

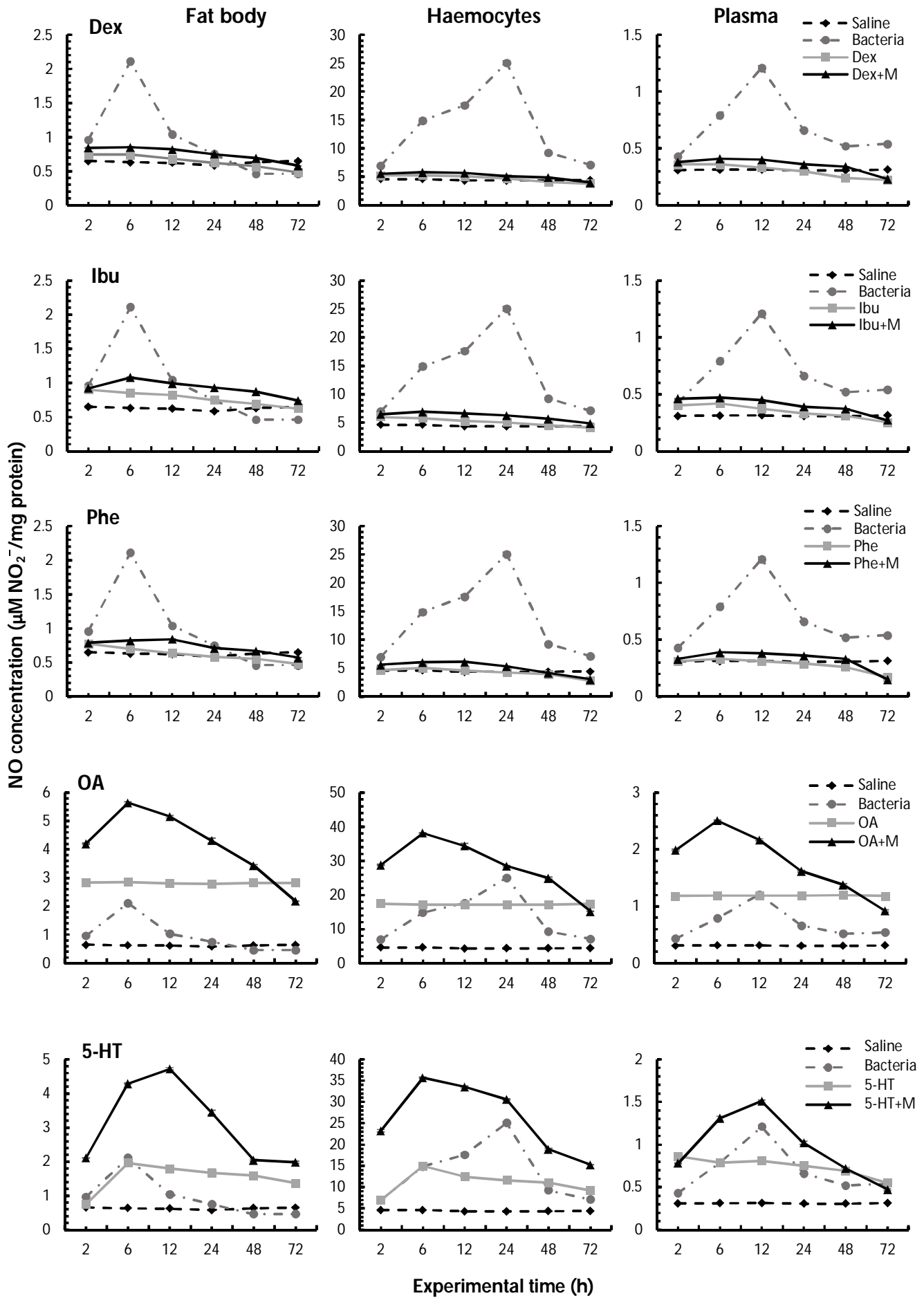
Appendix S2A. Nitric oxide (μM nitrite/mg protein) concentrations in fat body, haemocytes, and plasma of 3rd instar *Sarcophaga argyrostoma* post-injection with *Microoccus luteus*, either alone or with an EBI (Dex, Ibu, or Phe) or with a BMA (OA or 5-HT) at different time intervals. Values are presented as mean \pm SE

Tissue	Group	Experimental periods (h)						Fitting equations	r
		2	6	12	24	48	72		
Fatbody	Saline-injected	0.65 \pm 0.025	0.63 \pm 0.007	0.62 \pm 0.022	0.58 \pm 0.005	0.63 \pm 0.030	0.65 \pm 0.025	–	–
	Bacteria-challenged	0.96 \pm 0.003*	2.11 \pm 0.019*	1.04 \pm 0.025*	0.75 \pm 0.028*	0.46 \pm 0.002*	0.46 \pm 0.002*	$y = 1.3377e^{-0.017x}$	-0.69
	Dex	0.74 \pm 0.005*	0.74 \pm 0.004**	0.68 \pm 0.005*	0.62 \pm 0.004	0.57 \pm 0.002*	0.48 \pm 0.004*	$y = 0.7441e^{-0.006x}$	-0.98
	Dex + <i>M. luteus</i>	0.84 \pm 0.009**	0.85 \pm 0.007**	0.82 \pm 0.005**	0.75 \pm 0.002*	0.69 \pm 0.002**	0.58 \pm 0.002**	$y = 0.8661e^{-0.005x}$	-0.99
	Ibu	0.90 \pm 0.003*	0.85 \pm 0.007*	0.82 \pm 0.009*	0.75 \pm 0.005*	0.69 \pm 0.005*	0.62 \pm 0.002*	$y = -0.0036x + 0.87$	-0.98
	Ibu + <i>M. luteus</i>	0.92 \pm 0.005*	1.08 \pm 0.013**	0.99 \pm 0.004*	0.93 \pm 0.004**	0.87 \pm 0.005**	0.74 \pm 0.004**	$y = -0.0037x + 1.02$	-0.87
	Phe	0.77 \pm 0.004*	0.70 \pm 0.002*	0.64 \pm 0.003*	0.58 \pm 0.007*	0.55 \pm 0.002*	0.48 \pm 0.002*	$y = 0.7244e^{-0.006x}$	-0.93
	Phe + <i>M. luteus</i>	0.79 \pm 0.004*	0.82 \pm 0.002**	0.84 \pm 0.005**	0.71 \pm 0.003	0.67 \pm 0.005**	0.57 \pm 0.004**	$y = 0.8364e^{-0.005x}$	-0.95
	OA	2.84 \pm 0.04*	2.85 \pm 0.05*	2.81 \pm 0.05*	2.79 \pm 0.06*	2.82 \pm 0.05*	2.82 \pm 0.07*	$y = 2.8475x^{0.003}$	-0.29
