

Table S1: Correlations between anoxia tolerance and other phenotypes measured in the DGRP. Males and females were regressed individually to phenotypes where sex was listed along with line. Pooled Sex represents the correlations between anoxia tolerance pooled by sex and other DGRP phenotypes in which sex could not be determined (larval and embryo). DGRP phenotypes that included measurements of both sexes or were measured in a stage where sex could not be determined (larvae and embryo) were averaged by line and the correlated to larval anoxia tolerance, represented in the Larvae column. Significance at $p < 0.001$ ***, $p < 0.01$ **, $p < 0.05$ *

Trait	Male		Female			Pooled Sex		Larvae			Citation
	cor	p	cor	p		cor	p	cor	p		
sensitivity to oxidative stress (negative geotaxis)	0.057	0.443	0.126	0.051				0.317	0.000	***	Jordan et al. (2012)
sensitivity to oxidative stress (startle response)	-0.157	0.035	*	-0.135	0.037	*		0.020	0.799		
mito function (P:O ratio)	-0.131	0.426		0.099	0.510			-0.031	0.856		Jumbo-Lucioni et al. (2012)
mito function (State 3)	0.022	0.893		-0.047	0.753			0.415	0.011	*	
mito function (State 4)	0.190	0.246		-0.198	0.182			-0.141	0.406		
chill coma recovery	0.207	0.006	**	0.160	0.016	*		0.047	0.561		Mackay et al (2012)
startle response	-0.016	0.827		0.020	0.754			-0.006	0.941		
starvation resistance	0.156	0.029	*	0.143	0.022	*		-0.057	0.453		
alcohol tolerance	0.186	0.009	**	0.159	0.011	*		-0.002	0.978		Morozova et al (2015)
resistance to fungal infection (MA549)	0.058	0.431		0.061	0.348			0.087	0.266		Wang et al (2017)
resistance to fungal infection (PA14)	0.184	0.089		0.424	0.001	***		0.201	0.080		
oxidative stress paraquat	0.125	0.110		0.021	0.761			0.012	0.884		Weber et al (2012)
oxidative stress msb	0.109	0.166		0.281	0.001	***		0.184	0.026	*	
food intake	-0.083	0.273		-0.194	0.003	**		0.124	0.119		Garlapow et al 2015
boric acid toxicity				0.098	0.167						Najarro et al (2017)
mated lifespan				-0.051	0.439						Durham et al (2014)
fecundity				0.037	0.573						
traumatic brain injury				0.052	0.446						Katzenberger et al (2015)
susceptibility to enteric infection				0.291	0.001	***					Bou Sleiman et al. (2015)
tolerance to bacterial infection				0.117	0.093						Howick and Lazzaro (2017)
bacterial load				-0.089	0.201						
genotypic deviation of tolerance from bacterial infection				-0.023	0.742						
virgin female lifespan				0.284	0.001	***					Ivanov et al. (2015)
egg to adult viability 25C	0.127	0.528		0.011	0.955			-0.303	0.141		Rohde et al. (2016)
egg to adult viability 28C	0.273	0.178		0.195	0.339			-0.299	0.156		
Genotype x Environment	-0.090	0.663		-0.155	0.450			0.186	0.383		
Heat resistance (time to knockdown)				-0.115	0.569						
Metabolic rate				-0.230	0.316						
HSP70 expression				-0.299	0.156						
Adbdomen length 17C				0.051	0.486						Lafuente et al. (2018)
Thorax length 17C				-0.097	0.189						
Abdomen length 28C				-0.017	0.821						
Thorax length 28C				-0.031	0.674						
Ctmax	-0.145	0.413		-0.119	0.503			-0.234	0.197		Rolandi et al. (2018)
endoplasmic ret stress (hazard ratio)	-0.177	0.060									Chow et al (2013)
endoplasmic ret stress (LT50)	-0.317	0.001	***								
male aggression	0.027	0.707									Shorter et al (2015)
radiation resistance	-0.076	0.345									Vaisnav et al. (2014)
glucose pooled	-0.119	0.162									Unckless et al (2015)
glucose high glucose	-0.078	0.358									
glucose low glucose	-0.088	0.294									
glycerol pooled	-0.194	0.022	*								
glycerol high glucose	-0.224	0.007	**								
glycerol low glucose	-0.104	0.216									
glycogen pooled	-0.040	0.640									
glycogen high glucose	-0.084	0.320									
glycogen low glucose	0.017	0.838									
triglyceride pooled	-0.163	0.055									
triglyceride high glucose	-0.128	0.129									
triglyceride low glucose	-0.128	0.128									
protein pooled	0.009	0.919									
protein high glucose	-0.023	0.791									

