

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.

AstraZeneca Pharmaceuticals

**Nuffield Council on Bioethics Consultation on the ethics of research involving animals.**

Before attempting to respond to the questions posed in this consultation, we would like to record that we feel the process is largely superfluous when considered in the context of other recent consultations (House of Lords Select Committee, APC consultation on cost benefit analysis, AEBC consultation on animals and biotechnology). The questions posed are so broad that one is faced with the alternative of either answering with "textbook" length answers, or brief answers that may not add significantly to the debate. We are disappointed that the Council did not choose (if it felt any consultation were necessary) to review the previous consultations and then select more specific areas for debate based on perceived gaps in those exercises.

Question 1.

The use of animals in research is still essential in some circumstances, if progress is to be made in understanding the biology and pathology of living organisms, and in finding means of improving therapies for poorly-treated diseases. While much progress has been made in understanding disease processes and effects of therapies at a cellular and sub-cellular level, the translation of knowledge to the whole organism is still imperfect, and animals form an important bridge in applying such knowledge to eventual therapy in humans. While animals may show subtle biological differences between species (including the human species), there are many broad similarities that make it possible to apply knowledge across species barriers.

In judging what use of animals may be acceptable, we believe that a utilitarian approach is appropriate. Rule-based approaches tend to be inflexible and poor at predicting future situations.

Question 2.

The use of genetically modified animals in research has been examined recently by the AEBC (Animals and Biotechnology – [www.aebc.gov.uk](http://www.aebc.gov.uk)). Importantly, the report makes the point that genetically modified animals should not be considered separately, but dealt with by the same types of legislation as other animals. We concur with this view, and consider that it is unlikely that it matters, from the animal's point of view, whether any state of suffering was achieved by genetic manipulation or other means. We believe that undue focus is given to this technology simply because of its recent introduction, and the fact that many people are unfamiliar with the mechanisms or results involved.

### Question 3.

In considering alternatives, we include all of the 3Rs (reduction, refinement and replacement). We believe all three are worthy objectives, and not at odds with scientific and medical objectives. We believe good progress will continue to be made in all areas as scientists seek ways of getting reliable results more rapidly and economically. However, at this time, knowledge and technology do not allow complete replacement of animal use.

If we were to suggest priorities for action, they would be

a) Increased application of good experimental design to reduce the numbers of animals used. Optimum designs should be seen as a very productive area for progress.

b) More effort in the area of refinement research to ensure the minimum adverse effects on the animals used. We believe that undue focus on replacement can detract from welfare improvements for those animals used.

### Question 4.

We believe there are some distinct and morally relevant differences between humans and animals. These include humans' capacity for self-awareness, and ability to anticipate the future.

However, we are convinced that animals can suffer, and consider this suffering should always be kept to the minimum.

In considering the use of animals in research versus other human uses of animals, we believe the use in research is more justifiable than other uses, in terms of the likely size and duration of benefit versus the amount of suffering.

### Question 5.

UK regulations on research using animals is strict and comprehensive.

However, it could be improved, and many of the suggestions arising from the House of Lords Select Committee would be valuable in this respect.

### Question 6.

Currently, information available to the public is limited. Most of the scientific community would like more information on the purpose, likely benefits and welfare effects of research to be available, but are justifiably concerned about personal security due to threats from activists. Better availability of information needs to be coupled with better protection of researchers.