

Supplemental Table 1: Expert curated functional gene-sets

GENE_SET	N genes
Synaptic: Cell adhesion and trans-synaptic signaling	81
Synaptic: Cell metabolism	57
Synaptic: Endocytosis	26
Synaptic: Excitability	59
Synaptic: Exocytosis	87
Synaptic: GPCR signaling	41
Synaptic: G-protein relay	27
Synaptic: intracellular signal transduction	150
Synaptic: Intracellular trafficking	80
Synaptic: Ion balance/transport	43
Synaptic: Ligand-gated ion channel signaling	36
Synaptic: Neurotransmitter metabolism	29
Synaptic: Peptide/neurotrophin signals	28
Synaptic: Protein cluster	47
Synaptic: RPSFB	71
Synaptic: Structural plasticity	98
Synaptic: Tyrosine kinase signaling	7
Synaptic: Unknown	61
Synaptic: Sanders FDR 0.01 large synaptic	19
FMRP targets (Ascano)	936
FMRP targets (Ascano Autism overlap)	93
FMRP targets (Darnell)	780
Glia astrocytes Duncan	42
Glia oligodendrocytes Duncan	52
Glia Duncan	146
Glutamate Duncan	156
Mitochondria: Duncan	74
Mitochondria: Crista Duncan	6
Mitochondria: Distribution Duncan	7
Mitochondria: Fission Duncan	12
Mitochondria: Fission_plus Duncan	24
Mitochondria: Fusion Duncan	9