	OA + <i>M. luteus</i>	4.21 \pm 0.03**	5.64 \pm 0.08**	5.16 \pm 0.08**	4.32 \pm 0.16**	3.43 \pm 0.06**	2.18 \pm 0.03**	$y = 5.4339e^{-0.011x}$	-0.90
5-HT	0.75 \pm 0.01*	1.96 \pm 0.01*	1.80 \pm 0.01*	1.67 \pm 0.19*	1.59 \pm 0.002*	1.37 \pm 0.003*	$y = 0.1111\ln(x) + 1.221$	-0.008	
5-HT + <i>M. luteus</i>	2.11 \pm 0.01**	4.29 \pm 0.04**	4.72 \pm 0.06**	3.44 \pm 0.11**	2.04 \pm 0.05**	1.98 \pm 0.05**	$y = -0.026x + 3.8065$	-0.58	
Haemocytes	Saline-injected	4.60 \pm 0.10	4.60 \pm 0.09	4.33 \pm 0.07	4.34 \pm 0.07	4.37 \pm 0.08	4.43 \pm 0.11	–	–
	Bacteria-challenged	6.96 \pm 0.03*	14.89 \pm 0.77*	17.60 \pm 0.60*	25.06 \pm 0.62*	9.25 \pm 0.04*	7.10 \pm 0.13*	$y = 14.709e^{-0.007x}$	-0.35
	Dex	5.23 \pm 0.01*	5.26 \pm 0.02*	5.06 \pm 0.03*	4.69 \pm 0.02*	4.08 \pm 0.09*	3.78 \pm 0.01*	$y = 5.3291e^{-0.005x}$	-0.99
	Dex + <i>M. luteus</i>	5.54 \pm 0.02*	5.82 \pm 0.02**	5.67 \pm 0.02*	5.09 \pm 0.03*	4.88 \pm 0.03**	3.99 \pm 0.01**	$y = 5.8597e^{-0.005x}$	-0.96
	Ibu	5.99 \pm 0.12*	5.76 \pm 0.02*	5.31 \pm 0.03*	5.05 \pm 0.01*	4.47 \pm 0.02*	4.11 \pm 0.04*	$y = -0.0258x + 5.82$	-0.97
	Ibu + <i>M. luteus</i>	6.47 \pm 0.02**	6.89 \pm 0.02**	6.65 \pm 0.02**	6.25 \pm 0.01**	5.65 \pm 0.01**	4.87 \pm 0.02**	$y = -0.0264x + 6.85$	-0.97
	Phe	4.66 \pm 0.12*	5.04 \pm 0.02*	4.60 \pm 0.06*	4.22 \pm 0.04*	3.94 \pm 0.01*	2.75 \pm 0.01*	$y = -0.0282x + 4.9723$	-0.96
	Phe + <i>M. luteus</i>	5.58 \pm 0.004**	6.02 \pm 0.05**	6.11 \pm 0.05**	5.30 \pm 0.09**	4.15 \pm 0.01*	3.03 \pm 0.04**	$y = -0.0425x + 6.19$	-0.97
	OA	17.41 \pm 0.23*	17.16 \pm 0.26*	17.20 \pm 0.25*	17.18 \pm 0.19*	17.10 \pm 0.26*	17.38 \pm 0.25*	$y = -0.026\ln(x) + 17.31$	-0.08
	OA + <i>M. luteus</i>	28.84 \pm 0.28**	38.20 \pm 0.30**	34.42 \pm 1.19**	28.46 \pm 0.46**	24.93 \pm 0.50**	15.19 \pm 0.11**	$y = 36.503e^{-0.011x}$	-0.89
