Survival and Weights of Pups of First Parity Mice

Noura El Habbal

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Contents

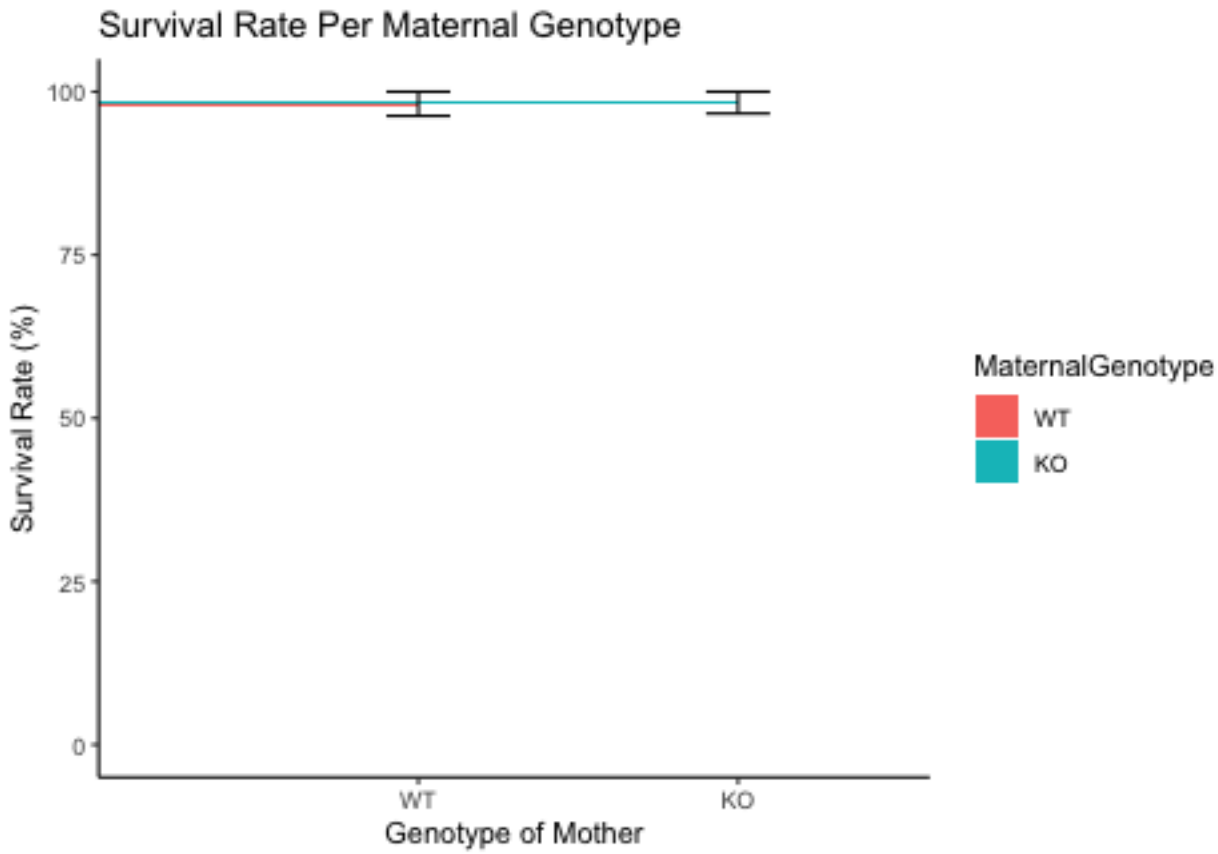
1 Raw Data

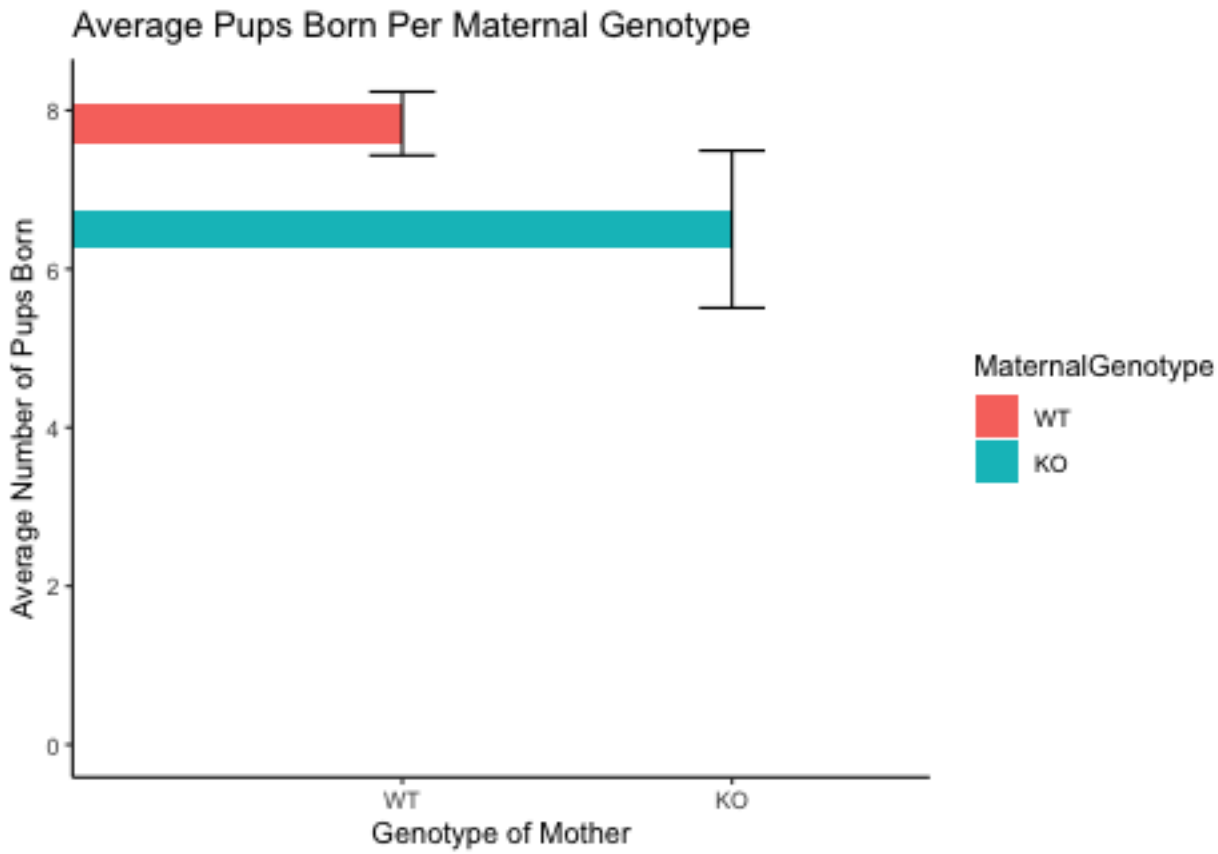
Table 1: Average Births and Survival Rates per Cage

