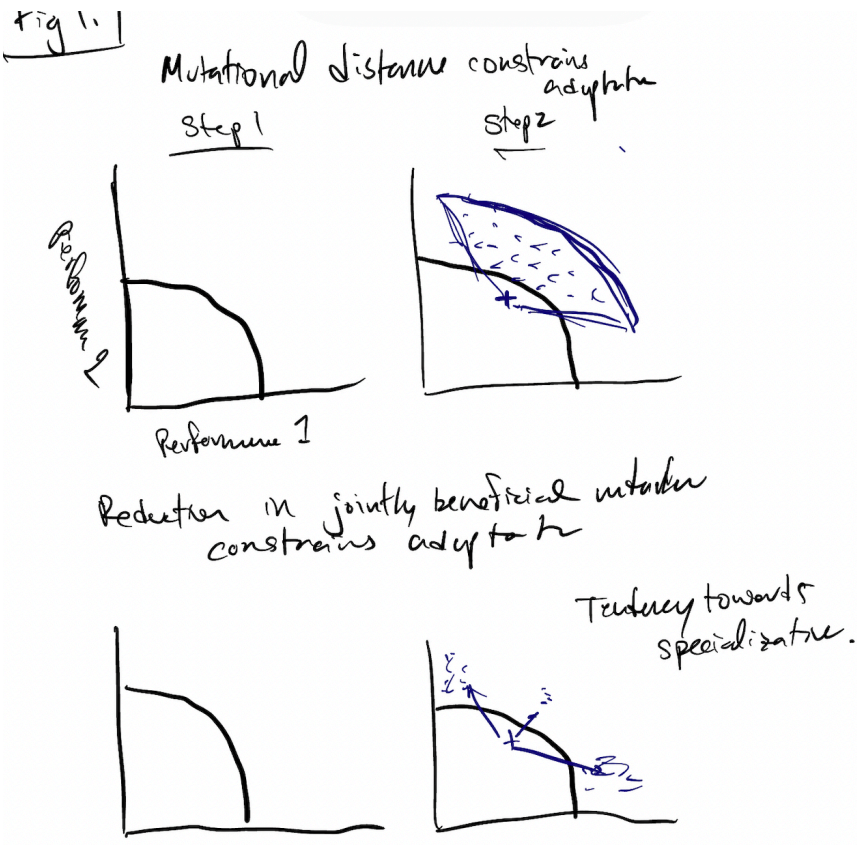
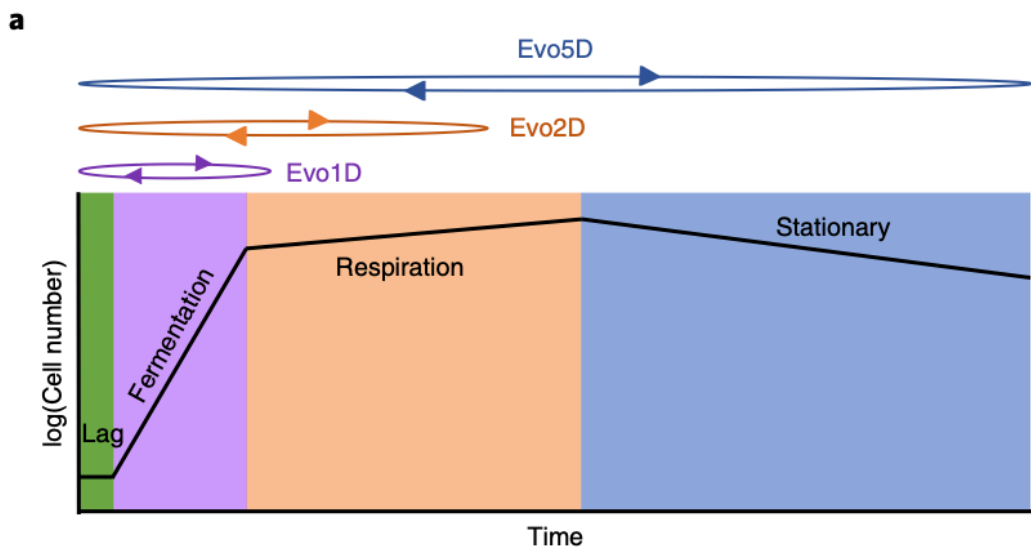