5-HT	6.95 \pm 0.03*	14.98 \pm 0.54*	12.42 \pm 0.11*	11.61 \pm 0.004*	11.04 \pm 0.06*	9.23 \pm 0.03*	$y = 0.1944\ln(x) + 10.51$	-0.22	
5-HT + <i>M. luteus</i>	23.27 \pm 0.49**	35.67 \pm 0.24**	33.54 \pm 0.44**	30.61 \pm 0.31**	18.88 \pm 0.46**	15.27 \pm 0.05**	$y = 33.161e^{-0.01x}$	-0.79	
Plasma	Saline-injected	0.308 \pm 0.002	0.312 \pm 0.002	0.314 \pm 0.004	0.306 \pm 0.005	0.306 \pm 0.004	0.314 \pm 0.002	–	–
	Bacteria-challenged	0.43 \pm 0.01*	0.79 \pm 0.01*	1.21 \pm 0.03*	0.66 \pm 0.01*	0.52 \pm 0.01*	0.54 \pm 0.001*	$y = -0.0037x + 0.79$	-0.35
	Dex	0.36 \pm 0.004*	0.36 \pm 0.002**	0.33 \pm 0.002*	0.30 \pm 0.002*	0.24 \pm 0.002*	0.22 \pm 0.002*	$y = -0.0021x + 0.36$	-0.98
	Dex + <i>M. luteus</i>	0.38 \pm 0.005**	0.41 \pm 0.004**	0.40 \pm 0.004**	0.36 \pm 0.004**	0.34 \pm 0.004**	0.23 \pm 0.002*	$y = -0.0022x + 0.4202$	-0.94
	Ibu	0.40 \pm 0.004*	0.42 \pm 0.002*	0.37 \pm 0.003*	0.33 \pm 0.002*	0.31 \pm 0.002*	0.25 \pm 0.005*	$y = -0.0022x + 0.41$	-0.96
	Ibu + <i>M. luteus</i>	0.46 \pm 0.002**	0.47 \pm 0.002**	0.45 \pm 0.004**	0.39 \pm 0.002**	0.37 \pm 0.003**	0.27 \pm 0.004*	$y = -0.0027x + 0.48$	-0.98
	Phe	0.31 \pm 0.002*	0.33 \pm 0.002*	0.31 \pm 0.002*	0.29 \pm 0.003*	0.26 \pm 0.002*	0.17 \pm 0.007*	$y = -0.002x + 0.34$	-0.96
	Phe + <i>M. luteus</i>	0.33 \pm 0.005*	0.39 \pm 0.002**	0.38 \pm 0.002**	0.36 \pm 0.008**	0.33 \pm 0.007**	0.15 \pm 0.002*	$y = -0.0027x + 0.40$	-0.84
	OA	1.18 \pm 0.035*	1.19 \pm 0.039*	1.19 \pm 0.035*	1.19 \pm 0.035*	1.20 \pm 0.034*	1.18 \pm 0.027*	$y = 0.0012\ln(x) + 1.19$	-0.16
	OA + <i>M. luteus</i>	1.99 \pm 0.028**	2.51 \pm 0.020**	2.17 \pm 0.029**	1.62 \pm 0.025**	1.38 \pm 0.039**	0.92 \pm 0.032**	$y = 2.3747e^{-0.013x}$	-0.92
5-HT	0.86 \pm 0.03*	0.79 \pm 0.002*	0.81 \pm 0.005*	0.75 \pm 0.004*	0.69 \pm 0.002*	0.55 \pm 0.004*	$y = 0.8525e^{-0.006x}$	-0.98	