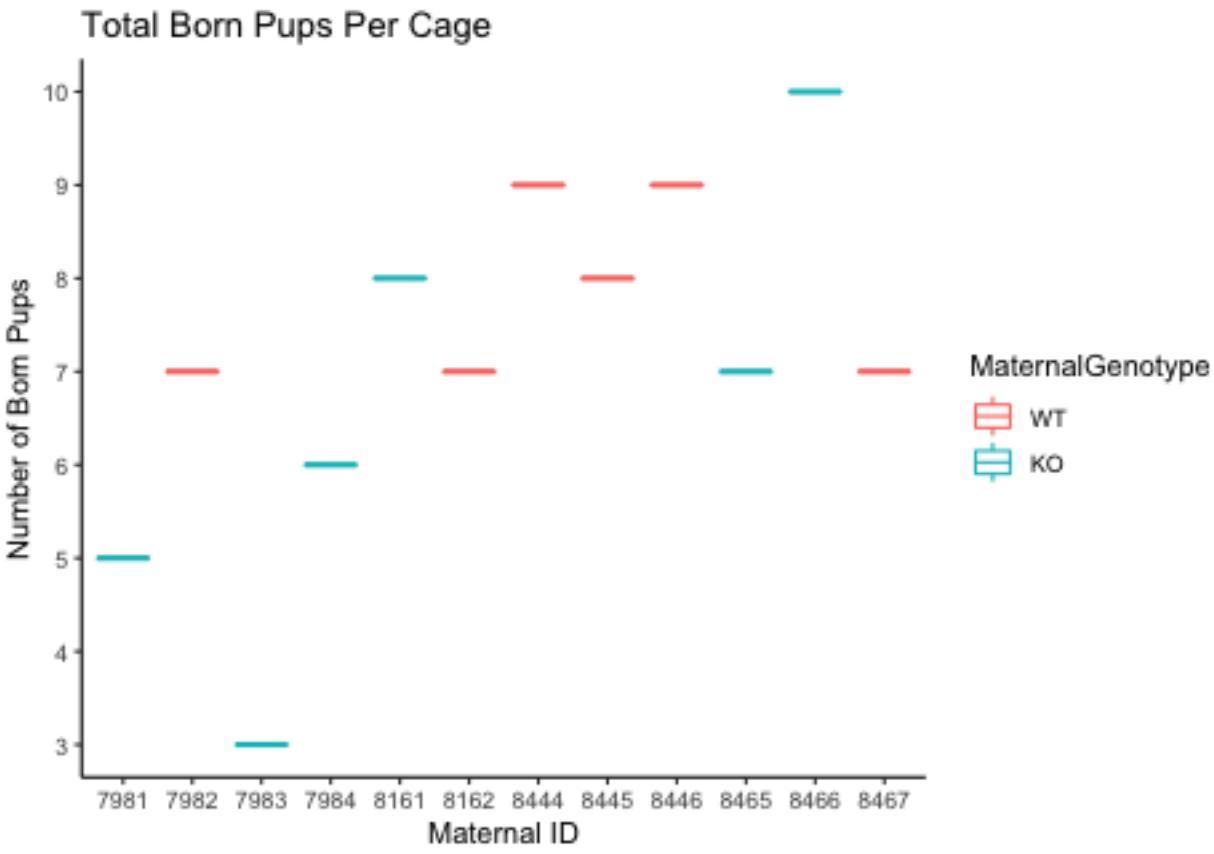
MaternalID	MaternalGenotype	BirthDate	Dead	na.rm	Total	is.na	Litter	Alive	alive.percent	survival.rat
7981	KO	6/8/19	0	TRUE	5	NA	1	5	100.0	1.00
7982	WT	6/20/19	0	TRUE	7	NA	1	7	100.0	1.00
7983	KO	6/7/19	0	TRUE	3	NA	1	3	100.0	1.00
7984	KO	6/9/19	0	TRUE	6	NA	1	6	100.0	1.00
8161	KO	6/6/19	0	TRUE	8	NA	1	8	100.0	1.00
8162	WT	6/5/19	0	TRUE	7	NA	1	7	100.0	1.00
8444	WT	7/5/19	1	TRUE	9	NA	1	8	88.9	0.88
8445	WT	7/6/19	0	TRUE	8	NA	1	8	100.0	1.00
8446	WT	7/8/19	0	TRUE	9	NA	1	9	100.0	1.00
8465	KO	7/8/19	0	TRUE	7	NA	1	7	100.0	1.00
8466	KO	7/3/19	1	TRUE	10	NA	1	9	90.0	0.90
8467	WT	7/6/19	0	TRUE	7	NA	1	7	100.0	1.00

