

**Table 1. Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle and naïve controls and EE<sub>2</sub> dose groups<sup>a</sup>**

Negative controls and reference estrogen				
	0.3 % CMC (Vehicle)	Naïve control	0.5 EE <sub>2</sub> (µg/kg bw/day)	5.0 EE <sub>2</sub> (µg/kg bw/day)
<b>Aorta</b>	20	20	20	19
Absolute (g)	0.058 ± 0.008	0.035 ± 0.008*	0.027 ± 0.005**	0.038 ± 0.007
Rel. to Brain (g/g)	0.031 ± 0.004	0.019 ± 0.004*	0.015 ± 0.003*	0.020 ± 0.004
Rel. to Body (mg/g)	0.202 ± 0.028	0.120 ± 0.025*	0.092 ± 0.017**	0.118 ± 0.023*
<b>Brain</b>	20	20	20	19
Absolute	1.894 ± 0.022	1.848 ± 0.022	1.857 ± 0.016	1.922 ± 0.020
Rel. to Body	6.649 ± 0.125	6.502 ± 0.153	6.217 ± 0.150	5.895 ± 0.147
<b>Fat Pad, Ovarian/Parametrial</b>	20	20	20	19
Absolute	7.501 ± 0.504	7.863 ± 0.594	5.610 ± 0.393*	4.201 ± 0.567***
Rel. to Brain	3.962 ± 0.265	4.233 ± 0.297	3.029 ± 0.215*	2.210 ± 0.310***
Rel. to Body	25.830 ± 1.374	26.850 ± 1.497	18.349 ± 0.964***	12.538 ± 1.496***
<b>Fat Pad, Retroperitoneal</b>	20	20	20	19
Absolute	5.274 ± 0.495	6.238 ± 0.548	5.729 ± 0.541	6.104 ± 0.590
Rel. to Brain	2.777 ± 0.255	3.353 ± 0.272	3.105 ± 0.305	3.201 ± 0.325
Rel. to Body	18.082 ± 1.421	21.260 ± 1.471	18.705 ± 1.444	18.280 ± 1.522**
<b>Heart</b>	20	20	20	19
Absolute	1.040 ± 0.023	1.005 ± 0.025	1.136 ± 0.023**	1.217 ± 0.028***
Rel. to Brain	0.550 ± 0.011	0.544 ± 0.013	0.613 ± 0.014**	0.635 ± 0.017***
Rel. to Body	3.635 ± 0.052	3.514 ± 0.066	3.784 ± 0.069*	3.704 ± 0.050**
<b>Liver</b>	20	20	20	19
Absolute	10.488 ± 0.291	10.192 ± 0.363	12.132 ± 0.286***	14.197 ± 0.441***
Rel. to Brain	5.542 ± 0.145	5.505 ± 0.169	6.542 ± 0.162***	7.415 ± 0.264***
Rel. to Body	36.575 ± 0.569	35.347 ± 0.492	40.275 ± 0.544***	43.106 ± 0.804***
<b>Mammary Gland</b>	20	20	20	19
Absolute	3.705 ± 0.259	4.056 ± 0.374	3.071 ± 0.145	3.669 ± 0.321
Rel. to Brain	1.954 ± 0.132	2.173 ± 0.182	1.660 ± 0.084	1.923 ± 0.179
Rel. to Body	12.731 ± 0.635	13.739 ± 0.953	10.234 ± 0.477**	11.011 ± 0.810***
<b>Ovary</b>	20	20	20	15
Absolute	0.096 ± 0.003	0.090 ± 0.004	0.094 ± 0.024	0.056 ± 0.012**
Rel. to Brain	0.051 ± 0.002	0.049 ± 0.002	0.051 ± 0.013	0.030 ± 0.006**
Rel. to Body	0.335 ± 0.011	0.316 ± 0.012	0.323 ± 0.091	0.174 ± 0.036**

**Table 1 (continued). Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle and naïve controls and EE<sub>2</sub> dose groups**

Negative controls and reference estrogen				
Pancreas	0.3 % CMC (Vehicle) 20	Naïve control 20	0.5 EE <sub>2</sub> (µg/kg bw/day) 20	5.0 EE <sub>2</sub> (µg/kg bw/day) 19
Absolute	0.940 ± 0.077	0.735 ± 0.066*	0.817 ± 0.036	1.076 ± 0.112
Rel. to Brain	0.495 ± 0.039	0.401 ± 0.038*	0.440 ± 0.019	0.558 ± 0.056
Rel. to Body	3.274 ± 0.256	2.574 ± 0.225	2.748 ± 0.153	3.279 ± 0.342
Uterus	20	20	20	19
Absolute	0.448 ± 0.028	0.406 ± 0.018	0.410 ± 0.016	0.353 ± 0.022**
Rel. to Brain	0.238 ± 0.015	0.221 ± 0.010	0.222 ± 0.009	0.184 ± 0.011**
Rel. to Body	1.582 ± 0.111	1.433 ± 0.072	1.358 ± 0.038	1.080 ± 0.073**
Body Weight <sup>b</sup>	20	20	20	19
g	286.595 ± 6.080	287.425 ± 8.015	301.655 ± 7.132	329.047 ± 7.551

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the EE<sub>2</sub> groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. There was no adjustment for the comparison of naïve and vehicle control groups. Significant differences from vehicle controls are indicated in shaded cells, \*, p < 0.05; \*\*, p < 0.01; \*\*\*, p < 0.001.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

**Table 2. Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle control and low dose BPA**

Low dose BPA								
	BPA Dose (µg/kg bw/day)							
	Vehicle	2.5	8	25	80	260	840	2,700
<b>Aorta</b>	20	22	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute (g)	0.058 ± 0.008	0.043 ± 0.010	0.041 ± 0.008	0.043 ± 0.008	0.040 ± 0.007	0.026 ± 0.005*	0.039 ± 0.007	0.040 ± 0.008
Rel. to Brain (g/g)	0.031 ± 0.004	0.023 ± 0.005	0.022 ± 0.004	0.023 ± 0.004	0.022 ± 0.004	0.014 ± 0.003*	0.021 ± 0.003	0.022 ± 0.005
Rel. to Body (mg/g)	0.202 ± 0.028	0.148 ± 0.033	0.146 ± 0.028	0.151 ± 0.027	0.145 ± 0.026	0.091 ± 0.018	0.133 ± 0.022	0.138 ± 0.030
<b>Brain</b>	20	23	18	21	20	18	20	19
Absolute	1.894 ± 0.022	1.856 ± 0.018	1.842 ± 0.019	1.870 ± 0.021	1.850 ± 0.017	1.883 ± 0.018	1.880 ± 0.017	1.848 ± 0.018
Rel. to Brain	6.649 ± 0.125	6.576 ± 0.144	6.565 ± 0.131	6.891 ± 0.189	6.584 ± 0.151	6.547 ± 0.177	6.540 ± 0.091	6.417 ± 0.126
<b>Fat Pad, Ovarian/Parametrial</b>	20	22	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	7.501 ± 0.504*	6.870 ± 0.409	7.599 ± 0.456	6.925 ± 0.613	7.964 ± 0.602	8.286 ± 0.491	8.222 ± 0.485	8.746 ± 0.594
Rel. to Brain	3.962 ± 0.265*	3.720 ± 0.236	4.131 ± 0.252	3.712 ± 0.336	4.298 ± 0.323	4.239 ± 0.215	4.374 ± 0.254	4.741 ± 0.322
Rel. to Body	25.830 ± 1.374	24.155 ± 1.299	26.689 ± 1.274	24.493 ± 1.766	27.510 ± 1.645	28.362 ± 1.431	28.401 ± 1.526	29.881 ± 1.723
<b>Fat Pad, Retroperitoneal</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	5.274 ± 0.495	6.060 ± 0.439	5.655 ± 0.495	5.712 ± 0.534	5.909 ± 0.513	6.066 ± 0.436	6.170 ± 0.417	6.321 ± 0.483
Rel. to Brain	2.777 ± 0.255	3.266 ± 0.233	3.090 ± 0.291	3.039 ± 0.277	3.194 ± 0.278	3.138 ± 0.226	3.270 ± 0.210	3.417 ± 0.254
Rel. to Body	18.082 ± 1.421	21.046 ± 1.310	19.881 ± 1.495	20.082 ± 1.541	20.349 ± 1.379	20.513 ± 1.132	21.230 ± 1.260	21.512 ± 1.366
<b>Heart</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	1.040 ± 0.023	1.037 ± 0.022	1.014 ± 0.013	1.053 ± 0.020	1.005 ± 0.023	1.056 ± 0.023	1.006 ± 0.016	1.041 ± 0.020
Rel. to Brain	0.550 ± 0.011	0.559 ± 0.011	0.551 ± 0.009	0.564 ± 0.011	0.544 ± 0.012	0.560 ± 0.012	0.536 ± 0.010	0.564 ± 0.012
Rel. to Body	3.635 ± 0.052	3.651 ± 0.054	3.607 ± 0.059	3.863 ± 0.092	3.558 ± 0.065	3.637 ± 0.061	3.496 ± 0.053	3.609 ± 0.074
<b>Liver</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	10.488 ± 0.291	9.980 ± 0.249	10.104 ± 0.192	9.904 ± 0.315	10.293 ± 0.222	10.251 ± 0.340	10.600 ± 0.250	10.428 ± 0.251
Rel. to Brain	5.542 ± 0.145	5.385 ± 0.140	5.495 ± 0.119	5.299 ± 0.165	5.578 ± 0.143	5.444 ± 0.198	5.641 ± 0.128	5.645 ± 0.127
Rel. to Body	36.575 ± 0.569	35.046 ± 0.512	35.858 ± 0.445	35.992 ± 0.561	36.441 ± 0.670	35.090 ± 0.593	36.689 ± 0.406	36.063 ± 0.722
<b>Mammary Gland</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	3.705 ± 0.259*	3.937 ± 0.249	3.721 ± 0.374	3.638 ± 0.288	3.877 ± 0.284	3.727 ± 0.241	4.226 ± 0.217	4.464 ± 0.284
Rel. to Brain	1.954 ± 0.132*	2.116 ± 0.126	2.032 ± 0.214	1.944 ± 0.155	2.087 ± 0.148	1.948 ± 0.136	2.246 ± 0.110	2.421 ± 0.153
Rel. to Body	12.731 ± 0.635	13.701 ± 0.718	13.000 ± 1.113	12.890 ± 0.759	13.521 ± 0.829	12.740 ± 0.711	14.611 ± 0.661	15.322 ± 0.839

**Table 2 (continued). Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle control and low dose BPA**

Low dose BPA								
	BPA Dose (µg/kg bw/day)							
	Vehicle	2.5	8	25	80	260	840	2,700
<b>Ovary</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	0.096 ± 0.003	0.087 ± 0.003	0.089 ± 0.005	0.091 ± 0.004	0.091 ± 0.002	0.093 ± 0.004	0.096 ± 0.005	0.105 ± 0.006
Rel. to Brain	0.051 ± 0.002	0.047 ± 0.001	0.049 ± 0.003	0.048 ± 0.002	0.049 ± 0.001	0.050 ± 0.002	0.051 ± 0.002	0.057 ± 0.003
Rel. to Body	0.335 ± 0.011	0.306 ± 0.008	0.316 ± 0.015	0.329 ± 0.011	0.323 ± 0.008	0.321 ± 0.017	0.333 ± 0.014	0.360 ± 0.018
<b>Pancreas</b>	20	23	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	0.940 ± 0.077	0.728 ± 0.057	0.731 ± 0.074	0.756 ± 0.066	0.792 ± 0.064	0.811 ± 0.095	0.695 ± 0.049	0.736 ± 0.058
Rel. to Brain	0.495 ± 0.039	0.393 ± 0.030	0.395 ± 0.038	0.402 ± 0.033	0.430 ± 0.036	0.432 ± 0.050	0.370 ± 0.026	0.397 ± 0.029
Rel. to Body	3.274 ± 0.256	2.558 ± 0.182	2.594 ± 0.263	2.750 ± 0.230	2.812 ± 0.232	2.777 ± 0.312	2.403 ± 0.163	2.531 ± 0.187
<b>Uterus</b>	20	22	18	21	20	19 (18 <sup>c</sup> )	20	19
Absolute	0.448 ± 0.028*	0.405 ± 0.030	0.409 ± 0.026	0.428 ± 0.030	0.442 ± 0.032	0.415 ± 0.015	0.383 ± 0.017	0.362 ± 0.018
Rel. to Brain	0.238 ± 0.015*	0.217 ± 0.015	0.222 ± 0.013	0.228 ± 0.015	0.240 ± 0.018	0.220 ± 0.009	0.204 ± 0.009	0.196 ± 0.009
Rel. to Body	1.582 ± 0.111	1.445 ± 0.115	1.460 ± 0.100	1.554 ± 0.091	1.574 ± 0.118	1.435 ± 0.059	1.325 ± 0.053	1.261 ± 0.069
<b>Body Weight<sup>b</sup></b>	20	23	18	21	20	19	20	19
g	286.595 ± 6.080	284.678 ± 5.617	282.056 ± 4.951	275.443 ± 7.911	283.585 ± 6.571	291.484 ± 6.979	288.455 ± 4.695	289.737 ± 5.913

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the low dose BPA ( $\leq 2,700 \mu\text{g/kg bw/day}$ ) groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. Contrasts were used to test for increasing dose trends. Significant effects are indicated in shaded cells; \*, p < 0.05. Significant effects marked in the vehicle column indicate a significant dose trend.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

<sup>c</sup> For the values relative to brain, n = 18.

