



# THE WORKING KELPIE COUNCIL OF AUST INC.

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## Valuable behavioural phenotypes in Australian farm dogs Apr 2012

### The Project

In collaboration with the Rural Industries Research and Development Corporation (RIRDC), Meat and Livestock Australia (MLA) and the Working Kelpie Council of Australia (WKCA), this project will, for the first time, measure and record both behavioural and health attributes in farm dogs. It will allow us to promote the behavioural traits that distinguish the best working dogs on Aussie farms

We aim to begin by establishing how much work dogs are doing for Australian sheep and beef producers. Then we will establish exactly what behavioural traits producers describe as desirable and undesirable in farm dogs. The next challenge will be to develop valid measures of these descriptors.

In addition, we will follow numerous litters of pups through to maturity to see how stable these traits are over time. We will also examine pedigrees to calculate the heritability of these traits and then use modern genetic mapping to identify DNA sequences associated with the most important traits.

A full-time postgraduate scholarship is available for a suitably qualified candidate with a good honours degree in veterinary science or animal science to undertake this research leading to a PhD in canine behavioural genetics under the guidance of Prof Claire Wade and Paul McGreevy at the University of Sydney's Faculty of Veterinary Science. The project will involve working with sheep and beef producers and significant amounts of travel to study dogs on farms. We will be advertising for this post very shortly.

### The Research Team

Claire Wade is Professor of Animal Genetics and Computational Biology. She is developing a programme in medical and behavioural genetics with particular focus on the horse and the dog. In recent years her canine focus has included playing key roles in the analysis leading to the Canine Genome Sequence (Nature, December 2005), the development of three canine gene mapping arrays (Two for Affymetrix and one for Illumina), and the mapping of several genes for canine diseases leading thus far to three commercially available genetic tests for genetic diseases (Parathyroid tumours in Keeshonden, Rod-cone dystrophy in the Wire-haired dachshund, and Degenerative myelopathy in many breeds). She has current projects exploring the genetics of separation-related distress disorder, aggression, deafness, congenital birth defects, and pigmentation in the dog.

Professor Paul McGreevy is one of only three veterinarians recognised worldwide by the RCVS as Specialists in Veterinary Behavioural Medicine. He has written 6 books, 30 chapters and over 120 articles in peer-reviewed journals. His team has recently achieved significant progress in identifying early behavioural (and morphological) traits associated with success in puppies undergoing training for guide work. He is on the expert panel of the UK's Dog Breeding Advisory Council.