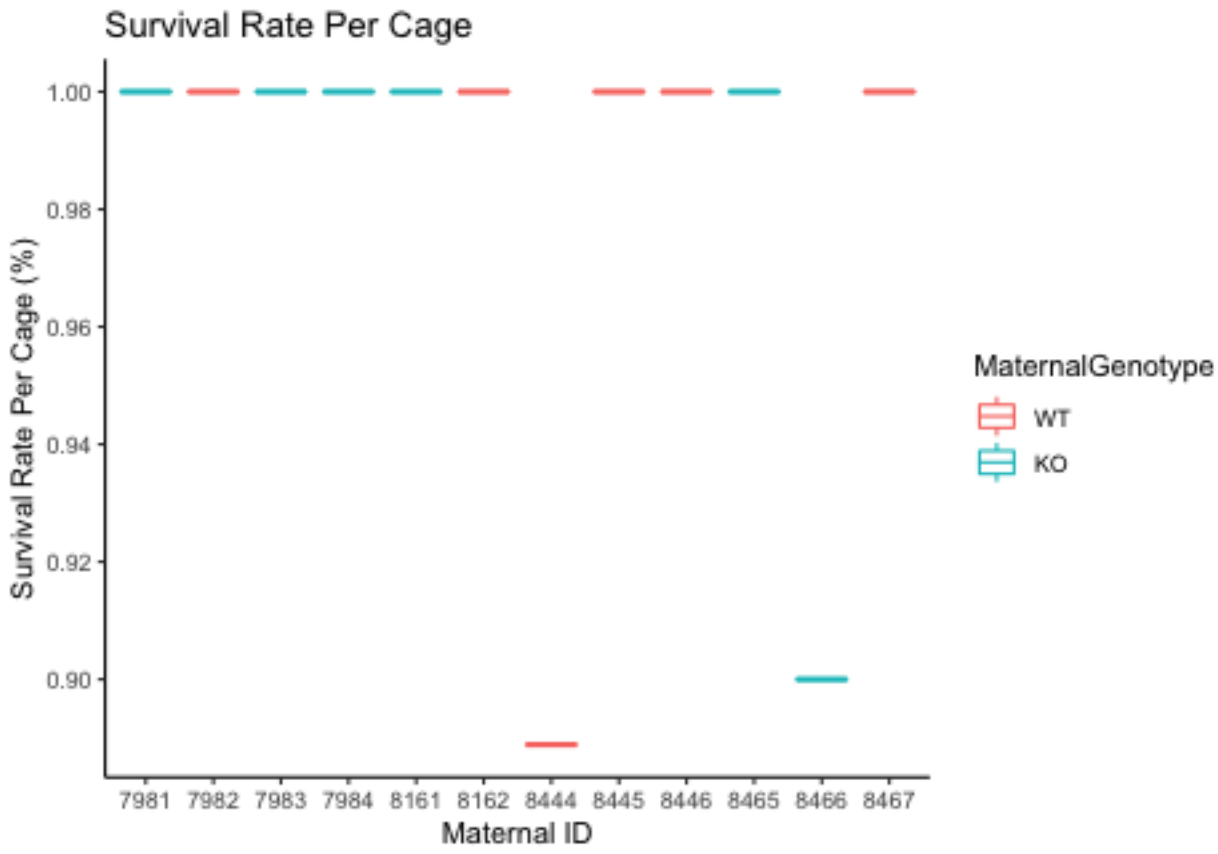
Table 2: Average Survival per Genotype

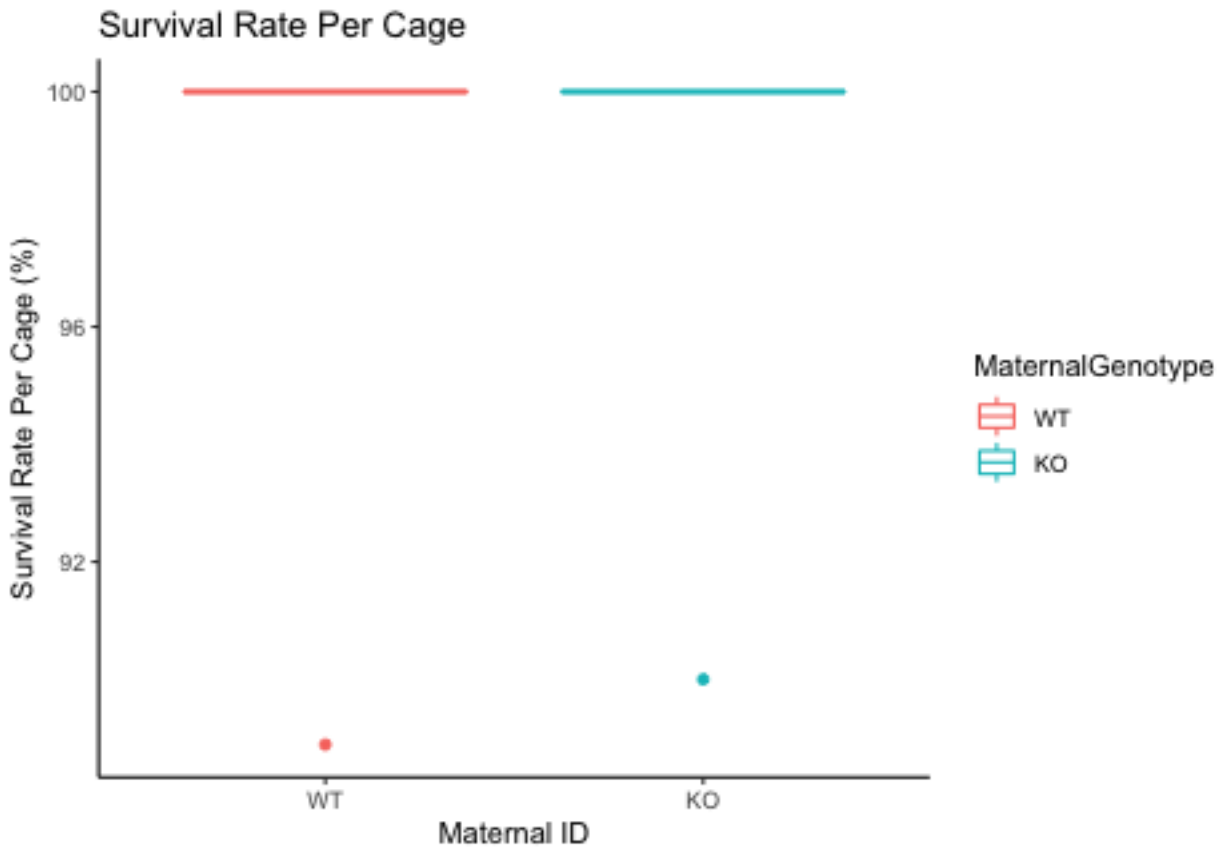
MaternalGenotype	Average.Survival	SE.Average.Survival	Number
WT	98.1	1.85	6
KO	98.3	1.67	6

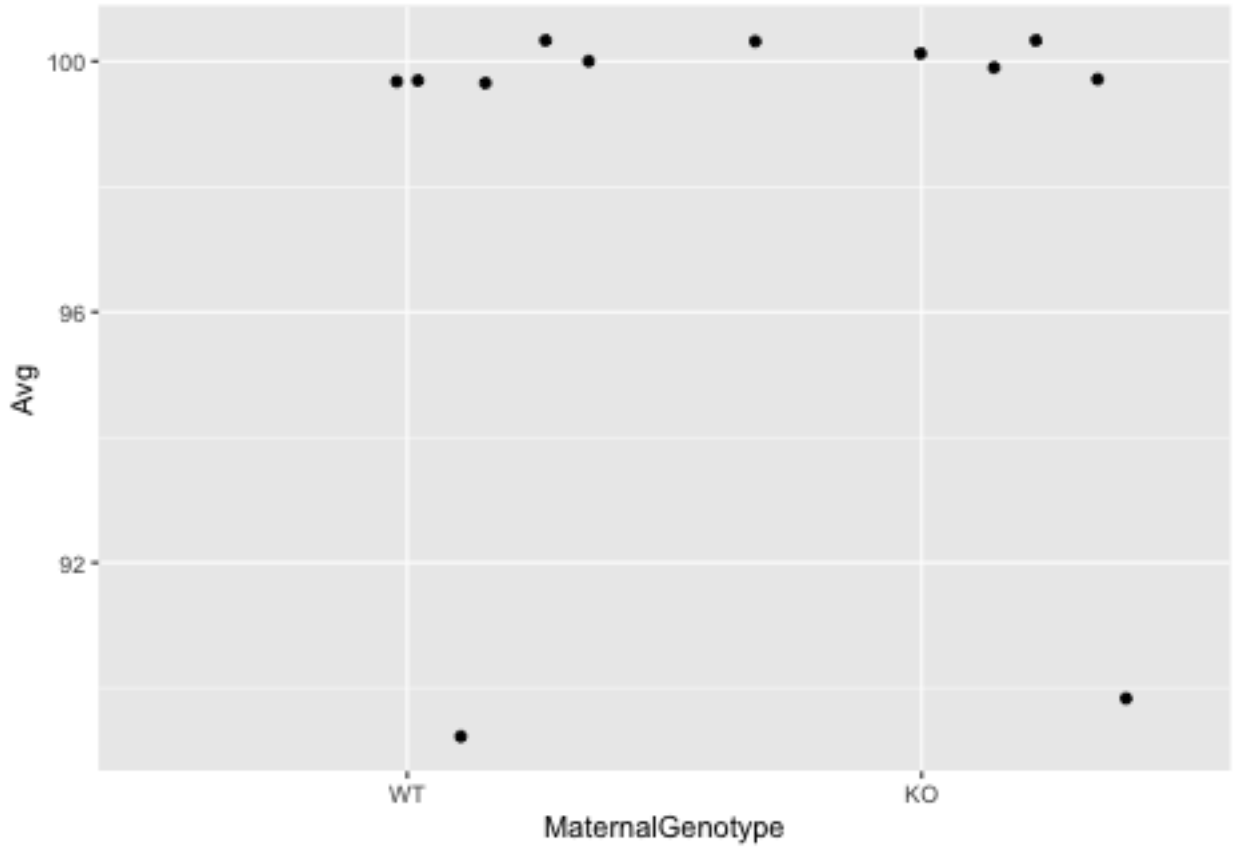

Survival Rate Per Maternal Genotype
100
75
50
25
0
Survival Rate (%)
WT
KO
Genotype of Mother
MaternalGenotype
WT
KO


Average Pups Born Per Maternal Genotype
Average Number of Pups Born
0
2
4
6
8
WT
KO
Genotype of Mother
MaternalGenotype
WT
KO


Total Born Pups Per Cage
Number of Born Pups
10
9
8
7
6
5
4
3
7981
7982
7983
7984
8161
8162
8444
8445
8446
8465
8466
8467
Maternal ID
MaternalGenotype
WT
KO


