



Dr Nikki Kells



The Five Domains model and promoting positive welfare in pigs

Dr Nikki Kells is a Senior Lecturer in Animal Welfare in the Animal Welfare Science and Bioethics Centre at Massey University. She completed a Master of Science looking at gas alternatives to carbon dioxide for on-farm euthanasia of pre-weaned piglets. This was followed by a PhD investigating acute and chronic pain associated with tail docking of piglets, along with strategies to mitigate this. Dr Kells' current research interests include evaluation of affective states in animals using electrophysiological and behavioural paradigms, improved techniques for humane slaughter and killing of farm and companion animals, development of prolonged acting analgesia for animal husbandry, and development of welfare assessment tools for farmed animals, including fish.

The Five Domains model is a prominent welfare assessment framework that facilitates the structured, systematic, and comprehensive evaluation of animal welfare risks and opportunities for welfare enhancement. This review provides an overview of the development of the Five Domains model, followed by a description of the current model's structure and its practical application to animal welfare assessment. This is followed by a brief explanation of the scientific basis for inferring subjective affective experiences in animals. Finally, specific consideration is given to how the most recent iteration of the Five Domains model can be used to identify areas of potential welfare risk and opportunities for welfare enhancement in commercially farmed pigs.