

THE IMPORTANCE AND RELEVANCE OF ANIMALS IN RESEARCH AND EDUCATION AND THEIR WELFARE

Judy MacArthur Clark

Animals in Science Regulation Unit, Home Office, United Kingdom

Evidence exists of the use of animals in research and education for almost 2,000 years. On the basis of current scientific knowledge, animals are essential to support many aspects of scientific research for human and animal benefit. However the ethical framework to judge whether such use is justified has changed significantly over recent years. Animal rights campaigners have argued that animals should be considered to have equal rights to humans. Others, in both the welfare and science communities, support a utilitarian approach – weighing the cost in terms of harms which the animals will experience against the potential benefits of the work.

Such judgments must inevitably be made on a case by case basis and thus has emerged the practice of ethical review as a key principle. Ethical review may be performed at a local level, within the research institution, or alternatively at a regional or national level. In any event, it is important to ensure the impartiality and independence of those performing the review.

A second key principle involves implementing the ‘3Rs’ (Replacement, Reduction and Refinement). First introduced in the 1950s, the 3Rs require:

- that animals should only be used where they cannot be replaced by non-animal alternatives; and
- that the smallest number of animals of the least neurophysiological sensitivity should be used; and
- that the procedures should be performed in the least painful or distressing way.

The third key principle is to deliver a balance between ensuring that justifiable scientific advances using animals can be achieved whilst also assuring that animals do not suffer unnecessarily. This ‘Regulatory Balance’ is the means by which public confidence is maintained.

The OIE *Terrestrial Code* Chapter 7.8 ‘Use of Animals in Research and Education’ provides guidance on developing and delivering a proportionate regulatory system which focuses on these three key principles and considers cultural, economic, religious and social factors. Veterinarians have a major role to play in this delivery.

Keywords: OIE – research animal welfare – the ‘3Rs’ – alternatives.