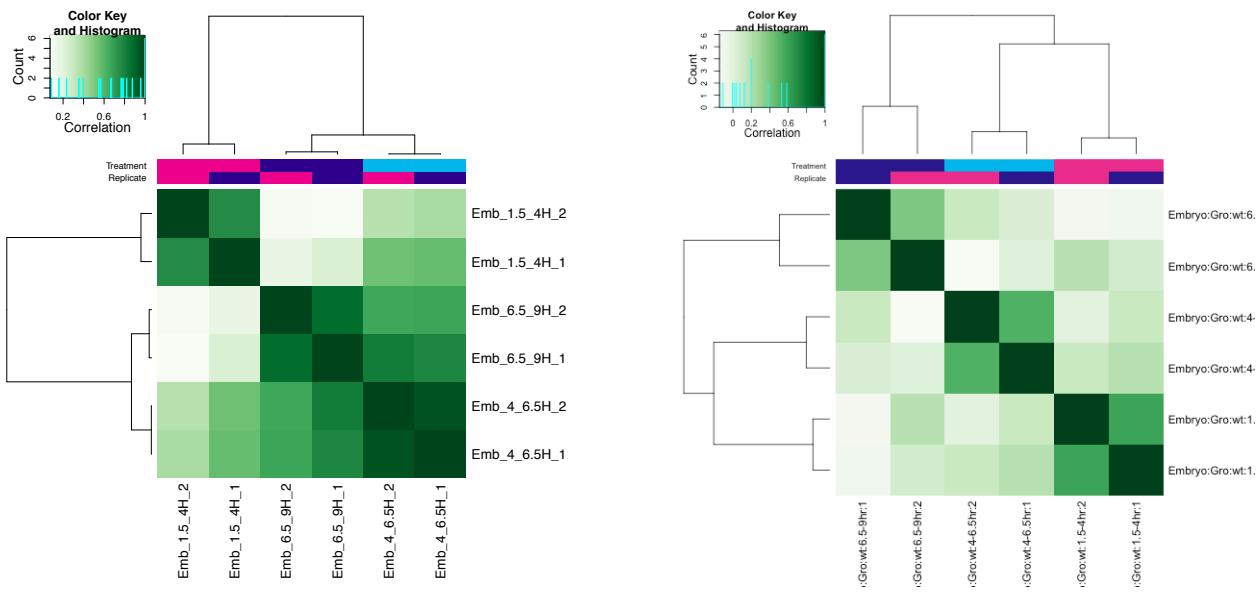
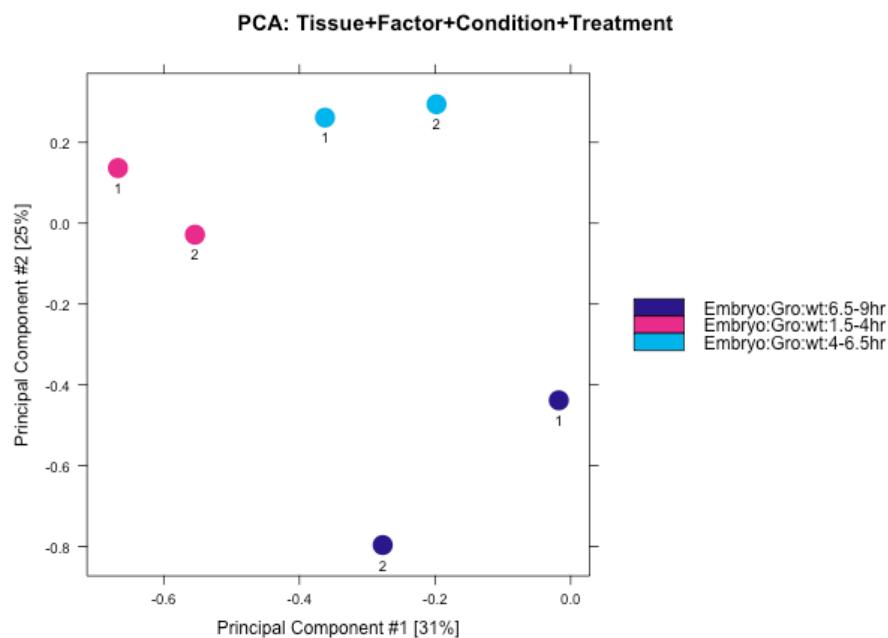


A

Timepoint	Replicate	Total Reads	Uniquely Aligned	Multiply Aligned	Total Aligned	Overall Alignment Rate
Input	A	26,804,524	19,349,084	4,859,241	24,208,325	90%
Input	B	22,770,618	16,367,817	4,175,412	20,543,229	90%
1.5 - 4 hr	A	22,276,144	8,242,625	2,487,432	10,730,057	48%
1.5 - 4 hr	B	23,743,733	5,992,455	1,974,028	7,966,483	34%
4 - 6.5 hr	A	19,973,255	7,925,951	2,463,045	10,388,996	52%
4 - 6.5 hr	B	17,755,470	8,440,270	2,461,968	10,902,238	61%
6.5 - 9 hr	A	18,066,141	7,979,752	2,324,797	10,304,549	57%
6.5 - 9 hr	B	22,367,998	8,179,454	2,740,544	10,919,998	49%