Survival Rate Per Cage
Survival Rate Per Cage (%)
1.00
0.98
0.96
0.94
0.92
0.90
7981
7982
7983
7984
8161
8162
8444
8445
8446
8465
8466
8467
Maternal ID
MaternalGenotype
WT
KO


Survival Rate Per Cage
100
96
92
Survival Rate Per Cage (%)
WT
KO
Maternal ID
MaternalGenotype
WT
KO



MaternalID	MaternalGenotype	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
7981	KO	1.44	0.016	5	5	NA
7982	WT	1.33	0.026	7	7	NA
7983	KO	1.47	0.058	3	3	NA
7984	KO	1.35	0.021	6	6	NA
8161	KO	1.23	0.025	8	8	NA
8162	WT	1.29	0.045	7	7	NA
8444	WT	1.32	0.017	8	8	NA
8445	WT	1.26	0.021	8	8	NA
8446	WT	1.24	0.024	9	9	NA
8465	KO	1.38	0.024	7	7	NA
8466	KO	1.31	0.030	9	9	NA
8467	WT	1.28	0.033	7	7	NA

MaternalGenotype	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
WT	1.29	0.004	1	1	NA
KO	1.36	0.006	1	1	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.018	0.018	3.97	0.074
Residuals	10	0.045	0.005	NA	NA

MaternalID	MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
7981	KO	Female	4.20	0.000	2	2	NA
7981	KO	Male	4.25	0.150	2	2	NA
7983	KO	Female	4.70	0.100	2	2	NA
7983	KO	Male	4.30	NA	1	1	NA
7984	KO	Female	4.40	NA	1	1	NA
7984	KO	Male	4.10	0.058	3	3	NA
8161	KO	Female	3.95	0.050	2	2	NA
8161	KO	Male	4.15	0.050	2	2	NA
8162	WT	Female	3.65	0.050	2	2	NA
8162	WT	Male	3.90	0.100	2	2	NA
8444	WT	Female	4.10	0.000	2	2	NA
8444	WT	Male	4.10	0.000	2	2	NA
8445	WT	Female	4.00	0.100	2	2	NA
8445	WT	Male	4.05	0.050	2	2	NA
8446	WT	Female	4.35	0.150	2	2	NA
8446	WT	Male	4.25	0.150	2	2	NA
8465	KO	Female	4.35	0.250	2	2	NA
8465	KO	Male	4.15	0.150	2	2	NA
8466	KO	Female	4.50	0.000	2	2	NA
8466	KO	Male	4.65	0.050	2	2	NA
8467	WT	Female	3.77	0.131	4	4	NA

MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
WT	Female	3.98	0.027	1	1	NA
WT	Male	4.08	0.032	1	1	NA
KO	Female	4.35	0.042	1	1	NA
KO	Male	4.27	0.022	1	1	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.429	0.429	8.208	0.010
Sex	1	0.000	0.000	0.003	0.958
Residuals	18	0.941	0.052	NA	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.429	0.429	8.122	0.011
Sex	1	0.000	0.000	0.003	0.958
MaternalGenotype:Sex	1	0.043	0.043	0.812	0.380
Residuals	17	0.898	0.053	NA	NA

MaternalID	MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
7981	KO	Female	7.95	0.050	2	2	NA
7981	KO	Male	8.05	0.050	2	2	NA
7983	KO	Female	9.05	0.150	2	2	NA
7983	KO	Male	7.20	NA	1	1	NA
7984	KO	Female	6.20	NA	1	1	NA

MaternalID	MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
7984	KO	Male	7.77	0.088	3	3	NA
8161	KO	Female	7.25	0.150	2	2	NA
8161	KO	Male	7.70	0.100	2	2	NA
8162	WT	Female	7.15	0.150	2	2	NA
8162	WT	Male	7.20	0.100	2	2	NA
8444	WT	Female	8.05	0.150	2	2	NA
8444	WT	Male	7.95	0.250	2	2	NA
8445	WT	Female	7.95	0.050	2	2	NA
8445	WT	Male	8.00	0.500	2	2	NA
8446	WT	Female	8.15	0.250	2	2	NA
8446	WT	Male	8.05	0.450	2	2	NA
8465	KO	Female	7.70	0.400	2	2	NA
8465	KO	Male	7.80	0.000	2	2	NA
8466	KO	Female	8.55	0.050	2	2	NA
8466	KO	Male	8.55	0.150	2	2	NA
8467	WT	Female	7.25	0.210	4	4	NA

MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
WT	Female	7.71	0.034	1	1	NA
WT	Male	7.80	0.092	1	1	NA
KO	Female	7.78	0.058	1	1	NA
KO	Male	7.84	0.023	1	1	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.021	0.021	0.051	0.824
Sex	1	0.028	0.028	0.069	0.796
Residuals	18	7.381	0.410	NA	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.021	0.021	0.048	0.829
Sex	1	0.028	0.028	0.065	0.802
MaternalGenotype:Sex	1	0.001	0.001	0.002	0.961
Residuals	17	7.380	0.434	NA	NA

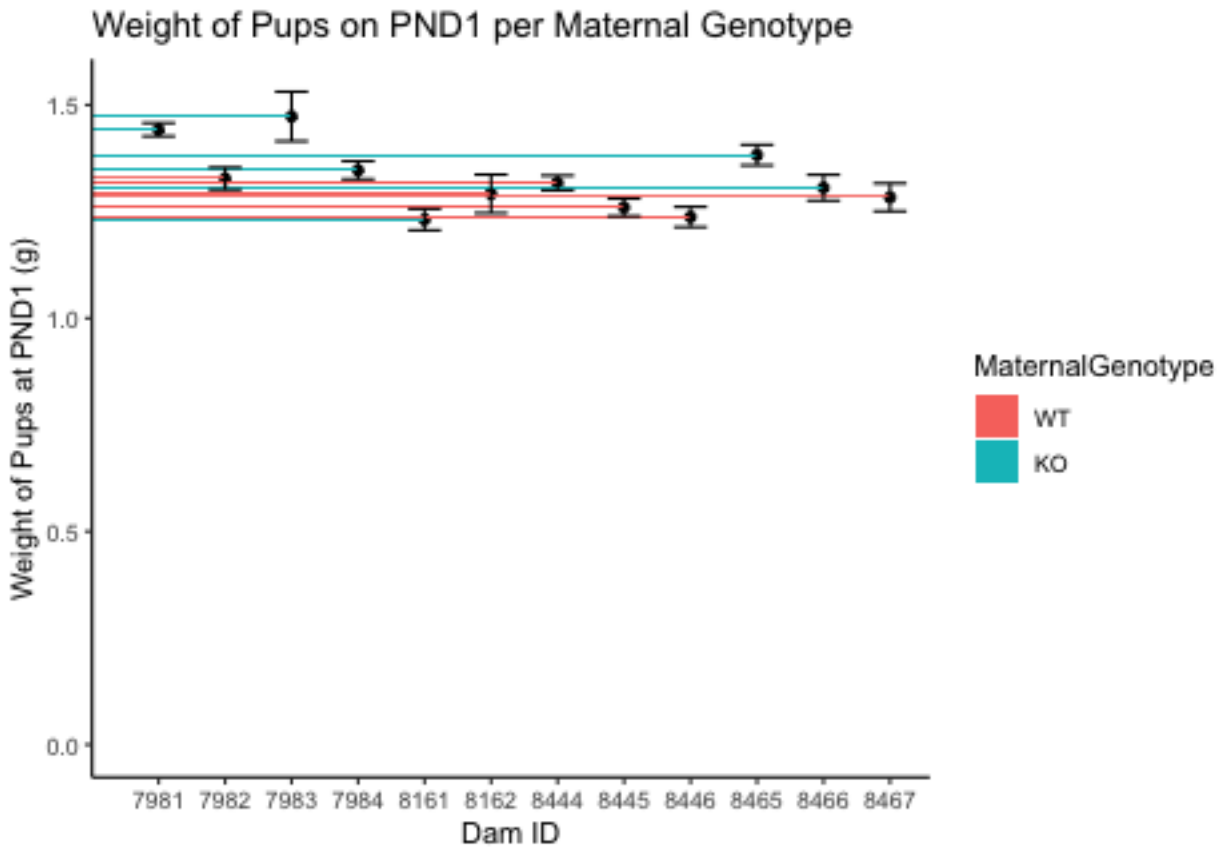
MaternalID	MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
7981	KO	Female	8.60	0.100	2	2	NA
7981	KO	Male	8.85	0.050	2	2	NA
7983	KO	Female	9.50	0.500	2	2	NA
7983	KO	Male	7.80	NA	1	1	NA
7984	KO	Female	6.90	NA	1	1	NA
7984	KO	Male	8.10	0.058	3	3	NA
8161	KO	Female	7.65	0.150	2	2	NA
8161	KO	Male	8.15	0.050	2	2	NA
8162	WT	Female	7.65	0.150	2	2	NA
8162	WT	Male	7.70	0.100	2	2	NA

