

Table S4 Biological function identified by IPA in overlap genes which are significantly changed in both young and old TauTKO muscle.

Category	Diseases or Functions Annotation	p-Value	z-score	Molecules
Amino Acid Metabolism	uptake of neutral amino acid	4.67E-05		EDN1, SLC38A2, SLC6A9
	quantity of L-aspartic acid	1.49E-02		PRODH
Cellular Growth and Proliferation	formation of connective tissue cells	4.40E-03	0.152	BIRC5, FRZB, SFRP2, SFRP4
	colony formation of cells	8.47E-03	1.097	ANKRD1, BIRC5, EDN1, GADD45G, HSPA1A/HSPA1B, LOXL4, RUNX1, SFRP2, TP63
Protein Synthesis	expression of protein	3.39E-03	1.134	APLP1, HSPA1A/HSPA1B, IGF2BP2, IGHM, SRCIN1, TP63, YBX2
Lipid Metabolism	synthesis of dinoprost	3.47E-03		EDN1, IGHM
	quantity of steroid	1.02E-02	1.116	CES1D, CYP27A1, EPHX2, MCHR1, SHBG, SRGAP3, TIMP1, TNFRSF12A, WNT4
Protein Folding	refolding of protein	4.08E-03		DNAJA4, HSPA1A/HSPA1B