B**C**

A

Embryo
Gro ChIP-seq
All Peaks

4563

1099

298

modENCODE
Embryo
Gro ChIP-chip

B

Embryo
Gro ChIP
All Peaks

3823

1885

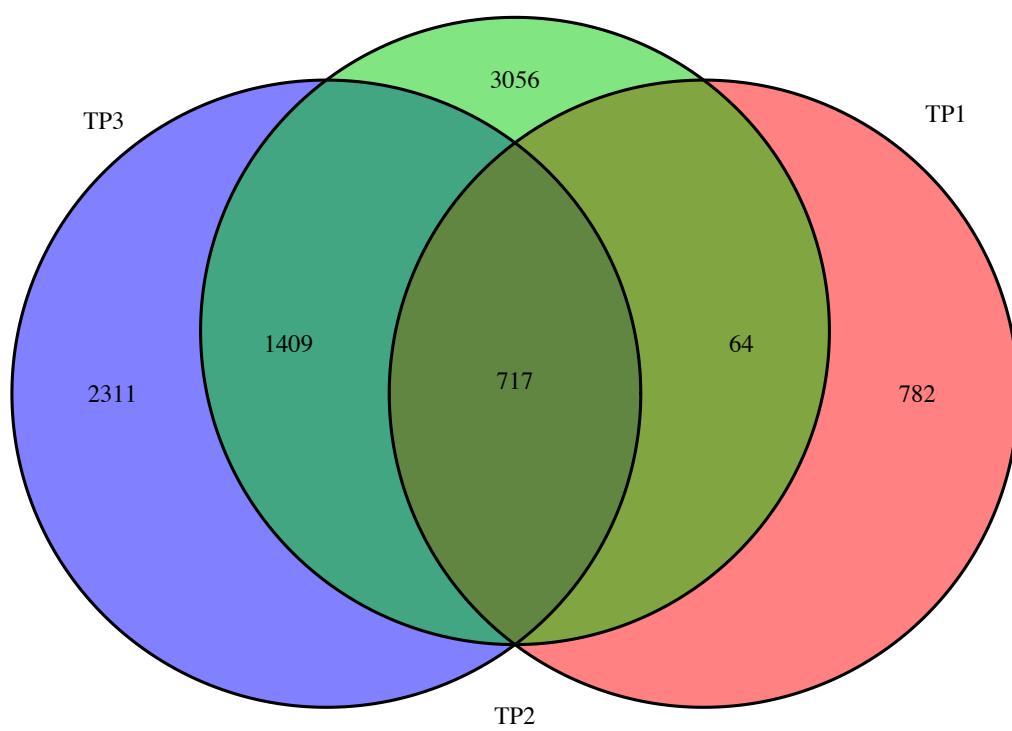
9137

modENCODE
White Pre-Pupae
Gro ChIP-chip

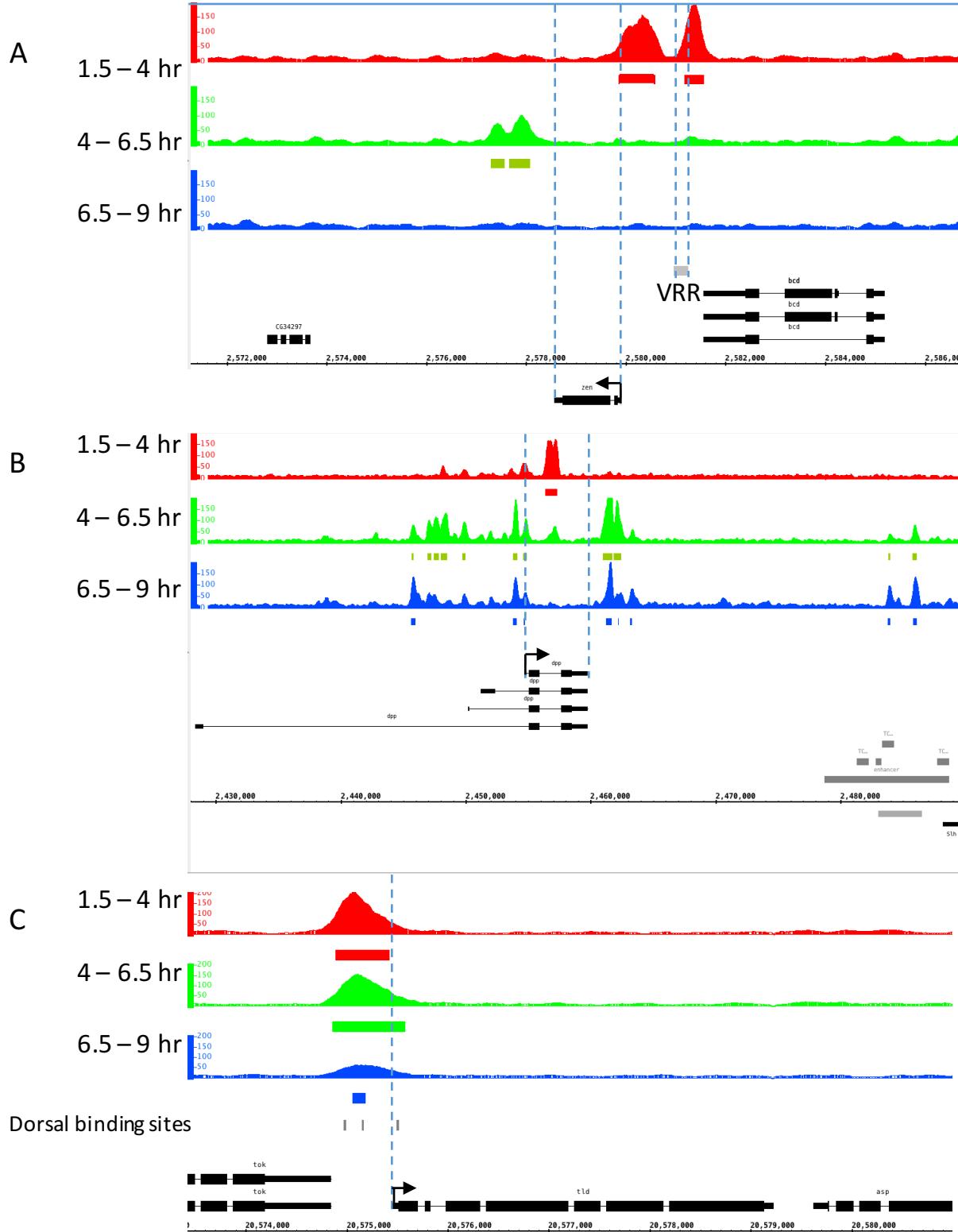
