10.1071/RD18407\_AC
© CSIRO 2019
Supplementary Material: *Reproduction, Fertility and Development*, 2019, 31(9), 1473–1485.

## **Supplementary Material**

## Contraceptive efficacy and dose-response effects of the gonadotrophin-releasing hormone (GnRH) agonist deslorelin in Tasmanian devils (*Sarcophilus harrisii*)

Holly R. Cope<sup>A</sup>, Sarah Peck<sup>B</sup>, Rebecca Hobbs<sup>C</sup>, Tamara Keeley<sup>D</sup>, Stephen Izzard<sup>B</sup>, Wei Yeen-Yap<sup>E</sup>, Peter J. White<sup>F</sup>, Carolyn J. Hogg<sup>A,G</sup> and Catherine A. Herbert<sup>A,H</sup>

<sup>A</sup>School of Life and Environmental Sciences, Faculty of Science, The University of Sydney, J.D. Stewart Building B01, Camperdown, NSW 2006, Australia.

<sup>B</sup>Wildlife Management Branch, Department of Primary Industries, Parks, Water and Environment, Hobart, Tas. 7000, Australia.

<sup>C</sup>Taronga Institute of Science and Learning, Taronga Conservation Society, NSW 2088, Australia.

<sup>D</sup>School of Agriculture and Food Sciences, Faculty of Science, The University of Queensland, Gatton, Qld 4343, Australia.

<sup>E</sup>Hobart, Tas. 7000, Australia.

<sup>F</sup>Sydney School of Veterinary Science, Faculty of Science, The University of Sydney, R.M.C. Gunn Building B19, Camperdown, NSW 2006, Australia.

<sup>G</sup>Zoo and Aquarium Association Australasia, Mosman, NSW 2088, Australia.

<sup>H</sup>Corresponding author. Email: catherine.herbert@sydney.edu.au

## Inter-lab variation

Nine samples from a female control devil were originally analysed at TWPZ for faecal progesterone in 2014 and re- analysed (including faecal extraction from stored dry scats) at Sydney University in 2017 to evaluate the inter-lab variation. The average CV between labs for each sample was 29.12%, and there was a strong correlation between labs ( $R^2 = 0.93$ , Slope = 0.995; Supp. Fig. 1). The variation between labs may be accounted for by the slightly different protocol used for the EIA (single versus double antibody).



**Fig. S1.** Progesterone concentrations (ng/g) of samples from one female Tasmanian devil extracted and analysed at Taronga Western Plains Zoo in 2014, then again at the University of Sydney in 2017. Trendline equation: y = 0.995x + 393.52,  $R^2 = 0.9307$ .

## General health analysis

	Quarter	ly CBC (20	15–2016)	Annual blood chemistry (July 2015 and 2016)					
	PCV (%)*	RCC (× 10 ^12 L <sup>-</sup> <sup>1</sup> )*	HGB (g/L)*	Na/K ratio*		Potassium (mmol/L)*		Albumin (g/L)*	
				2015	2016	2015	2016	2015	2016
Control	44.07 <sup>A</sup>	6.39 <sup>A</sup>	150.30 <sup>A</sup>	13.25 <sup>A</sup>	25.62 <sup>B</sup>	10.60 <sup>A</sup>	5.86 <sup>c</sup>	35.62 <sup>A</sup>	32.14 <sup>B</sup>
Low dose	45.82 <sup>AB</sup>	6.64 <sup>AB</sup>	155.40 <sup>AB</sup>	17.71 <sup>A</sup>	19.60 <sup>A</sup>	8.08 <sup>BD</sup>	7.38 <sup>CD</sup>	35.88 <sup>A</sup>	31.80 <sup>B</sup>
High dose	47.39 <sup>B</sup>	6.95 <sup>B</sup>	160.70 <sup>B</sup>	14.42 <sup>A</sup>	16.20 <sup>A</sup>	9.78 <sup>AB</sup>	9.28 <sup>ABD</sup>	36.29 <sup>A</sup>	35.02 <sup>A</sup>
S.E.	1.18	0.15	3.81	2.16	2.16	0.86	0.86	0.94	0.94

Table S1.Mean general health results for female Tasmanian devils in treatment groups control,low dose and high dose, with standard error presented in the bottom row

\*Significant differences within columns marked by an asterisk are denoted by superscripts.