ESM Table 1. Comparison of the reported findings of published articles testing for transgenerational effects of nutrition in life-history traits of *Drosophila melanogaster*. (The specific composition of 'standard diet' differs among studies, and in some cases, is not specified. Ingredients sometimes included in *Drosophila* media as preservatives, such as $MgSO_4$, $CaCl_2$, propionic acid or Nipagin, have also not been included to save space. DGRP, *Drosophila* Genetic Reference Panel [45]. DSPR, *Drosophila* Synthetic Population Resource [1].

number of genetic lines	**generations**	**trials**	**standard food**	**diet treatment**	**grandparents diet**	**outcomes**	**reference**
1	F_1	1	agar-banana-barley flour-jaggery-yeast	standard, rich (2x yeast) poor (no yeast, no jaggery, 2x flour, 2x banana	same	female F_0 fed poor food laid heavier eggs than rich-fed F_0 (insignificant), and had offspring that survived better on rich food. No effects on mass	[15]
2 lines (one control, one selected for starvation resistance)	F_0, F_1	1	cornmeal-molasses-yeast	standard or no food (water-saturated plug) during adult period	same	F_0 females (from both control line and starvation resistance line), that were starved as adults for 28 h, birthed F_1 females that had more ovarioles compared to unstarved F_0 females	[17]
1	F_0, F_1	2	cornmeal-yeast-sucrose-glucose	standard poor (75% less sucrose, 80% less glucose, 75% less dry	same	no diet-mediated parental effects on body size or L1-adult development duration females raised on poor food laid larger eggs than females raised on rich food	[16]

				yeast, 75% less cornmeal)		LP-adult pupal duration unaffected by parental effects or diet	
1	F_0, F_1	1	agar-cornmeal-yeast-syrup	standard food Poor (−87.5% yeast)	different and same	female F_0 fed poor diet birthed larger F_1 females that develop slower. Male F_0 fed poor diet sired larger F_1 males	[13]
10 wild-collected isofemale lines	F_0, F_1	1	agar-cornmeal-yeast-sucrose	(LP) low protein (+60% sucrose, −60% less yeast) (HP) high yeast (−60% less sucrose, + 60% more yeast)	same	there were genotype-specific effects, but one prominent pattern was reported: F_1 females from HP parents developed more quickly, were heavier, laid more eggs, and had more standing protein and triglycerides. F_1 males developed at a similar rate, no effects on weight, but had higher standing protein when F_0 parents were LP	[11]
1	F_0, F_1, F_2	1	cornmeal-molasses	(LS) low sugar (0.15 mol l^{-1})	different and same	F_1 male and female F_1 offspring whose mothers ate HS food accumulated triglycerides quickly, stored less	[12]

				(HS) high sugar (1 mol l^{-1})		cholesterol, and had altered regulation of metabolic genes; these patterns were consistent for F_2	
4 and 10 randomly selected DGRP lines; 3 randomly selected DSPR lines	F_0, F_1, F_2	1	cornmeal-molasses	standard high fat (standard + 3% coconut oil by weight)	different and same	genotype-specific effects, for at least one of two descendant generations, of fat treatment on trehalose, protein, and triglyceride levels, female and male pupal weight, and egg size	[14] (DGRP; DSPR)

Reference

1. King EG, Macdonald SJ, Long AD. 2012 Properties and power of the *Drosophila* Synthetic Population Resource for the routine of complex traits. *Genetics* **191**, 935-949.