1.87/ 34.3 0.000085/ 0.000003			2q34-q35 MDD D2S2944 5.26 cM (Philibert et al 2003)	YES Decrease
Methamphetamine / Valproate Changed						
Downregulated / Upregulated						

D10011	KA2 (GRIK5) glutamate receptor, ionotropic, kainite 5	CP METH 0.81/ 0.66 0.0029/ 0.000006	AMY VPA 1.32/ 1.62 0.00029/ 0.0018	19q13.2 RDP D19S217 2.69 cM (Pittock et al 2000)	YES	Decre (M
AI841733	PCSK1N proprotein convertase subtilisin/kexin type 1 inhibitor	CP METH 0.81/ 0.66 0.00022/ 0.000009	AMY VPA 1.41/ 1.52 0.000004/ 0.00012	xp11.23 BP GATA144D04 (Zandi et al 2003)	YES	Pick'
Downregulated						
AW121087	GSK3B Glycogen synthase kinase 3 beta	PFC METH 0.54/ 0.62 0.000004/ 0.000014	CP VPA 0.76/ 0.71 0.0012/ 0.00035	3q13.3 SZ D3S1310 4.49 cM (Jonsson et al 1999)	YES	Decre Level