

**Table S1. Behaviour of *A. simplex* nematode larvae when exposed to combinations of electric current and pH.** Behaviour is indicated as percentage of all nematodes in a trial appearing in a certain state (stretched, spiral, aggregated). Groups exposed to the electric current were compared to the 0 mA groups. Asterisks indicate statistically significant differences between groups (Kruskal-Wallis with Dunn's multiple comparisons test,  $p < 0.05$ ).

		0 mA	6 mA	12 mA	18 mA
Stretched	pH9	100%	50%*	20%*	0%*
	pH8	100%	35%*	0%*	0%*
	pH6	100%	70%	5%*	0%*
	pH4	100%	65%	10%*	0%*
	pH2	65%	55%	5%*	0%*
Spiral	pH9	0%	30%	50%*	65%*
	pH8	0%	40%*	50%*	45%*
	pH6	0%	30%	45%*	50%*
	pH4	0%	35%	50%*	45%*
	pH2	20%	15%	45%	45%
Aggregated	pH9	0%	20%	30%	35%*
	pH8	0%	25%	50%*	55%*
	pH6	0%	0%	50%*	50%*
	pH4	0%	0%	40%*	55%*
	pH2	15%	30%	50%	55%*

**Table S2. Activity level, comparison between different pH conditions at different temperature levels.** Activity was graded from no motility (0), very low motility (1), low motility (2), medium motility (3), high motility (4) to very high motility (5). Numbers indicate significant difference (probability level P value) and ns indicate no significant difference between groups compared (Kruskal-Wallis with Dunn's multiple comparisons test,  $p < 0.05$ ).

Temperature °C	4°	14°	21°	37°
pH9 vs pH8	ns	ns	ns	ns
pH9 vs pH6	ns	0.0339	ns	ns
pH9 vs pH4	ns	<0.0001	<0.0001	0.0054
pH9 vs pH2	ns	<0.0001	<0.0001	<0.0001
pH8 vs pH6	ns	0.0017	0.0098	0.0319
pH8 vs pH4	ns	<0.0001	<0.0001	0.0028
pH8 vs pH2	0.0200	<0.0001	<0.0001	<0.0001
pH6 vs pH4	ns	0.0419	0.0006	ns
pH6 vs pH2	ns	0.0025	0.0011	<0.0001
pH4 vs pH2	ns	ns	ns	0.0002

**Table S3. Activity level, comparison between different temperatures at different pH levels.** Activity was graded from no motility (0), very low motility (1), low motility (2), medium motility (3), high motility (4) and to very high motility (5). Numbers indicate significant difference (probability level P value) and ns indicate no significant difference between groups compared (Kruskal-Wallis with Dunn's multiple comparisons test,  $p < 0.05$ ).

	pH9	pH8	pH6	pH4	pH2
4°C vs 14°C	ns	ns	<0.0001	0.0004	0.0003
4°C vs 21°C	ns	ns	0.0036	<0.0001	<0.0001
4°C vs 37°C	ns	ns	0.0010	<0.0001	<0.0001
14°C vs 21°C	ns	ns	ns	ns	ns
14°C vs 37°C	ns	ns	ns	ns	<0.0001
21°C vs 37°C	ns	ns	ns	ns	0.0007

**Table S4. Exposure of worms to rainbow trout immune cells from spleen or head kidney.** Percentage of all worms in the trial coiled up into a spiral when exposed to cells. At the time points (0, 10 and 30 min) the groups exposed to different concentrations of cells (No. of cells/ $\mu$ L) were compared to the control alone (cell culture medium alone). Asterisks indicate significant differences between groups (Kruskal-Wallis with Dunn's multiple comparisons test,  $p < 0.05$ ).

Organ	No. of cells/ $\mu$ L	0 min	10 min	30 min
None	0	0%	0%	0%
Spleen	411 $\pm$ 42	0%	20%	40%
	822 $\pm$ 85	0%	40%	80%*
	1233 $\pm$ 127	0%	20%	40%
	1644 $\pm$ 169	0%	60%*	80%*
Head kidney	1626 $\pm$ 219	0%	20%	40%
	3252 $\pm$ 438	0%	40%	80%*
	4878 $\pm$ 658	0%	20%	100%*
	6504 $\pm$ 877	0%	60%*	80%*