5-HT + <i>M. luteus</i>	0.78 \pm 0.012**	1.31 \pm 0.041**	1.51 \pm 0.024**	1.02 \pm 0.033**	0.72 \pm 0.020**	0.47 \pm 0.019**	$y = 1.2592e^{-0.012x}$	-0.72	

*, **, *: Significant differences in comparison with the corresponding saline-injected, bacteria-challenged and the larvae treated with chemical alone at confidence limit of 0.95, respectively. At least 150 larvae were used to sample the tested tissue and plasma in one replicate with three independent biological replications.

► The fitting equation of the relationship and correlation coefficients (r) of the experimental times with the different treatments. Where appropriate, data have been fitted with the exponential function $y = ae^{-bx}$, power function $y = ax^{-b}$ or the logarithmic function $y = a - b \ln x$ (values falling sharply).

To show the variations among the time series, the data are represented in series of graphs, page 2, below.



Appendix S2A (Graph form). Nitric oxide concentrations in different tissues at different experimental times post-injection with *Micrococcus luteus*, either alone or with an EBI (Dex, Ibu, or Phe) or with a BMA (OA or 5-HT).

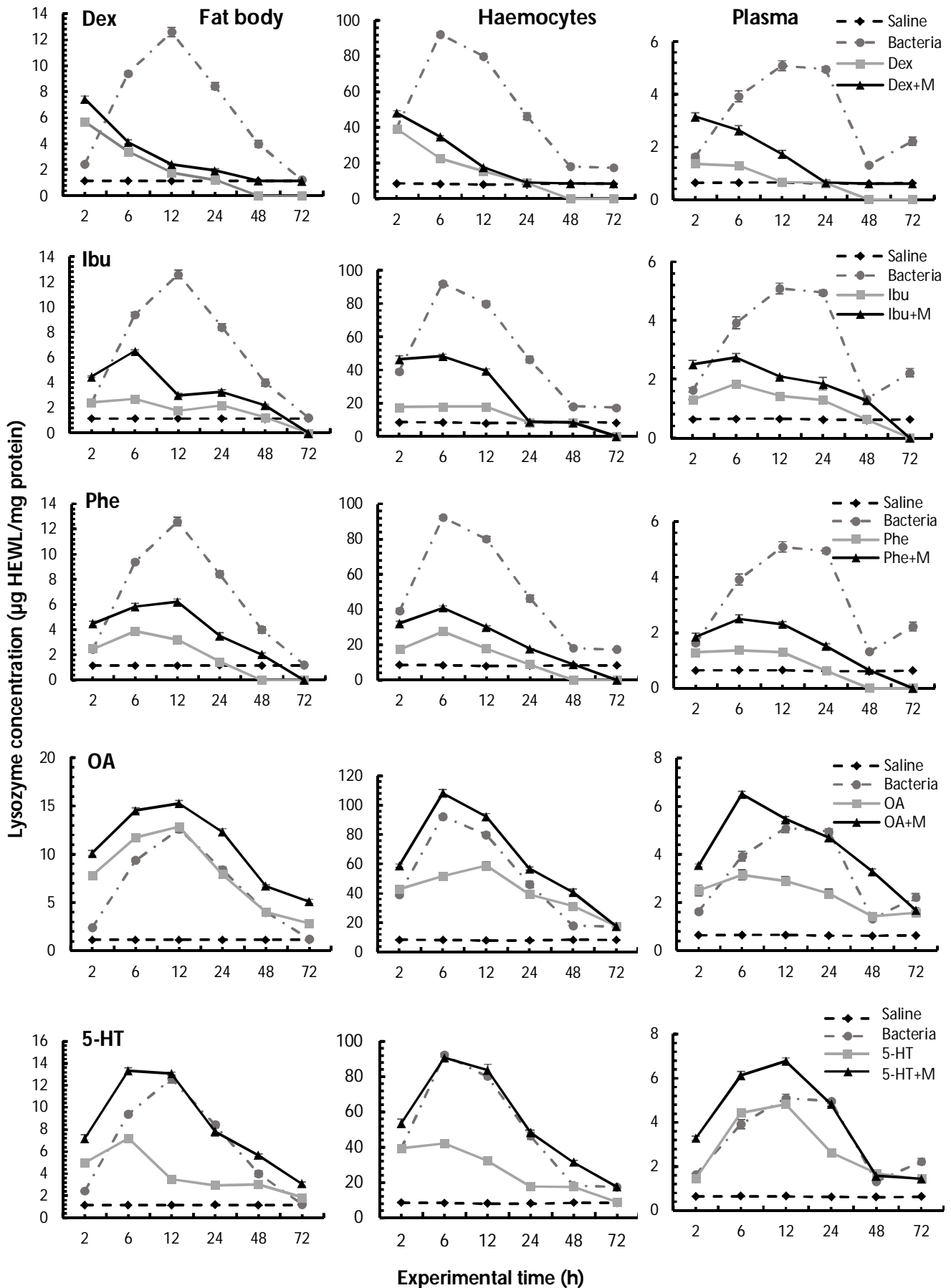
Appendix S2B. Lysozyme ($\mu\text{g HEWL/mg protein}$) concentrations in fat body, haemocytes, and plasma of 3rd instar *Sarcophaga argyrostoma* post-injection with the *Microoccus luteus*, either alone or in couple with an EBI (Dex, Ibu, or Phe) or with a BMA (OA or 5-HT) at different time intervals. Values are presented as mean \pm SE

Tissue	Group	Experimental periods (h)					Fitting equations	r	
		2	6	12	24	48			72
Fatbody	Saline-injected	1.144 \pm 0.008	1.148 \pm 0.009	1.148 \pm 0.009	1.156 \pm 0.009	1.142 \pm 0.009	1.158 \pm 0.012	–	–
