

**Supplemental Figure 1A: Body Mass**

<b>Analysis: 2-way ANOVA</b>	<b>% of total variation</b>	<b>F (DFn, DFd)</b>	<b>P value</b>	<b>Summary</b>
Interaction	2.891	F (1, 60) = 22.35	<0.0001	****
Age	34.6	F (1, 60) = 267.6	<0.0001	****
Sex	54.75	F (1, 60) = 423.4	<0.0001	****

<b>Posthoc: Tukey's multiple comparisons test</b>	<b>q</b>	<b>DF</b>	<b>Adjusted P value</b>	<b>Summary</b>
Adult:Male vs. Adult:Female	15.85	60	<0.0001	****
Adult:Male vs. Aged:Male	21.09	60	<0.0001	****
Adult:Male vs. Aged:Female	4.219	60	0.0209	*
Adult:Female vs. Aged:Male	36.94	60	<0.0001	****
Adult:Female vs. Aged:Female	11.63	60	<0.0001	****
Aged:Male vs. Aged:Female	25.3	60	<0.0001	****

**Supplemental Figure 1B: Fear Conditioning - Novel Context**

<b>Analysis: 3-way ANOVA</b>	<b>% of total variation</b>	<b>F (DFn, DFd)</b>	<b>P value</b>	<b>Summary</b>
Age	2.296	F (1, 53) = 1.430	0.2371	ns
Sex	1.092	F (1, 53) = 0.6803	0.4132	ns
Treatment	3.515	F (1, 53) = 2.189	0.1449	ns
Age x Sex	2.418	F (1, 53) = 1.506	0.2252	ns
Age x Treatment	1.929	F (1, 53) = 1.201	0.278	ns
Sex x Treatment	0.634	F (1, 53) = 0.3948	0.5325	ns
Age x Sex x Treatment	2.827	F (1, 53) = 1.761	0.1902	ns

**Supplemental Figure 1C: Fear Conditioning - Female Dose-Response**

<b>Analysis: 2-way ANOVA</b>	<b>% of total variation</b>	<b>F (DFn, DFd)</b>	<b>P value</b>	<b>Summary</b>
Interaction	0.4941	F (3, 52) = 0.09500	0.9625	ns
Age	0.6075	F (1, 52) = 0.3504	0.5564	ns
LPS	8.788	F (3, 52) = 1.689	0.1806	ns