MaternalID	MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
8444	WT	Female	8.55	0.050	2	2	NA
8444	WT	Male	8.60	0.200	2	2	NA
8445	WT	Female	8.45	0.050	2	2	NA
8445	WT	Male	8.60	0.500	2	2	NA
8446	WT	Female	8.70	0.100	2	2	NA
8446	WT	Male	8.80	0.500	2	2	NA
8465	KO	Female	8.25	0.350	2	2	NA
8465	KO	Male	8.45	0.050	2	2	NA
8466	KO	Female	9.00	0.100	2	2	NA
8466	KO	Male	9.00	0.000	2	2	NA
8467	WT	Female	7.60	0.248	4	4	NA

MaternalGenotype	Sex	Average.Weight	SE.Average.Weight	Average.size	Total	is.na
WT	Female	8.19	0.037	1	1	NA
WT	Male	8.43	0.103	1	1	NA
KO	Female	8.32	0.073	1	1	NA
KO	Male	8.39	0.010	1	1	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.018	0.018	0.045	0.834
Sex	1	0.107	0.107	0.262	0.615
Residuals	18	7.338	0.408	NA	NA

term	df	sumsq	meansq	statistic	p.value
MaternalGenotype	1	0.018	0.018	0.043	0.839
Sex	1	0.107	0.107	0.249	0.624
MaternalGenotype:Sex	1	0.033	0.033	0.076	0.786
Residuals	17	7.305	0.430	NA	NA


Weight of Pups on PND1 per Maternal Genotype
Weight of Pups at PND1 (g)
1.5
1.0
0.5
0.0
7981
7982
7983
7984
8161
8162
8444
8445
8446
8465
8466
8467
Dam ID
MaternalGenotype
WT
KO

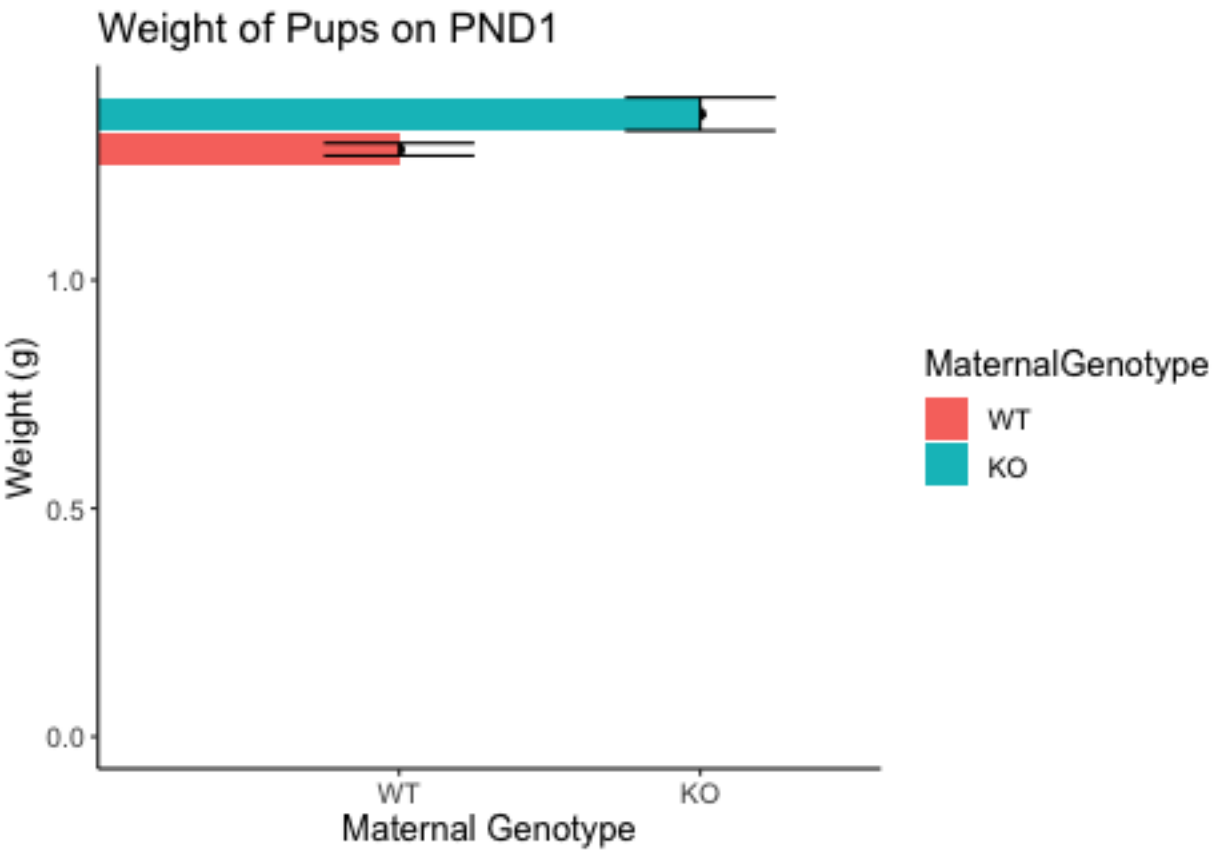
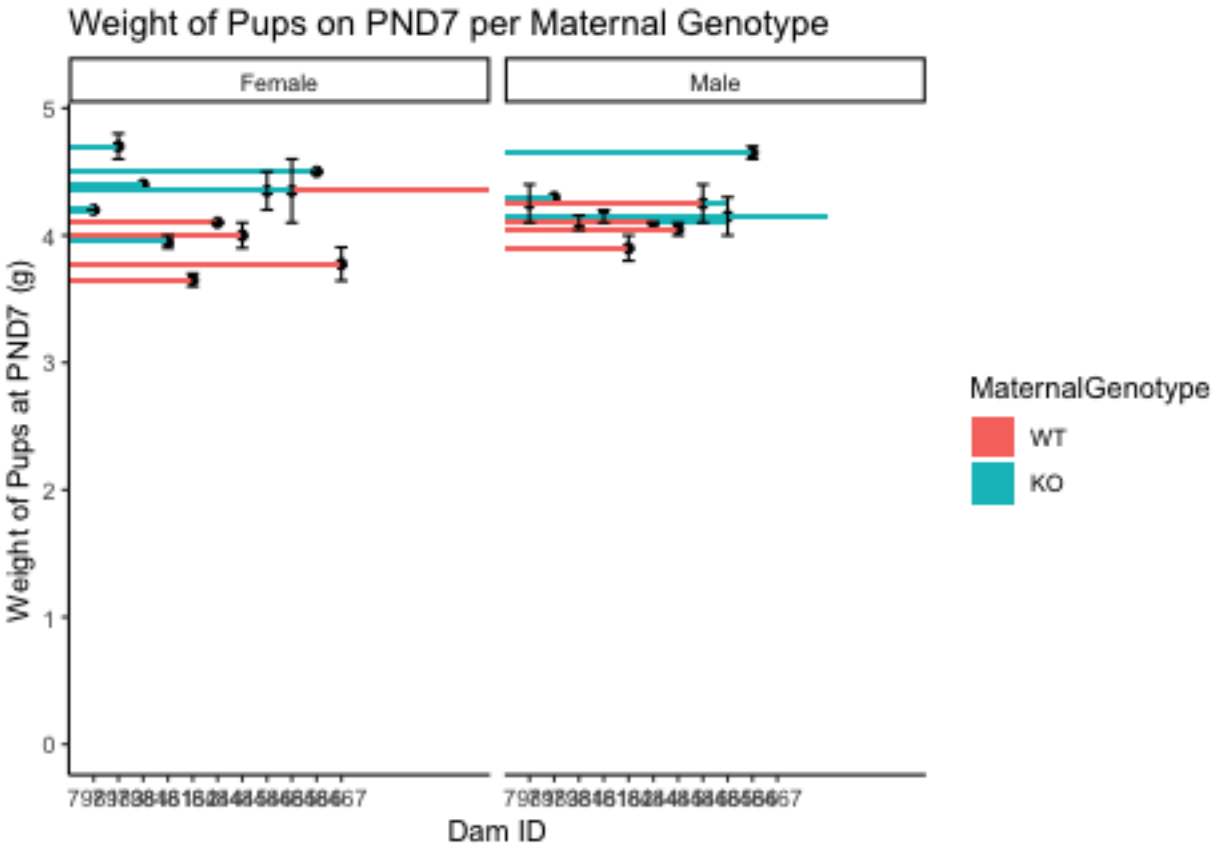