protein low glucose meanweight (ug) pooled	0.020 -0.026	0.811 0.758						
meanweight (ug) high glucose	-0.052	0.540						
meanweight (ug) low glucose	-0.004	0.966						
low glucose PC1	0.046	0.583						
low glucose PC2	-0.039	0.645						
low glucose PC3	0.063	0.455						
low glucose PC4	-0.204	0.014	*					
low glucose PC5	-0.017	0.840						
high glucose PC1	-0.163	0.053						
high glucose PC2	-0.139	0.101						
high glucose PC3	0.046	0.588						
high glucose PC4	-0.151	0.075						
high glucose PC5	-0.004	0.961						
starvation resistance mean (nutrient restric- tive)			0.010	0.885				Nelson et al (2016)
starvation resistance mean (nutrient rich)			0.065	0.324				
starvation resistance median (nutrient restrictive)			0.037	0.575				
starvation resistance median (nutrient rich)			0.045	0.492				
starvation resistance max (nutrient restric- tive)			0.033	0.616				
starvation resistance max (nutrient rich)			0.028	0.668				
body mass (nutrient restrictive)			0.073	0.266				
body mass (nutrient rich)			-0.012	0.855				
lipid (nutrient restric- tive)			-0.343	0.001	***			
lipid (nutrient rich)			-0.234	0.001	***			
protein (nutrient re- strictive)			-0.057	0.388				
protein (nutrient rich)			-0.011	0.872				
glucose (nutrient re- strictive)			-0.106	0.105				
glucose (nutrient rich)			-0.121	0.065				
lead tolerance	0.081	0.264	0.120	0.058				Zhou et al (2016)
lead development time	-0.018	0.811	-0.076	0.244		0.020	0.793	
DDT mortality (LD50)			0.036	0.582				Schmidt et al (2017)
embryo development time					0.027	0.867	0.139	0.393
egg viability					-0.025	0.875	-0.118	0.467
Larval amanitin resis- tance LC50					-0.086	0.619	-0.345	0.046
Larval amanitin resis- tance (0.2 ppm)					-0.004	0.965	0.117	0.194
Larval amanitin resis- tance (2 ppm)					-0.006	0.947	0.207	0.020
larval insecticide resis- tance (0.25 ppm)					0.175	0.022	0.003	0.973
larval insecticide resis- tance (0.5 ppm)					0.064	0.402	-0.011	0.889
larval insecticide resis- tance (1 ppm)					-0.047	0.541	-0.073	0.364
larval insecticide resis- tance (2 ppm)					-0.041	0.595	-0.059	0.459
larval insecticide resis- tance (LD50)					-0.028	0.712	0.050	0.535
larval methylmercury survival (0 M)					-0.074	0.344	0.028	0.731
larval methylmercury survival (5 M)					-0.049	0.529	0.029	0.719
larval methylmercury survival (10 M)					-0.068	0.381	0.006	0.946
larval methylmercury survival (15 M)					0.044	0.575	0.117	0.148
larval methylmercury + caffiene survival (0 M + 2 mM)					0.143	0.064	0.160	0.049
larval methylmercury + caffiene survival (10 M + 2 mM)					-0.014	0.854	0.027	0.742
								Montgomery et al (2014)