Table S8 - IPA canonical pathways unique to maternal super-group

Canonical Pathways	p-value[a]	Z-score[b]	Activation State	Total DEGs	Sub-Group
Actin Cytoskeleton Signaling	2.40E-03	-4.6	Inhibited	27	M-1
Signaling by Rho Family GTPases	1.74E-02	-4.264	Inhibited	26	M-1
Synaptic Long Term Depression	5.37E-04	-4.491	Inhibited	24	M-1
Calcium Signaling	1.02E-02	-3.606	Inhibited	23	M-1
Dopamine-DARPP32 Feedback in cAMP Signaling	1.29E-03	-2.236	Inhibited	22	M-1
RhoGDI Signaling	1.41E-02	3.357	Activated	20	M-1
D-myo-inositol-5-phosphate Metabolism	1.12E-02			19	M-1
3-phosphoinositide Degradation	3.39E-02			17	M-1
Th2 Pathway	4.17E-02	-2.496	Inhibited	16	M-1
Cellular Effects of Sildenafil (Viagra)	2.75E-02			15	M-1
GPCR-Mediated Nutrient Sensing in Enteroendocrine Cells	1.66E-02	-3.742	Inhibited	14	M-1
PAK Signaling	6.92E-03	-2.496	Inhibited	14	M-1
Sperm Motility	4.27E-02	-2.496	Inhibited	14	M-1
TGF-β Signaling	4.79E-03	-1.897		13	M-1
FcγRIIB Signaling in B Lymphocytes	1.51E-02	-2.646	Inhibited	11	M-1
Netrin Signaling	3.47E-03			11	M-1
Pyridoxal 5'-phosphate Salvage Pathway	3.47E-03			11	M-1
Synaptic Long Term Depression	1.38E-02	-3.162	Inhibited	10	M-2
VDR/RXR Activation	3.31E-02			10	M-1
Notch Signaling	6.92E-04	-2.449	Inhibited	9	M-1
Synaptic Long Term Potentiation	3.98E-03	-2.333	Inhibited	9	M-2
D-myo-inositol (1, 4, 5)-Trisphosphate Biosynthesis	3.89E-05			9	M-1
Phospholipases	2.09E-02			9	M-1
D-myo-inositol-5-phosphate Metabolism	2.29E-02			9	M-2
3-phosphoinositide Degradation	2.00E-02			9	M-2
Th1 and Th2 Activation Pathway	4.68E-02			9	M-2
D-myo-inositol (1, 4, 5, 6)-Tetrakisphosphate Biosynthesis	3.09E-02			8	M-2
D-myo-inositol (3, 4, 5, 6)-tetrakisphosphate Biosynthesis	3.09E-02			8	M-2
Sperm Motility	4.37E-02	-2.646	Inhibited	7	M-2
Antioxidant Action of Vitamin C	2.04E-02	2.449	Activated	7	M-2
Actin Cytoskeleton Signaling	1.95E-03	-2	Inhibited	7	M-3
nNOS Signaling in Skeletal Muscle Cells	1.74E-02			7	M-1
Factors Promoting Cardiogenesis in Vertebrates	2.95E-02			6	M-2
Melatonin Signaling	3.63E-02	-2.236	Inhibited	5	M-2
Opioid Signaling Pathway	3.98E-02	-2.236	Inhibited	5	M-3
STAT3 Pathway	3.98E-02	-1.342		5	M-2
ERK/MAPK Signaling	1.95E-02	-1.342		5	M-3
Chemokine Signaling	3.47E-02	-0.447		5	M-2
nNOS Signaling in Neurons	6.61E-03			5	M-2
IL-10 Signaling	3.09E-02			5	M-2
RhoGDI Signaling	4.90E-02	2	Activated	4	M-3
Androgen Signaling	2.19E-02	-2	Inhibited	4	M-3

Dopamine-DARPP32 Feedback in cAMP Signaling	3.89E-02	-1	4	M-3
Superpathway of Citrulline Metabolism	1.48E-02		4	M-1
Netrin Signaling	1.62E-03		4	M-3
FcγRIIB Signaling in B Lymphocytes	3.31E-03		4	M-3
PKCθ Signaling in T Lymphocytes	3.47E-02		4	M-3
4-1BB Signaling in T Lymphocytes	4.68E-02		3	M-2
PAK Signaling	4.37E-02		3	M-3
nNOS Signaling in Skeletal Muscle Cells	3.89E-03		3	M-3
VDR/RXR Activation	2.24E-02		3	M-3
Maturity Onset Diabetes of Young (MODY) Signaling	5.50E-04		3	M-3
Dopamine Receptor Signaling	2.19E-02		3	M-3
CCR5 Signaling in Macrophages	3.72E-02		3	M-3
GABA Receptor Signaling	3.72E-02		3	M-3
Bile Acid Biosynthesis, Neutral Pathway	4.17E-02		2	M-2
GADD45 Signaling	9.33E-03		2	M-3
Role of JAK2 in Hormone-like Cytokine Signaling	2.82E-02		2	M-3
Synaptic Long Term Depression	3.31E-02		2	M-4
Synaptic Long Term Potentiation	1.70E-02		2	M-4
Type I Diabetes Mellitus Signaling	7.59E-03		2	M-5
Sperm Motility	3.80E-03		2	M-6
GPCR-Mediated Integration of Enteroendocrine Signaling Exemplified by an L Cell	1.29E-03		2	M-6

a) The p-value: statistical overlap of differentially expressed gene list and gene set

b) Z-score: z>1.96 to be significantly activated or increased, and those with z< –1.96 to be significantly inhibited