## Dog Appeasing Pheromone prevents the testosterone surge, and may reduce contact-dominance and active-submission behaviours after interventions in captive African wild dogs (*Lycaon pictus*).

F. Van den Berghe<sup>1,2</sup>, M.C.J. Paris<sup>1,2,3</sup>, Z. Sarnyai<sup>1</sup>, R.P. Millar<sup>2,4</sup>, A. Ganswindt<sup>4,5</sup>, A. Cozzi<sup>6</sup>, P. Pageat<sup>6</sup> & D.B.B.P. Paris<sup>1</sup>

<sup>1</sup>College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, QLD, Australia

<sup>2</sup>Institute for Breeding Rare and Endangered African Mammals, Edinburgh, UK

<sup>3</sup>Wageningen Livestock Research, Wageningen, The Netherlands

<sup>4</sup>Mammal Research Institute, University of Pretoria, Pretoria, South Africa

<sup>5</sup>Department of Anatomy and Physiology, Faculty of Veterinary Science, University of Pretoria, South Africa

<sup>6</sup>Institut de Recherche en Sémiochimie et Ethologie Appliquée, Apt, France

African wild dogs (*Lycaon pictus*) have a complex hierarchical social structure that can lead to aggression; resulting in morbidity and mortality of individuals separated from the pack, or during new pack formation. Aggression and stress might be attenuated by Dog Appeasing Pheromone (DAP). Our placebo-controlled, double-blinded study showed an increase in faecal androgen concentrations within the pack after temporary separation, immobilisation and reintroduction of placebo treated animals, but not for DAP treated individuals. Moreover, DAP treated packs tended to show lower rates of contact-dominance and active-submission behaviour, but higher rates of non-contact dominance behaviour. Faecal corticosteroid levels rose after intervention in both treatments, probably due to immobilisation-related stress. These preliminary findings suggest that DAP could be a useful management tool to reduce hormones and behaviours potentially leading to aggression in captive African wild dogs.