

Supplemental Table 1: Developmental delay for Al agar plate toxicity. Comparison of the average number of worms to reach adulthood for all conditions tested (percentage adults), \pm SEM. P values are shown in the table, ns = not significant ($P < 0.05$).

Al Concentration (mM)	Percentage adult (Ave)	SEM	n	P Value
0	100.0	0.0	6	-
5	100.0	0.0	6	-
6	88.3	8.3	6	0.220
7	83.3	16.7	6	0.795
8	0.0	0.0	6	0.004

Supplemental Table 2: ICP sample dry weights. The table shows the average dry weight (mg) for pellets of dried worms, along with SEM and n, for each exposure condition for the P₀, F₁ and F₂ generations.

	Exposure	Ave Weight (mg)	SEM	n
P ₀	Control	16.9	3.0	8
	0.3 mM Al	15.7	5.2	4
	1.9 mM Al	12.5	4.0	4
	4.8 mM Al	10.1	1.3	6
F ₁	Control	22.7	2.4	7
	Al	39.8	5.3	6
F ₂	Control	16.4	2.4	4
	Al	23.7	1.6	5

Supplemental Table 3: Wavelengths and detection limits for elemental analysis. The table shows each element analyzed, along with the wavelength used for analysis of each element, and the minimum detection limit (min DL) possible for each element.

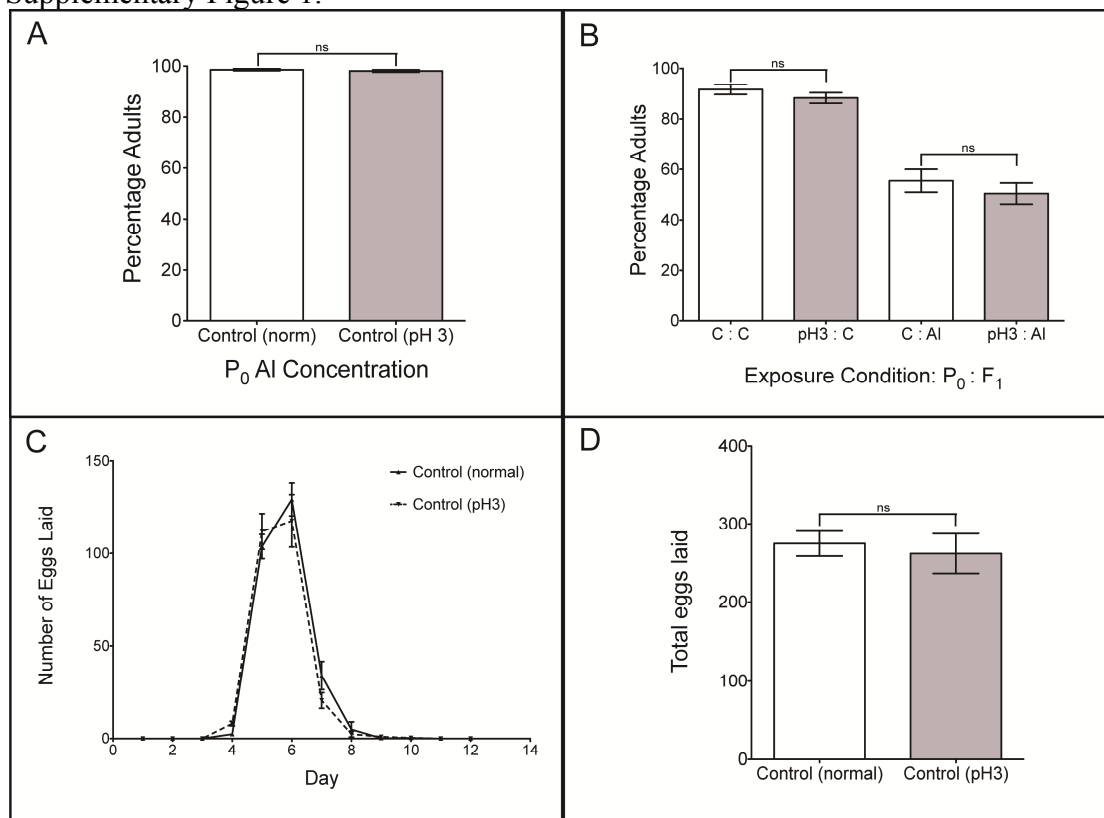
Symbol	Element	Wavelength (nm)	min DL ($\mu\text{g/ml}$)
Al	aluminium	237.312	0.050
B	boron	249.772	0.005
Ba	barium	233.527	0.005
Ca	calcium	373.690	0.050
Cd	cadmium	214.439	0.005
Co	cobalt	230.786	0.050
Cr	chromium	267.716	0.005
Cu	copper	327.395	0.005
Fe	iron	238.204	0.005
K	potassium	766.491	0.050
Mg	magnesium	280.270	0.050
Mn	manganese	259.372	0.005
Na	sodium	588.821	0.500
Ni	nickel	230.299	0.050
P	phosphorous	213.618	0.500
S	sulfur	181.972	0.500
Sc	scandium	361.383	0.050
Se	selenium	196.026	0.050
Si	silicon	251.611	0.005
Sn	tin	189.927	0.010
Sr	strontium	407.771	0.005
Ti	titanium	334.941	0.050
Y	yttrium	371.029	0.050
Zn	zinc	213.857	0.005
Zr	zirconium	343.823	0.050