**Table 3. Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle control and high dose BPA<sup>a</sup>**

High dose BPA			
	BPA Dose (µg/kg bw/day)		
	Vehicle	100,000	300,000
<b>Aorta</b>	20	19	17
Absolute (g)	0.058 ± 0.008	0.028 ± 0.005**	0.024 ± 0.006**
Rel. to Brain (g/g)	0.031 ± 0.004	0.015 ± 0.003*	0.014 ± 0.004*
Rel. to Body (mg/g)	0.202 ± 0.028	0.099 ± 0.018**	0.093 ± 0.024*
<b>Brain</b>	20	19	17
Absolute	1.894 ± 0.022	1.866 ± 0.019	1.773 ± 0.015***
Rel. to Body	6.649 ± 0.125	6.674 ± 0.134	6.971 ± 0.201**
<b>Fat Pad, Ovarian/Parametrial</b>	20	19	17
Absolute	7.501 ± 0.504	6.907 ± 0.474	4.622 ± 0.496***
Rel. to Brain	3.962 ± 0.265	3.712 ± 0.261	2.615 ± 0.282**
Rel. to Body	25.830 ± 1.374	24.412 ± 1.458	17.613 ± 1.619*
<b>Fat Pad, Retroperitoneal</b>	20	19	17
Absolute	5.274 ± 0.495	5.574 ± 0.456	4.463 ± 0.564
Rel. to Brain	2.777 ± 0.255	3.016 ± 0.263	2.514 ± 0.314
Rel. to Body	18.082 ± 1.421	19.590 ± 1.384	16.817 ± 1.762
<b>Heart</b>	20	19	17
Absolute	1.040 ± 0.023	1.016 ± 0.021	0.941 ± 0.024**
Rel. to Brain	0.550 ± 0.011	0.546 ± 0.013	0.532 ± 0.016*
Rel. to Body	3.635 ± 0.052	3.620 ± 0.069	3.671 ± 0.079
<b>Liver</b>	20	19	17
Absolute	10.488 ± 0.291	10.467 ± 0.279	9.973 ± 0.415
Rel. to Brain	5.542 ± 0.145	5.626 ± 0.168	5.631 ± 0.237
Rel. to Body	36.575 ± 0.569	37.203 ± 0.669	38.575 ± 0.693*
<b>Mammary Gland</b>	20	19	17
Absolute	3.705 ± 0.259	3.693 ± 0.259	2.769 ± 0.239*
Rel. to Brain	1.954 ± 0.132	1.994 ± 0.149	1.561 ± 0.131
Rel. to Body	12.731 ± 0.635	13.027 ± 0.779	10.653 ± 0.711
<b>Ovary</b>	20	19	17
Absolute	0.096 ± 0.003	0.092 ± 0.005	0.072 ± 0.006
Rel. to Brain	0.051 ± 0.002	0.049 ± 0.003	0.040 ± 0.003
Rel. to Body	0.335 ± 0.011	0.327 ± 0.019	0.273 ± 0.018

**Table 3 (continued). Female organ weights, frozen tissue animals, PND 90 ± 5, vehicle control and high dose BPA<sup>a</sup>**

High dose BPA		BPA Dose (µg/kg bw/day)		
		Vehicle	100,000	300,000
<b>Pancreas</b>		20	19	17
Absolute		0.940 ± 0.077	0.833 ± 0.064	0.816 ± 0.099
Rel. to Brain		0.495 ± 0.039	0.446 ± 0.032	0.460 ± 0.055
Rel. to Body		3.274 ± 0.256	2.991 ± 0.247	3.118 ± 0.338
<b>Uterus</b>		20	19	17
Absolute		0.448 ± 0.028	0.390 ± 0.015	0.414 ± 0.024
Rel. to Brain		0.238 ± 0.015	0.210 ± 0.009	0.233 ± 0.013
Rel. to Body		1.582 ± 0.111	1.396 ± 0.061	1.621 ± 0.098
<b>Body Weight<sup>b</sup></b>		20	19	17
		286.595 ± 6.080	281.021 ± 4.649	257.447 ± 7.177

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the high dose BPA (100,000 and 300,000 µg/kg bw/day groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. Significant differences from vehicle controls are indicated in shaded cells, \*, p < 0.05; \*\*, p < 0.01; \*\*\*, p < 0.001.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

**Table 4. Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and naïve controls and EE<sub>2</sub> dose groups<sup>a</sup>**

Negative controls and reference estrogen				
	0.3 % CMC (Vehicle)	Naïve control	0.5 EE <sub>2</sub> (µg/kg bw/day)	5.0 EE <sub>2</sub> (µg/kg bw/day)
<b>Aorta</b>	20	20	20	20
Absolute (g)	0.049 ± 0.009	0.033 ± 0.007	0.045 ± 0.008	0.038 ± 0.008
Rel. to Brain (g/g)	0.025 ± 0.004	0.017 ± 0.004	0.022 ± 0.004	0.019 ± 0.004
Rel. to Body (mg/g)	0.106 ± 0.020	0.068 ± 0.014	0.094 ± 0.017	0.078 ± 0.015
<b>Brain</b>	20	20	20	20
Absolute	2.010 ± 0.026	1.999 ± 0.024	2.036 ± 0.019	2.021 ± 0.021
Rel. to Body	4.248 ± 0.092	4.126 ± 0.083	4.191 ± 0.070	4.261 ± 0.086
<b>Epididymis</b>	20	20	20	20
Absolute	1.029 ± 0.028	1.061 ± 0.030	1.072 ± 0.023	0.901 ± 0.041**
Rel. to Brain	0.512 ± 0.012	0.531 ± 0.014	0.527 ± 0.012	0.447 ± 0.021**
Rel. to Body	2.166 ± 0.059	2.189 ± 0.066	2.205 ± 0.052	1.889 ± 0.079**
<b>Fat Pad, Epididymal</b>	20	20	20	20
Absolute	7.767 ± 0.485	8.658 ± 0.481	7.225 ± 0.348	5.316 ± 0.300**
Rel. to Brain	3.873 ± 0.247	4.351 ± 0.253	3.560 ± 0.180	2.634 ± 0.151***
Rel. to Body	16.102 ± 0.711	17.717 ± 0.890	14.767 ± 0.625	11.107 ± 0.549***
<b>Fat Pad, Retroperitoneal</b>	20	19	20	20
Absolute	10.610 ± 0.702	11.150 ± 0.649	10.374 ± 0.707	10.777 ± 0.534
Rel. to Brain	5.300 ± 0.367	5.585 ± 0.344	5.097 ± 0.344	5.333 ± 0.270
Rel. to Body	22.015 ± 1.120	22.722 ± 1.138	21.092 ± 1.263	22.453 ± 0.960
<b>Heart</b>	20	20	20	20
Absolute	1.548 ± 0.041	1.594 ± 0.031	1.905 ± 0.295*	1.565 ± 0.030
Rel. to Brain	0.770 ± 0.018	0.799 ± 0.016	0.936 ± 0.144*	0.775 ± 0.014
Rel. to Body	3.247 ± 0.052	3.284 ± 0.069	3.911 ± 0.607	3.285 ± 0.049
<b>Liver</b>	20	20	20	20
Absolute	19.809 ± 0.845	20.014 ± 0.396	20.490 ± 0.486	21.828 ± 0.662*
Rel. to Brain	9.850 ± 0.396	10.041 ± 0.232	10.077 ± 0.247	10.816 ± 0.349*
Rel. to Body	41.245 ± 0.905	41.173 ± 0.717	41.982 ± 0.680	45.681 ± 1.089**
<b>Mammary Gland</b>	20	20	20	20
Absolute	6.981 ± 0.653	7.462 ± 0.504	6.538 ± 0.429	4.920 ± 0.244*
Rel. to Brain	3.494 ± 0.334	3.742 ± 0.249	3.223 ± 0.222	2.446 ± 0.131*
Rel. to Body	14.463 ± 1.162	15.330 ± 0.979	13.324 ± 0.771	10.325 ± 0.484**

**Table 4 (continued). Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and naïve controls and EE<sub>2</sub> dose groups**

<b>Negative controls and reference estrogen</b>				
	<b>0.3 % CMC (Vehicle)</b>	<b>Naïve control</b>	<b>0.5 EE<sub>2</sub> (µg/kg bw/day)</b>	<b>5.0 EE<sub>2</sub> (µg/kg bw/day)</b>
<b>Pancreas</b>	19	20	20	20
Absolute	1.069 ± 0.101	0.869 ± 0.064	0.973 ± 0.091	1.118 ± 0.101
Rel. to Brain	0.526 ± 0.047	0.438 ± 0.035	0.480 ± 0.045	0.553 ± 0.050
Rel. to Body	2.230 ± 0.212	1.786 ± 0.132	2.004 ± 0.188	2.364 ± 0.222
<b>Prostate</b>	20	20	20	20
Absolute	0.875 ± 0.054	0.840 ± 0.048	0.855 ± 0.038	0.685 ± 0.040**
Rel. to Brain	0.434 ± 0.024	0.421 ± 0.026	0.421 ± 0.019	0.340 ± 0.021**
Rel. to Body	1.827 ± 0.095	1.725 ± 0.098	1.755 ± 0.073	1.428 ± 0.074**
<b>Testis</b>	20	20	20	20
Absolute	3.290 ± 0.064	3.202 ± 0.081	3.274 ± 0.066	2.655 ± 0.106***
Rel. to Brain	1.638 ± 0.027	1.604 ± 0.040	1.610 ± 0.033	1.318 ± 0.057***
Rel. to Body	6.940 ± 0.153	6.606 ± 0.193	6.738 ± 0.163	5.601 ± 0.257***
<b>Body Weight<sup>b</sup></b>	20	20	20	20
	477.405 ± 11.980	486.910 ± 7.993	487.930 ± 8.021	477.620 ± 9.346

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the EE<sub>2</sub> groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. There was no adjustment for the comparison of naïve and vehicle control groups. Significant differences from vehicle controls are indicated in shaded cells, \*, p < 0.05; \*\*, p < 0.01; \*\*\*, p < 0.001.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

**Table 5. Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and low dose BPA<sup>a</sup>**

Low dose BPA								
	BPA Dose (µg/kg bw/day)							
	Vehicle	2.5	8	25	80	260	840	2,700
<b>Aorta</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute (g)	0.049 ± 0.009	0.053 ± 0.009	0.056 ± 0.013	0.058 ± 0.009	0.049 ± 0.008	0.043 ± 0.009	0.042 ± 0.007	0.041 ± 0.010
Rel. to Brain (g/g)	0.025 ± 0.004	0.026 ± 0.005	0.028 ± 0.007	0.029 ± 0.005	0.025 ± 0.004	0.022 ± 0.005	0.021 ± 0.004	0.020 ± 0.005
Rel. to Body(mg/g)	0.106 ± 0.020	0.109 ± 0.019	0.110 ± 0.023	0.122 ± 0.018	0.105 ± 0.017	0.090 ± 0.018	0.091 ± 0.016	0.082 ± 0.020
<b>Brain</b>	20	23	18	20	20	19	20	19
Absolute	2.010 ± 0.026	2.021 ± 0.020	1.992 ± 0.024	2.016 ± 0.018	1.970 ± 0.023	1.990 ± 0.024	2.036 ± 0.024	2.033 ± 0.018
Rel. to Body	4.248 ± 0.092	4.187 ± 0.069	4.026 ± 0.076	4.307 ± 0.093	4.233 ± 0.076	4.167 ± 0.071	4.367 ± 0.064	4.146 ± 0.089
<b>Epididymis</b>	20	22	18	21 (20 br)	20	19	20	19
Absolute	1.029 ± 0.028	1.076 ± 0.023	1.054 ± 0.017	1.016 ± 0.025	1.023 ± 0.026	1.049 ± 0.023	1.047 ± 0.036	1.076 ± 0.022
Rel. to Brain	0.512 ± 0.012	0.535 ± 0.011	0.530 ± 0.008	0.501 ± 0.011	0.520 ± 0.013	0.528 ± 0.012	0.515 ± 0.018	0.530 ± 0.012
Rel. to Body	2.166 ± 0.059	2.231 ± 0.047	2.127 ± 0.038	2.163 ± 0.049	2.196 ± 0.057	2.194 ± 0.044	2.243 ± 0.079	2.189 ± 0.054
<b>Fat Pad, Epididymal</b>	20	22	18	21 (20 br)	20	19	20	19
Absolute	7.767 ± 0.485	7.848 ± 0.483	9.110 ± 0.497	7.967 ± 0.506	7.113 ± 0.538	8.109 ± 0.426	7.520 ± 0.446	8.988 ± 0.566
Rel. to Brain	3.873 ± 0.247	3.892 ± 0.231	4.589 ± 0.260	3.989 ± 0.251	3.612 ± 0.274	4.078 ± 0.208	3.697 ± 0.218	4.424 ± 0.281
Rel. to Body	16.102 ± 0.711	16.043 ± 0.831	18.211 ± 0.772	16.771 ± 0.899	14.984 ± 0.908	16.854 ± 0.748	15.964 ± 0.787	17.984 ± 0.858
<b>Fat Pad, Retroperitoneal</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute	10.610 ± 0.702*	10.685 ± 0.505	11.730 ± 0.381	10.496 ± 0.718	9.584 ± 0.462	11.507 ± 0.546	9.535 ± 0.550	12.310 ± 0.720
Rel. to Brain	5.300 ± 0.367	5.277 ± 0.235	5.905 ± 0.207	5.152 ± 0.361	4.878 ± 0.244	5.781 ± 0.261	4.682 ± 0.265	6.063 ± 0.362
Rel. to Body	22.015 ± 1.120	21.872 ± 0.825	23.563 ± 0.567	22.162 ± 1.326	20.394 ± 0.781	23.886 ± 0.869	20.202 ± 0.924	24.702 ± 1.128
<b>Heart</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute	1.548 ± 0.041	1.591 ± 0.036	1.587 ± 0.023	1.551 ± 0.035	1.533 ± 0.036	1.579 ± 0.029	1.565 ± 0.046	1.619 ± 0.036
Rel. to Brain	0.770 ± 0.018	0.787 ± 0.014	0.799 ± 0.015	0.770 ± 0.014	0.780 ± 0.019	0.795 ± 0.015	0.768 ± 0.020	0.797 ± 0.019
Rel. to Body	3.247 ± 0.052	3.283 ± 0.058	3.201 ± 0.050	3.294 ± 0.049	3.282 ± 0.059	3.303 ± 0.061	3.341 ± 0.071	3.284 ± 0.057
<b>Liver</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute	19.809 ± 0.845	20.132 ± 0.544	21.098 ± 0.597	20.450 ± 0.855	19.041 ± 0.563	19.525 ± 0.572	19.902 ± 0.494	21.371 ± 0.610
Rel. to Brain	9.850 ± 0.396	9.959 ± 0.246	10.624 ± 0.342	10.130 ± 0.445	9.684 ± 0.302	9.821 ± 0.278	9.794 ± 0.264	10.526 ± 0.316
Rel. to Body	41.245 ± 0.905	41.447 ± 0.778	42.382 ± 0.739	43.068 ± 1.063	40.655 ± 0.812	40.625 ± 0.710	42.560 ± 0.845	43.285 ± 0.909

