

## **1 PhD position in Comparative Cognition**

*Messerli Research Institute*

University of Veterinary Medicine Vienna, Vienna, Austria

### **A NEW LOOK AT DOG DOMESTICATION: TESTING THE EFFECTS OF DIFFERENT FEEDING ECOLOGY OF DOGS AND WOLVES**

Current theories of dog domestication suggest that some wolves shifted their ecological niche to exploit resources that were ‘leftovers’ of human habitation (Coppinger and Coppinger 2001). Hence, an important shift in the proto-dogs’ life was a reduced reliance on finding and hunting prey and an increased reliance on ‘scavenging’ on abundant waste. Current estimates suggest that approx. 83% of the world’s population of dogs are free-ranging, and this majority of the dog population worldwide appears to continue to depend on human refuse while reproducing outside human control. This suggests that there may still be a selection in dogs for traits that support successful scavenging (Lord et al. 2013). Wolves, on the contrary, depend heavily on their predator life-style, hunting either smaller prey solitarily or larger prey in groups. The aim of the current PhD project is to investigate the potential differences between wolves and dogs which may arise from their differing feeding ecology. As ‘scavengers’, do dogs explore differently than wolves? As predators, do wolves maintain their attention on a single task for longer? Are the motivation, persistence and creativity in problem solving different between dogs and wolves, and do they reflect their foraging styles? Identically raised wolves and pack-dogs (at the WSC) and pet dogs will be tested on a test battery designed to test this hypothesis.

Eligible candidates will have a master’s degree (or Diplom) in Biology, Veterinary Medicine or Psychology, research experience in animal behavior, a genuine understanding of animal cognition and a strong commitment to basic science. Practical skills in animal training techniques and in empirical work with dogs are beneficial, but not a precondition. This PhD project is part of a larger project funded by the European Research Council (ERC) on “Understanding the Proximate Mechanisms of Canine Cooperation. Although the project is based at the Messerli Research Institute (at the University of Veterinary Medicine Vienna), the research will be conducted both at the Clever Dog Lab, Vienna and the Wolf Science Center, Ernstbrunn. The project is co-supervised by Dr. Sarah Marshall-Pescini and Dr. Zsófia Virányi. Principal investigator of the ERC project and supervisor of this PhD-project: Dr. Friederike Range.

The **Messerli Research Institute** has been recently founded with support of the University of Veterinary Medicine Vienna, the Medical University of Vienna, the University of Vienna and the Messerli Foundation (Switzerland) for the scientific study of human-animal interactions, with an integrative and highly interdisciplinary approach of comparative cognition and behaviour, comparative medicine, and animal ethics. Its division on Comparative Cognition (headed by L. Huber) investigates the cognitive abilities in both the social and physical domain of various, free-living as well as domesticated, animal species ranging from keas to dogs. At the **Clever Dog Lab** ([www.cleverdoglab.at](http://www.cleverdoglab.at)) and the **Wolf Science Center** ([www.wolfscience.at](http://www.wolfscience.at)) an international team of students and researchers studies the cognition and behaviour of canines.

**Application:** Materials including a letter of application, CV, a summary of research experience, copies of any published or in-press papers, and two letters of recommendation should be sent to Dr. Friederike Range by email ([friederike.range@vetmeduni.ac.at](mailto:friederike.range@vetmeduni.ac.at)) by 1st May 2015. The position is for three years; starting date: 1st July 2015. Salaries according to the standards of Austrian basic science funds.

The University of Veterinary Medicine Vienna promotes the employment of women in fields of work in which they are underrepresented and therefore encourages qualified women to apply to this opening.