	Bacteria-challenged	2.43 \pm 0.04*	9.39 \pm 0.30*	12.59 \pm 0.60*	8.42 \pm 0.46*	4.00 \pm 0.46*	1.22 \pm 0.04	$y = 8.4557e^{-0.021x}$	-0.57
	Dex	5.68 \pm 0.29**	3.39 \pm 0.25**	1.79 \pm 0.21**	1.21 \pm 0.03*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -1.611\ln(x) + 6.39$	-0.82
	Dex + <i>M. luteus</i>	7.44 \pm 0.39**	4.13 \pm 0.24**	2.42 \pm 0.03**	1.94 \pm 0.20**	1.16 \pm 0.01**	1.14 \pm 0.01*	$y = 10.52x^{0.544}$	-0.74
	Ibu	2.43 \pm 0.04*	2.71 \pm 0.26**	1.77 \pm 0.20**	2.22 \pm 0.13**	1.23 \pm 0.03*	0.00 \pm 0.00**	$y = -0.03x + 2.66$	-0.94
	Ibu + <i>M. luteus</i>	4.49 \pm 0.12**	6.51 \pm 0.14**	2.99 \pm 0.25**	3.27 \pm 0.30**	2.22 \pm 0.13**	0.00 \pm 0.00**	$y = -0.07x + 5.16$	-0.88
	Phe	2.46 \pm 0.03*	3.88 \pm 0.30**	3.20 \pm 0.52**	1.45 \pm 0.10*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -0.0528x + 3.28$	-0.89
	Phe + <i>M. luteus</i>	4.49 \pm 0.30**	5.84 \pm 0.46**	6.21 \pm 0.39**	3.51 \pm 0.46**	2.01 \pm 0.29**	0.00 \pm 0.00**	$y = -0.0807x + 5.88$	-0.93
	OA	7.80 \pm 0.46**	11.72 \pm 0.28**	12.84 \pm 0.23*	7.92 \pm 0.62*	4.00 \pm 0.46*	2.87 \pm 0.26**	$y = 11.859e^{0.02x}$	-0.84
	OA + <i>M. luteus</i>	10.13 \pm 0.46**	14.55 \pm 0.46**	15.28 \pm 0.49**	12.34 \pm 0.55**	6.70 \pm 0.23**	5.11 \pm 0.41**	$y = 14.656e^{-0.014x}$	-0.84
5-HT	4.97 \pm 0.34**	7.19 \pm 0.63**	3.48 \pm 0.48**	2.96 \pm 0.51**	3.03 \pm 0.33**	1.85 \pm 0.06**	$y = 5.3195e^{-0.015x}$	-0.76	
5-HT + <i>M. luteus</i>	7.19 \pm 0.60**	13.32 \pm 0.46**	13.07 \pm 0.23**	7.84 \pm 0.72**	5.66 \pm 0.20**	3.07 \pm 0.31**	$y = 11.987e^{-0.017x}$	-0.78	
Haemocytes	Saline-injected	8.55 \pm 0.22	8.38 \pm 0.07	7.99 \pm 0.41	8.03 \pm 0.45	8.55 \pm 0.22	8.31 \pm 0.07	–	–