Schematic of tradeoffs being driven by shifts in pleiotropy



Growth phases



Evolution experiments

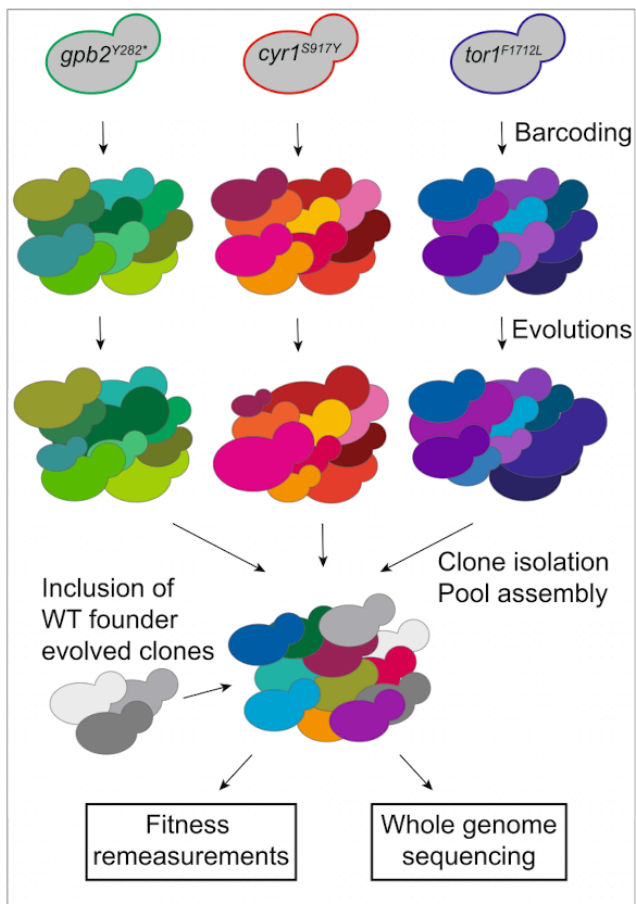
