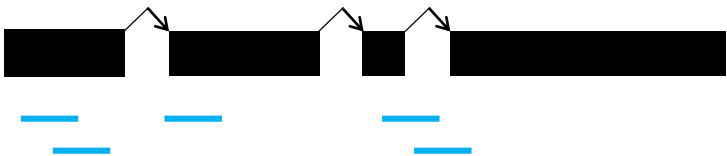
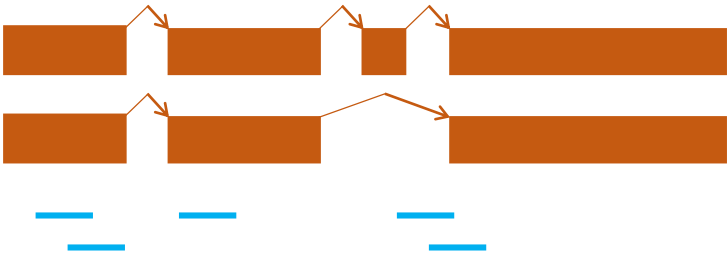
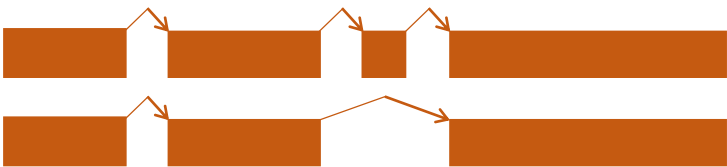
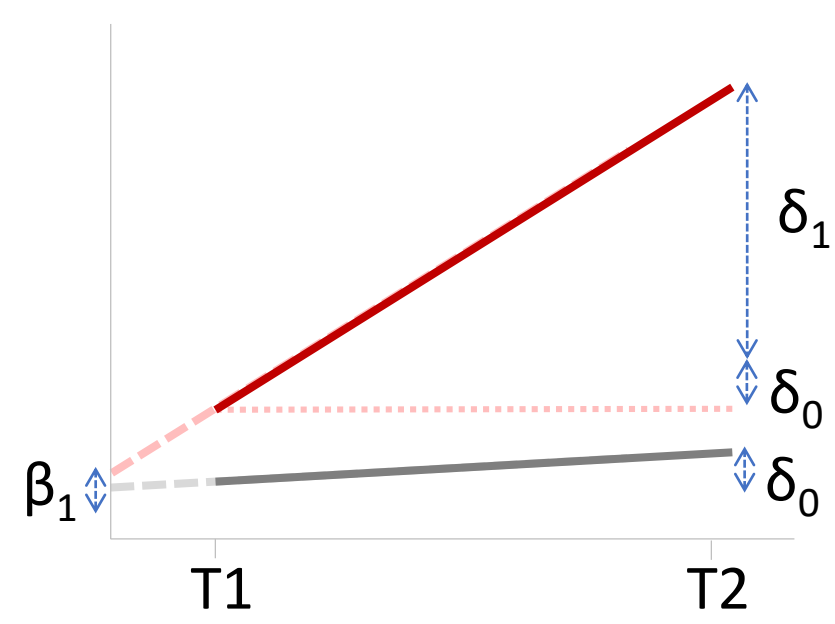


	Analysis	Annotation	Expression
1.		Reference genome	RNA-Seq reads (WT = 29, TG = 30)
2.		Iso-Seq defined transcriptome (n = 12)	RNA-Seq reads (WT = 29, TG = 30)
3.		Iso-Seq defined transcriptome (n = 12)	Iso-Seq reads (WT = 6, TG = 6)



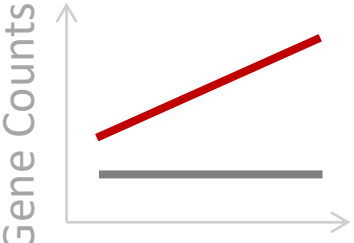
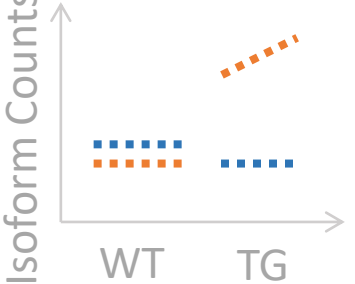
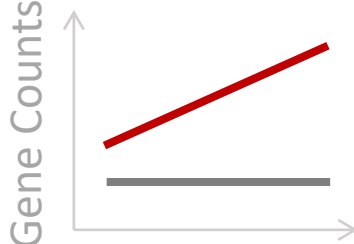
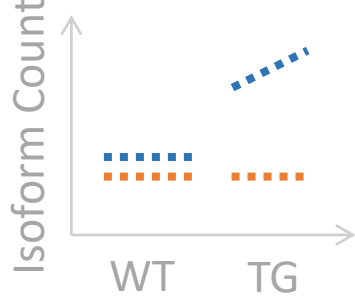
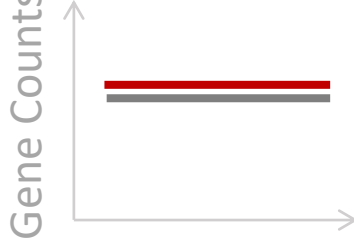

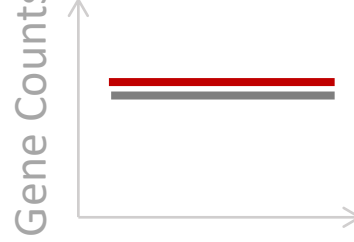

Inference from regression coefficients

β_1 : WT vs TG at T1

δ_0 : WT over time

δ_1 : WT vs TG over time

Model	β_1 CasevsControl	δ_0 Time	δ_1 TimexCase	Condition	Effects
1	✓	x	x		Genotype
2	✓	✓	x		Genotype + Age
3	x	✓	x		Age
4	x	✓	✓		Interaction
5	x	x	✓		Interaction
6	✓	x	✓		Interaction
7	✓	✓	✓		Interaction

				Condition	
	Differential Gene Expression	Differential Isoform Usage	Major isoform switching		
1	✓	✓	✓		
2	✓	✓	x		
3	x	✓	✓		
4	x	✓	x		

Isoform	Associated Gene	Structural Category	Associated Transcript	Length	FL Sample 1	FL Sample 2
PB.1.1	Gene 1	FSM	ENMUST1	3000	100	90
PB.1.2	Gene 1	ISM	ENMUST1	1500	10	10
PB.1.3	Gene 1	ISM	ENMUST2	2400	20	20
PB.1.4	Gene 1	ISM	ENMUST3	2900	5	4
PB.1.5	Gene 1	ISM	ENMUST3	2190	5	2
PB.1.6	Gene 1	ISM	ENMUST4	1250	1	0



Isoform	Associated Gene	Structural Category	Associated Transcript	Length	FL Sample 1	FL Sample 2
PB.1.1	Gene 1	FSM	ENMUST1	3000	110	100
PB.1.3	Gene 1	ISM	ENMUST2	2400	20	20
PB.1.4	Gene 1	ISM	ENMUST3	2900	10	6