A

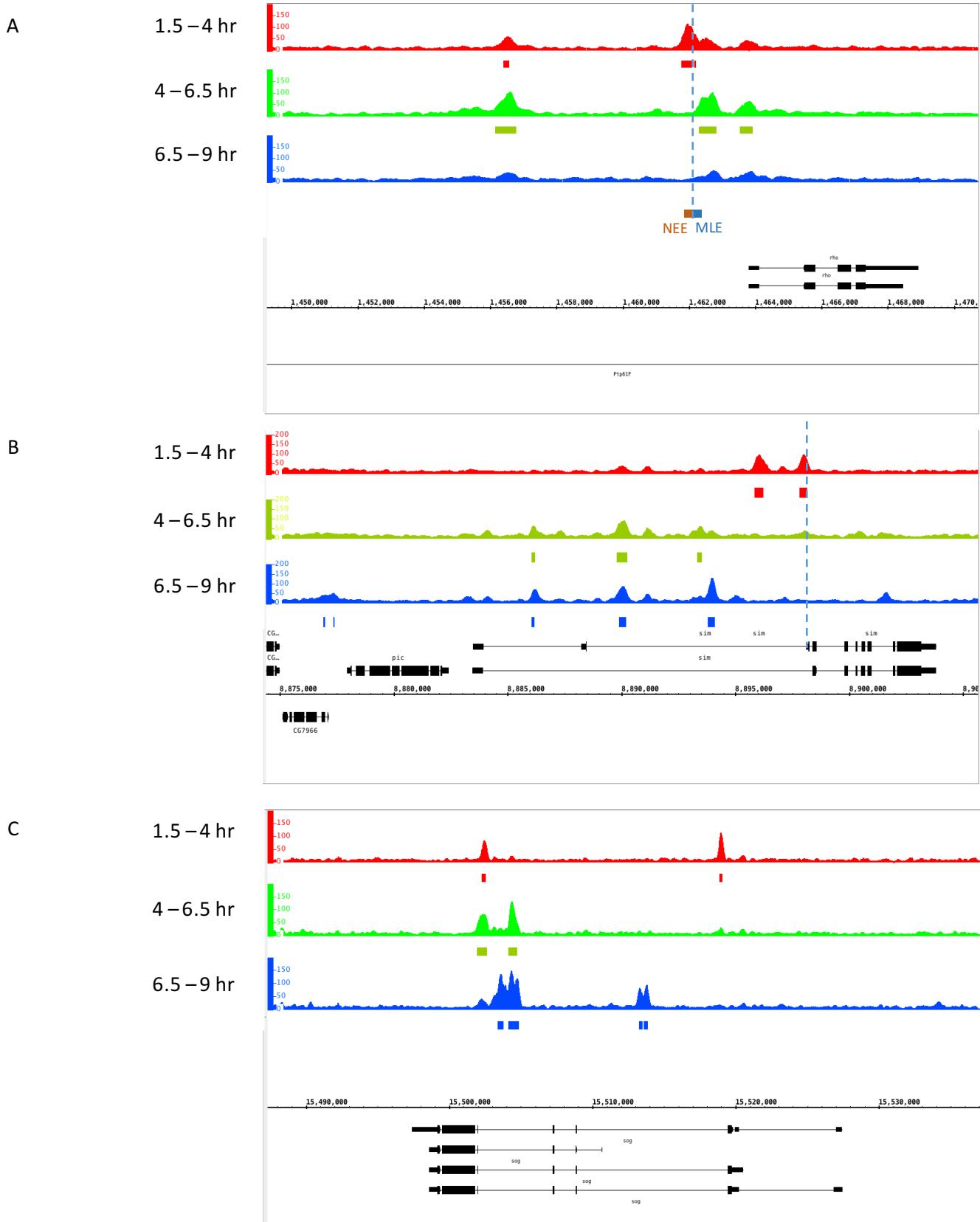
Number of Binding Sites	
1.5 - 4 hr	1085
4 - 6.5 hr	4764
6.5 - 9 hr	3157

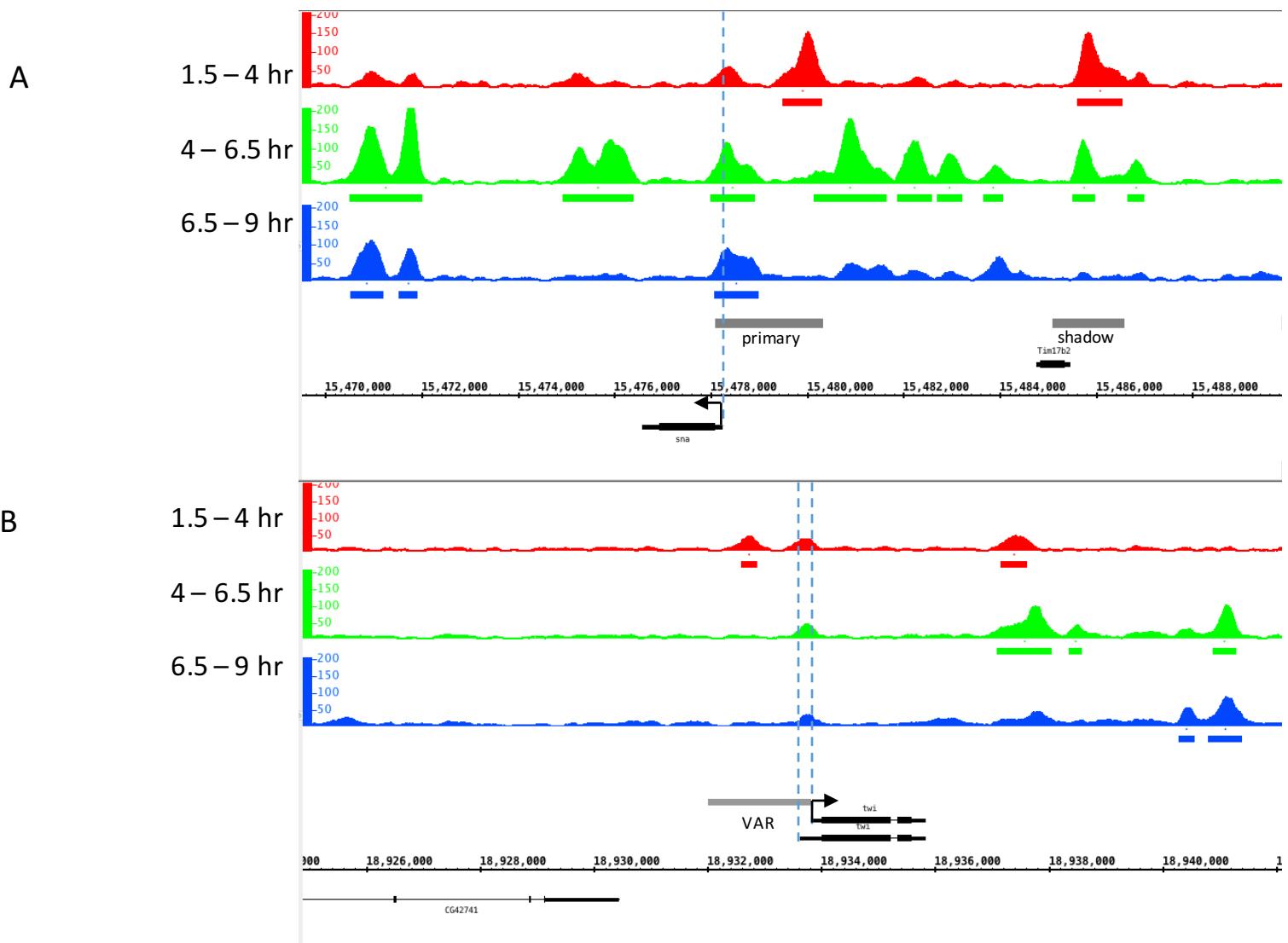
B

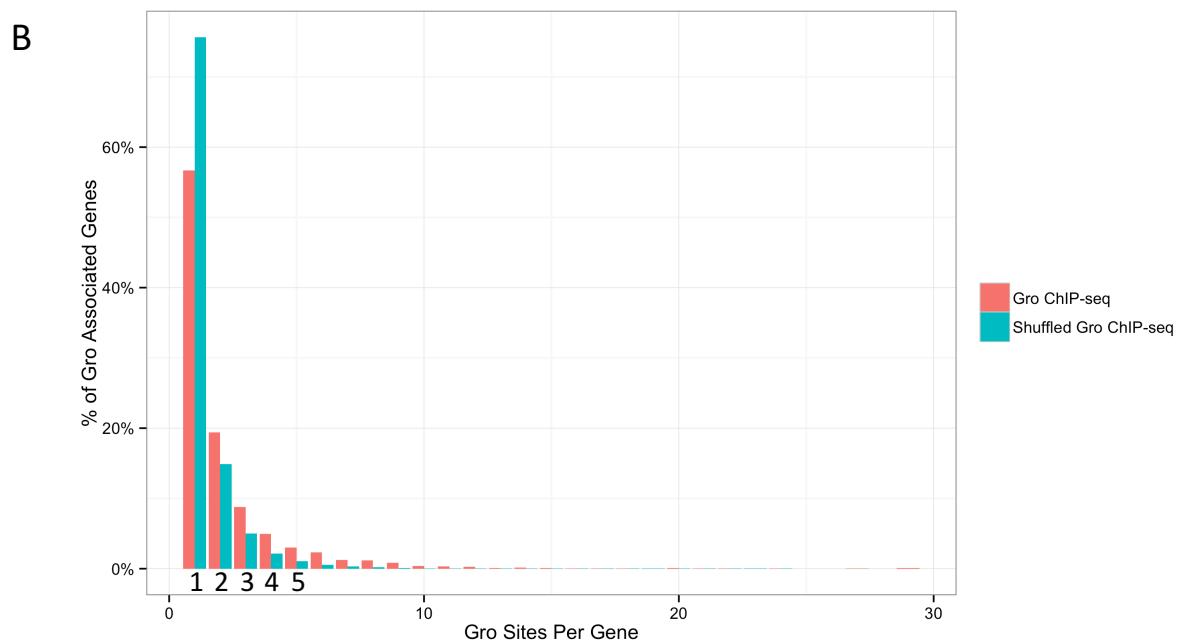
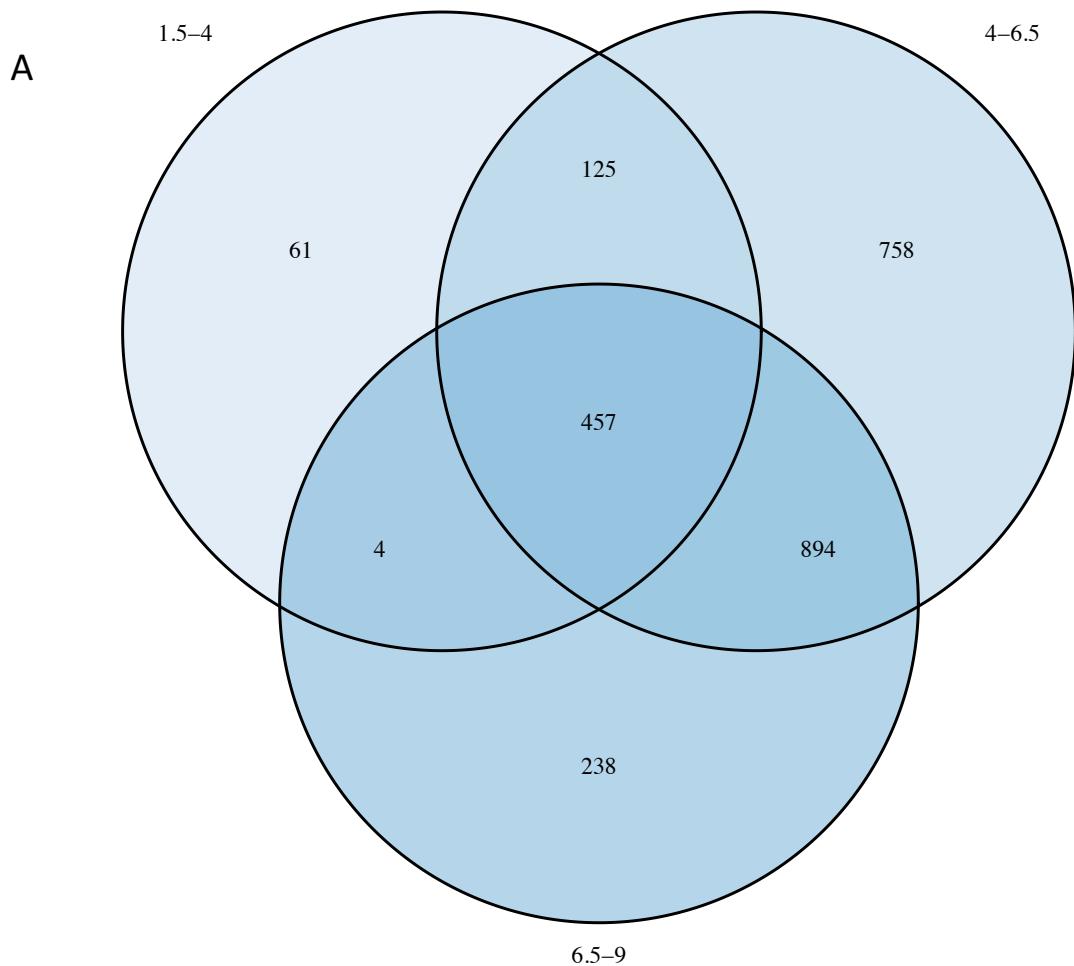