**Table 5 (continued). Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and low dose BPA**

Low dose BPA								
	BPA Dose ( $\mu\text{g/kg bw/day}$ )							
	Vehicle	2.5	8	25	80	260	840	2,700
<b>Mammary Gland</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute	6.981 ± 0.653	7.551 ± 0.610	8.442 ± 0.840	8.200 ± 0.471	6.841 ± 0.390	7.702 ± 0.534	6.599 ± 0.420	8.023 ± 0.564
Rel. to Brain	3.494 ± 0.334	3.730 ± 0.294	4.250 ± 0.430	4.079 ± 0.243	3.486 ± 0.207	3.860 ± 0.254	3.235 ± 0.197	3.948 ± 0.273
Rel. to Body	14.463 ± 1.162	15.393 ± 1.092	16.777 ± 1.402	17.337 ± 0.896	14.648 ± 0.856	15.950 ± 0.965	13.958 ± 0.723	16.189 ± 1.038
<b>Pancreas</b>	19	23	18	21 (20 br)	20	19	20	19
Absolute	1.069 ± 0.101	0.948 ± 0.077	1.047 ± 0.109	0.804 ± 0.045	0.886 ± 0.101	0.909 ± 0.092	0.868 ± 0.082	0.993 ± 0.090
Rel. to Brain	0.526 ± 0.047	0.469 ± 0.037	0.525 ± 0.054	0.398 ± 0.024	0.448 ± 0.050	0.456 ± 0.045	0.426 ± 0.039	0.492 ± 0.046
Rel. to Body	2.230 ± 0.212	1.967 ± 0.161	2.130 ± 0.235	1.715 ± 0.110	1.882 ± 0.204	1.913 ± 0.199	1.859 ± 0.174	2.022 ± 0.179
<b>Prostate</b>	20	23	18	21 (20 br)	20	19	20	19
Absolute	0.875 ± 0.054	0.855 ± 0.038	0.814 ± 0.037	0.780 ± 0.047	0.856 ± 0.048	0.821 ± 0.032	0.808 ± 0.036	0.886 ± 0.049
Rel. to Brain	0.434 ± 0.024	0.423 ± 0.018	0.410 ± 0.021	0.384 ± 0.024	0.434 ± 0.023	0.414 ± 0.017	0.399 ± 0.020	0.438 ± 0.027
Rel. to Body	1.827 ± 0.095	1.765 ± 0.076	1.639 ± 0.071	1.649 ± 0.087	1.850 ± 0.121	1.724 ± 0.077	1.730 ± 0.082	1.813 ± 0.112
<b>Testis</b>	20	22	18	21 (20 br)	20	19	20	19
Absolute	3.290 ± 0.064	3.389 ± 0.052	3.388 ± 0.059	3.219 ± 0.059	3.274 ± 0.069	3.277 ± 0.079	3.214 ± 0.145	3.368 ± 0.039
Rel. to Brain	1.638 ± 0.027	1.687 ± 0.029	1.704 ± 0.033	1.590 ± 0.027	1.665 ± 0.037	1.652 ± 0.046	1.583 ± 0.073	1.658 ± 0.024
Rel. to Body	6.940 ± 0.153	7.036 ± 0.128	6.844 ± 0.154	6.871 ± 0.162	7.032 ± 0.169	6.863 ± 0.183	6.881 ± 0.317	6.860 ± 0.136
<b>Body Weight</b>	20	23	18	21	20	19	20	19
	477.405 ± 11.980	485.326 ± 8.810	496.983 ± 8.290	471.814 ± 10.418	467.625 ± 8.471	479.332 ± 8.238	467.930 ± 7.807	493.921 ± 9.901

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the low dose BPA ( $\leq 2,700 \mu\text{g/kg bw/day}$ ) groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. Contrasts were used to test for increasing dose trends. Significant effects are indicated in shaded cells; \*, p < 0.05. Significant effects marked in the vehicle column indicate a significant dose trend.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

**Table 6. Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and high dose BPA<sup>a</sup>**

High dose BPA			
	BPA Dose ( $\mu\text{g}/\text{kg bw/day}$ )		
	Vehicle	100,000	300,000
<b>Aorta</b>	20	17	16
Absolute (g)	0.049 ± 0.009	0.047 ± 0.009	0.035 ± 0.006
Rel. to Brain (g/g)	0.025 ± 0.004	0.024 ± 0.005	0.018 ± 0.003
Rel. to Body (mg/g)	0.106 ± 0.020	0.103 ± 0.019	0.085 ± 0.016
<b>Brain</b>	20	17	16
Absolute	2.010 ± 0.026	2.017 ± 0.020	1.947 ± 0.021
Rel. to Body	4.248 ± 0.092	4.478 ± 0.070	4.533 ± 0.127
<b>Epididymis</b>	20	17	15
Absolute	1.029 ± 0.028	1.042 ± 0.021	0.990 ± 0.041
Rel. to Brain	0.512 ± 0.012	0.517 ± 0.011	0.509 ± 0.023
Rel. to Body	2.166 ± 0.059	2.309 ± 0.046	2.205 ± 0.052
<b>Fat Pad, Epididymal</b>	20	17	15
Absolute	7.767 ± 0.485	6.803 ± 0.416	6.039 ± 0.419*
Rel. to Brain	3.873 ± 0.247	3.370 ± 0.202	3.102 ± 0.223*
Rel. to Body	16.102 ± 0.711	15.044 ± 0.860	13.726 ± 0.757
<b>Fat Pad, Retroperitoneal</b>	20	17	16
Absolute	10.610 ± 0.702	9.571 ± 0.606	8.241 ± 0.574*
Rel. to Brain	5.300 ± 0.367	4.743 ± 0.297	4.242 ± 0.301*
Rel. to Body	22.015 ± 1.120	21.100 ± 1.192	18.910 ± 1.145
<b>Heart</b>	20	17	16
Absolute	1.548 ± 0.041	1.433 ± 0.036	1.391 ± 0.031
Rel. to Brain	0.770 ± 0.018	0.711 ± 0.017	0.715 ± 0.016
Rel. to Body	3.247 ± 0.052	3.171 ± 0.053	3.221 ± 0.065
<b>Liver</b>	20	17	16
Absolute	19.809 ± 0.845	17.782 ± 0.624*	17.069 ± 0.638*
Rel. to Brain	9.850 ± 0.396	8.825 ± 0.309*	8.777 ± 0.340*
Rel. to Body	41.245 ± 0.905	39.195 ± 0.834	39.218 ± 0.859
<b>Mammary Gland</b>	20	17	16
Absolute	6.981 ± 0.653	6.704 ± 0.609	5.370 ± 0.424
Rel. to Brain	3.494 ± 0.334	3.333 ± 0.309	2.755 ± 0.211
Rel. to Body	14.463 ± 1.162	14.768 ± 1.282	12.390 ± 0.893

**Table 6 (continued). Male organ weights, frozen tissue animals, PND 90 ± 5, vehicle and high dose BPA<sup>a</sup>**

High dose BPA			
	BPA Dose (µg/kg bw/day)		
	Vehicle	100,000	300,000
<b>Pancreas</b>	19	17	16
Absolute	1.069 ± 0.101	0.851 ± 0.080	0.990 ± 0.110
Rel. to Brain	0.526 ± 0.047	0.421 ± 0.038	0.506 ± 0.053
Rel. to Body	2.230 ± 0.212	1.885 ± 0.180	2.333 ± 0.290
<b>Prostate</b>	20	17	16
Absolute	0.875 ± 0.054	0.782 ± 0.041	0.759 ± 0.049
Rel. to Brain	0.434 ± 0.024	0.388 ± 0.020	0.391 ± 0.027
Rel. to Body	1.827 ± 0.095	1.728 ± 0.083	1.732 ± 0.095
<b>Testis</b>	20	17	15
Absolute	3.290 ± 0.064	3.329 ± 0.059	3.140 ± 0.054
Rel. to Brain	1.638 ± 0.027	1.652 ± 0.030	1.612 ± 0.036
Rel. to Body	6.940 ± 0.153	7.392 ± 0.159	7.263 ± 0.169
<b>Body Weight<sup>b</sup></b>	20	17	16
	477.405 ± 11.980	451.882 ± 7.286	433.706 ± 10.674

<sup>a</sup> Results [absolute weight (g), weight relative to brain weight (g/g), and weight relative to body weight (mg/g)] are presented as means ± S.E.M. Statistical analyses were conducted by ANOVA for absolute weights and by ANOCOVA with brain and body weights as covariates. Detailed statistical results, including the adjusted (least squares) means generated by those models and reasons for any excluded organ weights, are presented in tables in Appendix XLIV. Statistical comparisons to the vehicle control were conducted in the subgroups described in Materials and Methods. For this table, the comparisons of the high dose BPA (100,000 and 300,000 µg/kg bw/day groups to the vehicle control were conducted using Dunnett's test to adjust for multiple comparisons. Significant differences from vehicle controls are indicated in shaded cells, \*, p < 0.05; \*\*.

<sup>b</sup>The body weight reported is the weight recorded at receiving for termination and necropsy in pathology. The weight is shown in these tables for reference, but was not analyzed separately as part of the organ weight analyses.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 1. Number of Animals with Organ Weight Data

	Vehicle	BPA 2.5 ( $\mu\text{g/kg}$ )	BPA 8 ( $\mu\text{g/kg}$ )	BPA 25 ( $\mu\text{g/kg}$ )	BPA 80 ( $\mu\text{g/kg}$ )	BPA 260 ( $\mu\text{g/kg}$ )	BPA 840 ( $\mu\text{g/kg}$ )	BPA 2700 ( $\mu\text{g/kg}$ )	BPA 100,000 ( $\mu\text{g/kg}$ )	BPA 300,000 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )	Naïve Control
F	20	23	18	21	20	19	20	19	19	17	20	19	20
M	20	23	18	21	20	19	20	19	17	16	20	20	20

Table 2. Reasons for Data Exclusion

Treatment Group	CID	Sex	Organ	Site	Comment (Initials and Date) <sup>1</sup>
Veh. Ctrl	21760300212	M	Pancreas		Put in NBF before Wt and Frzn. BV 09/01/10
	21760300670	M	Epididymis	Right	Not found at necropsy ML 09-27-10
	21760300670	M	Fat Pad Epidid		Left side only. LE SW 09-29-10
2.5 BPA	21760300670	M	Testes	Right	Not found at necropsy ML 09-27-10
	21760300870	F	Bld Ves Aorta		Weight appears to be incorrect. SW 11-01-10
	21760300040	F	Fat Pad Ov/Pm		Incorrect weight. LE SW 09-29-10
	21760300863	F	Uterus		Right horn missing at necropsy. LE SW 11-01-10
25 BPA	21760300821	M	Brain		Weight appears to be incorrect. SW 11-01-10
260 BPA	21760300190	F	Brain		Re-weighed after frzn. BV 9/9/10
300,000 BPA	21760300222	M	Epididymis	Left	missing; weighed right BR 09-15-10
	21760300222	M	Fat Pad Epidid		left side missing; weight is right BR 09-15-10
	21760300222	M	Testes	Left	missing; weighed right BR 09-15-10
	21760300269	F	Ovary	Right	Weights included oviduct and cyst. SW 09-23-10
5.0 EE <sub>2</sub>	21760300269	F	Ovary	Left	Weights included oviduct and cyst. SW 09-23-10
	21760300541	F	Ovary	Right	Cystic with oviduct attached. BV 10-15-10
	21760300984	F	Ovary	Left	Cystic; Oviduct attached. SW 11-02-10
	21760300984	F	Ovary	Right	Cystic; Oviduct attached. SW 11-02-10
NaiveCtrl	21760300988	F	Ovary	Left	Cystic; oviduct attached. SW 11-02-10
	21760301002	M	Fat Pad Retro		Weight appears to be incorrect. LE SW 11-01-10

1. The comment is the wording as stored in the source data. The principle investigator was consulted to determine exclusion of each measurement from the analysis.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 3. Female Organ Weights (g)

Organ	Treatment																															
	Vehicle				BPA 2.5 ( $\mu\text{g/kg}$ )				BPA 8 ( $\mu\text{g/kg}$ )				BPA 25 ( $\mu\text{g/kg}$ )				BPA 80 ( $\mu\text{g/kg}$ )				BPA 260 ( $\mu\text{g/kg}$ )				BPA 840 ( $\mu\text{g/kg}$ )				BPA 2700 ( $\mu\text{g/kg}$ )			
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.			
Bld Ves Aorta	20	0.058	0.008	22	0.043	0.010	18	0.041	0.008	21	0.043	0.008	20	0.040	0.007	19	0.026	0.005	20	0.039	0.007	19	0.040	0.008								
Brain	20	1.894	0.022	23	1.856	0.018	18	1.842	0.019	21	1.870	0.021	20	1.850	0.017	18	1.883	0.018	20	1.880	0.017	19	1.848	0.018								
Fat Pad Ov/Pm	20	7.501	0.504	22	6.870	0.409	18	7.599	0.456	21	6.925	0.613	20	7.964	0.602	19	8.286	0.491	20	8.222	0.485	19	8.746	0.594								
Fat Pad Retro	20	5.274	0.495	23	6.060	0.439	18	5.655	0.495	21	5.712	0.534	20	5.909	0.513	19	6.066	0.436	20	6.170	0.417	19	6.321	0.483								
Heart	20	1.040	0.023	23	1.037	0.022	18	1.014	0.013	21	1.053	0.020	20	1.005	0.023	19	1.056	0.023	20	1.006	0.016	19	1.041	0.020								
Liver	20	10.488	0.291	23	9.980	0.249	18	10.104	0.192	21	9.904	0.315	20	10.293	0.222	19	10.251	0.340	20	10.600	0.250	19	10.428	0.251								
Mammary GI (Inguinal)	20	3.705	0.259	23	3.937	0.249	18	3.721	0.374	21	3.638	0.288	20	3.877	0.284	19	3.727	0.241	20	4.226	0.217	19	4.464	0.284								
Ovary	20	0.096	0.003	23	0.087	0.003	18	0.089	0.005	21	0.091	0.004	20	0.091	0.002	19	0.093	0.004	20	0.096	0.005	19	0.105	0.006								
Pancreas	20	0.940	0.077	23	0.728	0.057	18	0.731	0.074	21	0.756	0.066	20	0.792	0.064	19	0.811	0.095	20	0.695	0.049	19	0.736	0.058								
Uterus	20	0.448	0.028	22	0.405	0.030	18	0.409	0.026	21	0.428	0.030	20	0.442	0.032	19	0.415	0.015	20	0.383	0.017	19	0.362	0.018								
Receiving Weight	20	286.595	6.080	23	284.678	5.617	18	282.056	4.951	21	275.443	7.911	20	283.585	6.571	19	291.484	6.979	20	288.455	4.695	19	289.737	5.913								

Table 3. Female Organ Weights (g)

Organ	Treatment														
	BPA 100,000 ( $\mu\text{g/kg}$ )				BPA 300,000 ( $\mu\text{g/kg}$ )				EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )		EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )		Naïve Control		
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	
Bld Ves Aorta	19	0.028	0.005	17	0.024	0.006	20	0.027	0.005	19	0.038	0.007	20	0.035	0.008
Brain	19	1.866	0.019	17	1.773	0.015	20	1.857	0.016	19	1.922	0.020	20	1.848	0.022
Fat Pad Ov/Pm	19	6.907	0.474	17	4.622	0.496	20	5.610	0.393	19	4.201	0.567	20	7.863	0.594
Fat Pad Retro	19	5.574	0.456	17	4.463	0.564	20	5.729	0.541	19	6.104	0.590	20	6.238	0.548
Heart	19	1.016	0.021	17	0.941	0.024	20	1.136	0.023	19	1.217	0.028	20	1.005	0.025
Liver	19	10.467	0.279	17	9.973	0.415	20	12.132	0.286	19	14.197	0.441	20	10.192	0.363
Mammary GI (Inguinal)	19	3.693	0.259	17	2.769	0.239	20	3.071	0.145	19	3.669	0.321	20	4.056	0.374
Ovary	19	0.092	0.005	17	0.072	0.006	20	0.094	0.024	15	0.056	0.012	20	0.090	0.004
Pancreas	19	0.833	0.064	17	0.816	0.099	20	0.817	0.036	19	1.076	0.112	20	0.735	0.066
Uterus	19	0.390	0.015	17	0.414	0.024	20	0.410	0.016	19	0.353	0.022	20	0.406	0.018
Receiving Weight	19	281.021	4.649	17	257.447	7.177	20	301.655	7.132	19	329.047	7.551	20	287.425	8.015

