

Figure S3-A: Amount of liquid diet (μl) consumed for males, females on each of the four diets ranging in their protein to carbohydrate ratios. A = P:C(1:1), B = P:C(1:2), C = P:C(1:4), D = P:C(1:16).

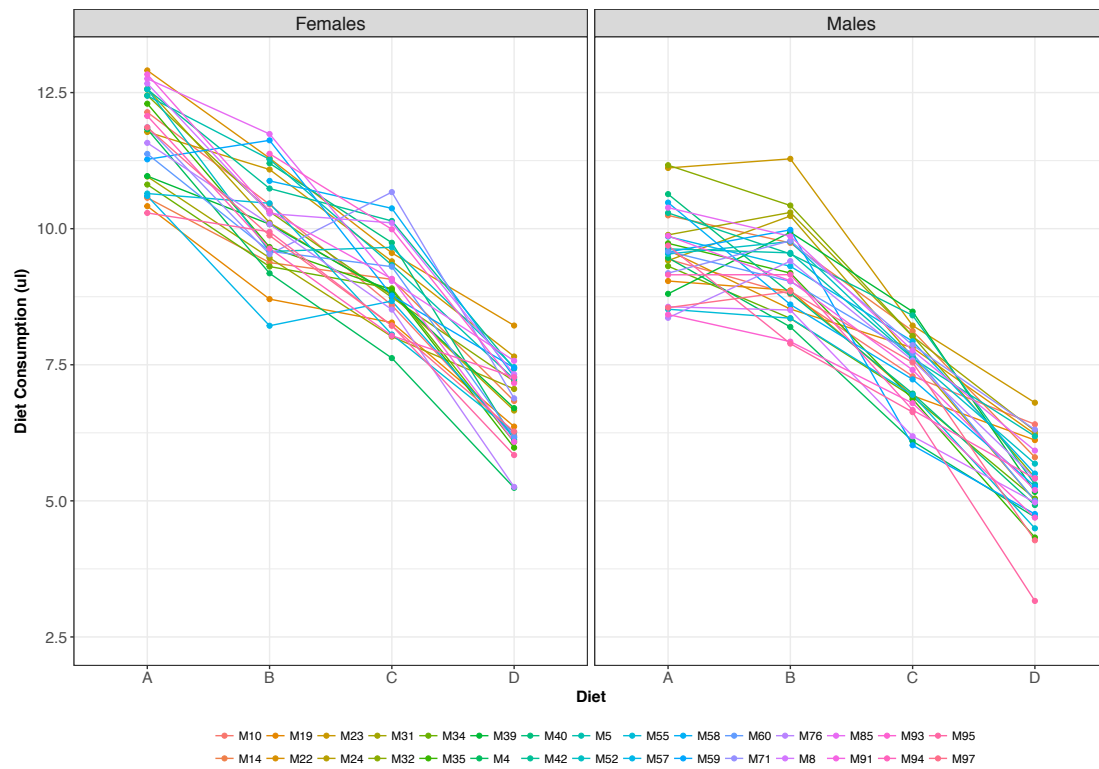
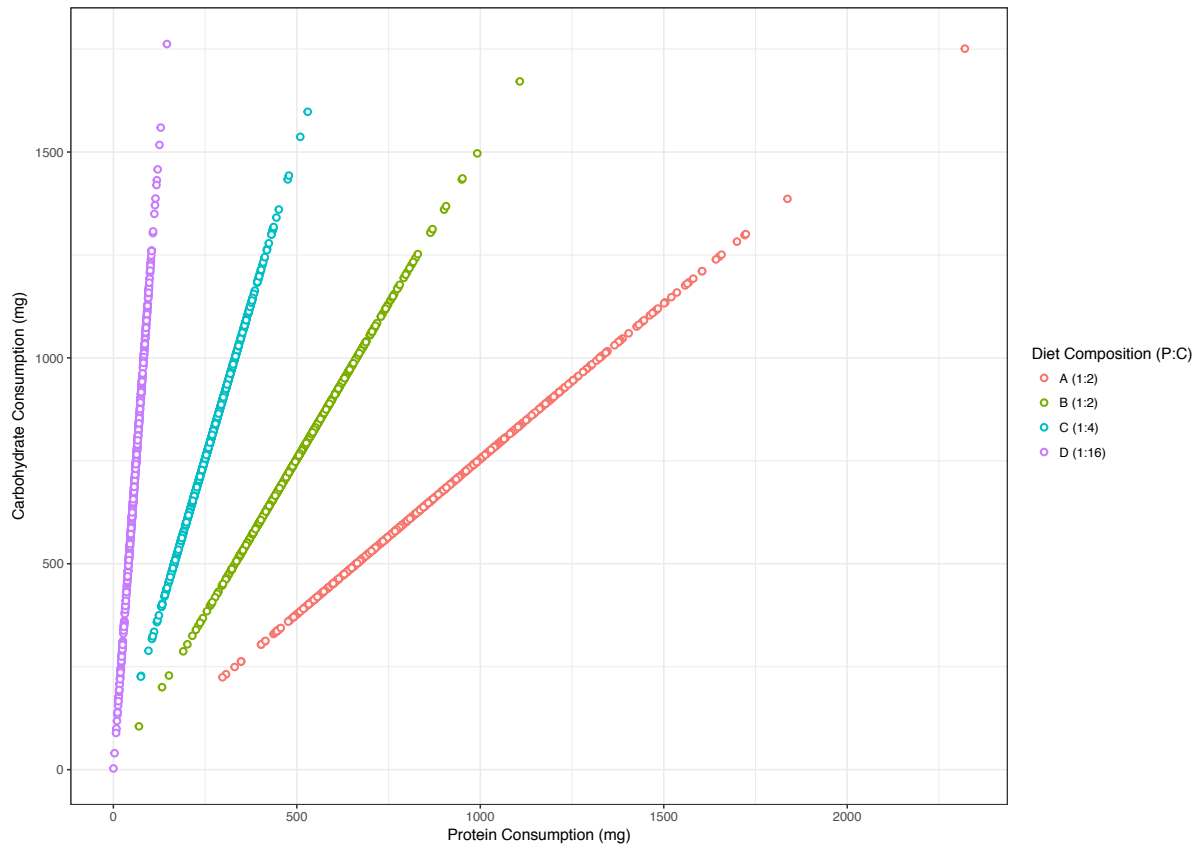


