

Supplemental Table S3. Pathway Enrichment for Male and Female Rat Tissue Modules

Pathway name	Sex.Tissue																	
	Number of genes in input list					11 Male & Fem.Tissues												
	Total Number of Pathways	230	4059	224	3046	6 Male Tissues	M.Turquoise	M.Blue	M.Brown	M.Yellow	M.Green	M.Red	M.Black	M.Pink	M.Magenta	5 FemaleTissues	Female modules	
Pathways in cancer	45	32	14	1	14	1	1								17	2	2	F.Turquoise
Protein processing in endoplasmic reticulum	39	38	26	2	9	1									3	1	1	F.Blue
HTLV-I infection	39	31	17	2	4	1									10	3	1	F.Brown
RNA transport	39	31	15	3	7	2									11	1	1	F.Red
Transcriptional misregulation in cancers	31	26	7	1	13	3									12	3	1	F.Green
Herpes simplex infection	30	23	7		7	2									9	1	2	F.Black
Lysosome	29	27	11	3	5	2									5	1	3	F.Pink
Ribosome	29	27		2	1	23									4	1		F.Magenta
Endocytosis	29	26	11		9	3	1								5	1	2	
Phagosome	28	27	10		9	1									7		1	
MAPK signaling pathway	28	21	7		6	2									8	1	1	
Spliceosome	27	17	3	3	1	5				2	1	12			4	2	1	
Regulation of actin cytoskeleton	26	24	8		7	2									5	1	1	
Alzheimer's disease	26	22	6	3	4	8	1								5		1	
Huntington's disease	26	22	2	5	3	9	1								5	1	2	
Purine metabolism	26	22	5	4	7	4									7		1	
Focal adhesion	26	21	7		9	2	1								9	2	2	
Chemokine signaling pathway	24	23	12	2	2	3									4		2	
Pyrimidine metabolism	24	20	6	4	6	3									6		1	
Tuberculosis	24	20	6		7										9	1	1	
Influenza A	23	21	8	1	4	2			1						5	1	1	
Oxidative phosphorylation	23	20	5	3	3	8	1								5		2	
Leukocyte transendothelial migration	22	18	9	1	7	1									6	1	1	
Cytokine-cytokine receptor interaction	21	19	6	1	8										4	1		
Osteoclast differentiation	21	18	8		6										5	1	1	
Cell adhesion molecules (CAMs)	20	14	6		7	1									7	2	1	
Insulin signaling pathway	19	13	9	1	2	1									6	1		
mRNA surveillance pathway	19	13	6	2	1	2									8	2	1	
Ribosome biogenesis in eukaryotes	19	13	5	1	3	2									7	1		
Wnt signaling pathway	18	14	5		4	2									4	2	1	
Neuroactive ligand-receptor interaction	18	12	3	1	3	1									7	1		
RNA degradation	18	12	4	3	2	1									1	7	1	
Tight junction	18	12	7		3	2									9	2	1	
Calcium signaling pathway	17	16	4	2	1	2	1								4		1	
Parkinson's disease	17	15	2	3	3	7	1								2		1	
Ubiquitin mediated proteolysis	17	12	11	1											7	2	1	
Measles	16	16	6	1	4										4	1	1	
Hepatitis C	16	11	7		2										6		2	
Cell cycle	16	10	10	1	1										4	1	1	
Phosphatidylinositol signaling system	16	10	8		1		1								5	1		
Fc gamma R-mediated phagocytosis	15	16	8		2	1												
Natural killer cell mediated cytotoxicity	15	14	3	1	5	1									4	1	1	
Systemic lupus erythematosus	15	14	1	1	4	3									3	1		
Dopaminergic synapse	15	12	7		3										3	1		
Antigen processing and presentation	15	11	4		3	1									4	1	1	
Small cell lung cancer	15	11	5		3	1	1								5			
Apoptosis	15	10	5		3										8	2	1	
Toxoplasmosis	15	10	6		3	1									6		1	
Rheumatoid arthritis	14	12	5		5										5	1	1	
Arrhythmogenic right ventricular cardiomyopathy (ARVC)	14	11	5		2	1									3			
Jak-STAT signaling pathway	14	11	4		4										3	1	1	
Chagas disease (American trypanosomiasis)	14	10	4		4										5		1	
Inositol phosphate metabolism	14	9	7	1	1		1								4	1		

Only Pathways with 3 or more affected genes per signature list are shown