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 4. Female Relative Organ Weight to Brain Weight

Organ	Treatment																									
	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )				
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
Bld Ves Aorta	20	0.031	0.004	22	0.023	0.005	18	0.022	0.004	21	0.023	0.004	20	0.022	0.004	18	0.014	0.003	20	0.021	0.003	19	0.022	0.005		
Fat Pad Ov/Pm	20	3.962	0.265	22	3.720	0.236	18	4.131	0.252	21	3.712	0.336	20	4.298	0.323	18	4.239	0.215	20	4.374	0.254	19	4.741	0.322		
Fat Pad Retro	20	2.777	0.255	23	3.266	0.233	18	3.090	0.291	21	3.039	0.277	20	3.194	0.278	18	3.138	0.226	20	3.270	0.210	19	3.417	0.254		
Heart	20	0.550	0.011	23	0.559	0.011	18	0.551	0.009	21	0.564	0.011	20	0.544	0.012	18	0.560	0.012	20	0.536	0.010	19	0.564	0.012		
Liver	20	5.542	0.145	23	5.385	0.140	18	5.495	0.119	21	5.299	0.165	20	5.578	0.143	18	5.444	0.198	20	5.641	0.128	19	5.645	0.127		
Mammary Gl (Inguinal)	20	1.954	0.132	23	2.116	0.126	18	2.032	0.214	21	1.944	0.155	20	2.087	0.148	18	1.948	0.136	20	2.246	0.110	19	2.421	0.153		
Ovary	20	0.051	0.002	23	0.047	0.001	18	0.049	0.003	21	0.048	0.002	20	0.049	0.001	18	0.050	0.002	20	0.051	0.002	19	0.057	0.003		
Pancreas	20	0.495	0.039	23	0.393	0.030	18	0.395	0.038	21	0.402	0.033	20	0.430	0.036	18	0.432	0.050	20	0.370	0.026	19	0.397	0.029		
Uterus	20	0.238	0.015	22	0.217	0.015	18	0.222	0.013	21	0.228	0.015	20	0.240	0.018	18	0.220	0.009	20	0.204	0.009	19	0.196	0.009		

Table 4. Females Relative Organ Weight to Brain Weight

Organ	Treatment																	
	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control					
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	
Bld Ves Aorta	19	0.015	0.003	17	0.014	0.004	20	0.015	0.003	19	0.020	0.004	20	0.019	0.004			
Fat Pad Ov/Pm	19	3.712	0.261	17	2.615	0.282	20	3.029	0.215	19	2.210	0.310	20	4.233	0.297			
Fat Pad Retro	19	3.016	0.263	17	2.514	0.314	20	3.105	0.305	19	3.201	0.325	20	3.353	0.272			
Heart	19	0.546	0.013	17	0.532	0.016	20	0.613	0.014	19	0.635	0.017	20	0.544	0.013			
Liver	19	5.626	0.168	17	5.631	0.237	20	6.542	0.162	19	7.415	0.264	20	5.505	0.169			
Mammary Gl (Inguinal)	19	1.994	0.149	17	1.561	0.131	20	1.660	0.084	19	1.923	0.179	20	2.173	0.182			
Ovary	19	0.049	0.003	17	0.040	0.003	20	0.051	0.013	15	0.030	0.006	20	0.049	0.002			
Pancreas	19	0.446	0.032	17	0.460	0.055	20	0.440	0.019	19	0.558	0.056	20	0.401	0.038			
Uterus	19	0.210	0.009	17	0.233	0.013	20	0.222	0.009	19	0.184	0.011	20	0.221	0.010			

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 5. Female Relative Organ Weight to Receiving Weight (mg/g)

Organ	Treatment																BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.										
	Bld Ves Aorta	20	0.202	0.028	22	0.148	0.033	18	0.146	0.028	21	0.151	0.027	20	0.145	0.026	19	0.091	0.018	20	0.133	0.022	19	0.138	0.030												
Brain	20	6.649	0.125	23	6.576	0.144	18	6.565	0.131	21	6.891	0.189	20	6.584	0.151	18	6.547	0.177	20	6.540	0.091	19	6.417	0.126													
Fat Pad Ov/Pm	20	25.830	1.374	22	24.155	1.299	18	26.689	1.274	21	24.493	1.766	20	27.510	1.645	19	28.362	1.431	20	28.401	1.526	19	29.881	1.723													
Fat Pad Retro	20	18.082	1.421	23	21.046	1.310	18	19.881	1.495	21	20.082	1.541	20	20.349	1.379	19	20.513	1.132	20	21.230	1.260	19	21.512	1.366													
Heart	20	3.635	0.052	23	3.651	0.054	18	3.607	0.059	21	3.863	0.092	20	3.558	0.065	19	3.637	0.061	20	3.496	0.053	19	3.609	0.074													
Liver	20	36.575	0.569	23	35.046	0.512	18	35.858	0.445	21	35.992	0.561	20	36.441	0.670	19	35.090	0.593	20	36.689	0.406	19	36.063	0.722													
Mammary Gl (Inguinal)	20	12.731	0.635	23	13.701	0.718	18	13.000	1.113	21	12.890	0.759	20	13.521	0.829	19	12.740	0.711	20	14.611	0.661	19	15.322	0.839													
Ovary	20	0.335	0.011	23	0.306	0.008	18	0.316	0.015	21	0.329	0.011	20	0.323	0.008	19	0.321	0.017	20	0.333	0.014	19	0.360	0.018													
Pancreas	20	3.274	0.256	23	2.558	0.182	18	2.594	0.263	21	2.750	0.230	20	2.812	0.232	19	2.777	0.312	20	2.403	0.163	19	2.531	0.187													
Uterus	20	1.582	0.111	22	1.445	0.115	18	1.460	0.100	21	1.554	0.091	20	1.574	0.118	19	1.435	0.059	20	1.325	0.053	19	1.261	0.069													

Table 5. Female Relative Organ Weight to Receiving Weight (mg/g)

Organ	Treatment														
	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naïve Control		
	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
Bld Ves Aorta	19	0.099	0.018	17	0.093	0.024	20	0.092	0.017	19	0.118	0.023	20	0.120	0.025
Brain	19	6.674	0.134	17	6.971	0.201	20	6.217	0.150	19	5.895	0.147	20	6.502	0.153
Fat Pad Ov/Pm	19	24.412	1.458	17	17.613	1.619	20	18.349	0.964	19	12.538	1.496	20	26.850	1.497
Fat Pad Retro	19	19.590	1.384	17	16.817	1.762	20	18.705	1.444	19	18.280	1.522	20	21.260	1.471
Heart	19	3.620	0.069	17	3.671	0.079	20	3.784	0.069	19	3.704	0.050	20	3.514	0.066
Liver	19	37.203	0.669	17	38.575	0.693	20	40.275	0.544	19	43.106	0.804	20	35.347	0.492
Mammary Gl (Inguinal)	19	13.027	0.779	17	10.653	0.711	20	10.234	0.477	19	11.011	0.810	20	13.739	0.953
Ovary	19	0.327	0.019	17	0.273	0.018	20	0.323	0.091	15	0.174	0.036	20	0.316	0.012
Pancreas	19	2.991	0.247	17	3.118	0.338	20	2.748	0.153	19	3.279	0.342	20	2.574	0.225
Uterus	19	1.396	0.061	17	1.621	0.098	20	1.358	0.038	19	1.080	0.073	20	1.433	0.072

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 6. Male Organ Weights (g)

Organ	N	Treatment																						
		Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )				
		Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.			
Bld Ves Aorta	20	0.049	0.009	23	0.053	0.009	18	0.056	0.013	21	0.058	0.009	20	0.049	0.008	19	0.043	0.009	20	0.042	0.007	19	0.041	0.010
Brain	20	2.010	0.026	23	2.021	0.020	18	1.992	0.024	20	2.016	0.018	20	1.970	0.023	19	1.990	0.024	20	2.036	0.024	19	2.033	0.018
Epididymis	20	1.029	0.028	22	1.076	0.023	18	1.054	0.017	21	1.016	0.025	20	1.023	0.026	19	1.049	0.023	20	1.047	0.036	19	1.076	0.022
Fat Pad Epidid	20	7.767	0.485	22	7.848	0.483	18	9.110	0.497	21	7.967	0.506	20	7.113	0.538	19	8.109	0.426	20	7.520	0.446	19	8.988	0.566
Fat Pad Retro	20	10.610	0.702	23	10.685	0.505	18	11.730	0.381	21	10.496	0.718	20	9.584	0.462	19	11.507	0.546	20	9.535	0.550	19	12.310	0.720
Heart	20	1.548	0.041	23	1.591	0.036	18	1.587	0.023	21	1.551	0.035	20	1.533	0.036	19	1.579	0.029	20	1.565	0.046	19	1.619	0.036
Liver	20	19.809	0.845	23	20.132	0.544	18	21.098	0.597	21	20.450	0.855	20	19.041	0.563	19	19.525	0.572	20	19.902	0.494	19	21.371	0.610
Mammary GI (Inguinal)	20	6.981	0.653	23	7.551	0.610	18	8.442	0.840	21	8.200	0.471	20	6.841	0.390	19	7.702	0.534	20	6.599	0.420	19	8.023	0.564
Pancreas	19	1.069	0.101	23	0.948	0.077	18	1.047	0.109	21	0.804	0.045	20	0.886	0.101	19	0.909	0.092	20	0.868	0.082	19	0.993	0.090
Prostate	20	0.875	0.054	23	0.855	0.038	18	0.814	0.037	21	0.780	0.047	20	0.856	0.048	19	0.821	0.032	20	0.808	0.036	19	0.886	0.049
Testes	20	3.290	0.064	22	3.389	0.052	18	3.388	0.059	21	3.219	0.059	20	3.274	0.069	19	3.277	0.079	20	3.214	0.145	19	3.368	0.039
Receiving Weight	20	477.405	11.980	23	485.326	8.810	18	496.983	8.290	21	471.814	10.418	20	467.625	8.471	19	479.332	8.238	20	467.930	7.807	19	493.921	9.901

Table 6. Male Organ Weights (g)

Organ	N	Treatment														
		BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control		
		Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	
Bld Ves Aorta	17	0.047	0.009	16	0.035	0.006	20	0.045	0.008	20	0.038	0.008	20	0.033	0.007	
Brain	17	2.017	0.020	16	1.947	0.021	20	2.036	0.019	20	2.021	0.021	20	1.999	0.024	
Epididymis	17	1.042	0.021	15	0.990	0.041	20	1.072	0.023	20	0.901	0.041	20	1.061	0.030	
Fat Pad Epidid	17	6.803	0.416	15	6.039	0.419	20	7.225	0.348	20	5.316	0.300	20	8.658	0.481	
Fat Pad Retro	17	9.571	0.606	16	8.241	0.574	20	10.374	0.707	20	10.777	0.534	19	11.150	0.649	
Heart	17	1.433	0.036	16	1.391	0.031	20	1.905	0.295	20	1.565	0.030	20	1.594	0.031	
Liver	17	17.782	0.624	16	17.069	0.638	20	20.490	0.486	20	21.828	0.662	20	20.014	0.396	
Mammary GI (Inguinal)	17	6.704	0.609	16	5.370	0.424	20	6.538	0.429	20	4.920	0.244	20	7.462	0.504	
Pancreas	17	0.851	0.080	16	0.990	0.110	20	0.973	0.091	20	1.118	0.101	20	0.869	0.064	
Prostate	17	0.782	0.041	16	0.759	0.049	20	0.855	0.038	20	0.685	0.040	20	0.840	0.048	
Testes	17	3.329	0.059	15	3.140	0.054	20	3.274	0.066	20	2.655	0.106	20	3.202	0.081	
Receiving Weight	17	451.882	7.286	16	433.706	10.674	20	487.930	8.021	20	477.620	9.346	20	486.910	7.993	

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 7. Male Relative Organ Weight to Brain Weight

Organ	Treatment																									
	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )				
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
Bld Ves Aorta	20	0.025	0.004	23	0.026	0.005	18	0.028	0.007	20	0.029	0.005	20	0.025	0.004	19	0.022	0.005	20	0.021	0.004	19	0.020	0.005		
Epididymis	20	0.512	0.012	22	0.535	0.011	18	0.530	0.008	20	0.501	0.011	20	0.520	0.013	19	0.528	0.012	20	0.515	0.018	19	0.530	0.012		
Fat Pad Epidid	20	3.873	0.247	22	3.892	0.231	18	4.589	0.260	20	3.989	0.251	20	3.612	0.274	19	4.078	0.208	20	3.697	0.218	19	4.424	0.281		
Fat Pad Retro	20	5.300	0.367	23	5.277	0.235	18	5.905	0.207	20	5.152	0.361	20	4.878	0.244	19	5.781	0.261	20	4.682	0.265	19	6.063	0.362		
Heart	20	0.770	0.018	23	0.787	0.014	18	0.799	0.015	20	0.770	0.014	20	0.780	0.019	19	0.795	0.015	20	0.768	0.020	19	0.797	0.019		
Liver	20	9.850	0.396	23	9.959	0.246	18	10.624	0.342	20	10.130	0.445	20	9.684	0.302	19	9.821	0.278	20	9.794	0.264	19	10.526	0.316		
Mammary Gl (Inguinal)	20	3.494	0.334	23	3.730	0.294	18	4.250	0.430	20	4.079	0.243	20	3.486	0.207	19	3.860	0.254	20	3.235	0.197	19	3.948	0.273		
Pancreas	19	0.526	0.047	23	0.469	0.037	18	0.525	0.054	20	0.398	0.024	20	0.448	0.050	19	0.456	0.045	20	0.426	0.039	19	0.492	0.046		
Prostate	20	0.434	0.024	23	0.423	0.018	18	0.410	0.021	20	0.384	0.024	20	0.434	0.023	19	0.414	0.017	20	0.399	0.020	19	0.438	0.027		
Testes	20	1.638	0.027	22	1.687	0.029	18	1.704	0.033	20	1.590	0.027	20	1.665	0.037	19	1.652	0.046	20	1.583	0.073	19	1.658	0.024		