Supplemental Table 4: Bacterial and worm elemental profiles are significantly different. The table shows total abundance of elements for control and Al exposed bacteria and worms as μg element / mg of dried worm pellet (\pm SEM), and percentage change from control for both worm and bacteria (\pm SEM); n indicates biological replicates. The P values are given for both bacteria and worms when comparing the control and Al exposed samples, and for a comparison of the percentage change from control for bacteria compared to worm samples; * indicates significance of $P < 0.05$ from Student's T-test. When comparing the elements where significant change occurs (Al exposed compared to control) for either bacteria or worm samples, these values are all significantly different ($P < 0.05$) via Student's T-test, with the exception of B and Na ($P > 0.05$).

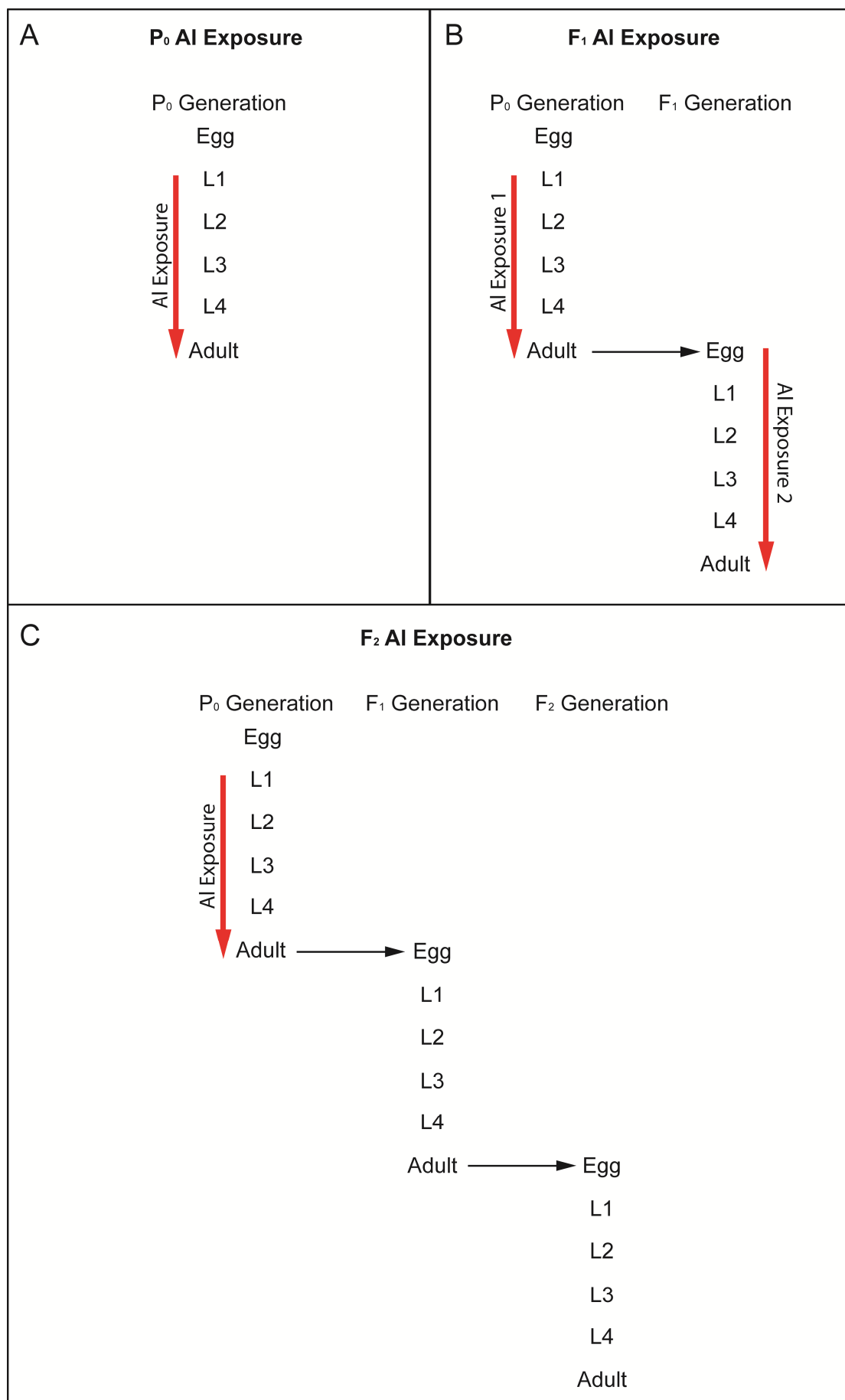
Element	Bacteria										Worms										P Value (bacteria v worms) % change	
	C			Al			P Value (Al v C)		% change from Control		C			Al			P Value (Al v C)		% change from Control			
	Ave ($\mu\text{g}/\text{mg}$)	SEM	n	Ave ($\mu\text{g}/\text{mg}$)	SEM	n	P Value (Al v C)	Ave (%)	SEM	Ave ($\mu\text{g}/\text{mg}$)	SEM	n	Ave ($\mu\text{g}/\text{mg}$)	SEM	n	P Value (Al v C)	Ave (%)	SEM				
Al	0.0316	0.0025	9	13.8647	0.5853	10	0.0000	*	43755.0627	1851.2492	0.0306	0.0088	6	5.1356	0.2939	4	0.0000	*	16663.6020	783.4289	0.0000	*
B	0.0035	0.0001	9	0.0055	0.0001	10	0.0000	*	57.8458	2.1747	0.0156	0.0021	8	0.0228	0.0019	4	0.0167	*	46.3133	9.9108	0.3029	
Ba	0.0078	0.0006	9	0.0062	0.0006	10	0.0948		-20.0203	7.8320	0.0059	0.0019	6	0.0471	0.0113	4	0.0060	*	692.2730	155.3110	0.0059	*
Ca	0.3755	0.0157	9	1.3180	0.0204	10	0.0000	*	250.9648	5.4429	6.7276	0.4305	8	4.2597	0.3107	4	0.0005	*	-36.6825	3.7704	0.0000	*