21866

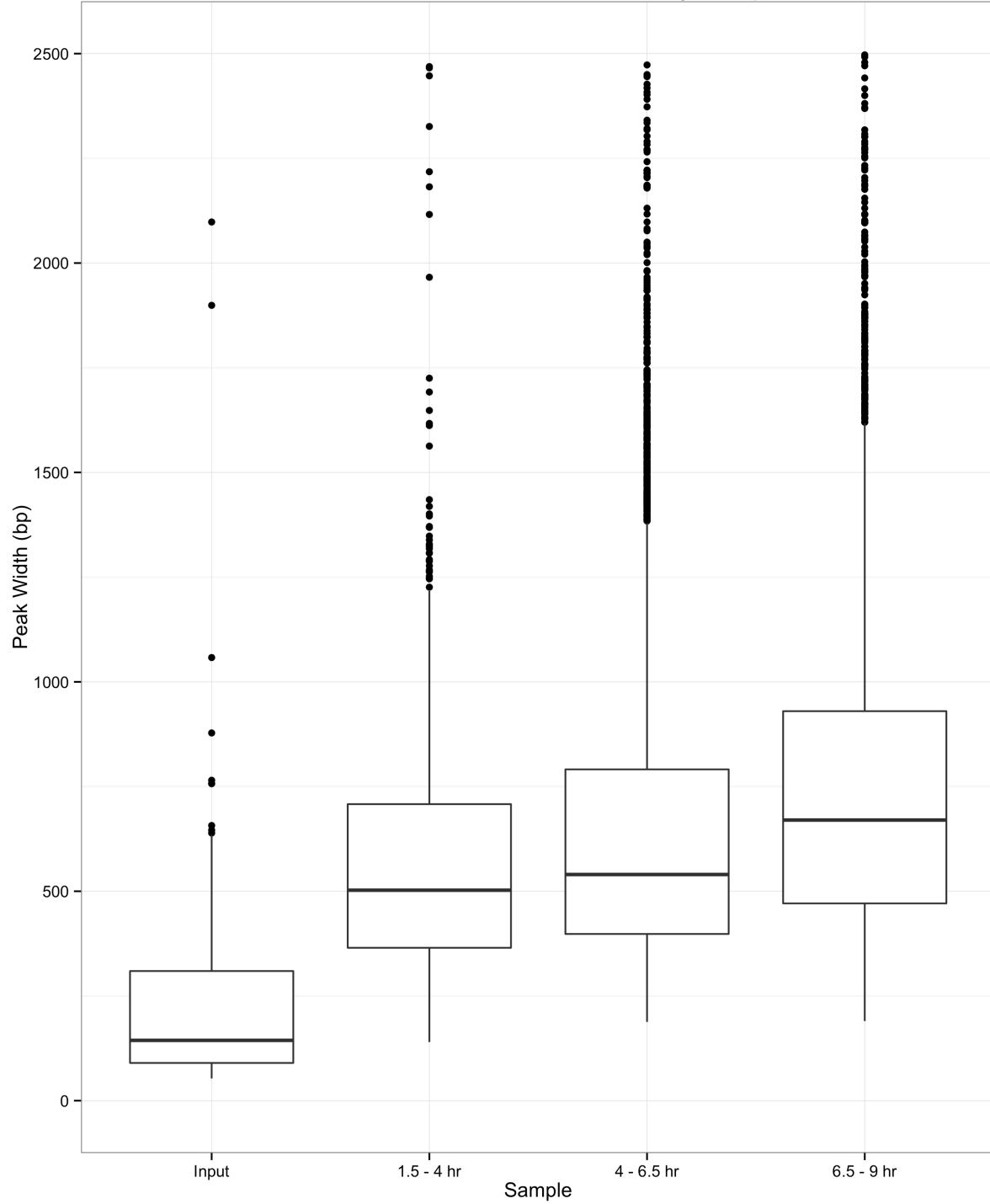




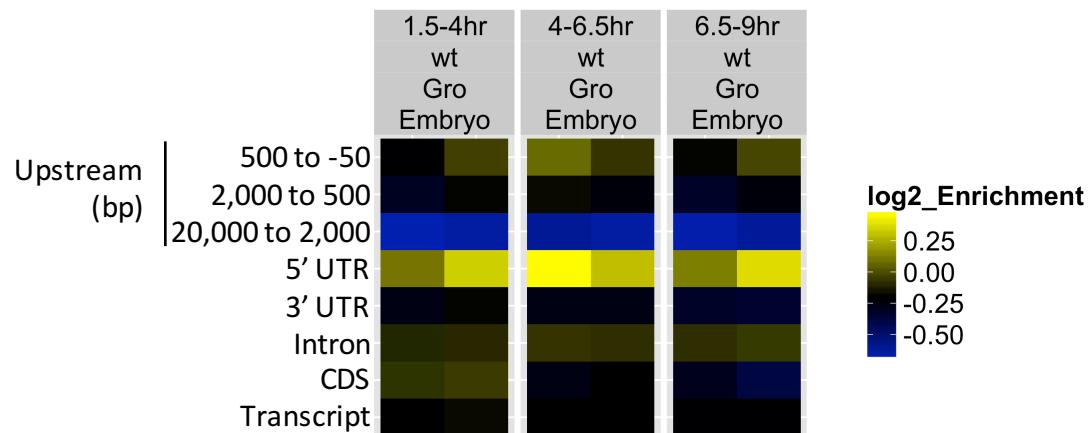




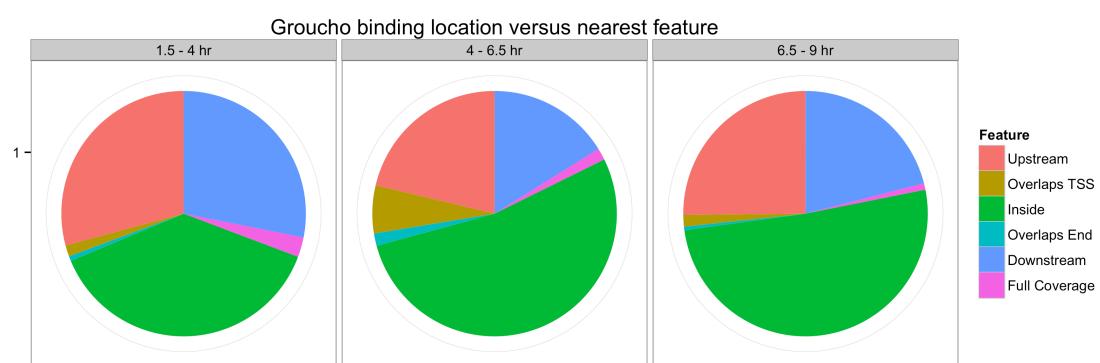
Distribution of Groucho Peak Widths by Timepoint

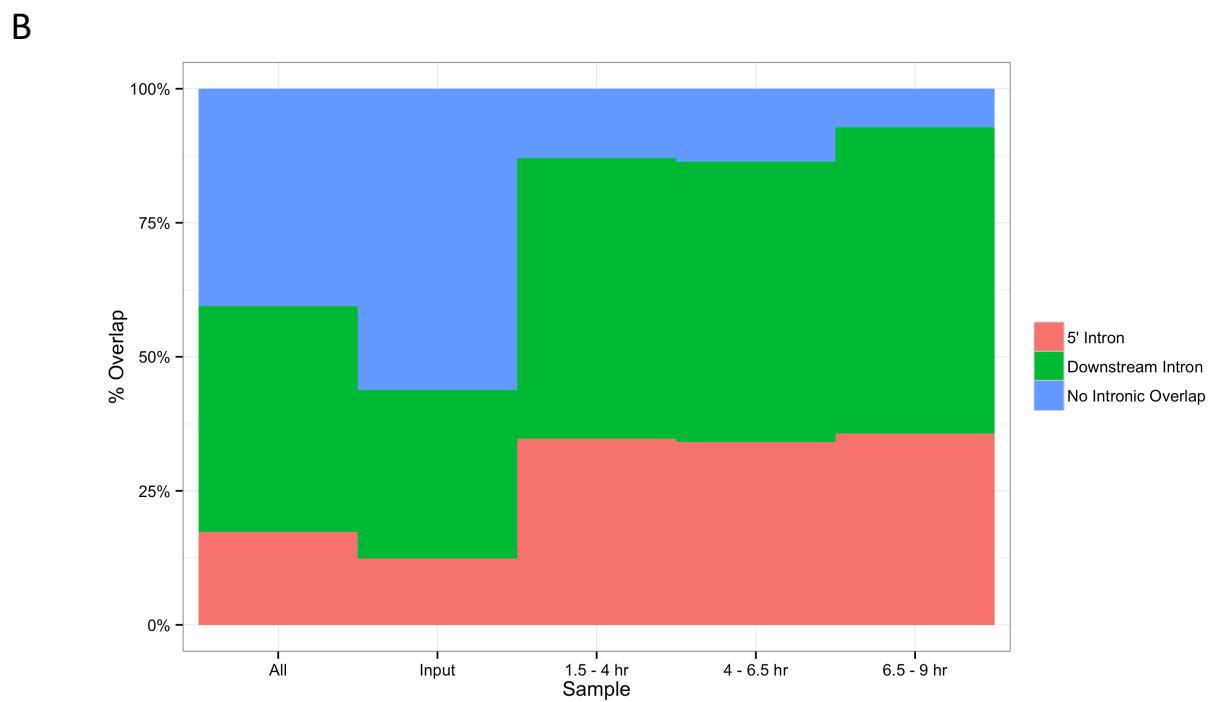
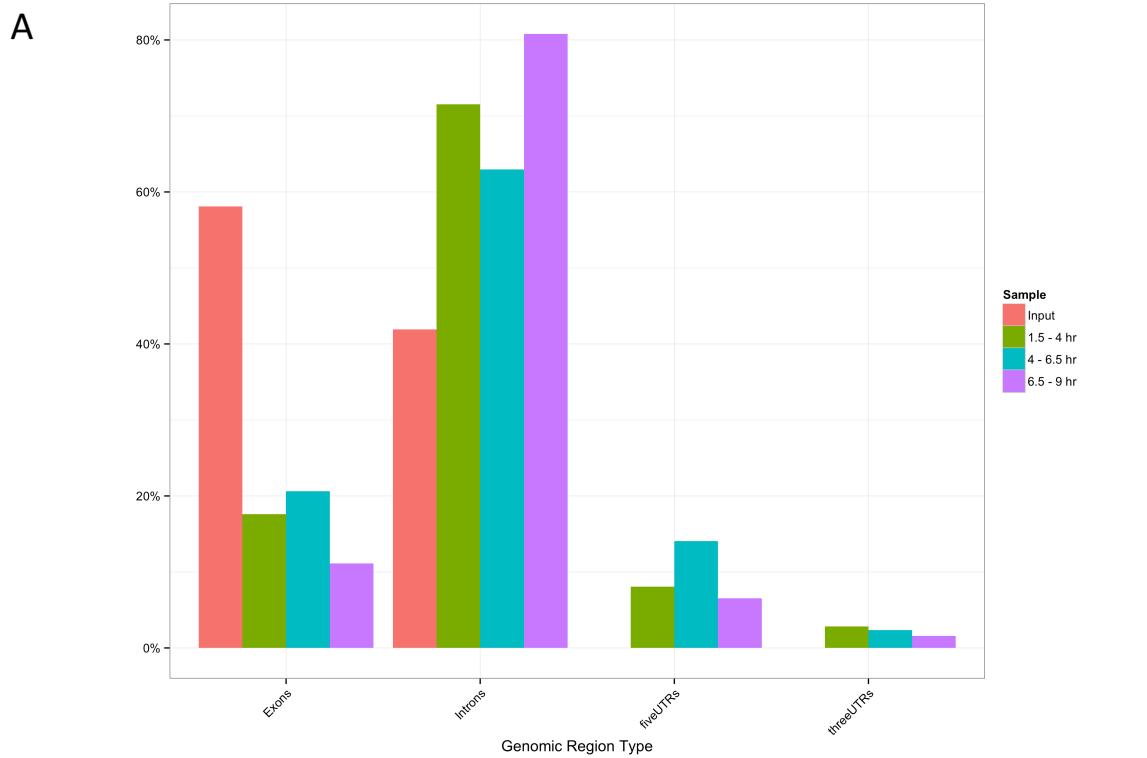