Table 7. Male Relative Organ Weight to Brain Weight

Organ	Treatment																	
	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control					
N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	
Bld Ves Aorta	17	0.024	0.005	16	0.018	0.003	20	0.022	0.004	20	0.019	0.004	20	0.017	0.004			
Epididymis	17	0.517	0.011	15	0.509	0.023	20	0.527	0.012	20	0.447	0.021	20	0.531	0.014			
Fat Pad Epidid	17	3.370	0.202	15	3.102	0.223	20	3.560	0.180	20	2.634	0.151	20	4.351	0.253			
Fat Pad Retro	17	4.743	0.297	16	4.242	0.301	20	5.097	0.344	20	5.333	0.270	19	5.585	0.344			
Heart	17	0.711	0.017	16	0.715	0.016	20	0.936	0.144	20	0.775	0.014	20	0.799	0.016			
Liver	17	8.825	0.309	16	8.777	0.340	20	10.077	0.247	20	10.816	0.349	20	10.041	0.232			
Mammary Gl (Inguinal)	17	3.333	0.309	16	2.755	0.211	20	3.223	0.222	20	2.446	0.131	20	3.742	0.249			
Pancreas	17	0.421	0.038	16	0.506	0.053	20	0.480	0.045	20	0.553	0.050	20	0.438	0.035			
Prostate	17	0.388	0.020	16	0.391	0.027	20	0.421	0.019	20	0.340	0.021	20	0.421	0.026			
Testes	17	1.652	0.030	15	1.612	0.036	20	1.610	0.033	20	1.318	0.057	20	1.604	0.040			

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 8. Male Relative Organ Weight to Receiving Weight (mg/g)

Organ	Treatment																							
	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
Bld Ves Aorta	20	0.106	0.020	23	0.109	0.019	18	0.110	0.023	21	0.122	0.018	20	0.105	0.017	19	0.090	0.018	20	0.091	0.016	19	0.082	0.020
Brain	20	4.248	0.092	23	4.187	0.069	18	4.026	0.076	20	4.307	0.093	20	4.233	0.076	19	4.167	0.071	20	4.367	0.064	19	4.146	0.089
Epididymis	20	2.166	0.059	22	2.231	0.047	18	2.127	0.038	21	2.163	0.049	20	2.196	0.057	19	2.194	0.044	20	2.243	0.079	19	2.189	0.054
Fat Pad Epidid	20	16.102	0.711	22	16.043	0.831	18	18.211	0.772	21	16.771	0.899	20	14.984	0.908	19	16.854	0.748	20	15.964	0.787	19	17.984	0.858
Fat Pad Retro	20	22.015	1.120	23	21.872	0.825	18	23.563	0.567	21	22.162	1.326	20	20.394	0.781	19	23.886	0.869	20	20.202	0.924	19	24.702	1.128
Heart	20	3.247	0.052	23	3.283	0.058	18	3.201	0.050	21	3.294	0.049	20	3.282	0.059	19	3.303	0.061	20	3.341	0.071	19	3.284	0.057
Liver	20	41.245	0.905	23	41.447	0.778	18	42.382	0.739	21	43.068	1.063	20	40.655	0.812	19	40.625	0.710	20	42.560	0.845	19	43.285	0.909
Mammary Gl (Inguinal)	20	14.463	1.162	23	15.393	1.092	18	16.777	1.402	21	17.337	0.896	20	14.648	0.856	19	15.950	0.965	20	13.958	0.723	19	16.189	1.038
Pancreas	19	2.230	0.212	23	1.967	0.161	18	2.130	0.235	21	1.715	0.110	20	1.882	0.204	19	1.913	0.199	20	1.859	0.174	19	2.022	0.179
Prostate	20	1.827	0.095	23	1.765	0.076	18	1.639	0.071	21	1.649	0.087	20	1.850	0.121	19	1.724	0.077	20	1.730	0.082	19	1.813	0.112
Testes	20	6.940	0.153	22	7.036	0.128	18	6.844	0.154	21	6.871	0.162	20	7.032	0.169	19	6.863	0.183	20	6.881	0.317	19	6.860	0.136

Table 8. Male Relative Organ Weight to Receiving Weight (mg/g)

Organ	Treatment														
	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naïve Control		
	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.	N	Mean	S.E.
Bld Ves Aorta	17	0.103	0.019	16	0.085	0.016	20	0.094	0.017	20	0.078	0.015	20	0.068	0.014
Brain	17	4.478	0.070	16	4.533	0.127	20	4.191	0.070	20	4.261	0.086	20	4.126	0.083
Epididymis	17	2.309	0.046	15	2.262	0.053	20	2.205	0.052	20	1.889	0.079	20	2.189	0.066
Fat Pad Epidid	17	15.044	0.860	15	13.726	0.757	20	14.767	0.625	20	11.107	0.549	20	17.717	0.890
Fat Pad Retro	17	21.100	1.192	16	18.910	1.145	20	21.092	1.263	20	22.453	0.960	19	22.722	1.138
Heart	17	3.171	0.053	16	3.221	0.065	20	3.911	0.607	20	3.285	0.049	20	3.284	0.069
Liver	17	39.195	0.834	16	39.218	0.859	20	41.982	0.680	20	45.681	1.089	20	41.173	0.717
Mammary Gl (Inguinal)	17	14.768	1.282	16	12.390	0.893	20	13.324	0.771	20	10.325	0.484	20	15.330	0.979
Pancreas	17	1.885	0.180	16	2.333	0.290	20	2.004	0.188	20	2.364	0.222	20	1.786	0.132
Prostate	17	1.728	0.083	16	1.732	0.095	20	1.755	0.073	20	1.428	0.074	20	1.725	0.098
Testes	17	7.392	0.159	15	7.263	0.169	20	6.738	0.163	20	5.601	0.257	20	6.606	0.193

Table 9. ANOVA for Female Organ Weights					
Organ	Effect	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	Group	12	241	1.567	0.102
Brain	Group	12	241	3.063	<b>0.000</b>
Fat Pad Ov/Pm	Group	12	241	7.076	<b>0.000</b>
Fat Pad Retro	Group	12	242	0.911	0.536
Heart	Group	12	242	9.065	<b>0.000</b>
Liver	Group	12	242	15.062	<b>0.000</b>
Mammary Gl	Group	12	242	2.392	0.006
Ovary	Group	12	238	1.803	0.048
Pancreas	Group	12	242	2.053	0.021
Uterus	Group	12	241	1.382	0.175

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 10. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females

Organ	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.058	0.007	0.584	0.043	0.007	0.489	0.041	0.008	0.429	0.043	0.007	0.528	0.040	0.007	0.366	0.026	0.007	<b>0.014</b>	0.039	0.007	0.270	0.040	0.007	0.338
Brain	1.894	0.019	0.494	1.856	0.017	0.543	1.842	0.020	0.263	1.870	0.018	0.913	1.850	0.019	0.402	1.883	0.020	0.999	1.880	0.019	0.995	1.848	0.019	0.363
Fat Pad Ov/Pm	7.501	0.514	<b>0.016</b>	6.870	0.490	0.913	7.599	0.541	1.000	6.925	0.501	0.946	7.964	0.514	0.984	8.286	0.527	0.818	8.222	0.514	0.862	8.746	0.527	0.378
Fat Pad Retro	5.274	0.498	0.262	6.060	0.464	0.759	5.655	0.524	0.994	5.712	0.486	0.985	5.909	0.498	0.907	6.066	0.510	0.789	6.170	0.498	0.674	6.321	0.510	0.529
Heart	1.040	0.022	0.868	1.037	0.020	1.000	1.014	0.023	0.936	1.053	0.021	0.999	1.005	0.022	0.778	1.056	0.023	0.995	1.006	0.022	0.794	1.041	0.023	1.000
Liver	10.488	0.302	0.330	9.980	0.282	0.706	10.104	0.318	0.919	9.904	0.295	0.591	10.293	0.302	0.998	10.251	0.310	0.993	10.600	0.302	1.000	10.428	0.310	1.000
Mammary Gl	3.705	0.275	<b>0.015</b>	3.937	0.256	0.986	3.721	0.290	1.000	3.638	0.268	1.000	3.877	0.275	0.998	3.727	0.282	1.000	4.226	0.275	0.623	4.464	0.282	0.247
Ovary	0.096	0.008	0.120	0.087	0.008	0.957	0.089	0.009	0.994	0.091	0.008	0.998	0.091	0.008	0.999	0.093	0.008	1.000	0.096	0.008	1.000	0.105	0.008	0.955
Pancreas	0.940	0.071	0.381	0.728	0.066	0.148	0.731	0.075	0.205	0.756	0.070	0.284	0.792	0.071	0.523	0.811	0.073	0.681	0.695	0.071	0.082	0.736	0.073	0.213
Uterus	0.448	0.023	<b>0.010</b>	0.405	0.022	0.614	0.409	0.025	0.757	0.428	0.023	0.985	0.442	0.023	1.000	0.415	0.024	0.851	0.383	0.023	0.218	0.362	0.024	0.057

Table 10. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naïve Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.028	0.007	<b>0.008</b>	0.024	0.008	<b>0.003</b>	0.027	0.007	<b>0.006</b>	0.038	0.007	0.108	0.035	0.007	<b>0.029</b>
Brain	1.866	0.019	0.479	1.773	0.020	<b>0.000</b>	1.857	0.019	0.285	1.922	0.019	0.474	1.848	0.019	0.085
Fat Pad Ov/Pm	6.907	0.527	0.633	4.622	0.557	<b>0.000</b>	5.610	0.514	<b>0.019</b>	4.201	0.527	<b>0.000</b>	7.863	0.514	0.619
Fat Pad Retro	5.574	0.510	0.880	4.463	0.540	0.437	5.729	0.498	0.743	6.104	0.510	0.401	6.238	0.498	0.172
Heart	1.016	0.023	0.648	0.941	0.024	<b>0.005</b>	1.136	0.022	<b>0.004</b>	1.217	0.023	<b>0.000</b>	1.005	0.022	0.255
Liver	10.467	0.310	0.998	9.973	0.328	0.406	12.132	0.302	<b>0.000</b>	14.197	0.310	<b>0.000</b>	10.192	0.302	0.489
Mammary Gl	3.693	0.282	0.999	2.769	0.298	<b>0.041</b>	3.071	0.275	0.182	3.669	0.282	0.994	4.056	0.275	0.367
Ovary	0.092	0.008	0.912	0.072	0.009	0.086	0.094	0.008	0.992	0.056	0.009	<b>0.004</b>	0.090	0.008	0.629
Pancreas	0.833	0.073	0.473	0.816	0.077	0.388	0.817	0.071	0.368	1.076	0.073	0.312	0.735	0.071	<b>0.043</b>
Uterus	0.390	0.024	0.147	0.414	0.025	0.511	0.410	0.023	0.408	0.353	0.024	<b>0.009</b>	0.406	0.023	0.203

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 11. Least Square Means Treatment Percent of Vehicle for Female Organ Weight

Analysis	Organ	Treatment								BPA	BPA	EE <sub>2</sub> 0.5	EE <sub>2</sub> 5.0	Naive Control
		BPA 2.5 ( $\mu\text{g/kg}$ )	BPA 8 ( $\mu\text{g/kg}$ )	BPA 25 ( $\mu\text{g/kg}$ )	BPA 80 ( $\mu\text{g/kg}$ )	BPA 260 ( $\mu\text{g/kg}$ )	BPA 840 ( $\mu\text{g/kg}$ )	BPA 2700 ( $\mu\text{g/kg}$ )	100,000 ( $\mu\text{g/kg}$ )	300,000 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )		
Absolute Weight	Bld Ves Aorta	73.7	70.8	74.3	69.8	44.9	66.7	68.6	48.0	41.3	47.2	66.2	61.2	
	Brain	98.0	97.3	98.8	97.7	99.4	99.3	97.6	98.5	93.6	98.1	101.5	97.6	
	Fat Pad Ov/Pm	91.6	101.3	92.3	106.2	110.5	109.6	116.6	92.1	61.6	74.8	56.0	104.8	
	Fat Pad Retro	114.9	107.2	108.3	112.0	115.0	117.0	119.8	105.7	84.6	108.6	115.7	118.3	
	Heart	99.7	97.4	101.2	96.6	101.5	96.7	100.1	97.6	90.4	109.2	117.0	96.6	
	Liver	95.2	96.3	94.4	98.1	97.7	101.1	99.4	99.8	95.1	115.7	135.4	97.2	
	Mammary Gl	106.3	100.4	98.2	104.6	100.6	114.1	120.5	99.7	74.7	82.9	99.0	109.5	
	Ovary	91.0	93.3	94.6	95.4	97.1	100.8	109.5	95.6	74.7	98.7	58.8	94.1	
	Pancreas	77.4	77.7	80.4	84.2	86.3	73.9	78.2	88.6	86.7	86.9	114.4	78.2	
	Uterus	90.3	91.2	95.5	98.5	92.5	85.3	80.8	87.0	92.4	91.5	78.7	90.6	

Table 12. Unadjusted P-values for Female Organ Weight

Analysis	Organ	Treatment								BPA	BPA	EE <sub>2</sub> 0.5	EE <sub>2</sub> 5.0	Naive Control
		BPA 2.5 ( $\mu\text{g/kg}$ )	BPA 8 ( $\mu\text{g/kg}$ )	BPA 25 ( $\mu\text{g/kg}$ )	BPA 80 ( $\mu\text{g/kg}$ )	BPA 260 ( $\mu\text{g/kg}$ )	BPA 840 ( $\mu\text{g/kg}$ )	BPA 2700 ( $\mu\text{g/kg}$ )	100,000 ( $\mu\text{g/kg}$ )	300,000 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )	EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )		
Absolute Weight	Bld Ves Aorta	0.129	0.108	0.143	0.089	<b>0.002</b>	0.061	0.080	<b>0.004</b>	0.002	<b>0.003</b>	0.060	<b>0.029</b>	
	Brain	0.149	0.059	0.375	0.100	0.691	0.603	0.088	0.301	<b>0.000</b>	0.168	0.297	0.085	
	Fat Pad Ov/Pm	0.375	0.896	0.422	0.524	0.287	0.322	0.092	0.420	<b>0.000</b>	<b>0.010</b>	<b>0.000</b>	0.619	
	Fat Pad Retro	0.249	0.598	0.529	0.368	0.268	0.204	0.143	0.674	0.270	0.519	0.245	0.172	
	Heart	0.921	0.406	0.682	0.261	0.610	0.271	0.975	0.433	<b>0.002</b>	<b>0.002</b>	<b>0.000</b>	0.255	
	Liver	0.220	0.382	0.168	0.648	0.583	0.794	0.890	0.960	0.249	<b>0.000</b>	<b>0.000</b>	0.489	
	Mammary Gl	0.537	0.968	0.863	0.659	0.954	0.181	0.055	0.977	<b>0.022</b>	0.104	0.927	0.367	
	Ovary	0.444	0.592	0.653	0.708	0.814	0.949	0.441	0.722	<b>0.047</b>	0.915	<b>0.002</b>	0.629	
	Pancreas	<b>0.030</b>	<b>0.044</b>	0.065	0.141	0.208	<b>0.016</b>	<b>0.046</b>	0.296	0.237	0.223	0.186	<b>0.043</b>	
	Uterus	0.177	0.248	0.533	0.841	0.313	<b>0.047</b>	0.010	0.083	0.324	0.251	<b>0.005</b>	0.203	

