

Table S2. Effects of carotenoid (carot) and lipopolysaccharide (LPS) treatments and age of birds (yearling *versus* older) on the parameters of the WBCL response in male greenfinches on day 18 after the start of dietary carotenoid supplementation and 14 h after LPS injection

Dependent variable	Predictors	F	P
Peak 1	Initial value	9.7	0.003
	Time lag	3.1	0.083
	Carot	0.1	0.822
	LPS	0	0.930
	Age	0.7	0.413
	Carot × LPS	0	0.843
	Carot × Age	0	0.955
	LPS × Age	1.4	0.240
	Carot × LPS × Age	0.1	0.829
Peak 2	Initial value	9.5	0.003
	Time lag	33.4	<0.0001
	Carot	0.0	0.844
	LPS	0.2	0.684
	Age	1.3	0.261
	Carot × LPS	0.4	0.507
	Carot × Age	0.2	0.670
	LPS × Age	0.2	0.693
	Carot × LPS × Age	0.0	0.827
Peak ratio	Initial value	23.4	<0.0001
	Time lag	7.6	0.008
	Carot	0.0	0.836
	LPS	0.0	0.844
	Age	0.0	0.836
	Carot × LPS	0.2	0.684
	Carot × Age	0.4	0.521
	LPS × Age	0.2	0.621
	Carot × LPS × Age	0.2	0.650
AUC 1	Initial value	9.4	0.003
	Time lag	14.1	<0.001
	Carot	0.1	0.793
	LPS	0.3	0.562
	Age	0.0	0.854
	Carot × LPS	0.1	0.706
	Carot × Age	0.1	0.756
	LPS × Age	0.4	0.535
	Carot × LPS × Age	0.1	0.761
AUC 2	Initial value	20.1	<0.0001
	Time lag	51.2	<0.0001
	Carot	0.5	0.467
	LPS	0.5	0.503
	Age	0.0	0.835
	Carot × LPS	0.4	0.522
	Carot × Age	0.5	0.491
	LPS × Age	0.0	0.830
	Carot × LPS × Age	0.6	0.445
Sum AUC	Initial value	16.7	<0.001
	Time lag	42.1	<0.0001
	Carot	0.4	0.540
	LPS	0.5	0.480
	Age	0.1	0.813
	Carot × LPS	0.3	0.581
	Carot × Age	0.3	0.587
	LPS × Age	0.1	0.712
	Carot × LPS × Age	0.4	0.544
Baseline	Initial value	4.3	0.042
	Time lag	0.1	0.730
	Carot	0.0	0.973
	LPS	1.8	0.189
	Age	0.0	0.829
	Carot × LPS	0.2	0.656
	Carot × Age	0.0	0.923
	LPS × Age	0.1	0.716
	Carot × LPS × Age	0.2	0.673

Terms used in the dependent variable column are defined and/or represented in Fig. 2. Degrees of freedom are 1 and 50 for all variables. Time lag is the amount of time between blood sampling and measurement of WBCL response. Initial value is the value of the predictor variable measured on day 12 after the start of carotenoid treatment.