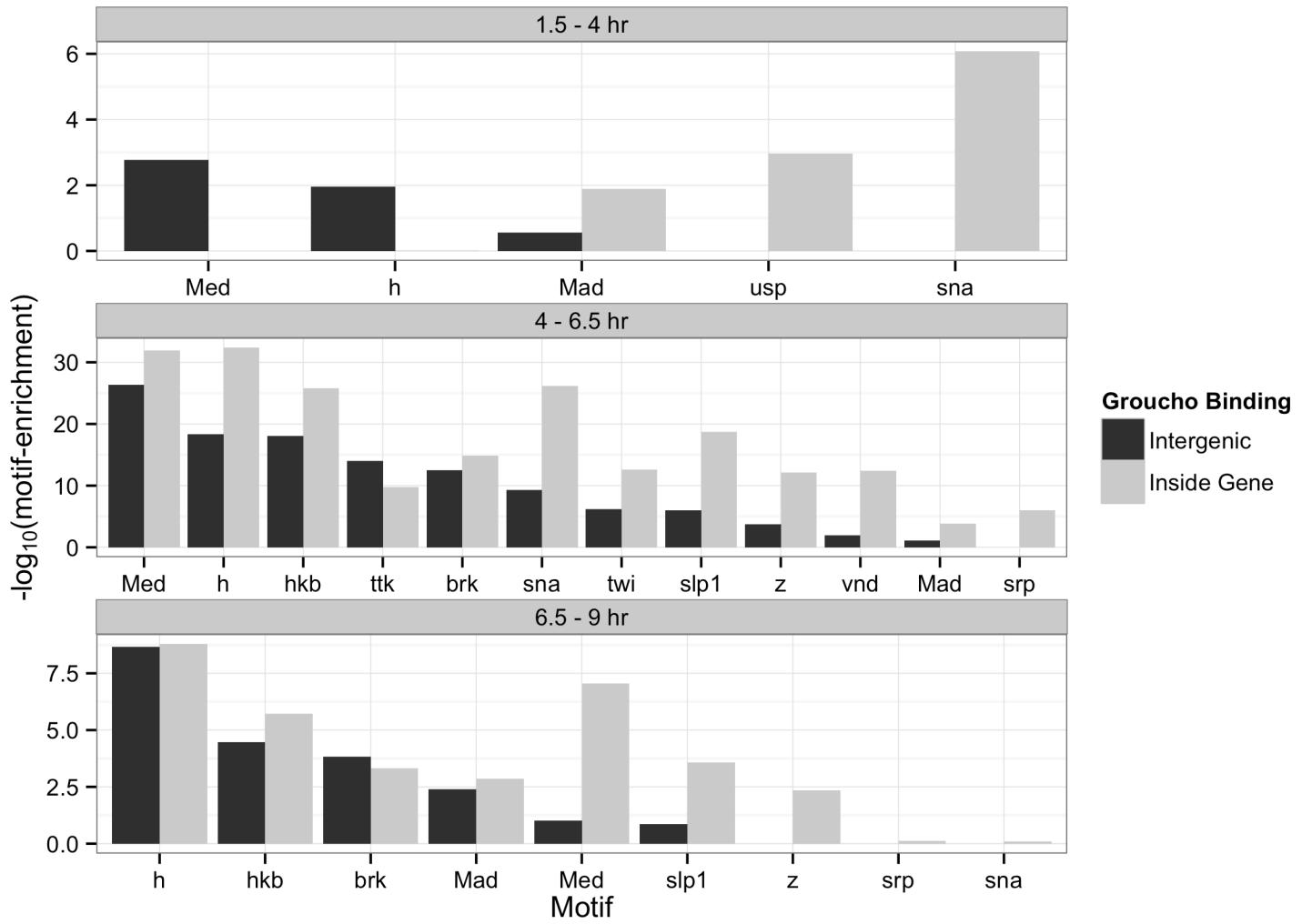
A

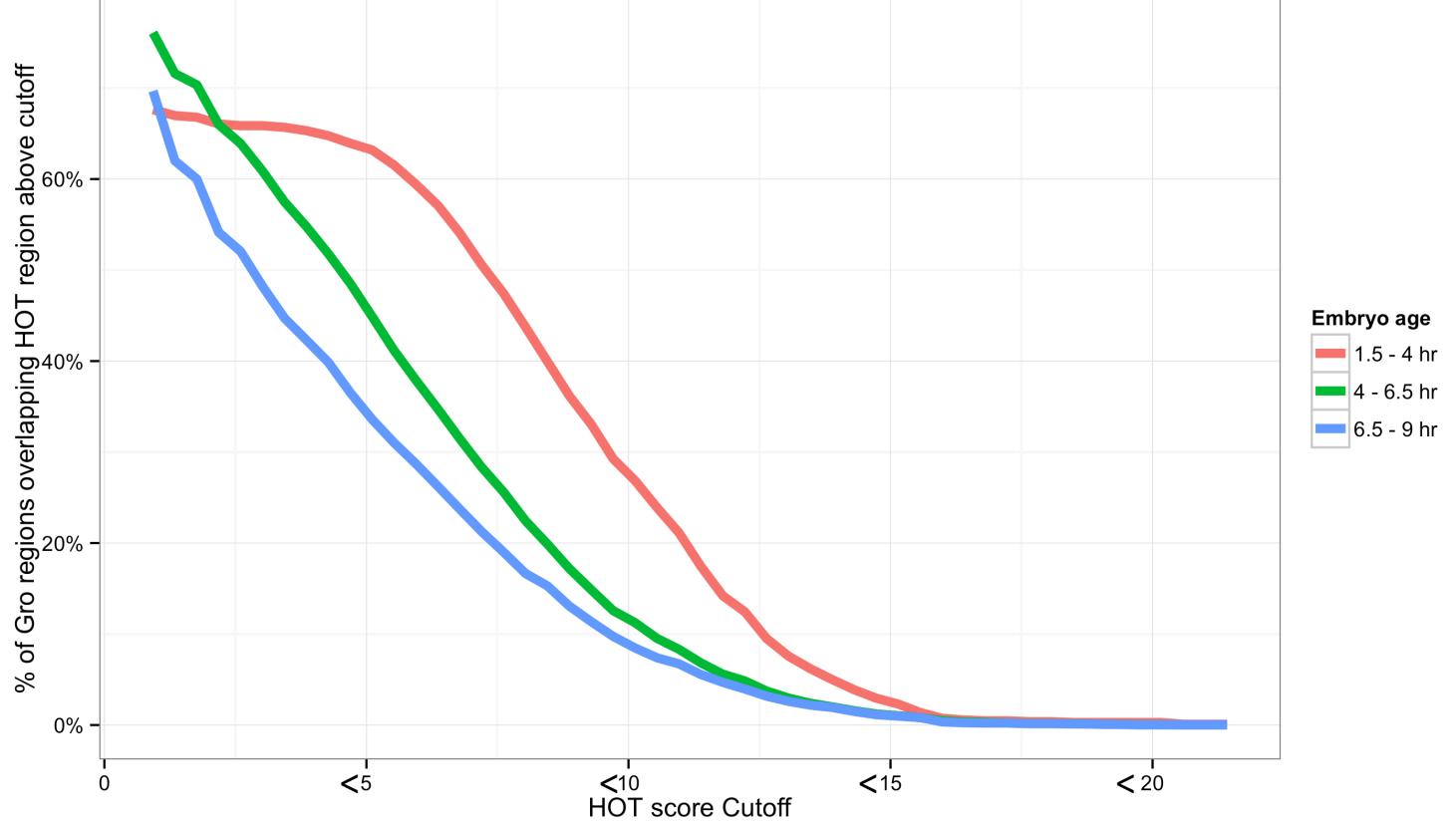


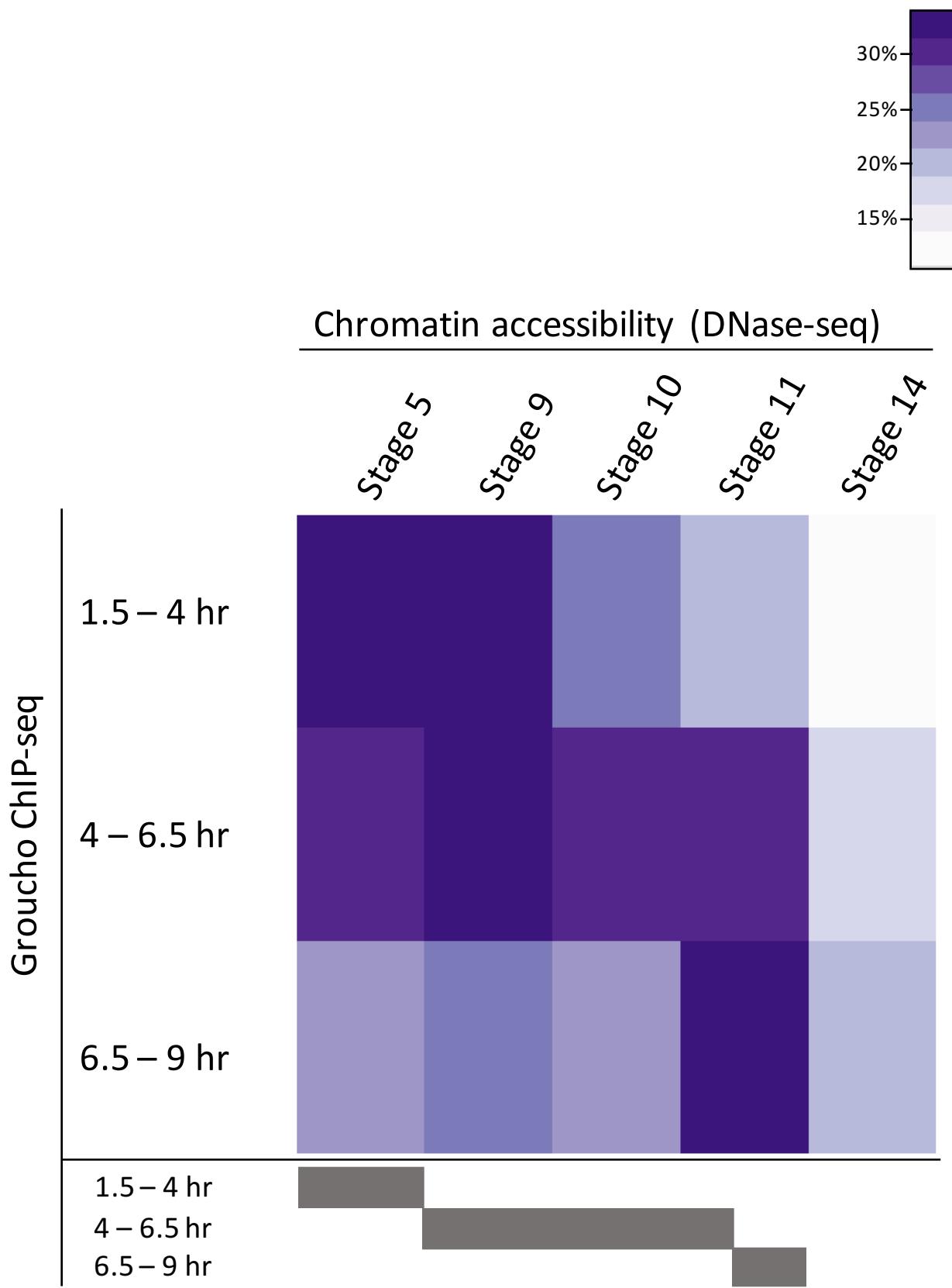
B

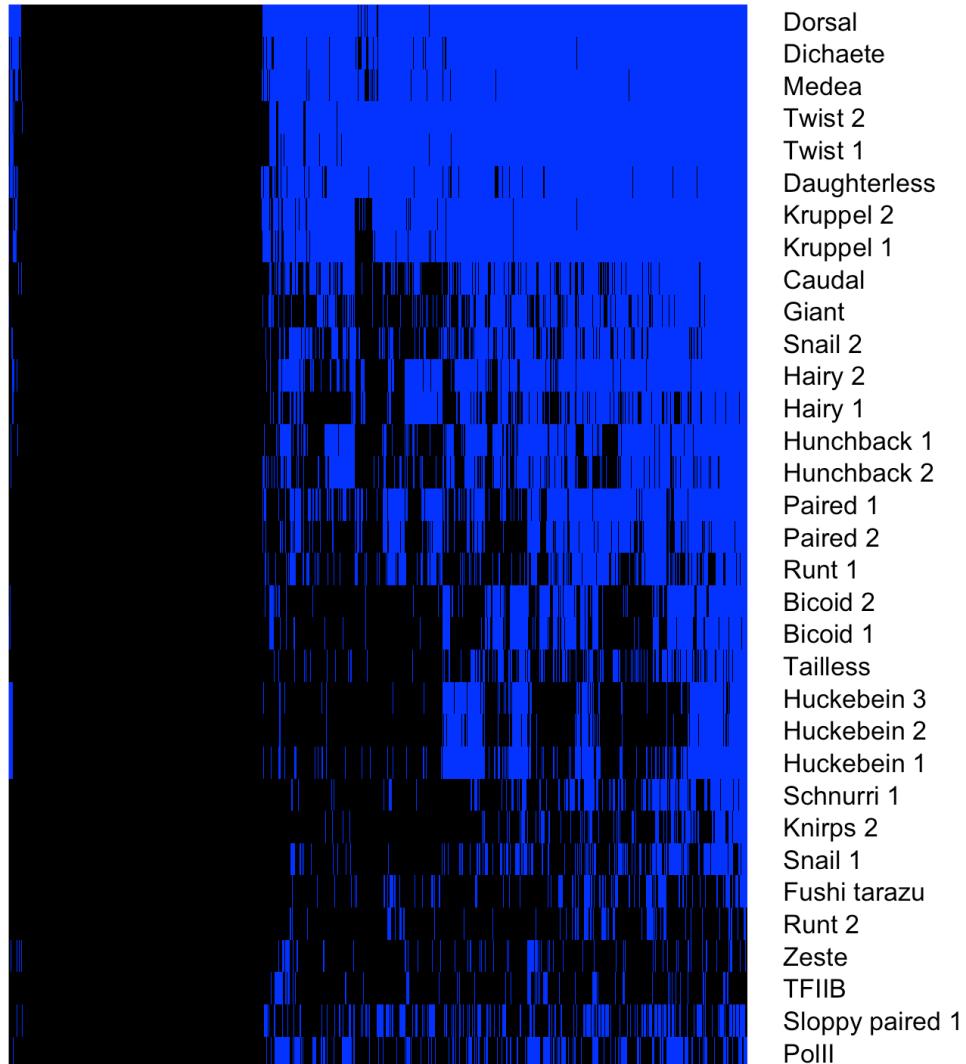






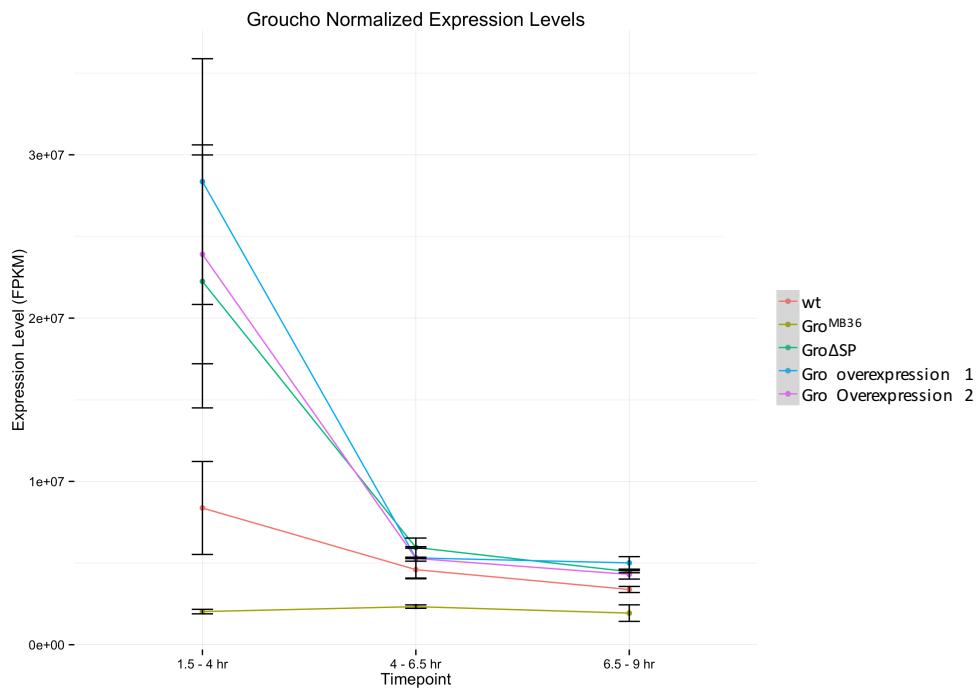




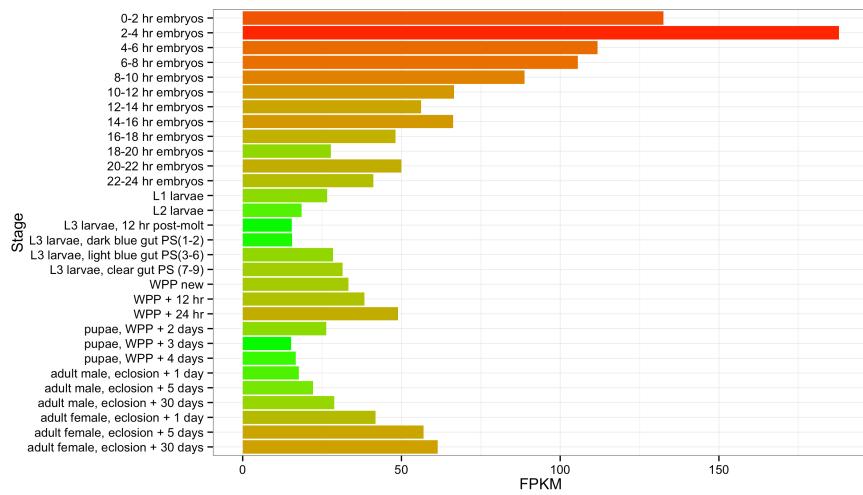


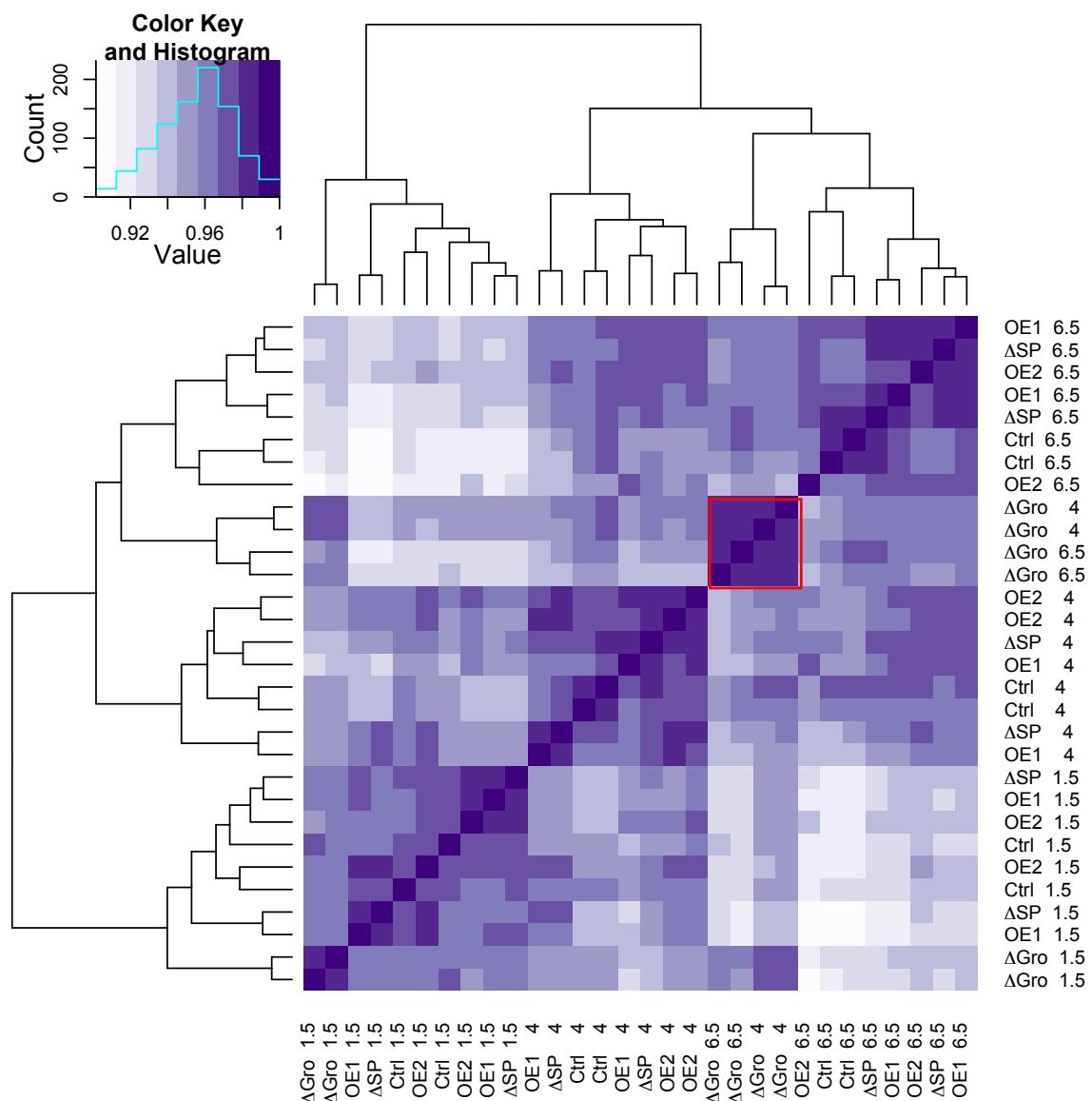
Gro binding sites, 1.5 – 4 hr embryos

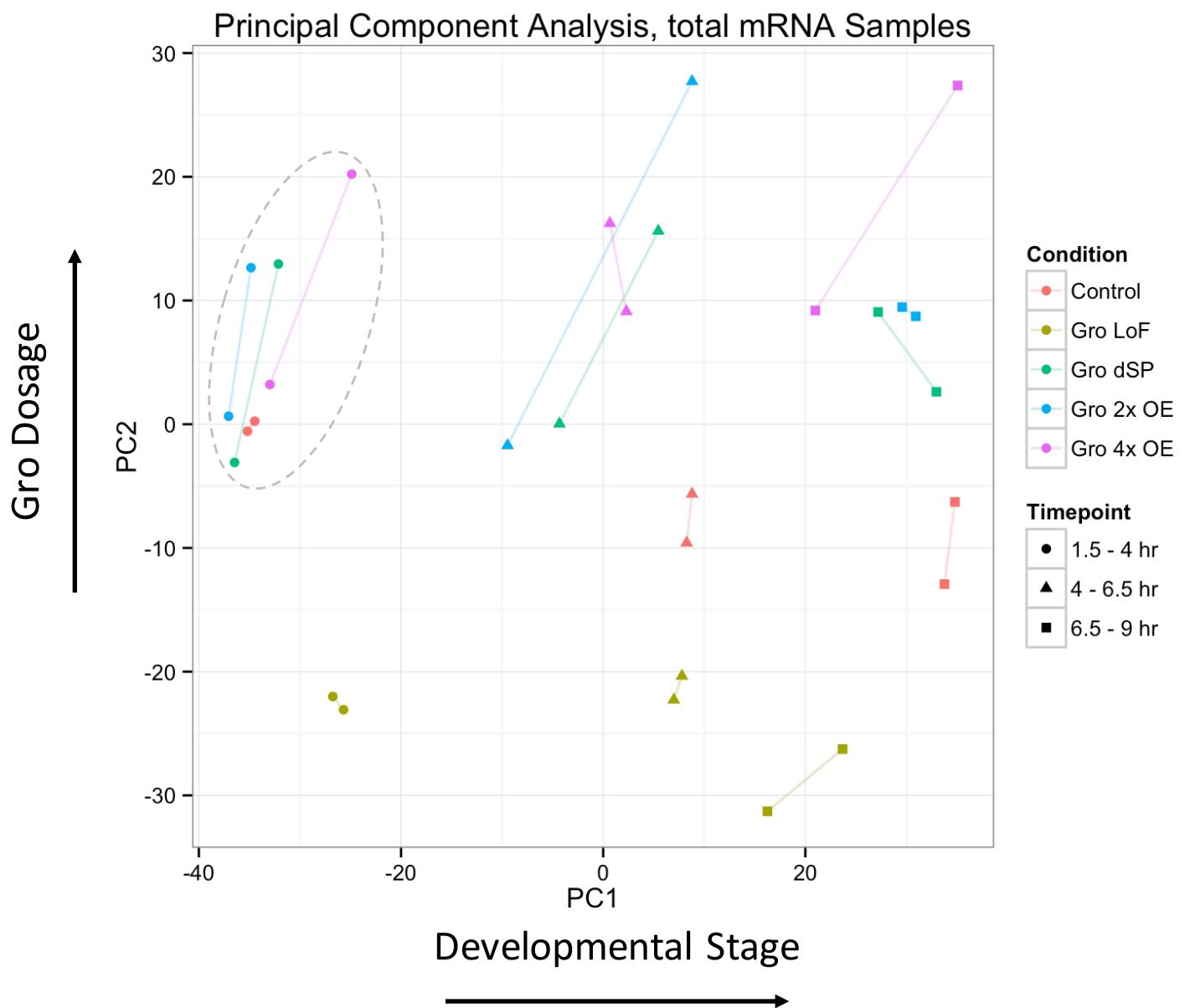
█ Factor occupancy

A

Groucho transcript abundance modENCODE Developmental Transcriptome Project

B





A

