Society for Accountability of Animal Studies in Biomedical Research & Education

Q1 What is your view about the use of animals in research?

a) There is currently insufficient systematic scientific evidence to support the use of animal studies to inform clinical research[i].

b) There are no strategies in place to develop an evidence base of how animal research informs clinical medicine. Earlier studies suggested that as much as 40% of basic research informed clinical research,[ii] but a recent report suggests the earlier work to be flawed and the new findings show the statistics to be nearer 2 and 21 percent[iii]. The authors of these studies recommend further research to reassess and inform funding strategies of basic and clinical research[iv].

c) Some recent studies demonstrate that clinical trials proceed based on poor quality animal data.[v]

d) Proponents of animal research base their claims about the usefulness of animal research on anecdotal evidence, narrative reviews or single studies.[vi] However, the research community has established that the best way of determining the value of research is to seek systematic scientific evidence. It is simply unacceptable to argue a case based on evidence from single studies. Policy decisions about animal research must be informed by evidence-based research that reflects the whole range of findings, not results from one or two studies.

Can results from research using animals be transferred to humans?

When we examined the few existing systematic reviews of animal studies, we found that the animal research was of little or no relevance to the clinical situation in question; or that it was doubtful or ambiguous[vii].

While we acknowledge there is a cost/benefit analysis performed prior to the granting of each project licence, the analysis uses limited criteria - 'likely benefit of research' weighed against the 'cost in terms of pain and suffering' (to the laboratory animals).

'The law requires the Home Secretary to consider a cost/benefit assessment. It says

"In determining whether and on what terms to grant a project licence, the Secretary of State shall weigh the *likely adverse effects on the animals concerned* against the *benefit likely to accrue as a result of the programme to be specified in the licence"*. That is the cost/benefit assessment. It is done by the Home Office, *largely by the Inspectorate* who then advise the Secretary of State.'[viii] (our emphasis)

This assessment exercise has serious limitations in terms of predicting clinical benefit of the proposed research. Using the existing criteria, it cannot accurately measure for potential benefit and it would be apparent that the

Inspectorate does not conduct systematic searches of animal studies prior to the granting of each project licence. Further, it is suggested that expertise in this field of research is lacking in the basic research community. **Error! Bookmark not defined.**

Q2 What are your views about the use of genetically modified animals in research?

The claims made by animal researchers that transgenic models are 'better' than their non-transgenic counterparts in research needs to be supported by systematic evidence and not merely narrative reviews, single study citations or anecdotal evidence. There is no systematic evidence to support the use of transgenic models that we know of at present.

Q3 What is your view about the use of alternatives?

It is difficult to comment on this question because it assumes that animal research is a methodology based on systematic evidence, when it is not. However, if we are considering non-animal research technology then we would argue that funding be directed to research where there is sufficient systematic evidence for productivity (in terms of clinical benefit) and certainly more funding should be directed towards clinical research in the light of recent reports. [ix]

While animal research statistics are tied into non-animal research technology there may be misleading information about its worth, making the evaluation of animal and non-animal research difficult or impossible. Therefore, the funding and the use of animals in research should be transparent, so that future funding strategy can be fully informed. There must be a serious effort to establish evidence-based policy making in the area of animal research.

The law states that animal research should only be used where no 'alternatives' [non-animal research technologies] exist. This does not appear to happen in practice.[x] There is also evidence of duplication and reluctance in the sharing of information. Furthermore, the UK Government is unwilling to enforce data sharing and publication of negative results..

Do you think that there is a need for more research into alternatives to research involving animals?

The Association of the British Pharmaceutical Industry (ABPI) say that the use of animals [in medical research] is costly and time-consuming[xi]. However only 10 per cent of annual R&D expenditure is spent on researching and implementing non-animal technology (£300m). [xii] [xiii] There is clearly a conflict of purpose here since it is agreed that non-animal research technologies are more effective and economical.[xiv] [xv] [xvi].

