

Table S1. Results of two-way ANOVAs to evaluate the effect of diet, age and their interaction on maltase activity and AG mRNA of ZEBF and HOSP, respectively.

Measurement					
Maltase activity					
	Species				
	ZEBF (n=34)	Source of Variation	<i>df</i>	<i>F</i>	<i>P-value</i>
		Age	3	10.88	0.0001
		Diet	1	0.36	0.5564
		Interaction	3	0.21	0.8923
		Error	26		
		Total	33		
	HOSP (n=52)	Source of Variation	<i>df</i>	<i>F</i>	<i>P-value</i>
		Age	4	26.91	0.0001
		Diet	1	22.74	0.0001
		Interaction	4	5.38	0.0014
		Error	42		
		Total	51		
AG mRNA level					
	Species				
	ZEBF (n=35)	Source of Variation	<i>df</i>	<i>F</i>	<i>P-value</i>
		Age	3	1.75	0.18
		Diet	1	0.25	0.62
		Interaction	3	1.37	0.27
		Error	27		
		Total	34		
	HOSP (n=48)	Source of Variation	<i>df</i>	<i>F</i>	<i>P-value</i>
		Age	4	5.36	0.0016
		Diet	1	17.01	0.0002
		Interaction	4	5.48	0.0014
		Error	38		
		Total	47		

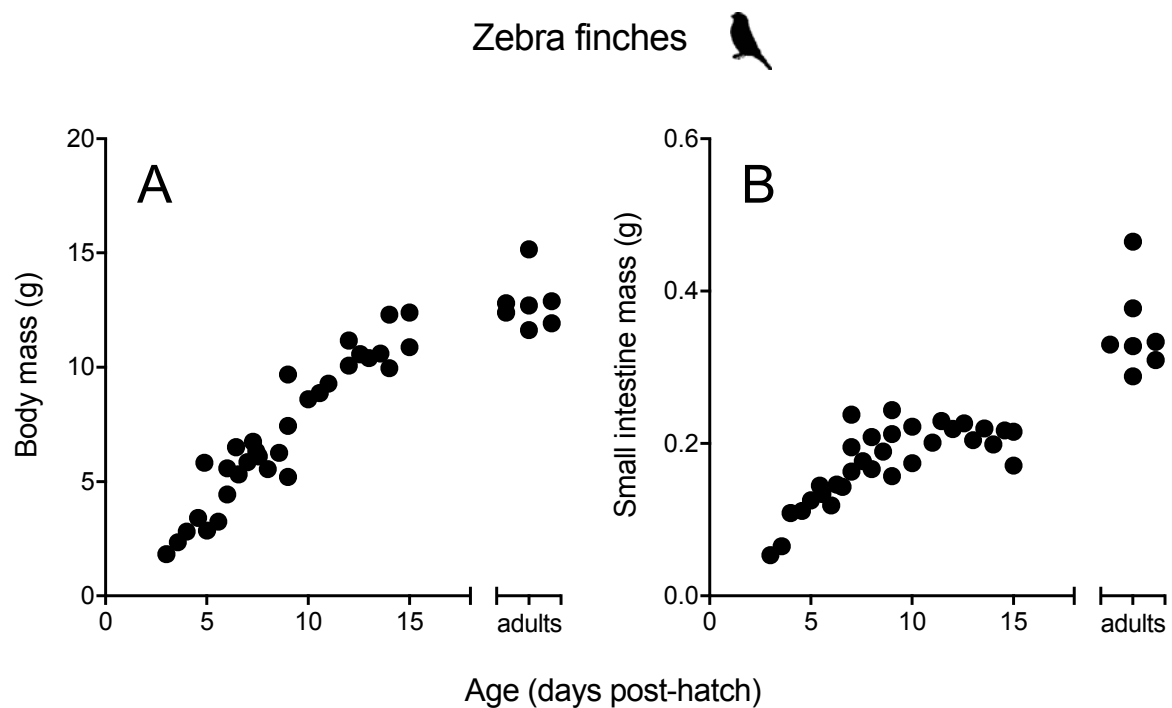


Fig. S1. Body mass (A) and small intestine mass (B) in zebra finch nestlings as a function of age (days post hatch) and as compared to adults. In this preliminary study, the birds received daily a mixture of seeds and bird food and fresh water *ad libitum*, and every other day a specially prepared egg food to support growth and reproduction. Each point is an individual bird.

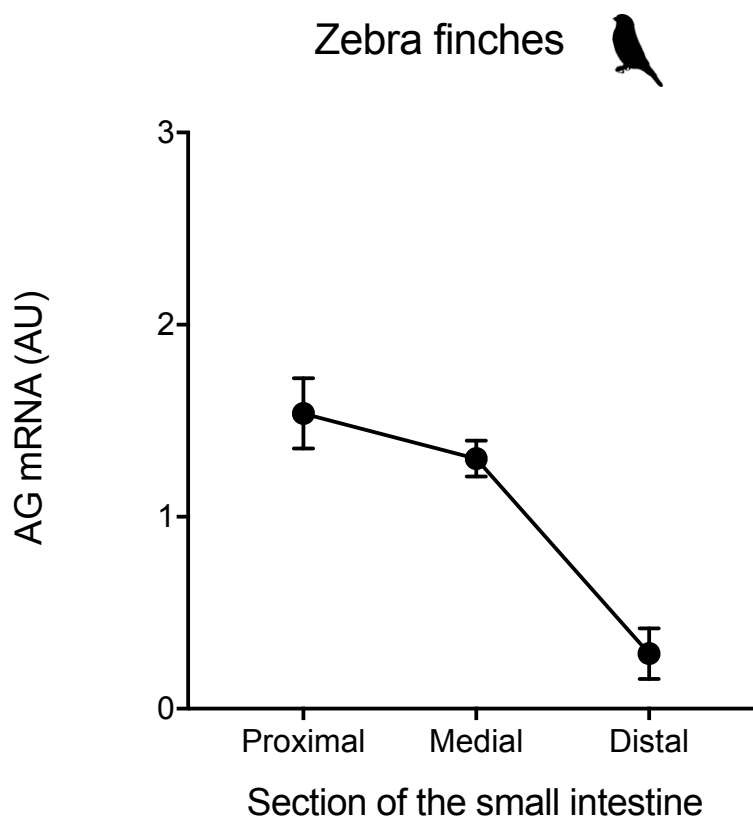


Fig. S2. Amount of intestinal AG mRNA as a function of intestinal position in adult Zebra finches. AG mRNA differed with intestinal position ($F_{2,13,9}=22.49$, $P<0.0001$) and was significantly lower in distal intestine ($P<0.05$) than in either of the more proximal regions, which did not differ from each other ($P=0.18$). Data for 11 birds eating either diets MS or HS were pooled because AG mRNA did not differ as a function of diet ($P=0.17$).