Table 18: Welch's t-test for effects of maternal genotype on PND1 weights

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.078	1.29	1.36	-1.99	0.09	6.43	-0.171	0.016	Welch Two Sample t-test	two.s


Weight of Pups on PND7 per Maternal Genotype
Female
Male
Weight of Pups at PND7 (g)
0
1
2
3
4
5
Dam ID
MaternalGenotype
WT
KO

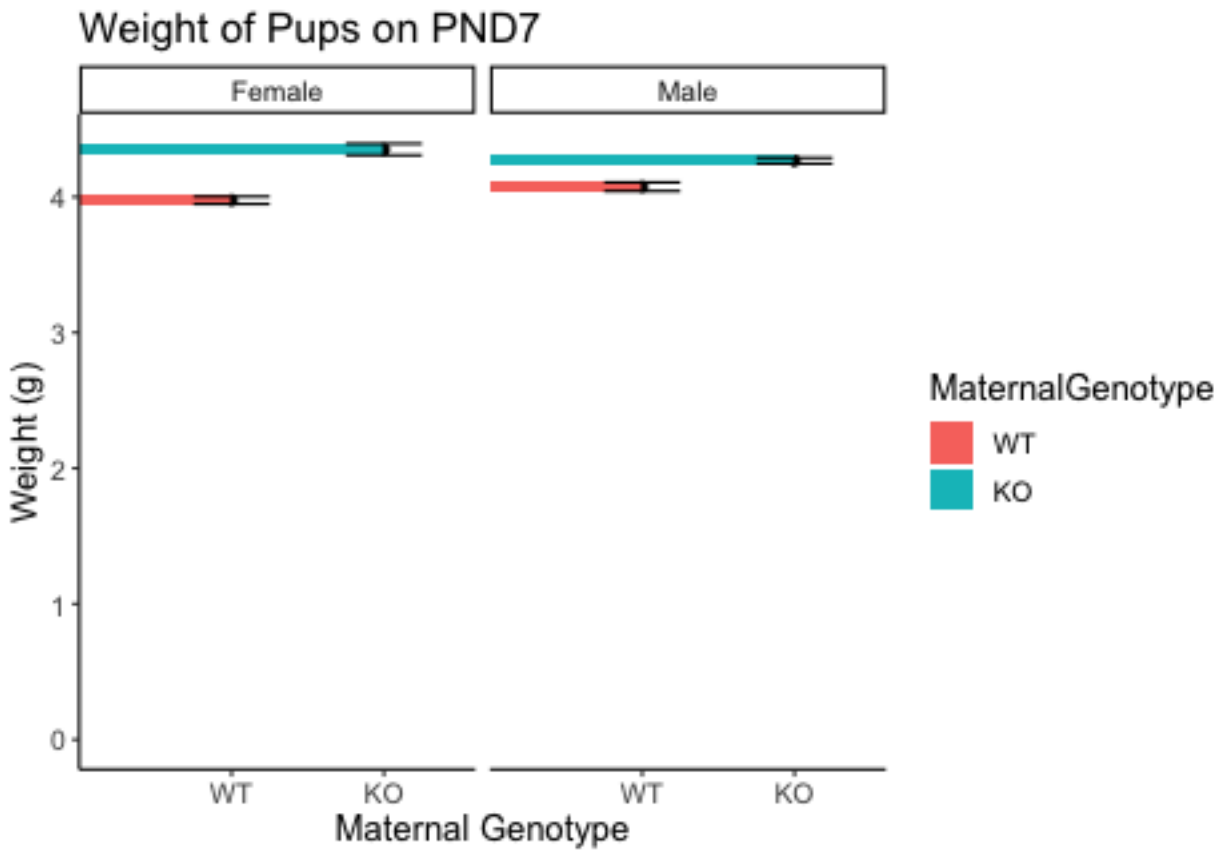
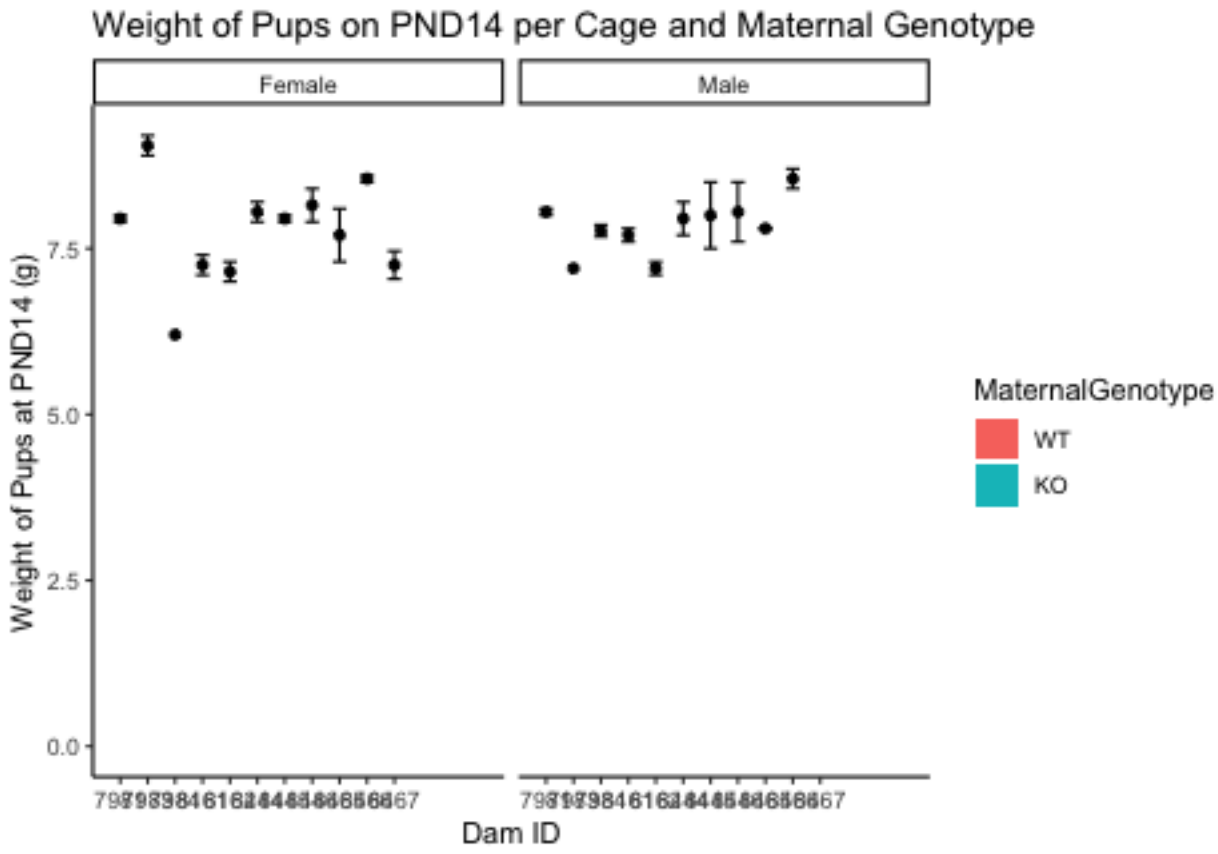


