

Supplement 3: S3\_Two\_Way\_Statistical\_Output. Bold indicates p<0.05.  $\eta^2$  values only presented for p<0.05.

Weight	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
BODY WEIGHT (g)	1.977	0.171		105.604	<b>0.000</b>	<b>0.796</b>
BRAIN WEIGHT (mg)	22.339	<b>0.000</b>	<b>0.365</b>	6.282	<b>0.018</b>	<b>0.155</b>
Rotarod	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
Day 1 Average	0.000	0.991		1.903	0.179	
Day 2 Average	0.000	0.984		0.976	0.332	
Day 3 Average	0.333	0.569		9.393	<b>0.005</b>	<b>0.258</b>
Open Field Analysis	Genotype			Sex		
	F [1,54]	p-value	$\eta^2$	F [1,54]	p-value	$\eta^2$
Total Ambulatory Distance	7.885	<b>0.007</b>	<b>0.127</b>	2.329	0.133	
% Distance Center	53.193	<b>0.000</b>	<b>0.496</b>	0.133	0.717	
% Time Center	6.991	<b>0.011</b>	<b>0.115</b>	0.017	0.898	
Total Vertical Counts	6.592	<b>0.013</b>	<b>0.109</b>	7.130	0.010	<b>0.117</b>
Elevated Zero Maze	Genotype			Sex		
	F [1,22]	p-value	$\eta^2$	F [1,22]	p-value	$\eta^2$
Distance (Total)	0.326	0.574		0.069	0.796	
% Distance Open	9.838	<b>0.005</b>	<b>0.309</b>	0.000	0.988	
% Time Open	1.027	0.322		0.001	0.979	
Gait	Genotype			Sex		
	F [1,53]	p-value	$\eta^2$	F [1,53]	p-value	$\eta^2$
Forepaw Stride (ms)	2.840	0.098		1.174	0.283	
Forepaw % Swing	7.183	<b>0.010</b>	<b>0.119</b>	0.743	0.393	
Forepaw Stride Length (mm)	1.862	0.178		1.978	0.165	
Forepaw Print Area	6.647	<b>0.013</b>	<b>0.111</b>	5.726	<b>0.020</b>	<b>0.098</b>
Hindpaw Stride (ms)	0.031	0.861		0.283	0.597	
Hindpaw % Swing	11.770	<b>0.001</b>	<b>0.182</b>	1.943	0.169	
Hindpaw Stride Length (mm)	5.476	<b>0.023</b>	<b>0.094</b>	0.384	0.538	
Hindpaw Print Area	4.269	<b>0.044</b>	<b>0.075</b>	0.013	0.909	
Front Track Width (mm)	0.041	0.840		1.217	0.275	
Rear Track Width (mm)	4.417	<b>0.040</b>	<b>0.077</b>	4.275	<b>0.044</b>	<b>0.075</b>
Overall Avg Run Speed (mm/s)	1.223	0.274		0.324	0.571	
Forepaw Homolateral Coupling	3.611	0.063		1.446	0.235	
Forepaw Homologous Coupling	0.487	0.488		2.418	0.126	
Forepaw Diagonal Coupling	1.601	0.211		0.590	0.446	
Hindpaw Homolateral Coupling	6.952	<b>0.011</b>	<b>0.116</b>	0.211	0.648	
Hindpaw Homologous Coupling	5.392	<b>0.024</b>	<b>0.092</b>	0.258	0.614	
Hindpaw Diagonal Coupling	0.547	0.463		0.088	0.768	
Forepaw Gait Angle	0.202	0.655		0.431	0.514	
Hindpaw Gait Angle	0.390	0.535		0.249	0.620	
Body Rotation (deg)	10.529	<b>0.002</b>	<b>0.166</b>	0.056	0.814	
Longitudinal Position (mm)	0.426	0.517		0.538	0.466	
Lateral Position (mm)	0.127	0.722		0.140	0.710	
Fear Conditioning	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
Pre-stim	13.365	<b>0.001</b>	<b>0.331</b>	1.621	0.214	
Context-Prestim	25.566	<b>0.000</b>	<b>0.486</b>	0.202	0.657	
Cue-Prestim	26.588	<b>0.000</b>	<b>0.496</b>	1.355	0.255	
Marble Burying	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
Marble (% burried)	4.782	<b>0.038</b>	<b>0.150</b>	0.402	0.531	
Tube test	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
Avg wins	7.105	<b>0.013</b>	<b>0.208</b>	2.150	0.154	
Nest Building	Genotype			Sex		
	F [1,27]	p-value	$\eta^2$	F [1,27]	p-value	$\eta^2$
Nest Score	6.5757	<b>0.0162</b>	<b>0.1958</b>	0.0073	0.9324	
% shredded	4.0349	0.0547		0.1244	0.7270	
3 Chamber	Genotype			Sex		
	F [1,24]	p-value	$\eta^2$	F [1,24]	p-value	$\eta^2$
Social Index Cup	4.071	0.055		0.836	0.370	
Social Index Chamber	4.684	<b>0.041</b>	<b>0.163</b>	0.182	0.674	
Novelty Index Cup	3.201	0.086		0.011	0.916	
Novelty Index Chamber	4.905	<b>0.037</b>	<b>0.170</b>	1.046	0.317	