

Elys and Lamin B/C depletions in spermatogonia and spermatocytes

1. RNA-seq in larval testes. Differential expression and TPM comparison.

We used a BDGP5.78 annotation for *Drosophila* genes:

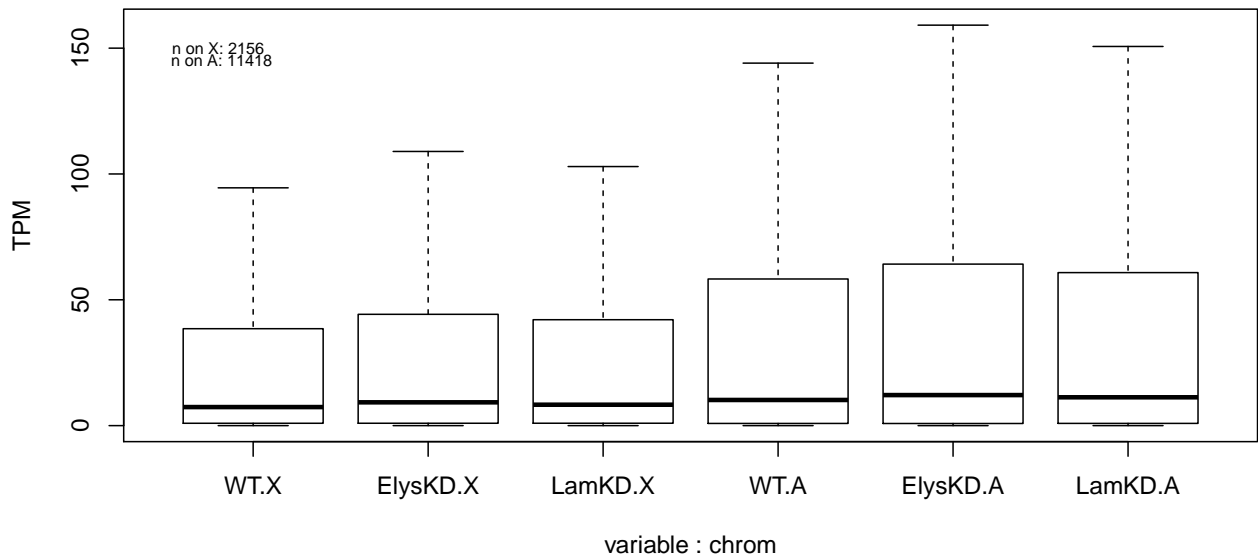
chr	start	end	strand	id	gene_name	tss
chr2L	7529	9484	+	FBgn0031208	CG11023	7529
chr2L	9839	21376	-	FBgn0002121	l(2)gl	21376
chr2L	21823	25155	-	FBgn0031209	Ir21a	25155
chr2L	21952	24237	+	FBgn0263584	CR43609	21952
chr2L	25402	65404	-	FBgn0051973	Cda5	65404
chr2L	65999	66242	+	FBgn0266878	CR45339	65999

Using [salmon](#) we obtained read counts per gene and normalized TPM values:

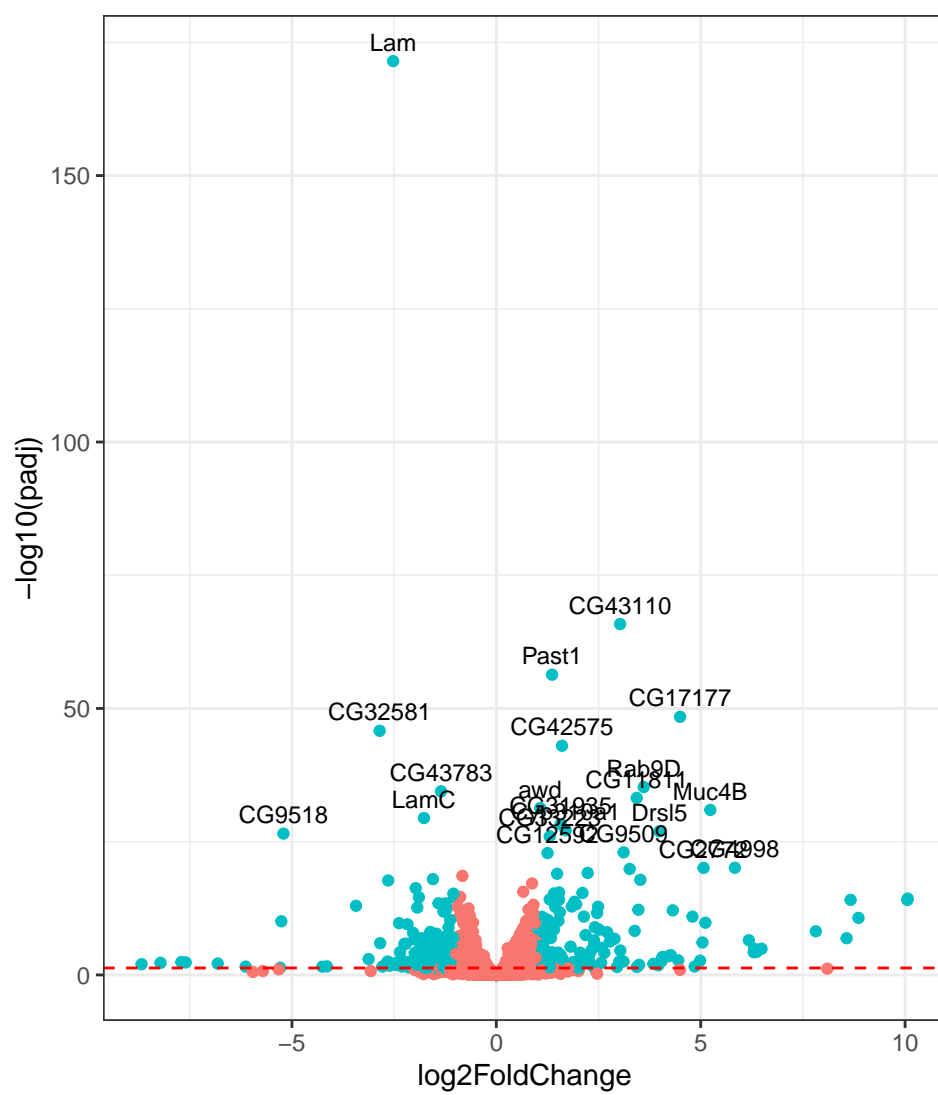
chr	start	end	strand	gene_name	tss	WT	ElysKD	LamKD	chrom
chr2R	18024473	18060339	+	a	18024473	6.7153633	5.6267533	5.894823	A
chr3R	12632936	12655771	-	abd-A	12655771	7.6534000	9.6282000	9.564213	A
chr3R	12752932	12797958	-	Abd-B	12797958	0.4616433	0.6147677	0.604028	A
chr3L	16608966	16640982	-	Abl	16640982	9.4840567	12.5862000	10.405730	A
chr2L	10973443	10975293	-	abo	10975293	27.6684000	41.1312667	36.629433	A
chrX	264064	264980	+	ac	264064	0.2590723	0.0000000	0.000000	X

The main question that we investigate is whether the expression of genes on X-chromosome is higher than of those on autosomes in spermatocytes? And do Elys or Lamins knockdowns alter this discordance?

All genes comparison between X and A

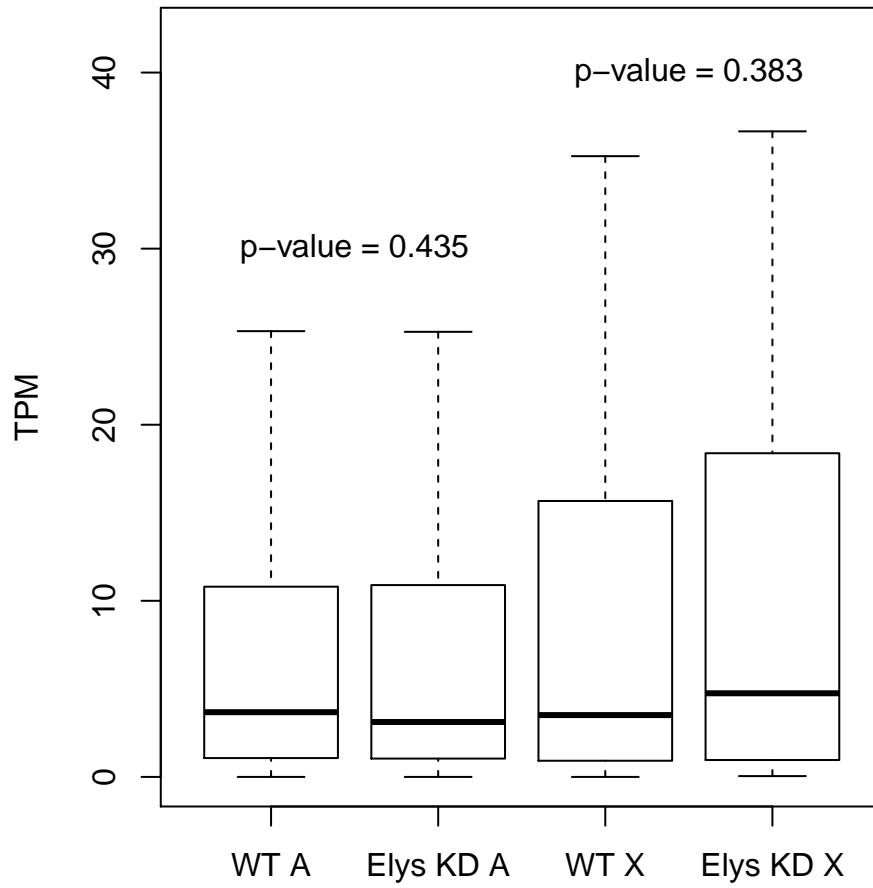


Lam KD vs WT



Here are similar boxplots but only for differentially expressed genes:

WT vs Elys KD
dif expressed and TPM ratio > 2



WT vs Lams KD
dif expressed and TPM ratio > 2