Table 19: Welch's t-test for effects of maternal genotype on PND7 weights in males

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.192	4.08	4.27	-1.75	0.119	7.88	-0.445	0.061	Welch Two Sample t-test	two.s

Table 20: Welch's t-test for effects of maternal genotype on PND7 weights in females

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.375	3.98	4.35	-2.32	0.047	8.39	-0.745	-0.005	Welch Two Sample t-test	two.s


Weight of Pups on PND14 per Cage and Maternal Genotype
Female
Male
Weight of Pups at PND14 (g)
7.5
5.0
2.5
0.0
Dam ID
MaternalGenotype
WT
KO

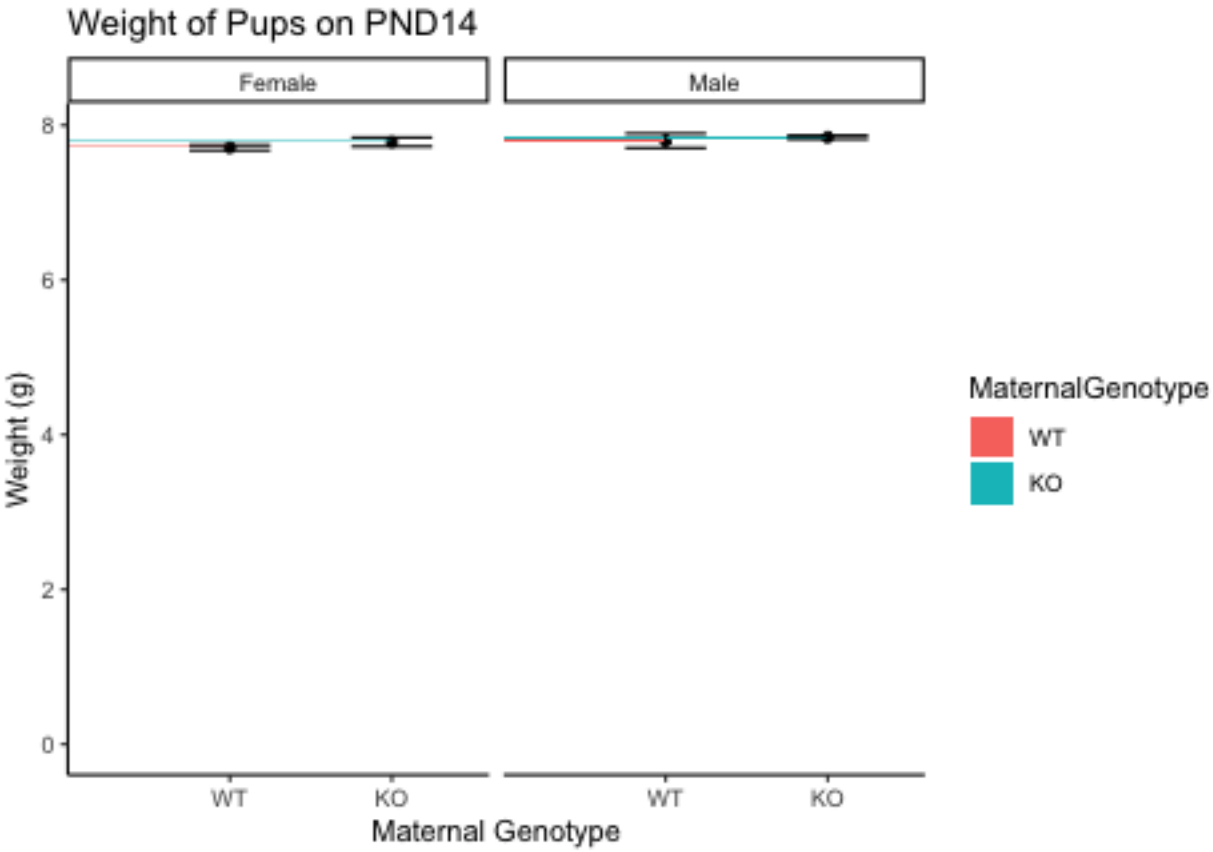


Table 21: Welch's t-test for effects of maternal genotype on PND14 weights in males

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.044	7.8	7.84	-0.164	0.874	7.06	-0.683	0.594	Welch Two Sample t-test	two.s

Table 22: Welch's t-test for effects of maternal genotype on PND14 weights in females