Table 13. ANOCOVA for Females (Brain Wt Covariate)					
Organ	Effect	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	Group	12	239	1.372	0.180
Bld Ves Aorta	Brain Wt	1	239	2.945	0.087
Fat Pad Ov/Pm	Group	12	239	6.992	<b>0.000</b>
Fat Pad Ov/Pm	Brain Wt	1	239	0.043	0.835
Fat Pad Retro	Group	12	240	0.762	0.689
Fat Pad Retro	Brain Wt	1	240	1.599	0.207
Heart	Group	12	240	7.677	<b>0.000</b>
Heart	Brain Wt	1	240	5.520	<b>0.020</b>
Liver	Group	12	240	13.840	<b>0.000</b>
Liver	Brain Wt	1	240	3.102	0.079
Mammary Gl	Group	12	240	2.224	<b>0.011</b>
Mammary Gl	Brain Wt	1	240	2.608	0.108
Ovary	Group	12	236	1.798	<b>0.049</b>
Ovary	Brain Wt	1	236	1.022	0.313
Pancreas	Group	12	240	1.701	0.067
Pancreas	Brain Wt	1	240	9.663	<b>0.002</b>
Uterus	Group	12	239	1.490	0.128
Uterus	Brain Wt	<u>1</u>	<u>239</u>	<u>2.760</u>	<u>0.098</u>

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 14. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females (Brain Wt Covariate)

Organ	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.056	0.007	0.633	0.043	0.007	0.607	0.042	0.008	0.583	0.043	0.007	0.599	0.041	0.007	0.490	0.026	0.008	0.020	0.038	0.007	0.298	0.040	0.007	0.463
Fat Pad Ov/Pm	7.490	0.511	<b>0.012</b>	6.871	0.484	0.918	7.606	0.536	1.000	6.921	0.496	0.947	7.969	0.508	0.980	7.945	0.537	0.986	8.215	0.509	0.852	8.751	0.522	0.358
Fat Pad Retro	5.205	0.499	0.227	6.071	0.463	0.676	5.697	0.524	0.977	5.693	0.484	0.972	5.934	0.497	0.838	5.862	0.524	0.903	6.130	0.497	0.640	6.350	0.510	0.435
Heart	1.035	0.022	0.783	1.038	0.020	1.000	1.017	0.023	0.993	1.051	0.021	0.993	1.007	0.022	0.917	1.051	0.023	0.994	1.003	0.022	0.839	1.044	0.022	1.000
Liver	10.429	0.303	0.291	9.989	0.281	0.819	10.139	0.318	0.980	9.888	0.294	0.665	10.314	0.302	1.000	10.195	0.318	0.994	10.566	0.302	1.000	10.454	0.309	1.000
Mammary Gl	3.656	0.275	<b>0.012</b>	3.944	0.255	0.956	3.750	0.289	1.000	3.625	0.267	1.000	3.894	0.274	0.987	3.624	0.289	1.000	4.198	0.274	0.580	4.485	0.281	0.175
Ovary	0.095	0.008	0.113	0.087	0.008	0.979	0.090	0.009	0.999	0.090	0.008	0.999	0.092	0.008	1.000	0.093	0.009	1.000	0.096	0.008	1.000	0.105	0.008	0.918
Pancreas	0.916	0.071	0.444	0.732	0.065	0.253	0.745	0.074	0.394	0.749	0.068	0.369	0.800	0.070	0.753	0.806	0.074	0.807	0.681	0.070	0.096	0.746	0.072	0.381
Uterus	0.444	0.023	<b>0.012</b>	0.405	0.022	0.725	0.412	0.025	0.884	0.427	0.023	0.994	0.443	0.023	1.000	0.412	0.025	0.886	0.380	0.023	0.242	0.364	0.024	0.092

Table 14. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females (Brain Wt Covariate)

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.028	0.007	<b>0.011</b>	0.028	0.008	<b>0.018</b>	0.027	0.007	<b>0.010</b>	0.036	0.008	0.084	0.036	0.007	<b>0.047</b>
Fat Pad Ov/Pm	6.906	0.521	0.638	4.655	0.572	<b>0.001</b>	5.611	0.508	<b>0.019</b>	4.179	0.532	<b>0.000</b>	7.868	0.508	0.601
Fat Pad Retro	5.564	0.509	0.832	4.654	0.559	0.690	5.738	0.496	0.667	5.974	0.519	0.452	6.268	0.497	0.133
Heart	1.015	0.022	0.751	0.956	0.025	<b>0.037</b>	1.137	0.022	<b>0.002</b>	1.207	0.023	<b>0.000</b>	1.007	0.022	0.379
Liver	10.459	0.309	0.997	10.135	0.339	0.748	12.140	0.301	<b>0.000</b>	14.087	0.315	<b>0.000</b>	10.217	0.302	0.621
Mammary Gl	3.687	0.281	0.995	2.903	0.308	0.132	3.078	0.274	0.237	3.577	0.286	0.971	4.076	0.274	0.281
Ovary	0.091	0.008	0.942	0.074	0.009	0.179	0.095	0.008	1.000	0.055	0.010	<b>0.003</b>	0.090	0.008	0.713
Pancreas	0.830	0.072	0.601	0.882	0.079	0.929	0.821	0.070	0.529	1.031	0.073	0.417	0.746	0.070	0.088
Uterus	0.390	0.024	0.183	0.426	0.026	0.834	0.411	0.023	0.502	0.345	0.024	<b>0.006</b>	0.408	0.023	0.279

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 15. Least Square Means Treatment Percent of Vehicle for Female Organ Weight (Brain Wt Covariate)

Analysis	Organ	Treatment										Naive Control
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	
Brain Weight Covariate	Bld Ves Aorta	75.9	73.9	75.5	72.4	45.1	67.0	71.3	48.9	49.0	48.7	63.3
	Fat Pad Ov/Pm	91.7	101.6	92.4	106.4	106.1	109.7	116.8	92.2	62.1	74.9	55.8
	Fat Pad Retro	116.6	109.5	109.4	114.0	112.6	117.8	122.0	106.9	89.4	110.3	114.8
	Heart	100.3	98.3	101.6	97.4	101.6	96.9	100.9	98.1	92.4	109.9	116.6
	Liver	95.8	97.2	94.8	98.9	97.8	101.3	100.2	100.3	97.2	116.4	135.1
	Mammary Gl	107.9	102.6	99.2	106.5	99.1	114.8	122.7	100.8	79.4	84.2	97.8
	Ovary	92.0	94.8	95.2	96.7	98.3	101.2	111.0	96.4	78.1	99.8	57.8
	Pancreas	79.9	81.4	81.7	87.3	87.9	74.3	81.4	90.6	96.3	89.6	112.5
	Uterus	91.2	92.7	96.1	99.8	92.8	85.6	82.0	87.7	96.0	92.5	77.7

Table 16. Unadjusted P-values for Female Organ Weight (Brain Wt Covariate)

Analysis	Organ	Treatment										Naïve Control
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	
Brain Weight Covariate	Bld Ves Aorta	0.174	0.164	0.171	0.129	<b>0.003</b>	0.069	0.120	<b>0.006</b>	0.010	0.005	0.046
	Fat Pad Ov/Pm	0.381	0.875	0.425	0.508	0.538	0.314	0.086	0.424	<b>0.000</b>	0.010	0.000
	Fat Pad Retro	0.205	0.498	0.483	0.302	0.363	0.189	0.110	0.614	0.470	0.449	0.281
	Heart	0.906	0.584	0.585	0.379	0.597	0.303	0.773	0.527	<b>0.020</b>	0.001	0.000
	Liver	0.288	0.511	0.200	0.788	0.593	0.749	0.956	0.946	0.524	<b>0.000</b>	0.000
	Mammary Gl	0.443	0.813	0.936	0.541	0.937	0.163	<b>0.037</b>	0.938	0.074	0.138	0.841
	Ovary	0.505	0.683	0.696	0.792	0.894	0.922	0.382	0.774	0.102	0.987	<b>0.002</b>
	Pancreas	0.056	0.097	0.089	0.246	0.279	<b>0.019</b>	0.093	0.394	0.751	0.338	0.257
	Uterus	0.230	0.343	0.597	0.981	0.344	0.053	<b>0.018</b>	0.105	0.616	0.317	<b>0.003</b>

Table 17. ANOCOVA for Females (Receiving Wt Covariate)					
Organ	Effect	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	Group	12	240	1.595	0.094
Bld Ves Aorta	Receiving Wt	1	240	3.023	0.083
Brain	Group	12	240	1.839	<b>0.043</b>
Brain	Receiving Wt	1	240	14.824	<b>0.000</b>
Fat Pad Ov/Pm	Group	12	240	19.667	<b>0.000</b>
Fat Pad Ov/Pm	Receiving Wt	1	240	201.897	<b>0.000</b>
Fat Pad Retro	Group	12	241	3.337	<b>0.000</b>
Fat Pad Retro	Receiving Wt	1	241	244.289	<b>0.000</b>
Heart	Group	12	241	4.614	<b>0.000</b>
Heart	Receiving Wt	1	241	196.307	<b>0.000</b>
Liver	Group	12	241	15.113	<b>0.000</b>
Liver	Receiving Wt	1	241	507.687	<b>0.000</b>
Mammary Gl	Group	12	241	5.910	<b>0.000</b>
Mammary Gl	Receiving Wt	1	241	167.302	<b>0.000</b>
Ovary	Group	12	237	2.047	<b>0.021</b>
Ovary	Receiving Wt	1	237	4.840	<b>0.029</b>
Pancreas	Group	12	241	1.478	0.133
Pancreas	Receiving Wt	1	241	10.335	<b>0.001</b>
Uterus	Group	12	240	1.585	0.097
Uterus	Receiving Wt	<u>1</u>	<u>240</u>	<u>2.471</u>	<u>0.117</u>

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 18. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females (Receiving Wt Covariate)

Organ	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.058	0.007	0.511	0.043	0.007	0.503	0.042	0.008	0.461	0.045	0.007	0.628	0.041	0.007	0.385	0.026	0.007	<b>0.011</b>	0.039	0.007	0.255	0.039	0.007	0.313
Brain	1.894	0.018	0.344	1.859	0.017	0.553	1.846	0.019	0.297	1.879	0.018	0.988	1.853	0.018	0.425	1.881	0.019	0.995	1.879	0.018	0.990	1.846	0.019	0.288
Fat Pad Ov/Pm	7.560	0.379	<b>0.018</b>	7.071	0.362	0.893	7.902	0.400	0.986	7.582	0.373	1.000	8.185	0.380	0.753	8.083	0.389	0.879	8.181	0.379	0.758	8.636	0.389	0.224
Fat Pad Retro	5.337	0.351	0.544	6.228	0.328	0.285	5.966	0.371	0.704	6.385	0.346	0.166	6.136	0.352	0.431	5.861	0.361	0.834	6.131	0.351	0.438	6.212	0.361	0.349
Heart	1.043	0.016	0.511	1.044	0.015	1.000	1.027	0.017	0.976	1.081	0.016	0.398	1.015	0.016	0.714	1.048	0.017	1.000	1.005	0.016	0.393	1.037	0.017	1.000
Liver	10.532	0.172	0.768	10.098	0.160	0.287	10.323	0.181	0.933	10.378	0.169	0.983	10.453	0.172	1.000	10.106	0.176	0.354	10.572	0.172	1.000	10.352	0.176	0.965
Mammary Gl	3.736	0.211	<b>0.019</b>	4.020	0.197	0.867	3.876	0.223	0.998	3.973	0.208	0.946	3.990	0.212	0.930	3.626	0.217	0.999	4.206	0.211	0.456	4.410	0.217	0.134
Ovary	0.096	0.008	0.154	0.087	0.008	0.963	0.090	0.009	0.997	0.093	0.008	1.000	0.092	0.008	1.000	0.092	0.008	1.000	0.096	0.008	1.000	0.104	0.008	0.967
Pancreas	0.943	0.070	0.275	0.735	0.065	0.150	0.744	0.074	0.232	0.783	0.069	0.417	0.801	0.070	0.552	0.803	0.072	0.582	0.693	0.070	0.066	0.731	0.072	0.171
Uterus	0.449	0.023	<b>0.007</b>	0.406	0.022	0.633	0.411	0.025	0.788	0.432	0.023	0.996	0.443	0.023	1.000	0.413	0.024	0.817	0.382	0.023	0.207	0.361	0.024	0.051

Table 18. Comparison of Least Square Mean Organ Weights Across Dose Groups for Females (Receiving Wt Covariate)

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.029	0.007	<b>0.009</b>	0.028	0.008	<b>0.011</b>	0.026	0.007	<b>0.003</b>	0.033	0.008	<b>0.040</b>	0.035	0.007	<b>0.028</b>
Brain	1.870	0.019	0.559	1.794	0.020	<b>0.001</b>	1.847	0.018	0.125	1.893	0.020	0.997	1.848	0.018	0.073
Fat Pad Ov/Pm	7.265	0.390	0.810	6.246	0.427	<b>0.041</b>	4.860	0.383	<b>0.000</b>	1.981	0.419	<b>0.000</b>	7.877	0.379	0.555
Fat Pad Retro	5.941	0.361	0.380	6.119	0.396	0.240	4.968	0.355	0.681	3.846	0.388	<b>0.009</b>	6.256	0.351	0.066
Heart	1.031	0.017	0.827	1.010	0.018	0.297	1.105	0.016	<b>0.016</b>	1.123	0.018	<b>0.002</b>	1.006	0.016	0.108
Liver	10.726	0.177	0.649	11.140	0.193	<b>0.036</b>	11.597	0.173	<b>0.000</b>	12.606	0.190	<b>0.000</b>	10.205	0.172	0.178
Mammary Gl	3.876	0.217	0.857	3.594	0.238	0.865	2.692	0.213	<b>0.001</b>	2.544	0.234	<b>0.000</b>	4.064	0.211	0.273
Ovary	0.093	0.008	0.947	0.077	0.009	0.215	0.092	0.008	0.919	0.049	0.010	<b>0.001</b>	0.090	0.008	0.617
Pancreas	0.849	0.072	0.542	0.883	0.079	0.795	0.786	0.071	0.202	0.983	0.077	0.897	0.736	0.070	<b>0.037</b>
Uterus	0.393	0.024	0.165	0.425	0.026	0.728	0.405	0.023	0.318	0.338	0.026	<b>0.003</b>	0.406	0.023	0.199

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 19. Least Square Means Treatment Percent of Vehicle for Organ Weight (Receiving Wt Covariate)