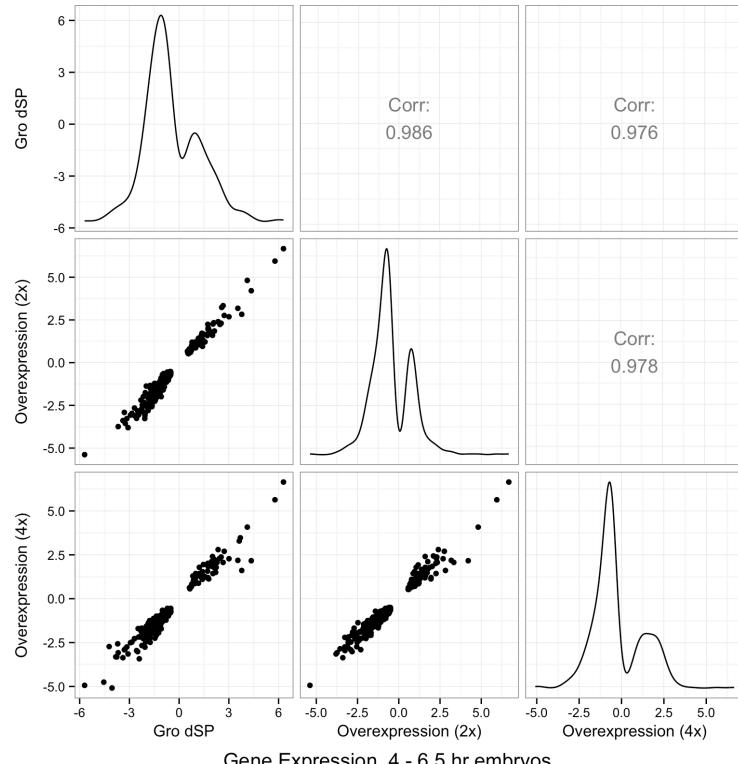
		1.5 - 4 hr	4 - 6.5 hr	6.5 - 9 hr
Gro LoF	Down	1459	2253	2043
Gro LoF	Up	1437	1837	1632
GroΔSP	Down	241	284	500
GroΔSP	Up	100	230	616
Overexpression (2x)	Down	698	566	463
Overexpression (2x)	Up	244	599	496
Overexpression (4x)	Down	674	655	1171
Overexpression (4x)	Up	219	490	1204

B

% of Protein-Coding Genome Differentially Expressed vs wild-type			
Sample	1.5 - 4 hr	4 - 6.5 hr	6.5 - 9 hr
Gro LoF	19%	27%	25%
GroΔSP	2%	3%	7%
Gro 2x Overexpression	6%	8%	6%
Gro 4x Overexpression	6%	8%	16%