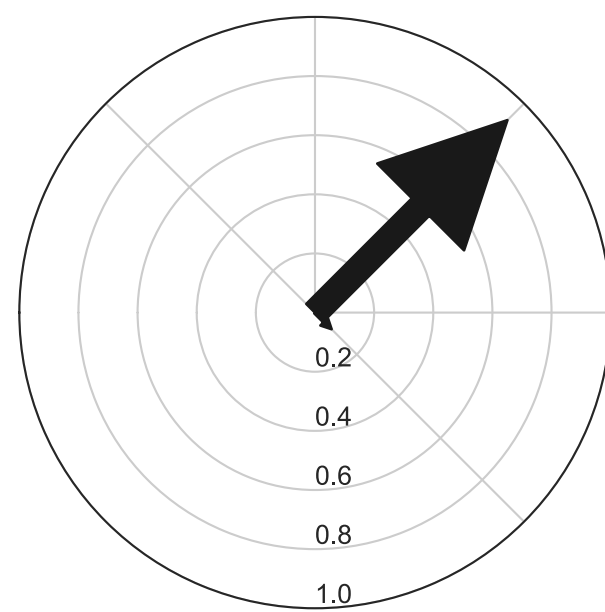
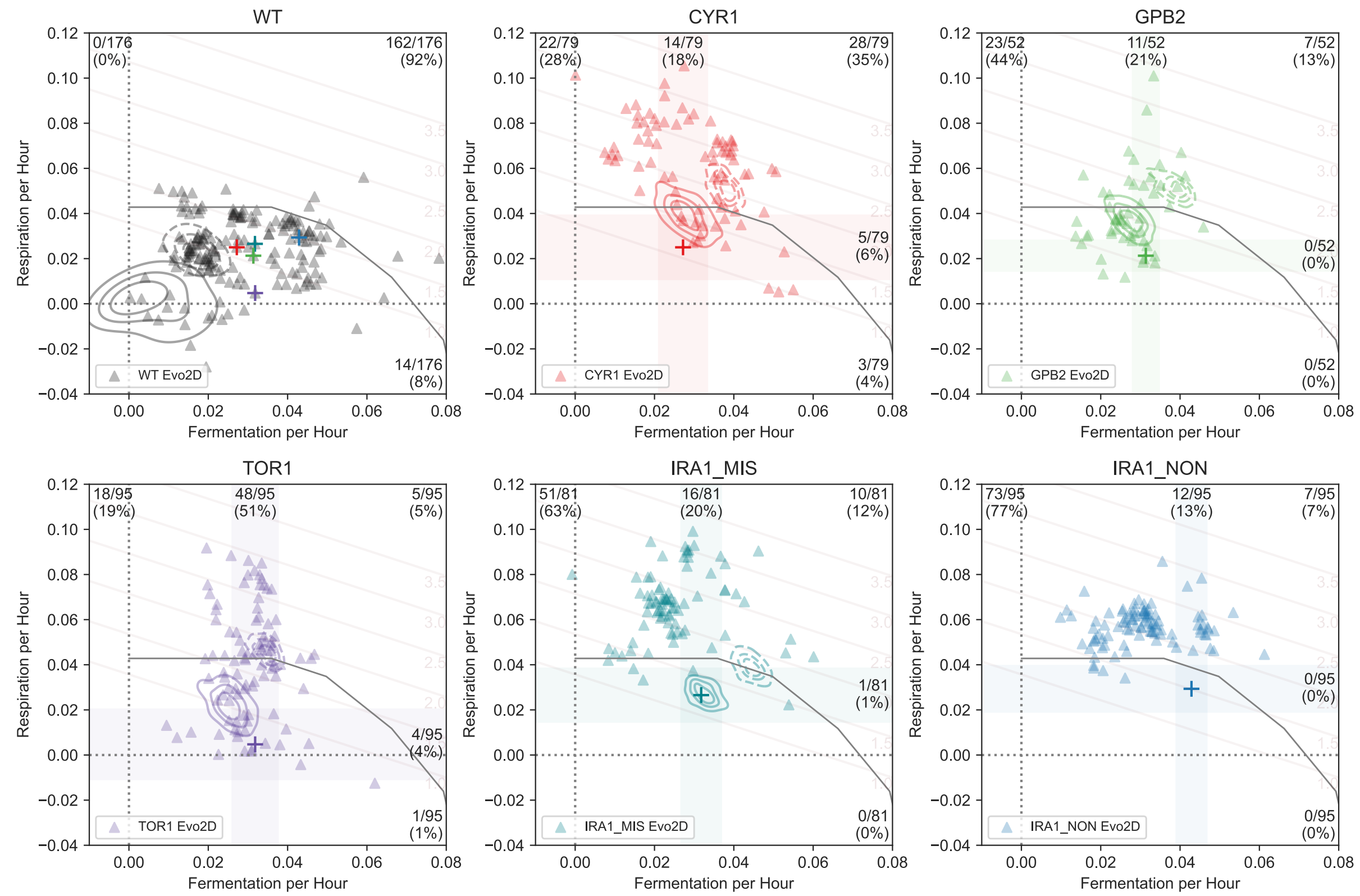
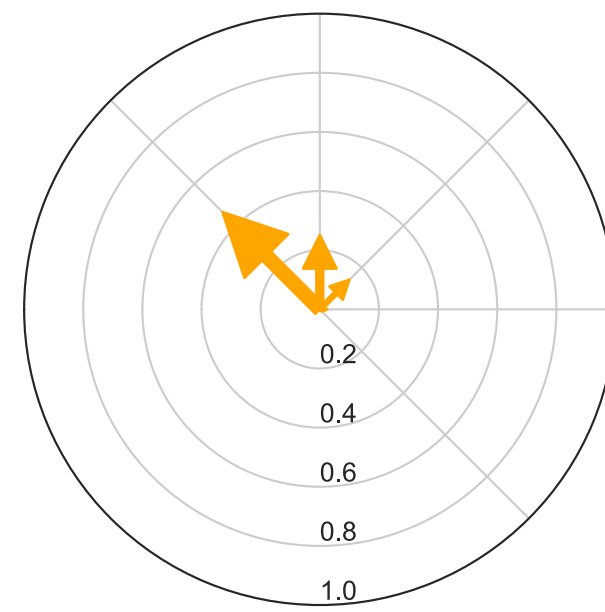


