

Table S1. Effects of carotenoid (carot) treatment and age of birds (yearling *versus* older) on the parameters of the whole blood chemiluminescence (WBCL) response in male greenfinches on day 12 after the start of dietary carotenoid supplementation

Dependent variable	Predictors	F	P
Peak 1	Time lag	0	0.921
	Carot	0.6	0.458
	Age	0.5	0.506
	Carot × Age	0.2	0.640
Peak 2	Time lag	2.2	0.147
	Carot	1.7	0.195
	Age	0.3	0.602
	Carot × Age	1.9	0.171
Peak ratio	Time lag	0.2	0.640
	Carot	0.2	0.676
	Age	0.1	0.780
	Carot × Age	1.0	0.319
AUC 1	Time lag	1.3	0.261
	Carot	0.6	0.440
	Age	0.4	0.547
	Carot × Age	1.1	0.306
AUC 2	Time lag	0.9	0.358
	Carot	0.7	0.401
	Age	0.6	0.444
	Carot × Age	2.6	0.112
Sum AUC	Time lag	1.0	0.312
	Carot	0.7	0.403
	Age	0.5	0.467
	Carot × Age	2.1	0.152
Baseline	Time lag	36.9	<0.0001
	Carot	0.6	0.459
	Age	3.4	0.071
	Carot × Age	0.0	0.944

Terms used in the dependent variable column are defined and/or represented in Fig. 2. Degrees of freedom are 1 and 55 for all variables. Time lag is the amount of time between blood sampling and measurement of the WBCL response.