Figure S3-B: Amount of liquid diet consumed (μl) for males, females and all 30 genotypes on each of the four diets ranging in their protein to carbohydrate ratios. A = P:C(1:1), B = P:C(1:2), C = P:C(1:4), D = P:C(1:16).



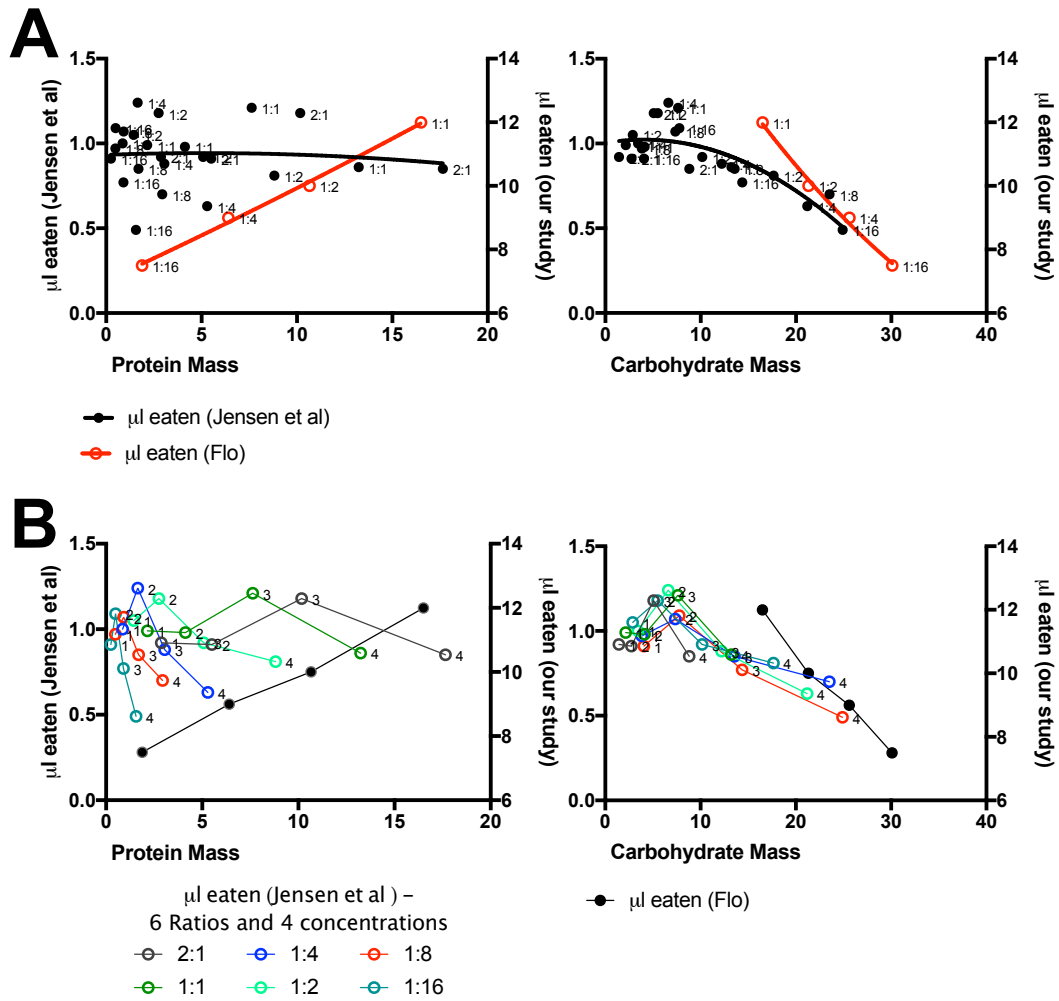


Figure S3-D: Comparison of our study with Jensen et al (2015) data. Panel **A** shows our data compares with the overall consumption, whereas panel **B** breaks up the Jensen et al (2015) data according to the 6 different nutritional rails and 4 concentrations.

Table S3-1: The full model of effect of sex and diet category on liquid diet consumption. Model includes both fixed and random effect structure.

Fixed effects:				
	F	Df	Df.res	Pr(>F)
(Intercept)	228.072	1	3.48	< 0.001
diet	265.14	3	80.76	< 0.001
sex	138.359	1	186.09	< 0.001
diet × sex	9.224	3	2050.78	< 0.001
Random effects:				
Groups	Name	Variance	Std.Dev.	
hemiclone	(Intercept)	0.47115	0.6864	
	diet2B	0.02484	0.1576	
	diet2C	0.05755	0.2399	
	diet2D	0.09222	0.3037	
	sexM	0.29725	0.5452	
block	(Intercept)	2.31982	1.5231	
Residual		5.14898	2.2691	