Table - number of mutants per condition

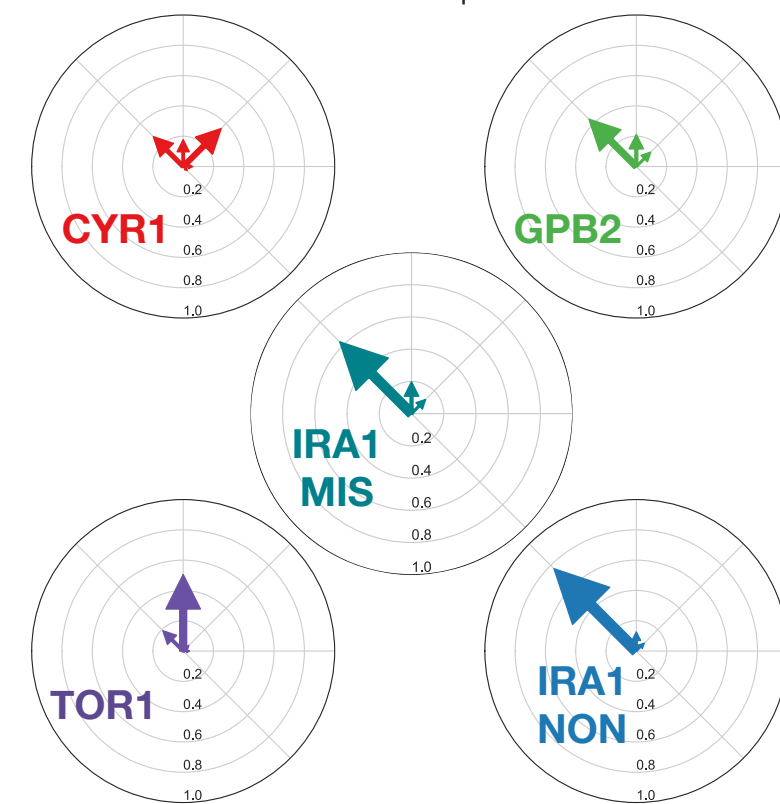
	Evo1D	Evo2D	Evo3D
CYR1	13	112	23
GPB2	15	106	14
TOR1	21	144	2
IRA1 mis	12	82	29
IRA1 non	12	95	134



First step



All second step



		WT		CYR1		GPB2		TOR1		IRA1_MIS		IRA1_NON	
		Evo2D	Evo3D	Evo2D	Evo3D	Evo2D	Evo3D	Evo2D	Evo3D	Evo2D	Evo3D	Evo2D	Evo3D
Ras/PKA	IRA1	30/78									1/35*		
	IRA2	11/78						1/12					
	GPB1	4/78											
	GPB2	14/78						2/12					
	PDE2	11/78											
	CYR1	3/78											
	GPR1			1/22									
TOR/Sch9	KSP1			1/22	2/14	1/4	1/9*			4/64		32/77	30/34
	TOR1	1/78											
	SCH9	1/78											
HOG	SSK2			1/22		1/4	1/9	6/12					
RTG	RTG2			3/22	2/14		1/9			9/64	1/35	1/77	
	MKS1			1/22	1/14					7/64	1/35*		
	BMH1			1/22		1/4							
TCA cycle	CIT1			1/22						13/64	1/35*		
	KGD1			1/22						3/64			
	MDH1									4/64			
	MAE1									2/64		2/77*	
	ALD5				1/14					1/64*			2/34*
Mitochondrial Biogenesis	PUF3			4/22	2/14		1/9			7/64	7/35	24/77	1/34*
	PAB1			1/22	4/14		2/9	1/12		3/64	5/35	12/77	
	PAN2									1/64			
	PAN3							1/12		1/64			
Others	MKT1			1/22	1/14	1/4	1/9			1/64*	9/35		
	ARO80			3/22	1/14					2/64	4/35		
	MIT1									2/64*	4/35*	2/77	
	GSH1			2/22				1/12				1/77*	
	VPS53						1/9*			1/64*	1/35*	1/77*	
	TFA1										1/35*	2/77*	
	YPK9			1/22*						2/64*			
	Chr11Amp	3/78*											
	ATG26						1/9			1/64*			1/34*