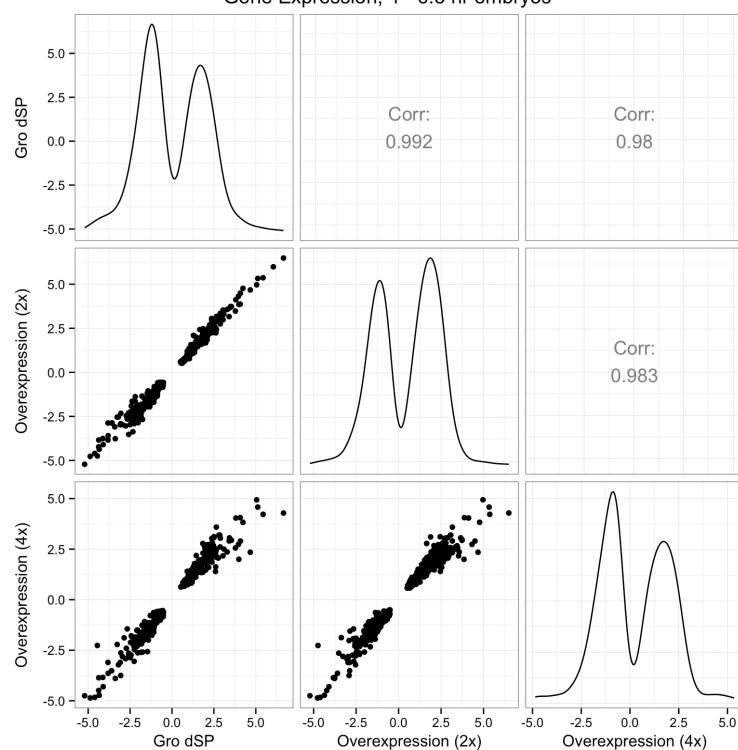
Gene Expression, 1.5 - 4 hr embryos

A

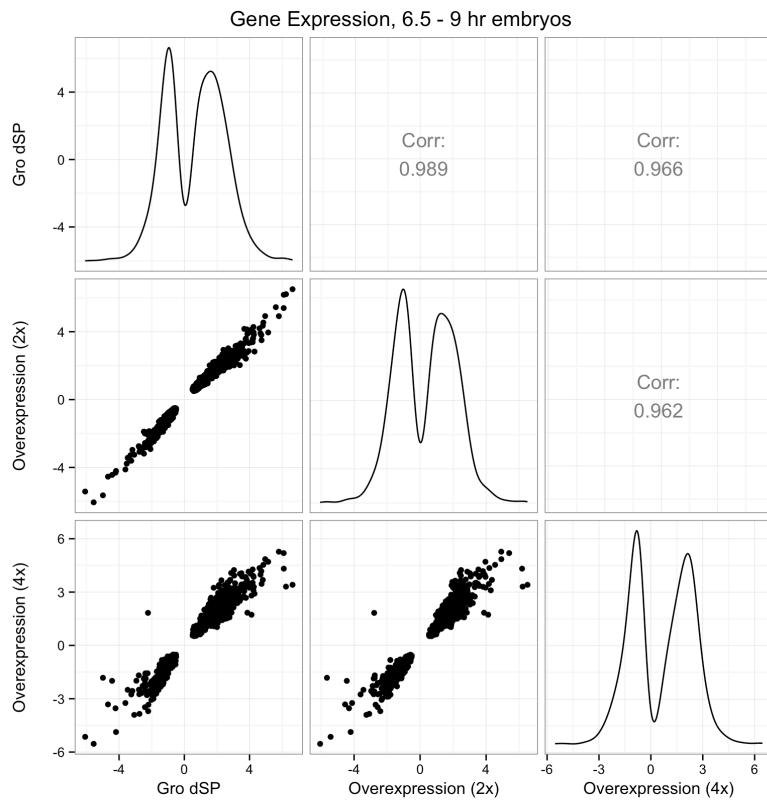


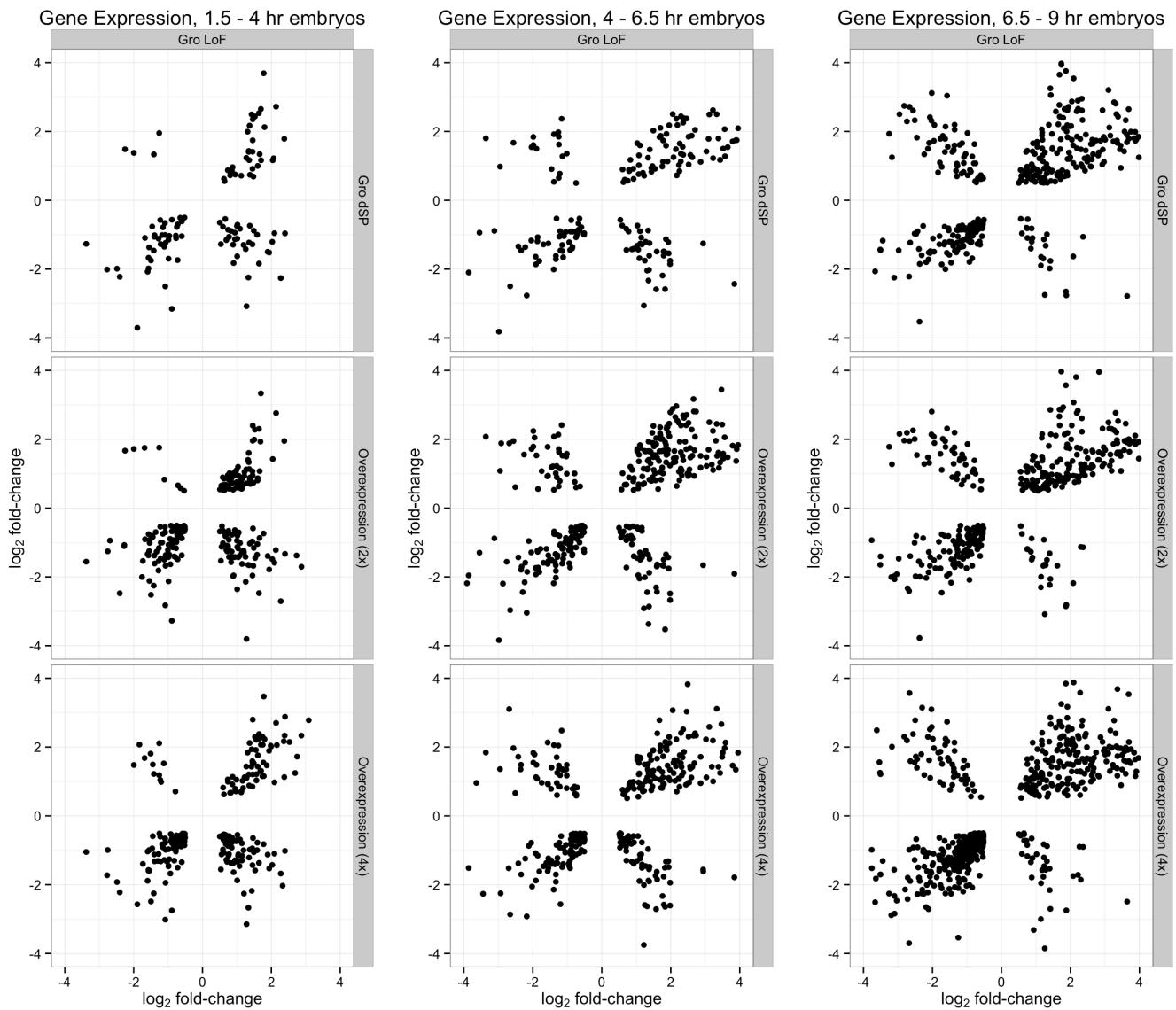
Gene Expression, 4 - 6.5 hr embryos

B

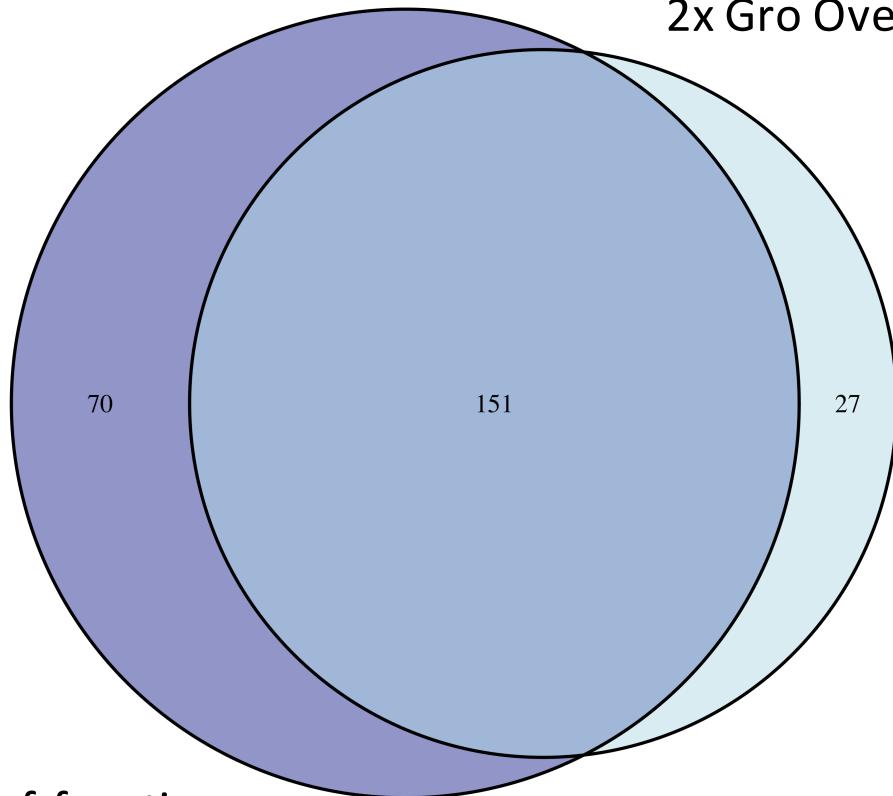


C

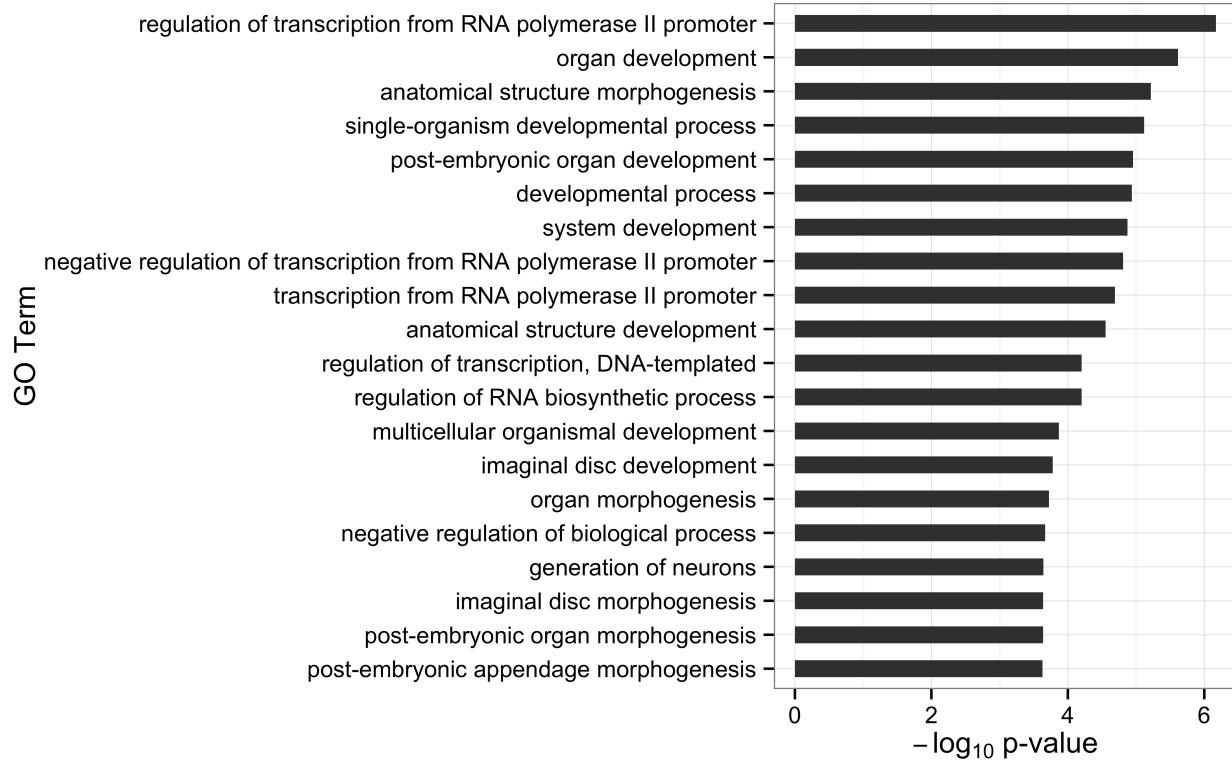


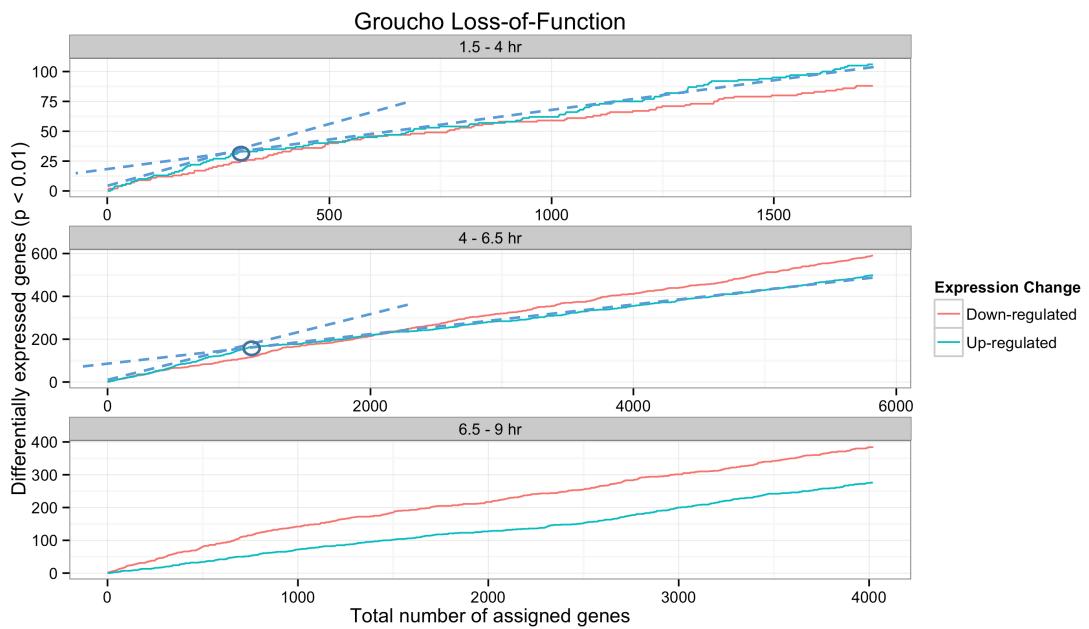
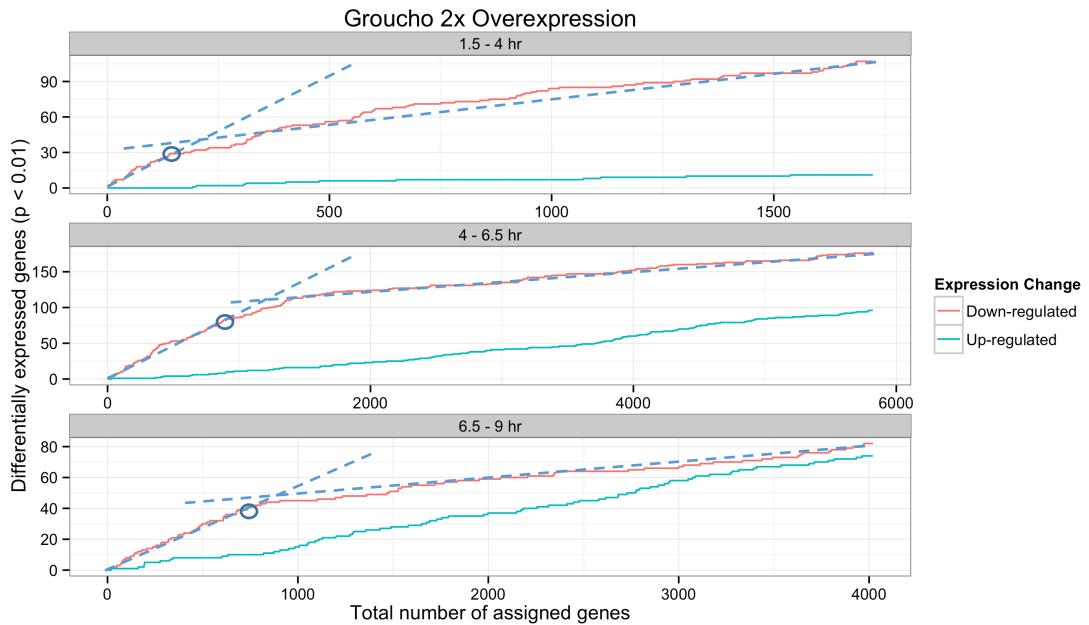
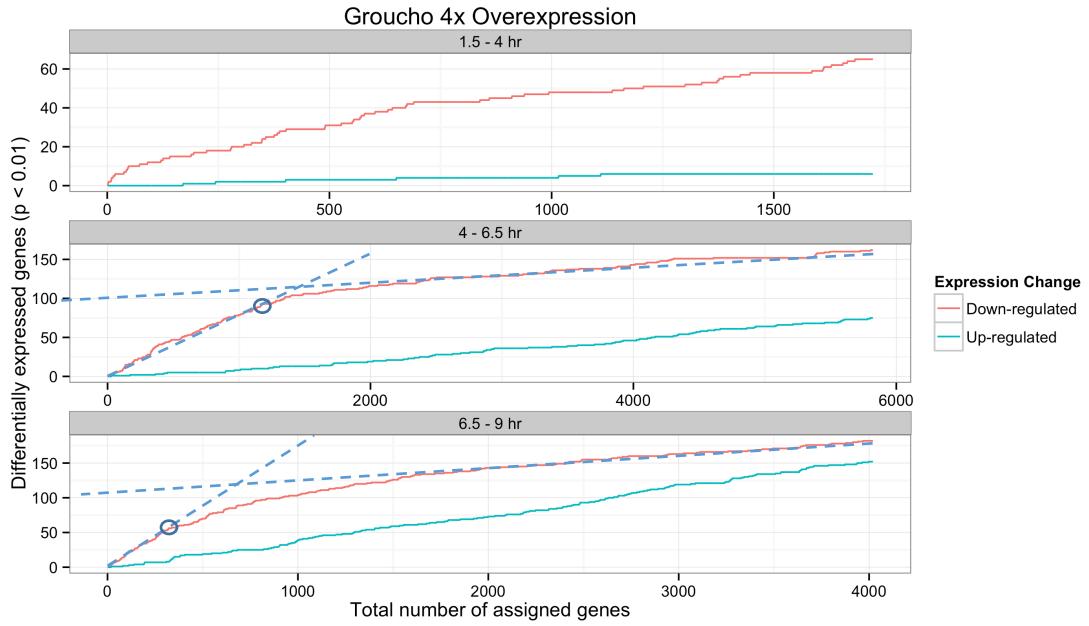