Analysis	Organ	Treatment										Naïve Control
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	
Receiving Weight Covariate	Bld Ves Aorta	74.2	71.8	76.8	70.5	44.0	66.4	68.0	49.3	47.7	44.1	57.2
	Brain	98.1	97.4	99.2	97.8	99.3	99.2	97.5	98.7	94.7	97.5	99.9
	Fat Pad Ov/Pm	93.5	104.5	100.3	108.3	106.9	108.2	114.2	96.1	82.6	64.3	26.2
	Fat Pad Retro	116.7	111.8	119.6	115.0	109.8	114.9	116.4	111.3	114.7	93.1	72.1
	Heart	100.1	98.4	103.6	97.3	100.5	96.3	99.4	98.8	96.8	105.9	107.7
	Liver	95.9	98.0	98.5	99.2	96.0	100.4	98.3	101.8	105.8	110.1	96.9
	Mammary Gl	107.6	103.7	106.4	106.8	97.0	112.6	118.0	103.8	96.2	72.1	68.1
	Ovary	91.4	94.2	96.7	96.0	96.2	100.4	108.9	96.7	80.2	95.9	51.3
	Pancreas	77.9	78.9	83.1	84.9	85.2	73.5	77.5	90.0	93.7	83.4	104.3
	Uterus	90.5	91.6	96.4	98.8	92.1	85.2	80.5	87.5	94.8	90.3	75.3

Table 20. Unadjusted P-values for Female Organ Weight (Receiving Wt Covariate )

Analysis	Organ	Treatment										Naïve Control
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	
Receiving Weight Covariate	Bld Ves Aorta	0.134	0.119	0.183	0.094	<b>0.002</b>	0.057	0.073	<b>0.005</b>	0.005	0.002	0.022
	Brain	0.152	0.069	0.545	0.107	0.607	0.559	0.066	0.361	0.000	0.070	0.953
	Fat Pad Ov/Pm	0.352	0.536	0.967	0.245	0.337	0.248	<b>0.049</b>	0.588	<b>0.022</b>	<b>0.000</b>	0.000
	Fat Pad Retro	0.065	0.219	<b>0.034</b>	0.109	0.299	0.111	0.084	0.231	0.140	0.461	0.005
	Heart	0.951	0.495	0.098	0.224	0.833	0.097	0.792	0.608	0.176	<b>0.009</b>	0.001
	Liver	0.066	0.402	0.521	0.745	0.085	0.870	0.463	0.433	<b>0.019</b>	0.000	0.000
	Mammary Gl	0.326	0.650	0.424	0.397	0.716	0.117	<b>0.027</b>	0.644	0.655	0.001	0.000
	Ovary	0.459	0.638	0.782	0.741	0.755	0.971	0.467	0.785	0.124	0.733	0.000
	Pancreas	<b>0.031</b>	0.051	0.104	0.152	0.164	<b>0.012</b>	<b>0.036</b>	0.347	0.572	0.116	0.699
	Uterus	0.185	0.267	0.617	0.867	0.287	<b>0.044</b>	0.009	0.094	0.504	0.190	<b>0.037</b>

Table 21. ANOVA for Male Organ Weights				
Organ	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	12	240	0.766	0.685
Brain	12	239	1.373	0.180
Epididymis	12	238	2.857	<b>0.001</b>
Fat Pad Epidid	12	238	5.391	<b>0.000</b>
Fat Pad Retro	12	239	2.989	<b>0.001</b>
Heart	12	240	1.655	0.078
Liver	12	240	4.176	<b>0.000</b>
Mammary GI (Inguinal)	12	240	3.716	<b>0.000</b>
Pancreas	12	239	1.134	0.333
Prostate	12	240	1.629	0.084
Testes	<u>12</u>	<u>238</u>	<u>6.076</u>	<b><u>0.000</u></b>

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 22. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males

Organ	Treatment																				
	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.049	0.009	0.195	0.053	0.008	1.000	0.056	0.009	0.996	0.058	0.008	0.967	0.049	0.009	1.000	0.043	0.009	0.995	0.042	0.009	0.985
Brain	2.010	0.022	0.134	2.021	0.020	0.999	1.992	0.023	0.992	2.016	0.022	1.000	1.970	0.022	0.640	1.990	0.022	0.981	2.036	0.022	0.926
Epididymis	1.029	0.028	0.263	1.076	0.026	0.701	1.054	0.029	0.984	1.016	0.027	1.000	1.023	0.028	1.000	1.049	0.028	0.995	1.047	0.028	0.997
Fat Pad Epidid	7.767	0.456	0.081	7.848	0.435	1.000	9.110	0.481	0.204	7.967	0.445	1.000	7.113	0.456	0.850	8.109	0.468	0.995	7.520	0.456	0.999
Fat Pad Retro	10.610	0.592	<b>0.041</b>	10.685	0.552	1.000	11.730	0.624	0.652	10.496	0.577	1.000	9.584	0.592	0.708	11.507	0.607	0.823	9.535	0.592	0.665
Heart	1.548	0.089	0.595	1.591	0.083	1.000	1.587	0.094	1.000	1.551	0.087	1.000	1.533	0.089	1.000	1.579	0.092	1.000	1.565	0.089	1.000
Liver	19.809	0.614	0.074	20.132	0.572	0.999	21.098	0.647	0.546	20.450	0.599	0.962	19.041	0.614	0.915	19.525	0.630	1.000	19.902	0.614	1.000
Mammary Gl	6.981	0.525	0.698	7.551	0.490	0.949	8.442	0.554	0.255	8.200	0.513	0.397	6.841	0.525	1.000	7.702	0.539	0.881	6.599	0.525	0.995
Pancreas	1.069	0.089	0.763	0.948	0.081	0.858	1.047	0.092	1.000	0.804	0.085	0.158	0.886	0.087	0.528	0.909	0.089	0.681	0.868	0.087	0.428
Prostate	0.875	0.043	0.340	0.855	0.040	1.000	0.814	0.045	0.863	0.780	0.042	0.445	0.856	0.043	1.000	0.821	0.044	0.918	0.808	0.043	0.787
Testes	3.290	0.076	0.634	3.389	0.073	0.888	3.388	0.080	0.913	3.219	0.074	0.979	3.274	0.076	1.000	3.277	0.078	1.000	3.214	0.076	0.972
																			3.368	0.078	0.970

Table 22. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naive Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.047	0.009	0.979	0.035	0.010	0.449	0.045	0.009	0.912	0.038	0.009	0.537	0.033	0.009	0.184
Brain	2.017	0.024	0.969	1.947	0.024	0.099	2.036	0.022	0.607	2.021	0.022	0.905	1.999	0.022	0.708
Epididymis	1.042	0.030	0.929	0.990	0.032	0.555	1.072	0.028	0.435	0.901	0.028	<b>0.002</b>	1.061	0.028	0.403
Fat Pad Epidid	6.803	0.495	0.261	6.039	0.527	<b>0.026</b>	7.225	0.456	0.610	5.316	0.456	<b>0.000</b>	8.658	0.456	0.168
Fat Pad Retro	9.571	0.642	0.386	8.241	0.661	<b>0.015</b>	10.374	0.592	0.943	10.777	0.592	0.971	11.150	0.607	0.525
Heart	1.433	0.097	0.591	1.391	0.100	0.399	1.905	0.089	<b>0.010</b>	1.565	0.089	0.987	1.594	0.089	0.715
Liver	17.782	0.666	<b>0.048</b>	17.069	0.686	<b>0.006</b>	20.490	0.614	0.648	21.828	0.614	<b>0.039</b>	20.014	0.614	0.813
Mammary Gl (Inguinal)	6.704	0.570	0.911	5.370	0.587	0.076	6.538	0.525	0.775	4.920	0.525	<b>0.011</b>	7.462	0.525	0.518
Pancreas	0.851	0.095	0.166	0.990	0.097	0.776	0.973	0.087	0.661	1.118	0.087	0.896	0.869	0.087	0.111
Prostate	0.782	0.046	0.243	0.759	0.048	0.126	0.855	0.043	0.926	0.685	0.043	<b>0.004</b>	0.840	0.043	0.557
Testes	3.329	0.083	0.915	3.140	0.088	0.334	3.274	0.076	0.984	2.655	0.076	<b>0.000</b>	3.202	0.076	0.417

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 23. Least Square Means Treatment Percent of Vehicle for Male Organ Weight

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Absolute Weight	Bld Ves Aorta	106.6	112.9	117.9	99.2	87.1	84.3	82.9	95.6	71.4	91.1	76.4
	Brain	100.5	99.1	100.3	98.0	99.0	101.3	101.2	100.3	96.9	101.3	100.6
	Epididymis	104.6	102.5	98.8	99.5	102.0	101.8	104.6	101.3	96.2	104.2	87.6
	Fat Pad Epidid	101.0	117.3	102.6	91.6	104.4	96.8	115.7	87.6	77.8	93.0	68.4
	Fat Pad Retro	100.7	110.5	98.9	90.3	108.5	89.9	116.0	90.2	77.7	97.8	101.6
	Heart	102.8	102.5	100.2	99.1	102.0	101.1	104.6	92.6	89.9	123.1	101.1
	Liver	101.6	106.5	103.2	96.1	98.6	100.5	107.9	89.8	86.2	103.4	110.2
	Mammary Gl	108.2	120.9	117.5	98.0	110.3	94.5	114.9	96.0	76.9	93.7	70.5
	Pancreas	88.7	97.9	75.2	82.8	85.0	81.2	92.9	79.6	92.6	91.0	104.5
	Prostate	97.7	93.0	89.2	97.9	93.9	92.3	101.2	89.4	86.7	97.7	78.3
	Testes	103.0	103.0	97.8	99.5	99.6	97.7	102.4	101.2	95.4	99.5	80.7
												97.3

Table 24. Unadjusted P-values for Male Organ Weight

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Absolute Weight	Bld Ves Aorta	0.783	0.616	0.467	0.975	0.609	0.530	0.498	0.864	0.279	0.723	0.344
	Brain	0.716	0.572	0.842	0.189	0.514	0.392	0.453	0.836	0.055	0.399	0.712
	Epididymis	0.218	0.527	0.749	0.888	0.600	0.640	0.236	0.751	0.357	0.269	0.001
	Fat Pad Epidid	0.898	<b>0.044</b>	0.754	0.312	0.601	0.702	0.063	0.153	<b>0.014</b>	0.402	<b>0.000</b>
	Fat Pad Retro	0.927	0.194	0.891	0.221	0.291	0.200	<b>0.046</b>	0.235	<b>0.008</b>	0.778	0.842
	Heart	0.726	0.764	0.983	0.908	0.809	0.889	0.582	0.386	0.244	<b>0.005</b>	0.893
	Liver	0.700	0.150	0.455	0.378	0.747	0.914	0.077	<b>0.026</b>	<b>0.003</b>	0.433	<b>0.021</b>
	Mammary Gl	0.429	0.057	0.098	0.851	0.339	0.607	0.167	0.721	<b>0.042</b>	0.552	<b>0.006</b>
	Pancreas	0.318	0.861	<b>0.033</b>	0.143	0.208	0.108	0.550	0.095	0.552	0.444	0.698
	Prostate	0.733	0.323	0.114	0.758	0.381	0.266	0.861	0.142	0.070	0.745	<b>0.002</b>
	Testes	0.347	0.375	0.505	0.884	0.904	0.481	0.477	0.728	0.200	0.881	<b>0.000</b>
												0.417

Table 25. ANOCOVA for Males (Brain Wt Covariate)					
Organ	Effect	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	Group	12	238	0.772	0.679
Bld Ves Aorta	Brain Wt	1	238	0.690	0.407
Epididymis	Group	12	236	2.892	<b>0.001</b>
Epididymis	Brain Wt	1	236	6.812	<b>0.010</b>
Fat Pad Epidid	Group	12	236	5.382	<b>0.000</b>
Fat Pad Epidid	Brain Wt	1	236	1.667	0.198
Fat Pad Retro	Group	12	237	2.849	<b>0.001</b>
Fat Pad Retro	Brain Wt	1	237	1.919	0.167
Heart	Group	12	238	1.456	0.142
Heart	Brain Wt	1	238	4.250	<b>0.040</b>
Liver	Group	12	238	3.753	<b>0.000</b>
Liver	Brain Wt	1	238	5.309	<b>0.022</b>
Mammary Gl	Group	12	238	3.665	<b>0.000</b>
Mammary Gl	Brain Wt	1	238	0.543	0.462
Pancreas	Group	12	237	1.139	0.329
Pancreas	Brain Wt	1	237	3.729	0.055
Prostate	Group	12	238	1.627	0.085
Prostate	Brain Wt	1	238	0.661	0.417
Testes	Group	12	236	6.154	<b>0.000</b>
Testes	Brain Wt	1	236	2.595	0.109

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 26. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males (Brain Wt Covariate)

Organ	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.049	0.009	0.228	0.053	0.008	1.000	0.055	0.009	0.997	0.059	0.009	0.964	0.048	0.009	1.000	0.043	0.009	0.993	0.042	0.009	0.990	0.042	0.009	0.984
Epididymis	1.028	0.027	0.368	1.075	0.026	0.695	1.057	0.029	0.964	1.008	0.027	0.995	1.031	0.027	1.000	1.053	0.028	0.983	1.041	0.027	1.000	1.070	0.028	0.813
Fat Pad Epidid	7.762	0.456	0.116	7.841	0.434	1.000	9.137	0.481	0.185	8.034	0.456	0.999	7.180	0.459	0.909	8.140	0.468	0.990	7.468	0.457	0.998	8.942	0.469	0.311
Fat Pad Retro	10.607	0.591	0.053	10.655	0.552	1.000	11.770	0.624	0.614	10.375	0.591	1.000	9.680	0.595	0.793	11.553	0.607	0.785	9.467	0.593	0.608	12.249	0.608	0.243
Heart	1.547	0.089	0.745	1.584	0.083	1.000	1.595	0.094	0.999	1.549	0.089	1.000	1.554	0.090	1.000	1.589	0.091	1.000	1.550	0.089	1.000	1.605	0.092	0.998
Liver	19.800	0.610	0.114	20.078	0.569	1.000	21.163	0.643	0.479	20.379	0.610	0.978	19.202	0.614	0.975	19.601	0.626	1.000	19.783	0.612	1.000	21.264	0.627	0.388
Mammary Gl	6.979	0.527	0.760	7.535	0.492	0.955	8.460	0.556	0.245	8.212	0.527	0.401	6.885	0.530	1.000	7.723	0.541	0.866	6.566	0.529	0.993	7.994	0.542	0.622
Pancreas	1.064	0.089	0.900	0.942	0.081	0.852	1.055	0.092	1.000	0.799	0.087	0.165	0.905	0.087	0.679	0.919	0.089	0.764	0.854	0.087	0.381	0.981	0.089	0.981
Prostate	0.875	0.043	0.371	0.854	0.040	0.999	0.815	0.045	0.881	0.773	0.043	0.389	0.860	0.043	1.000	0.823	0.044	0.932	0.805	0.043	0.759	0.883	0.044	1.000
Testes	3.289	0.076	0.736	3.388	0.073	0.889	3.394	0.080	0.885	3.203	0.076	0.948	3.288	0.077	1.000	3.283	0.078	1.000	3.203	0.076	0.948	3.358	0.078	0.984

Table 26. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males (Brain Wt Covariate)

