

## Supplementary Material

### **Variable duration of reproductive suppression in male coyotes (*Canis latrans*) treated with a high dose of the gonadotrophin-releasing hormone agonist deslorelin**

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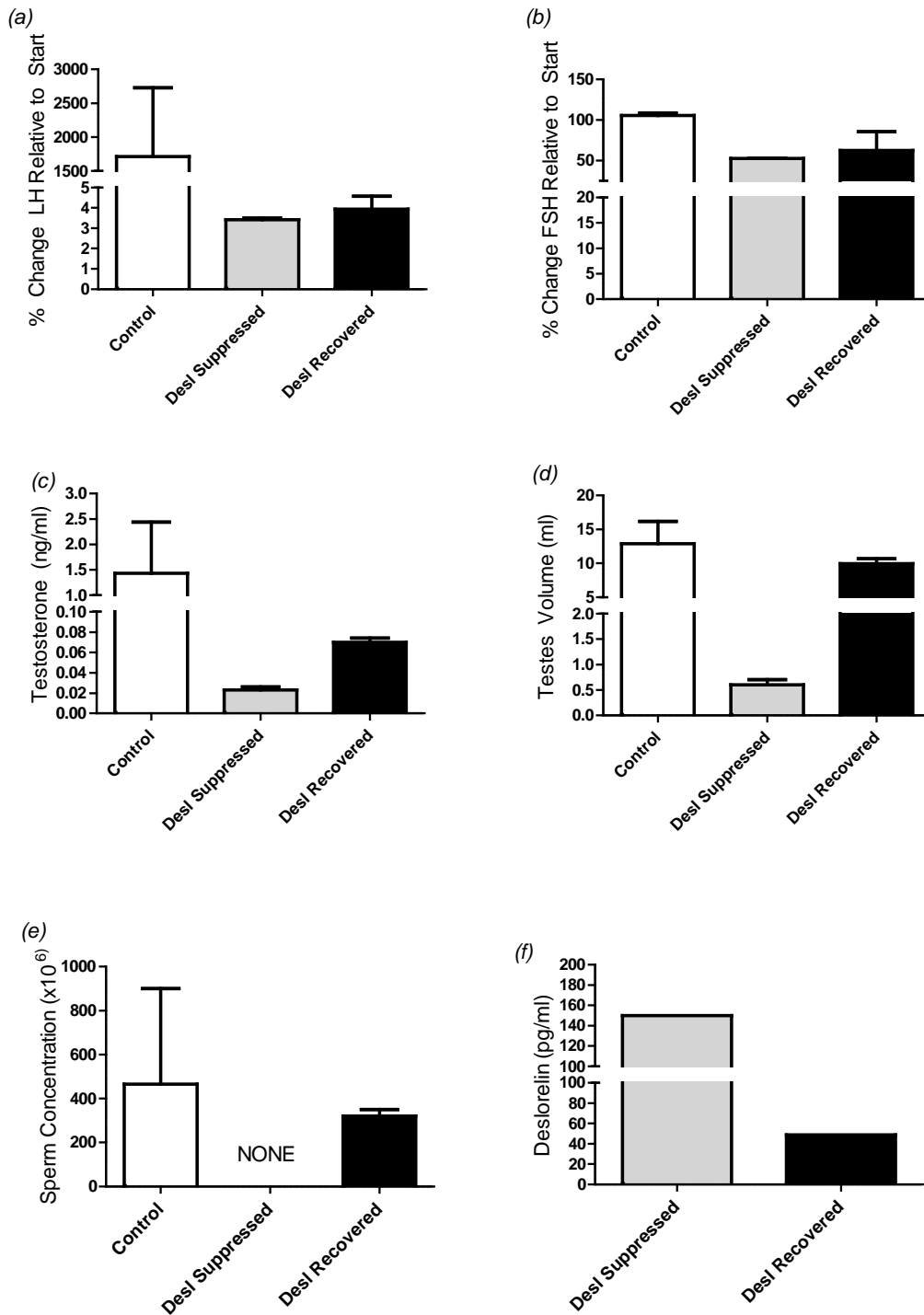
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**Fig. S1.** Comparison of reproductive parameters from control ( $n = 2$ ) and deslorelin-treated coyotes in Group 2 on day 365, peak breeding season. Coyotes denoted as deslorelin suppressed ( $n = 2$ ) were not producing sperm whereas coyotes denoted as deslorelin recovered ( $n = 2$ ) were producing sperm, as confirmed by semen collection (Table 1). One

deslorelin-treated coyote was not included in the comparison due to having returned to pre-treatment values. (a) Both suppressed and recovered coyotes had decreased plasma LH compared to controls. (b) Plasma FSH and testosterone (c) was lower in deslorelin suppressed and recovered groups compared to controls. (d) Deslorelin suppressed and recovered coyotes had visibly reduced testes volume compared to controls. (e) Deslorelin recovered coyotes had sperm concentrations slightly lower than controls. Deslorelin suppressed coyotes had no sperm production. (f) Representative plasma deslorelin concentrations in a deslorelin suppressed >100 pg/ml and deslorelin recovered coyote <100 pg/ml.

