

Supplementary Table 2. GSEA clusters summarizing table.

comparison name	WT vs KO	WT vs old	Old vs KO	KO vs WT	old vs WT	KO vs Old
direction	downregulated	downregulated	downregulated	upregulated	upregulated	upregulated
up/down in	KO	Old	KO (comp. to Old)	KO	Old	KO (comp. to Old)
immune system	3	3	20	2	19	0
protein translation	1	0	2	5	7	0
proteostasis	1	1	0	0	0	0
RNA metabolism	1	0	0	2	3	0
lipid metabolism	4	0	1	0	2	1
aging	0	2	4	0	3	0
cell cycle	3	11	6	21	2	12
differentiation	2	3	1	2	1	5
brain region	4	0	7	0	4	0
brain development	3	5	0	0	0	3
genomic instability	0	1	0	3	0	5
DNA synthesis	0	0	0	8	0	0
epigenetic modifications	4	2	1	0	0	5
development	2	3	0	0	0	0
learning	3	4	0	0	0	2
neuronal system	6	2	0	0	0	2
cell-cell interaction	6	5	0	1	0	5
cancer	9	26	17	13	17	19
Others 1	9	8	6	6	5	9
Others 2	0	1	5	2	9	5