

The response reproduced below was submitted to the consultation held by the Nuffield Council on Bioethics on the ethics of research involving animals during October-December 2003. The views expressed are solely those of the respondent(s) and not those of the Council.

This response was submitted using the online facility:

Professor Julian Blow

QUESTIONS ANSWERED:

1. Background: the use of animals in research

ANSWER:

To make any real progress in biological research there is no alternative but to use animals. In general, the more basic the research, the more confident we can be about how relevant the research will be to humans. A very significant part of our knowledge of human biology has come from studying the biology of 'model' organisms (E. coli, yeast, Drosophila, Xenopus, mice). The limitations of the applicability of these studies are often apparent right from the start. It is mainly at the applied levels (eg toxicity testing) that the uncertainties become significant. Any animal suffering must be justified by the purpose of the research. In my experience, the degree of suffering experienced by a lab animal will in most cases be less than that experienced by a farm animal. Lab animals are kept in a very high quality environment with their health monitored constantly by experts. The stress and pain experienced by lab animals would in most cases be less than that experienced by farm animals going to slaughter.

2. Genetically modified animals

ANSWER:

I don't see any particularly new issues raised by GM animals. The main problem is the large numbers that are needed.

3. Alternatives

ANSWER:

We cannot escape the fact that if you are studying the biology of living organisms, you have to study a living organism. Data collection can be made more efficient, so that as much information is gathered from any one experiment (ie reduction), but there is a limit to how much this can achieve. As much research as possible is done without animals, because where possible, in vitro techniques are more controllable and reliable. So although replacement techniques should be encouraged wherever possible, I doubt that this will have a large impact on the use of animals.

4. Ethical issues

ANSWER:

The suffering animals experience has to be the key to the moral debate. I think this is an important area for animal research. I've read interesting new articles on improving husbandry by appropriate environmental enrichment for lab animals. It may well be that we can make significant improvements to the well-being of lab animals by making relatively simple modifications to standard husbandry practice. These advances may ultimately far outweigh the suffering ultimately experienced by the animal during the scientific procedure. However, it is important not to be too anthropomorphic about what we conceive as quality of life for other animals, and what we do should be informed by more research into animal behaviour and cognition.

5. The regulations

ANSWER:

Once genetic modification have been shown not to have welfare implications, breeding should no longer be a regulated procedure. The regulations in place are already very stringent. The quality of ethical review, which takes place both before and during experimentation, is central to the proper assessment of animal research. This varies from establishment to establishment, with the advantage that ethical review can be tailored to the research being performed. However, it also means that standards are likely to vary from place to place. Imposing more inflexible regulatory mechanisms will clearly drive research elsewhere.

6: Providing information to the public

ANSWER:

I think there should be much more information publicly available about animal research. I think it is unacceptable that, at present, the copyright to most publicly-funded research is owned by for-profit publishing companies. I hope that over the next few years, the majority of scientific research will move to an open-access model, where payment is met by the authors not by the readers. This would remove a major barrier to the transparency of research to the public. I think it would be helpful to many people (scientists and public alike) to see a detailed model of the whole regulatory system, including personal/project licence application and training and the ethical review process. I believe that if the public knew the care with which this is performed they would be much less hostile to animal research. The obvious organization to host this would be the Home Office (eg in the form of downloadable video clips?).