**Table S1. Cross-reactivity of Deslorelin. Assay validation (Animal Reproduction and Biotechnology Laboratory, Colorado State University, Fort Collins, CO, USA; unpublished) was performed in 2010 with assay criteria met for specificity, accuracy, precision, recovery, stability and dilution**

Hormone	Added per tube	Relative activity
Deslorelin	----	1.0
GnRH	10 pg – 10 µg	0.0002
KISS peptide	10 pg – 10 µg	0.0008
Oxytocin	10 pg – 10 µg	0.0000
Vasopressin	10 pg – 10 µg	0.0002
pFSH	10 pg – 10 µg	0.0000
pLH	10 pg – 10 µg	0.0000

**Table S2. Pre and post-treatment body weight, LH, testosterone, and testes volume from individual control and deslorelin-treated coyotes in Group 1**

All values are  $\pm$  s.e.m.

Coyote	Treatment	Days post implantation	Body weight (kg)	LH (ng/ml)	Testosterone (ng/ml)	Testes volume (ml)
M08	Control	0	12.3	0.13	0.04	6.31
	Control	270	12.5	*	0.53	14.25
	Control	630	12.1	0.32	1.29	11.03
M09	Control	0	12.3	0.13	0.05	3.31
	Control	270	12.5	1.07	0.59	11.93
	Control	630	12.1	1.67	1.36	15.28
M10	Control	0	12.3	0.13	0.65	7.3
	Control	270	12.5	0.15	0.41	12.26
	Control	630	12.1	4.19	0.89	7.23
M38	Treated	0	11.5	0.13	0.04	8.77
	Treated	270	12.0	0.13	0.04	**
	Treated	630	12.1	0.13	0.04	**
	Treated	990	11.3	0.13	0.05	2.41
M44	Treated	0	11.7	0.13	0.05	13.92
	Treated	270	12.0	0.13	0.04	**
	Treated	630	11.7	0.13	0.04	**
	Treated	990	11.6	0.13	0.04	**
M06073	Treated	0	13.4	0.13	0.05	6.33
	Treated	270	15.9	0.13	0.04	**
	Treated	630	15.1	3.41	0.88	5.27
	Treated	990	14.6	1.22	1.16	6.24

\*Insufficient sample

\*\*Undetectable

**Table S3. Pre and post-treatment body weight, LH, testosterone, and testes volume from individual control and deslorelin-treated coyotes in Group 1**

All values are  $\pm$  s.e.m.

Coyote	Treatment	Days post implantation	Body weight (kg)	LH (ng/ml)	FSH (ng/ml)	Testosterone (ng/ml)	Testes volume (ml)
M05	Control	0	11.3	0.51	*	3.01	8.11
	Control	365	11.3	11.08	4.71	2.44	9.56
	Control	730	12.8	5.15	3.17	0.24	12.56
M06	Control	0	12.4	0.32	4.35	0.05	9.73
	Control	365	12.5	2.83	4.46	0.42	16.18
	Control	730	13.3	6.49	3.55	3.11	18.91
M01	Treated	0	11.6	0.57	3.97	1.42	5.42
	Treated	365	13.5	0.17	3.44	0.07	9.26
	Treated	730	14.0	0.42	5.77	0.27	10.46
M02	Treated	0	11.7	12.46	6.27	6.07	9.61
	Treated	365	12.3	0.13	2.22	0.04	**
	Treated	730	13.7	6.58	5.04	3.78	19.05
M03	Treated	0	11.2	0.13	2.29	0.14	11.63
	Treated	365	13.4	0.13	1.66	0.07	9.32
	Treated	730	13.4	0.18	4.98	0.41	15.57
M04	Treated	0	12.4	5.28	4.32	2.56	9.17
	Treated	365	12.0	0.13	2.21	0.04	**
	Treated	730	13.7	10.34	2.11	1.59	23.48
M07	Treated	0	11.3	0.44	3.48	0.42	11.05
	Treated	365	12.0	*	3.17	2.57	10.67
	Treated	730	12.3	1.43	2.69	0.18	9.78

\*Insufficient sample

\*\*Undetectable