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naïve Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.047	0.009	0.981	0.034	0.010	0.394	0.046	0.009	0.933	0.038	0.009	0.553	0.033	0.009	0.179
Epididymis	1.040	0.030	0.942	1.002	0.032	0.756	1.066	0.027	0.519	0.898	0.027	0.002	1.063	0.027	0.363
Fat Pad Epidid	6.787	0.494	0.253	6.139	0.532	0.040	7.174	0.457	0.562	5.292	0.456	0.000	8.674	0.456	0.158
Fat Pad Retro	9.551	0.641	0.374	8.391	0.670	0.026	10.307	0.593	0.911	10.746	0.591	0.980	11.156	0.606	0.517
Heart	1.428	0.097	0.569	1.424	0.101	0.564	1.890	0.089	0.013	1.557	0.089	0.995	1.599	0.089	0.677
Liver	17.745	0.661	0.043	17.323	0.690	0.015	20.373	0.612	0.731	21.772	0.610	0.043	20.053	0.610	0.769
Mammary Gl	6.694	0.572	0.907	5.440	0.597	0.098	6.506	0.529	0.751	4.904	0.527	0.011	7.473	0.527	0.508
Pancreas	0.847	0.094	0.168	1.021	0.098	0.928	0.960	0.087	0.613	1.111	0.087	0.899	0.874	0.087	0.130
Prostate	0.781	0.046	0.239	0.765	0.048	0.160	0.852	0.043	0.906	0.684	0.043	0.004	0.840	0.043	0.571
Testes	3.326	0.083	0.925	3.161	0.089	0.443	3.263	0.076	0.959	2.649	0.076	0.000	3.205	0.076	0.439

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 27. Least Square Means Treatment Percent of Vehicle for Male Organ Weight (Brain Wt Covariate)

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Brain Weight Covariate	Bld Ves Aorta	107.1	112.1	118.5	97.5	86.2	85.5	83.9	95.8	68.6	92.3	76.9
	Epididymis	104.6	102.8	98.0	100.3	102.5	101.2	104.1	101.1	97.4	103.7	87.3
	Fat Pad Epidid	101.0	117.7	103.5	92.5	104.9	96.2	115.2	87.4	79.1	92.4	103.4
	Fat Pad Retro	100.5	111.0	97.8	91.3	108.9	89.3	115.5	90.0	79.1	97.2	105.2
	Heart	102.4	103.2	100.2	100.5	102.7	100.2	103.7	92.4	92.1	122.2	100.7
	Liver	101.4	106.9	102.9	97.0	99.0	99.9	107.4	89.6	87.5	102.9	101.3
	Mammary Gl	108.0	121.2	117.7	98.7	110.7	94.1	114.5	95.9	77.9	93.2	107.1
	Pancreas	88.6	99.2	75.1	85.1	86.4	80.3	92.2	79.6	96.0	90.2	104.5
	Prostate	97.6	93.2	88.4	98.3	94.1	92.0	100.9	89.3	87.4	97.4	78.2
	Testes	103.0	103.2	97.4	100.0	99.8	97.4	102.1	101.1	96.1	99.2	80.6

Table 28. Unadjusted P-values for Male Organ Weight (Brain Wt Covariate)

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Brain Weight Covariate	Bld Ves Aorta	0.769	0.639	0.460	0.919	0.586	0.562	0.525	0.873	0.241	0.758	0.356
	Epididymis	0.214	0.462	0.599	0.935	0.521	0.743	0.284	0.775	0.531	0.330	0.001
	Fat Pad Epidid	0.901	<b>0.039</b>	0.674	0.369	0.563	0.649	0.072	0.148	<b>0.021</b>	0.363	<b>0.000</b>
	Fat Pad Retro	0.953	0.177	0.782	0.270	0.265	0.175	0.054	0.227	<b>0.014</b>	0.721	0.868
	Heart	0.761	0.707	0.984	0.952	0.742	0.980	0.650	0.369	0.365	<b>0.007</b>	0.932
	Liver	0.739	0.125	0.502	0.490	0.820	0.985	0.095	<b>0.023</b>	<b>0.008</b>	0.508	0.023
	Mammary Gl	0.440	0.054	0.099	0.901	0.326	0.580	0.180	0.715	0.054	0.527	<b>0.006</b>
	Pancreas	0.314	0.945	<b>0.034</b>	0.207	0.252	0.093	0.512	0.096	0.750	0.404	0.703
	Prostate	0.720	0.339	0.096	0.812	0.401	0.249	0.893	0.139	0.091	0.712	<b>0.002</b>
	Testes	0.348	0.343	0.428	0.994	0.959	0.427	0.527	0.744	0.275	0.811	<b>0.000</b>

Table 29. ANOCOVA for Males (Receiving Wt Covariate)

Organ	Effect	NumDF	DenDF	FValue	ProbF
Bld Ves Aorta	Group	12	239	0.738	0.713
Bld Ves Aorta	Receiving Wt	1	239	1.365	0.244
Brain	Group	12	238	1.155	0.317
Brain	Receiving Wt	1	238	25.418	<b>0.000</b>
Epididymis	Group	12	237	2.950	<b>0.001</b>
Epididymis	Receiving Wt	1	237	48.433	<b>0.000</b>
Fat Pad Epidid	Group	12	237	5.632	<b>0.000</b>
Fat Pad Epidid	Receiving Wt	1	237	166.591	<b>0.000</b>
Fat Pad Retro	Group	12	238	1.294	0.223
Fat Pad Retro	Receiving Wt	1	238	152.369	<b>0.000</b>
Heart	Group	12	239	1.138	0.330
Heart	Receiving Wt	1	239	14.774	<b>0.000</b>
Liver	Group	12	239	3.259	<b>0.000</b>
Liver	Receiving Wt	1	239	340.154	<b>0.000</b>
Mammary GI	Group	12	239	3.322	<b>0.000</b>
Mammary GI	Receiving Wt	1	239	65.405	<b>0.000</b>
Pancreas	Group	12	238	1.091	0.368
Pancreas	Receiving Wt	1	238	0.214	0.644
Prostate	Group	12	239	1.424	0.155
Prostate	Receiving Wt	1	239	21.623	<b>0.000</b>
Testes	Group	12	237	6.200	<b>0.000</b>
Testes	Receiving Wt	1	237	15.057	<b>0.000</b>

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 30. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males (Receiving Wt Covariate)

Organ	Vehicle			BPA 2.5 ( $\mu\text{g/kg}$ )			BPA 8 ( $\mu\text{g/kg}$ )			BPA 25 ( $\mu\text{g/kg}$ )			BPA 80 ( $\mu\text{g/kg}$ )			BPA 260 ( $\mu\text{g/kg}$ )			BPA 840 ( $\mu\text{g/kg}$ )			BPA 2700 ( $\mu\text{g/kg}$ )		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.049	0.009	0.168	0.052	0.008	1.000	0.054	0.009	0.999	0.059	0.008	0.958	0.050	0.009	1.000	0.043	0.009	0.995	0.042	0.009	0.991	0.040	0.009	0.955
Brain	2.009	0.021	0.229	2.014	0.019	1.000	1.977	0.022	0.813	2.019	0.021	1.000	1.976	0.021	0.774	1.987	0.021	0.965	2.043	0.021	0.769	2.020	0.021	0.999
Epididymis	1.027	0.025	0.485	1.066	0.024	0.786	1.028	0.027	1.000	1.022	0.025	1.000	1.034	0.025	1.000	1.045	0.026	0.996	1.057	0.025	0.931	1.053	0.026	0.968
Fat Pad Epidid	7.726	0.350	0.194	7.594	0.334	1.000	8.435	0.373	0.589	8.107	0.342	0.953	7.389	0.351	0.977	8.006	0.359	0.992	7.786	0.351	1.000	8.412	0.362	0.606
Fat Pad Retro	10.555	0.463	0.089	10.306	0.433	0.999	10.874	0.493	0.997	10.670	0.452	1.000	9.929	0.464	0.881	11.373	0.475	0.703	9.867	0.464	0.829	11.580	0.479	0.478
Heart	1.545	0.087	0.792	1.569	0.081	1.000	1.537	0.093	1.000	1.561	0.085	1.000	1.553	0.087	1.000	1.571	0.089	1.000	1.585	0.087	1.000	1.576	0.090	1.000
Liver	19.738	0.395	0.155	19.648	0.369	1.000	20.007	0.421	0.997	20.670	0.386	0.379	19.480	0.396	0.998	19.354	0.406	0.977	20.325	0.396	0.828	20.439	0.409	0.702
Mammary Gl	6.944	0.466	0.874	7.300	0.436	0.992	7.877	0.497	0.602	8.314	0.455	0.176	7.068	0.467	1.000	7.613	0.479	0.857	6.817	0.467	1.000	7.541	0.482	0.913
Pancreas	1.068	0.090	0.788	0.946	0.082	0.853	1.041	0.093	1.000	0.805	0.085	0.168	0.888	0.088	0.556	0.908	0.090	0.686	0.870	0.087	0.453	0.988	0.090	0.985
Prostate	0.873	0.041	0.515	0.842	0.038	0.993	0.785	0.044	0.526	0.786	0.040	0.492	0.868	0.041	1.000	0.817	0.042	0.879	0.819	0.041	0.891	0.861	0.042	1.000
Testes	3.287	0.074	0.844	3.373	0.071	0.934	3.345	0.079	0.994	3.228	0.072	0.991	3.292	0.074	1.000	3.270	0.076	1.000	3.231	0.074	0.994	3.331	0.077	0.999

Table 30. Comparison of Least Square Mean Organ Weights Across Dose Groups for Males (Receiving Wt Covariate)

Organ	BPA 100,000 ( $\mu\text{g/kg}$ )			BPA 300,000 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 0.5 ( $\mu\text{g/kg}$ )			EE <sub>2</sub> 5.0 ( $\mu\text{g/kg}$ )			Naïve Control		
	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val	Mean	S.E.	P-val
Bld Ves Aorta	0.049	0.010	0.999	0.038	0.010	0.622	0.044	0.009	0.881	0.038	0.009	0.536	0.032	0.009	0.167
Brain	2.035	0.023	0.614	1.979	0.024	0.534	2.027	0.021	0.761	2.020	0.021	0.899	1.991	0.021	0.526
Epididymis	1.072	0.028	0.380	1.041	0.030	0.910	1.057	0.025	0.610	0.899	0.025	0.001	1.048	0.025	0.561
Fat Pad Epidid	7.589	0.385	0.950	7.364	0.417	0.731	6.843	0.351	0.136	5.268	0.350	0.000	8.310	0.351	0.240
Fat Pad Retro	10.559	0.508	1.000	9.972	0.536	0.623	9.889	0.465	0.493	10.713	0.463	0.958	10.675	0.477	0.857
Heart	1.491	0.096	0.883	1.492	0.101	0.895	1.877	0.087	0.014	1.561	0.087	0.987	1.568	0.087	0.848
Liver	19.041	0.434	0.388	19.275	0.458	0.663	19.871	0.397	0.959	21.746	0.395	0.001	19.448	0.396	0.605
Mammary Gl	7.356	0.512	0.777	6.511	0.540	0.769	6.218	0.468	0.439	4.877	0.466	0.004	7.169	0.468	0.734
Pancreas	0.858	0.096	0.195	1.003	0.101	0.848	0.970	0.088	0.651	1.117	0.087	0.892	0.866	0.088	0.109
Prostate	0.815	0.045	0.533	0.816	0.048	0.565	0.839	0.041	0.782	0.683	0.041	0.002	0.825	0.041	0.404
Testes	3.379	0.081	0.616	3.224	0.088	0.808	3.249	0.074	0.910	2.652	0.074	0.000	3.180	0.074	0.308

All p-values and % are relative to the control group, except p-values for the linear trend presented under the control group.

## Statistical Analysis of Frozen Tissue Study Arm Organ Weights

Table 31. Least Square Means Treatment Percent of Vehicle for Male Organ Weight (Receiving Wt Covariate)

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Receiving Weight Covariate	Bld Ves Aorta	105.5	110.0	118.8	100.7	86.8	85.7	80.4	99.3	77.7	89.6	76.3
	Brain	100.2	98.4	100.5	98.4	98.9	101.7	100.6	101.3	98.5	100.9	100.6
	Epididymis	103.8	100.1	99.5	100.7	101.8	102.9	102.6	104.4	101.4	102.9	87.5
	Fat Pad Epidid	98.3	109.2	104.9	95.6	103.6	100.8	108.9	98.2	95.3	88.6	68.2
	Fat Pad Retro	97.6	103.0	101.1	94.1	107.8	93.5	109.7	100.0	94.5	93.7	101.5
	Heart	101.6	99.5	101.0	100.6	101.7	102.6	102.0	96.5	96.6	121.5	101.1
	Liver	99.5	101.4	104.7	98.7	98.1	103.0	103.6	96.5	97.7	100.7	110.2
	Mammary Gl	105.1	113.4	119.7	101.8	109.6	98.2	108.6	105.9	93.8	89.5	70.2
	Pancreas	88.6	97.5	75.4	83.2	85.1	81.5	92.6	80.3	93.9	90.8	104.6
	Prostate	96.5	89.9	90.0	99.4	93.5	93.8	98.7	93.3	93.5	96.1	78.2
	Testes	102.6	101.8	98.2	100.1	99.5	98.3	101.3	102.8	98.1	98.8	80.7

Table 32. Unadjusted P-values for Male Organ Weight (Receiving Wt Covariate)

Analysis	Organ	Treatment										
		BPA 2.5 (µg/kg)	BPA 8 (µg/kg)	BPA 25 (µg/kg)	BPA 80 (µg/kg)	BPA 260 (µg/kg)	BPA 840 (µg/kg)	BPA 2700 (µg/kg)	BPA 100,000 (µg/kg)	BPA 300,000 (µg/kg)	EE <sub>2</sub> 0.5 (µg/kg)	EE <sub>2</sub> 5.0 (µg/kg)
Receiving Weight Covariate	Bld Ves Aorta	0.821	0.698	0.447	0.979	0.601	0.567	0.440	0.979	0.411	0.677	0.343
	Brain	0.863	0.283	0.734	0.258	0.464	0.255	0.710	0.405	0.342	0.537	0.702
	Epididymis	0.266	0.983	0.879	0.850	0.611	0.398	0.470	0.231	0.719	0.401	0.000
	Fat Pad Epidid	0.785	0.167	0.437	0.497	0.578	0.904	0.174	0.792	0.508	0.076	0.000
	Fat Pad Retro	0.695	0.637	0.860	0.340	0.219	0.295	0.125	0.996	0.412	0.311	0.809
	Heart	0.841	0.951	0.895	0.943	0.833	0.744	0.803	0.679	0.696	0.008	0.894
	Liver	0.869	0.641	0.093	0.645	0.498	0.295	0.218	0.237	0.445	0.812	0.000
	Mammary Gl	0.578	0.172	0.037	0.852	0.318	0.848	0.374	0.553	0.545	0.272	0.002
	Pancreas	0.315	0.834	0.035	0.153	0.210	0.116	0.532	0.112	0.633	0.436	0.692
	Prostate	0.585	0.142	0.130	0.927	0.338	0.349	0.842	0.341	0.366	0.558	0.001
	Testes	0.403	0.592	0.566	0.967	0.872	0.590	0.682	0.406	0.587	0.719	0.000