Cd	0.0005	0.0000	8			0					0.0062	0.0008	8	0.0034	0.0010	2	0.0242	*	-46.0349	11.2829		
Cr	0.0041	0.0003	9	0.0049	0.0003	10	0.0909		19.0576	7.8541	0.0053	0.0030	8	0.0233	0.0050	4	0.0055	*	342.4861	77.8260	0.0087	*
Cu	0.0078	0.0003	9	0.0083	0.0002	10	0.2602		5.7279	2.9712	0.0135	0.0032	8	0.0602	0.0158	4	0.0141	*	345.3020	95.4245	0.0162	*
Fe	0.2600	0.0068	9	0.1655	0.0085	10	0.0000	*	-36.3193	3.2648	0.2186	0.0653	8	0.4241	0.0712	4	0.0368	*	94.0139	26.6056	0.0043	*
K	10.2941	0.3697	9	9.9726	0.3465	10	0.5343		-3.1232	3.3664	26.9525	2.4043	8	31.5816	1.4034	4	0.1134		17.1751	4.2514	0.0033	*
Mg	2.4155	0.0906	9	1.6481	0.0696	10	0.0000	*	-31.7681	2.8828	2.6072	0.1926	8	3.3969	0.3952	4	0.0671		30.2872	12.3779	0.0034	*
Mn	0.0114	0.0003	9	0.0021	0.0001	10	0.0000	*	-81.4736	0.9659	0.0177	0.0024	8	0.0465	0.0153	4	0.0694		163.3017	70.8691	0.0182	*
Na	18.4962	0.9691	9	28.3781	1.2918	10	0.0000	*	53.4272	6.9842	69.5007	11.8925	8	100.8975	8.4030	4	0.0435	*	45.1747	9.8719	0.5106	
Ni	0.0080	0.0005	9	0.0067	0.0007	10	0.1465		-15.4831	8.3548	0.0291	0.0018	3	0.0244	0.0047	4	0.3025		-16.1715	13.1322	0.9657	
P	24.5106	0.8414	9	40.4315	1.2547	10	0.0000	*	64.9550	5.1190	55.0049	5.3131	8	74.5452	3.9621	4	0.0094	*	35.5247	5.8814	0.0028	*
S	6.1409	0.1993	9	6.2837	0.1966	10	0.6166		2.3253	3.2011	5.2047	0.2261	8	6.0105	0.2741	4	0.0267	*	15.4826	4.2993	0.0333	*
Si	1.8839	0.1808	9	1.6442	0.1917	10	0.3757		-12.7234	10.1753	7.1296	1.9178	8	12.6482	2.6877	4	0.0849		77.4032	30.7800	0.0314	*
Sr	0.0020	0.0001	9	0.0084	0.0002	10	0.0000	*	324.4617	11.1337	0.0114	0.0020	8	0.0160	0.0022	4	0.1178		39.8917	15.4615	0.0000	*

Ti	0.0055	0.0004	9	0.0050	0.0005	9	0.4773		-8.3440	8.2685													
Zn	0.0437	0.0008	9	0.0129	0.0007	10	0.0000	*	-70.4071	1.5344	0.0575	0.0029	8	0.0483	0.0051	4	0.1033		-15.9441	7.2806	0.0005	*	

Supplementary Figure 1.



Supplementary Figure 2



Supplementary Figure 3