	Bacteria-challenged	39.26 \pm 2.23*	92.27 \pm 1.64*	80.00 \pm 2.42*	46.34 \pm 3.33*	18.11 \pm 0.29*	17.39 \pm 0.37*	$y = 72.958e^{-0.022x}$	-0.74
	Dex	39.34 \pm 2.20*	22.61 \pm 1.97**	15.47 \pm 0.96**	8.85 \pm 0.23*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -11.13\ln(x) + 44.60$	-0.84
	Dex + <i>M. luteus</i>	48.25 \pm 2.16**	34.83 \pm 0.96**	17.52 \pm 0.29**	9.04 \pm 0.22*	8.61 \pm 0.20**	8.44 \pm 0.24**	$y = 73.275x^{0.552}$	-0.74
	Ibu	17.64 \pm 0.27**	17.94 \pm 0.37**	17.94 \pm 0.23**	8.30 \pm 0.05*	8.61 \pm 0.20**	0.00 \pm 0.00**	$y = -0.2538x + 18.67$	-0.95
	Ibu + <i>M. luteus</i>	46.48 \pm 3.30**	48.25 \pm 2.16**	39.42 \pm 2.17**	8.84 \pm 0.22*	8.26 \pm 0.09*	0.00 \pm 0.00**	$y = 73.275x^{0.552}$	-0.89
	Phe	17.40 \pm 0.24**	27.62 \pm 2.20**	17.69 \pm 0.24**	8.76 \pm 0.20*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -0.3533x + 21.57$	-0.88
	Phe + <i>M. luteus</i>	32.20 \pm 2.11**	41.12 \pm 1.66**	29.93 \pm 1.59**	17.70 \pm 0.27**	8.86 \pm 0.24**	0.00 \pm 0.00**	$y = -0.5386x + 36.35$	-0.95
	OA	42.80 \pm 3.29*	51.78 \pm 3.30**	58.83 \pm 4.49**	39.42 \pm 2.17**	31.38 \pm 1.97**	17.76 \pm 0.22**	$y = 55.918e^{-0.014x}$	-0.89
	OA + <i>M. luteus</i>	58.83 \pm 2.16**	108.26 \pm 4.32**	92.24 \pm 3.49**	56.89 \pm 1.63**	40.93 \pm 3.63**	17.75 \pm 0.23**	$y = 96.749e^{-0.021x}$	-0.83
5-HT	39.36 \pm 1.65*	42.00 \pm 3.31**	32.35 \pm 1.44**	17.61 \pm 0.27**	17.52 \pm 0.29**	8.86 \pm 0.22**	$y = 40.734e^{-0.021x}$	-0.91	
5-HT + <i>M. luteus</i>	53.54 \pm 3.94**	90.60 \pm 3.31**	83.53 \pm 5.99**	48.25 \pm 2.16**	31.38 \pm 1.97**	17.52 \pm 0.29**	$y = 83.137e^{-0.021x}$	-0.84	
Plasma	Saline-injected	0.64 \pm 0.02	0.65 \pm 0.02	0.65 \pm 0.02	0.62 \pm 0.02	0.61 \pm 0.005	0.63 \pm 0.02	–	–
	Bacteria-challenged	1.63 \pm 0.13*	3.92 \pm 0.35*	5.09 \pm 0.32*	4.95 \pm 0.16*	1.32 \pm 0.02*	2.22 \pm 0.26*	$y = -0.0247x + 3.86$	-0.40