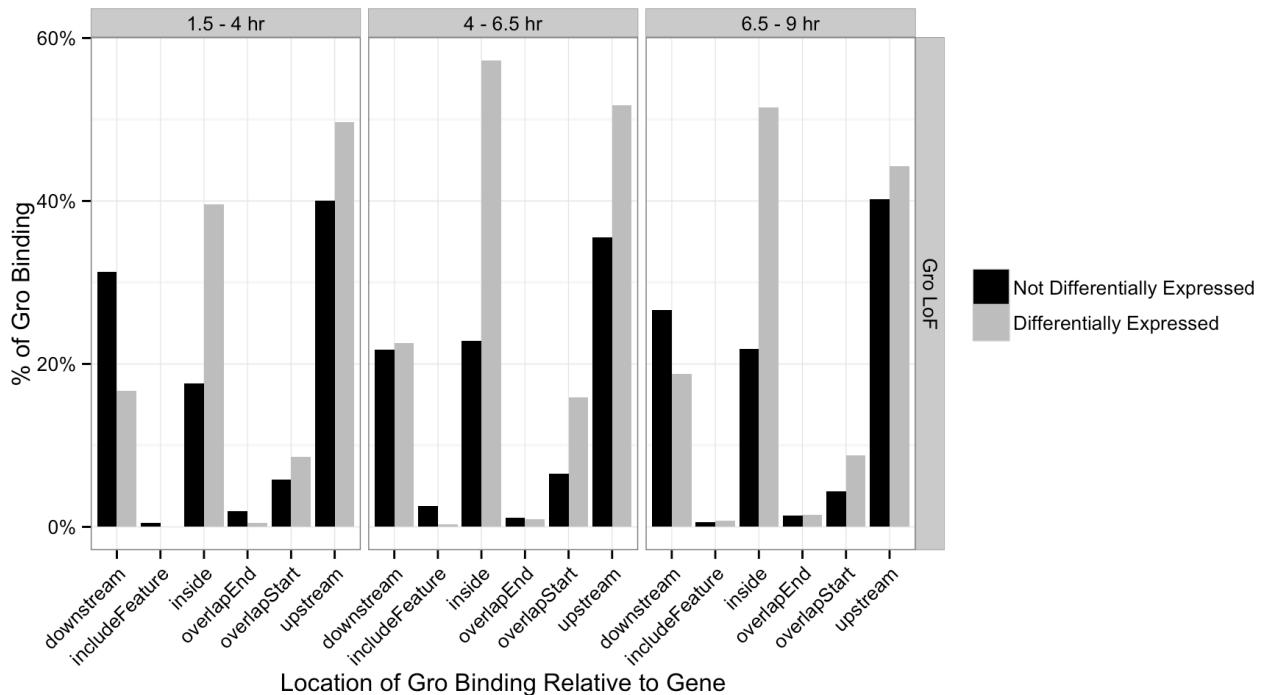
Gro loss-of-function
vs.
2x Gro Overexpression



Gro loss-of-function
vs.
4x Gro Overexpression

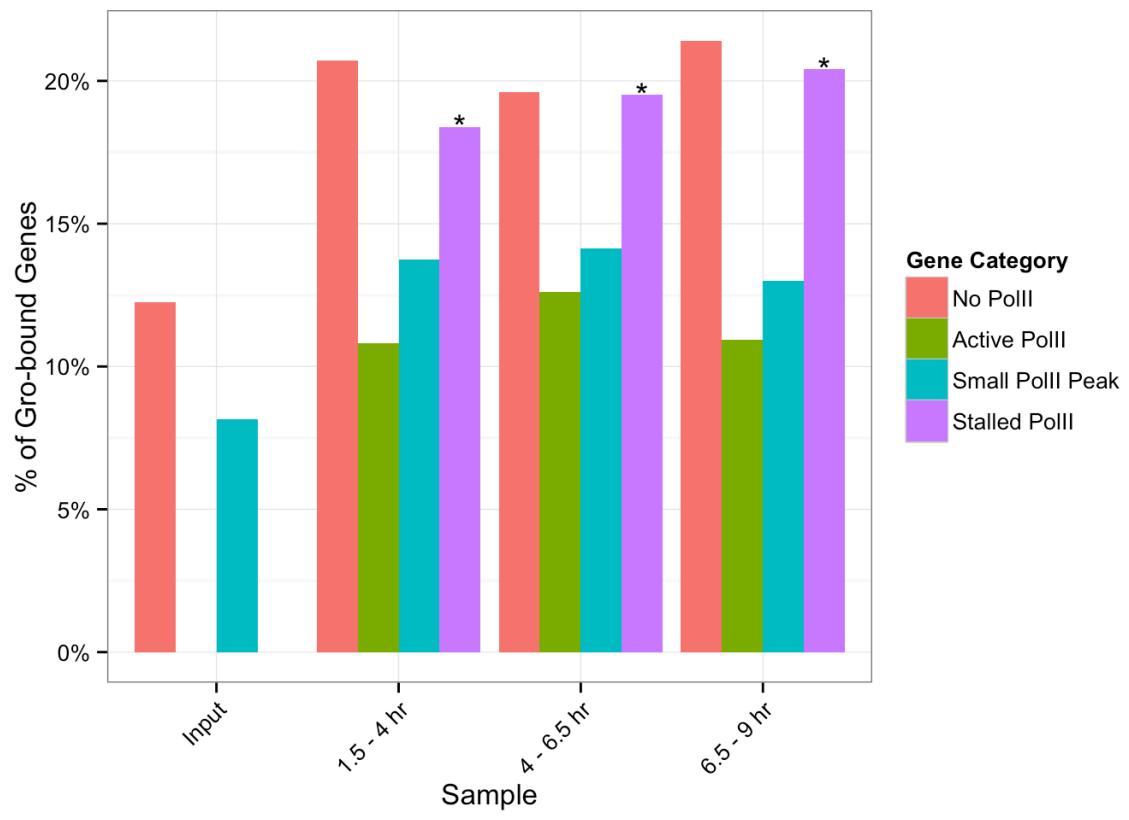


A**B****C**



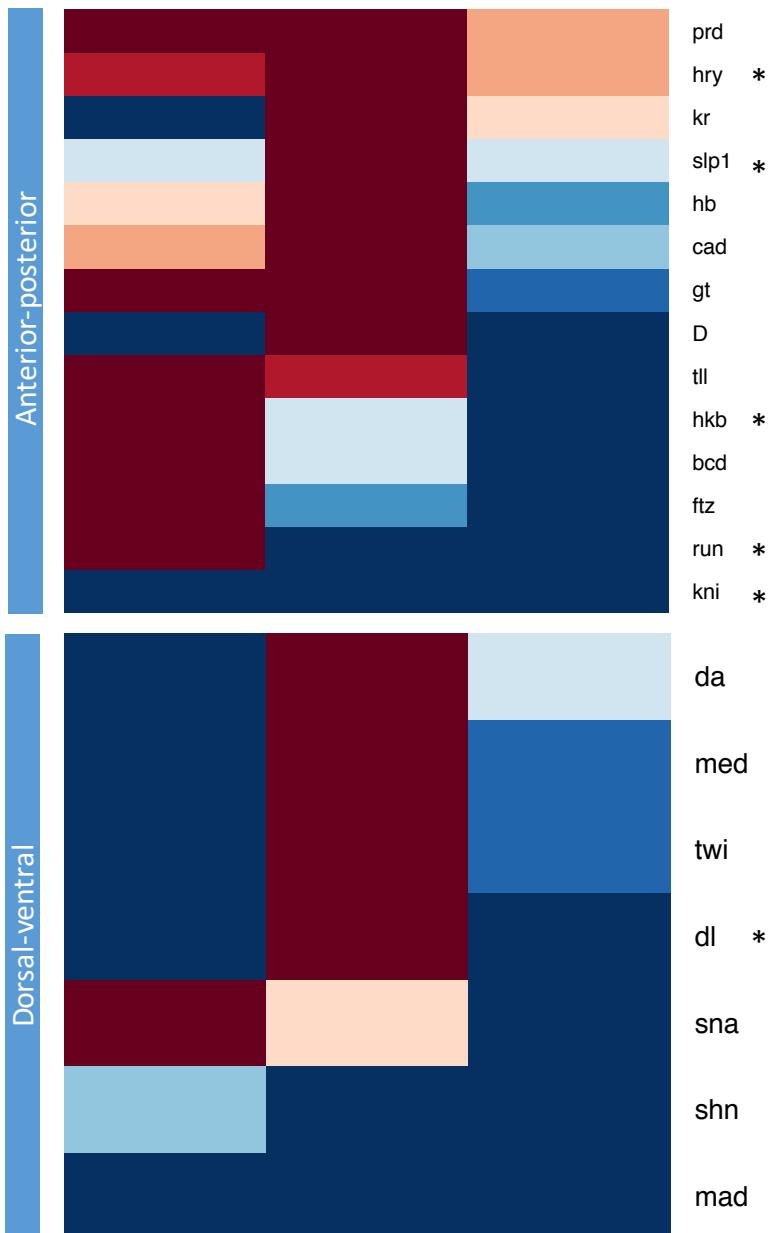
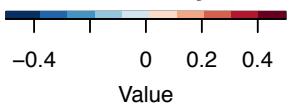
Percentage of genes with internal Groucho binding

		Whole Gene			Exon			Intron		
		Down	No Change	Up	Down	No Change	Up	Down	No Change	Up
Gro LoF	1.5 - 4 hr	4%	2%	5%	2%	1%	2%	3%	2%	4%
	4 - 6.5 hr	11%	9%	14%	8%	6%	7%	8%	6%	12%
	6.5 - 9 hr	11%	6%	6%	5%	3%	3%	10%	4%	5%
2x Overexpression	1.5 - 4 hr	15%	2%	2%	7%	1%	1%	11%	1%	1%
	4 - 6.5 hr	43%	9%	6%	30%	6%	2%	32%	6%	4%
	6.5 - 9 hr	23%	6%	5%	9%	3%	2%	21%	5%	4%
4x Overexpression	1.5 - 4 hr	14%	2%	2%	8%	1%	0%	10%	2%	2%
	4 - 6.5 hr	42%	9%	6%	30%	6%	3%	32%	6%	3%
	6.5 - 9 hr	22%	5%	5%	9%	3%	2%	20%	4%	4%



Z-score

Color Key



1.5–4 hr

4–6.5 hr

6.5–9 hr

