

	Isogenic vs non-isogenic pairs with difference (20 total) (% of total)	Isogenic vs non-isogenic pairs with >25% difference (% of total)	Isogenic vs non-isogenic pairs with >50% difference (% of total)
Fecundity	8 (40%)	7 (35%)	5 (25%)
Survival upon oral infection	10 (50%)	7 (35%)	2 (10%)
Midgut mitosis in baseline conditions	5 (25%)	5 (25%)	5 (25%)
Midgut mitosis upon oral infection	5 (25%)	5 (25%)	2 (10%)
Defecation rate upon oral infection	4 (20%)	1 (5%)	0 (0%)
Fecal pH upon oral infection	4 (20%)	0 (0%)	0 (0%)
Terminal branching in normoxia	2 (10%)	0 (0%)	0 (0%)
Terminal branching in hypoxia	2 (10%)	0 (0%)	0 (0%)

Table S3: The intensity of the phenotypic differences in comparisons of isogenic and non-isogenic GD and KK transgenic *UAS-RNAi* lines varies in the absence of Gal4.