	Dex	1.36 \pm 0.04*	1.29 \pm 0.02**	0.67 \pm 0.15*	0.63 \pm 0.02*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -0.423\ln(x) + 1.81$	-0.91
	Dex + <i>M. luteus</i>	3.15 \pm 0.24**	2.63 \pm 0.29**	1.73 \pm 0.25**	0.65 \pm 0.02*	0.61 \pm 0.01**	0.61 \pm 0.01**	$y = -0.806\ln(x) + 3.75$	-0.81
	Ibu	1.30 \pm 0.02**	1.84 \pm 0.12**	1.43 \pm 0.14**	1.29 \pm 0.02**	0.63 \pm 0.01*	0.00 \pm 0.00**	$y = -0.0226x + 1.69$	-0.95
	Ibu + <i>M. luteus</i>	2.50 \pm 0.24**	2.74 \pm 0.23**	2.09 \pm 0.07**	1.84 \pm 0.37**	1.28 \pm 0.02**	0.00 \pm 0.00**	$y = -0.0355x + 2.71$	-0.98
	Phe	1.29 \pm 0.02**	1.36 \pm 0.07**	1.30 \pm 0.02**	0.63 \pm 0.02*	0.00 \pm 0.00**	0.00 \pm 0.00**	$y = -0.0222x + 1.37$	-0.94
	Phe + <i>M. luteus</i>	1.85 \pm 0.24**	2.50 \pm 0.24**	2.31 \pm 0.15**	1.52 \pm 0.13**	0.65 \pm 0.02**	0.00 \pm 0.00**	$y = -0.0338x + 2.39$	-0.95
	OA	2.50 \pm 0.38**	3.15 \pm 0.38**	2.89 \pm 0.33**	2.37 \pm 0.33**	1.43 \pm 0.14*	1.57 \pm 0.13**	$y = 2.9594e^{-0.01x}$	-0.88
	OA + <i>M. luteus</i>	3.54 \pm 0.12**	6.51 \pm 0.21**	5.47 \pm 0.16**	4.70 \pm 0.24**	3.28 \pm 0.20**	1.69 \pm 0.18**	$y = 5.7542e^{-0.015x}$	-0.78
5-HT	1.45 \pm 0.13*	4.44 \pm 0.24**	4.83 \pm 0.33*	2.63 \pm 0.29**	1.69 \pm 0.27**	1.43 \pm 0.14**	$y = 3.267e^{0.011x}$	-0.55	
5-HT + <i>M. luteus</i>	3.28 \pm 0.20**	6.12 \pm 0.33**	6.77 \pm 0.26**	4.83 \pm 0.16**	1.58 \pm 0.12**	1.44 \pm 0.14**	$y = 5.9351e^{-0.021x}$	-0.76	

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Appendix S2B (Graph form). Lysozyme concentrations in different tissues at different experimental times post-injection with *Micrococcus luteus*, either alone or in couple with an EBI (Dex, Ibu, or Phe) or with a BMA (OA or 5-HT).