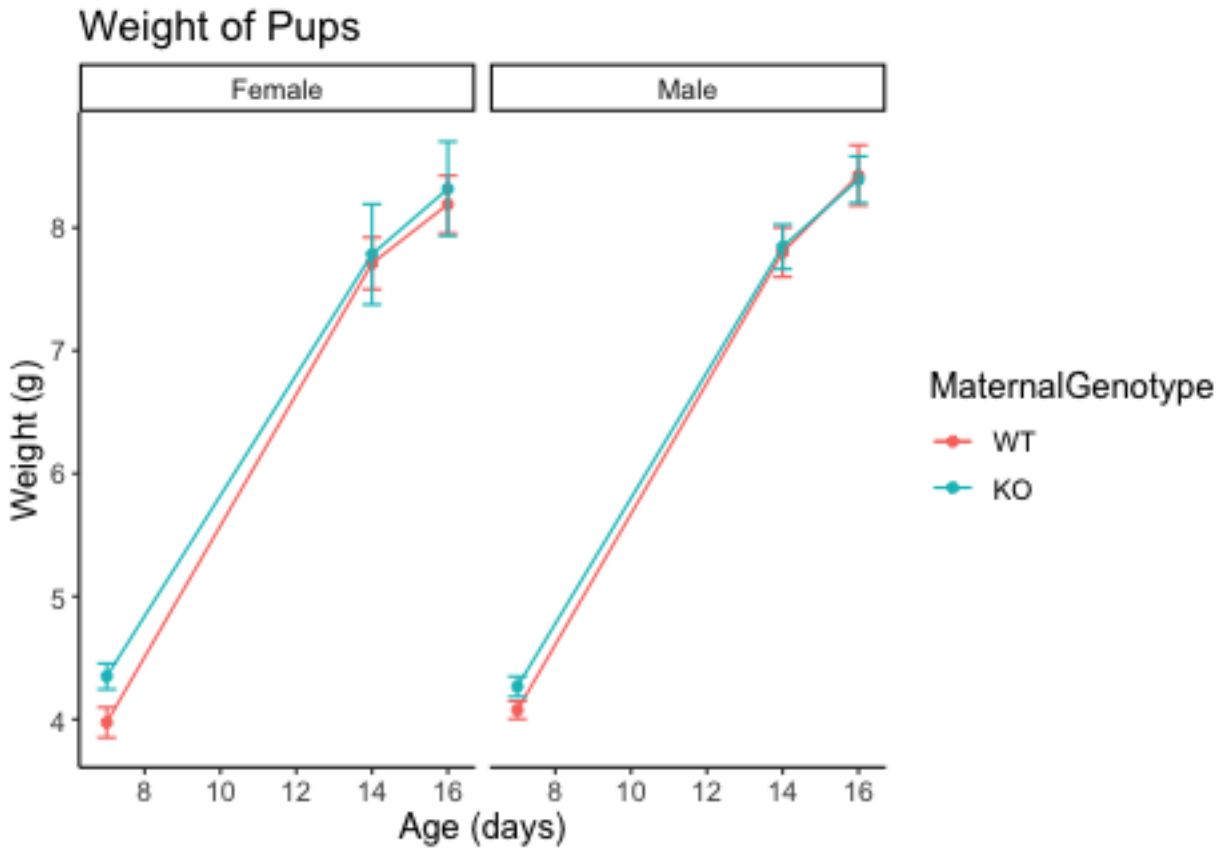
estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	me
-0.073	7.71	7.78	-0.159	0.878	7.37	-1.15	1	We
[](figures	/PUPweight_g	raphsPND16-1	.png)<!– –	> [](figu	res/PUPweigh	t_graphsPND	16-2.png)<!-	- –>

Table 23: Welch's t-test for effects of maternal genotype on PND16 weights in males

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
0.033	8.43	8.39	0.107	0.918	6.28	-0.719	0.785	Welch Two Sample t-test	two.s

Table 24: Welch's t-test for effects of maternal genotype on PND16 weights in females

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.127	8.19	8.32	-0.282	0.785	8.03	-1.16	0.908	Welch Two Sample t-test	two.s



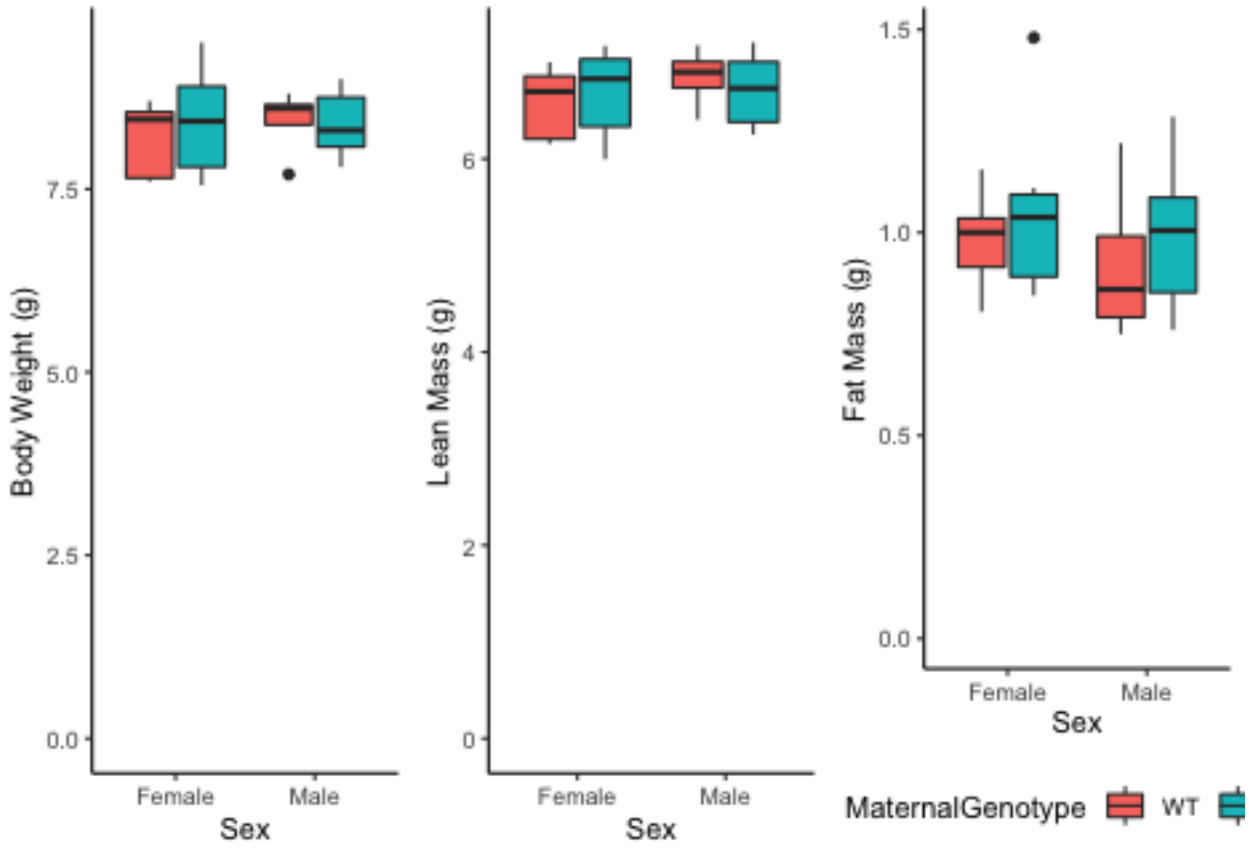


Table 25: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.011	8.43	8.44	-0.045	0.965	12	-0.556	0.534	Welch Two Sample t-test	two.s

Table 26: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.333	8.09	8.43	-1.15	0.264	19.6	-0.939	0.272	Welch Two Sample t-test	two.s

Table 27: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.094	0.922	1.02	-0.683	0.511	9.68	-0.401	0.214	Welch Two Sample t-test	two.s

Table 28: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.074	0.985	1.06	-0.863	0.4	16.9	-0.256	0.107	Welch Two Sample t-test	two.s

Table 29: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
0.089	6.84	6.75	0.506	0.62	15.3	-0.286	0.464	Welch Two Sample t-test	two.s

Table 30: Welch's t-test for effects of maternal genotype on aCasein milk composition

estimate	estimate1	estimate2	statistic	p.value	parameter	conf.low	conf.high	method	alter
-0.171	6.51	6.68	-0.875	0.391	21.7	-0.576	0.234	Welch Two Sample t-test	two.s