Do you have concerns about the way research involving animals is

reported in scientific journals?

The reporting of all negative findings should be compulsory in order to establish an accurate assessment of the worth of animal research. This is not the case at present and the Government is not enforcing it.

> 'The government has concluded that it cannot force researchers experimenting on animals to release information about their work. The step was suggested by advisers on the Animal Procedures Committee as a way of reducing duplication of animal experiments, particularly where the outcomes are inconclusive and may not appear in scientific journals.
>
> "It is already Home Office policy to encourage publication of research findings, but we cannot require it," Home Office minister Angela Eagle said on Friday. "However, we agree that we must do everything possible to ensure that there is no unnecessary duplication of animal use in scientific procedures and will examine possible mechanisms for publishing negative results, consulting with the scientific community and others as necessary."
>
> Eagle also said that the government would consider ways of publishing anonymised information regarding infringements of the animal regulations. However, there was no decision on the committee's recommendation that the law on confidentiality should be relaxed. That is being considered in another government review, due to report later this year.'[xvii]

Reducing bias in medical research is extremely difficult and is a cause for concern but while researchers are aware of this problem in the clinical phases of research[xviii] there seems to have been less effort to introduce this into the pre-clinical research field.

Q4 What is your view about ethical issues relating to the use of animals in research?

In our view it is unethical [to humans and animals] to proceed to clinical trials on the basis of data from badly designed, flawed or manipulated animal studies or those lacking in predictive value. It is also unethical [to humans and animals] to carry out animal studies *alongside* clinical trials. The purpose of animal studies is to ***inform*** clinical trials, not to mimic or replicate them. If animal studies are unable to inform then they should not be performed. We consider that the use of the term 'inform' has become too loose or corrupted. It should mean that the animal studies possess predictive value and nothing less. If animal studies do not possess predictive value then they cannot serve to protect patients and volunteers from adverse events or to predict the efficacy of medical research.

'Consistent results across species and models would provide some reassurance that human beings might respond in the same way. Since the primary aim of animal experimentation is to inform about effects in human beings, information about whether results in animals can be generalised is particularly valuable.'

It is unacceptable for the industry to attempt to validate animal research with bold, loose, contradictory, vague, generalized and/or unsupported statements such as the following examples:

'Tests in animals do not provide final answers, and no one thinks they do.'
'There would be no need to conduct human tests if that were the case.'
'All researchers agree that human tests are necessary.'
'Animal tests allow researchers to get much closer to the human situation than would be possible using non-animal methods alone.'
'In Vitro tests cannot tell whether the desired effect will occur in a complete living system.'
'In Vitro tests cannot tell whether the compound will have a harmful effect in a complete living system.'
'Animals are needed to consider those effects of medicines that occur only in the whole living [animal] body – with all its cells, chemicals, communication signals, organs and systems working together.'
'Animal tests can suggest which compounds are likely to be effective in humans.' 'Animal tests can give a strong indication of which compounds will not be harmful to humans.'
'Animal tests cannot predict with absolute certainty what will happen in humans, nor are they expected to.'
'They [animal tests] allow researchers to get as close as possible to the situation in people before testing an experimental medicine in people.'[xix]

If we are to accept the interpretations of the results of the opinion polls and surveys carried out over the last few years by animal researchers[xx] then we note that the public, although lacking sufficient information about animal experiments, will only tolerate animal research if it is to benefit humans. It follows that animal research must be shown to benefit human medicine consistently, safely, effectively, transparently and economically. To aim for anything less would be considered unwise. However, to possess the tools in the form of research methods, as we do, and not to use those to try to achieve these aims must surely be considered unethical.

Q5 What is your view about the UK regulations on research involving animals in the UK?

We suggest a moratorium on all animal research (where intended to inform clinical research) until sufficient systematic scientific evidence has been sought, in order to determine the overall usefulness or otherwise of animal studies.

It is accepted in our society that animals are used in medical research so long as their use is of benefit to humans. Therefore, the ethical issue should be focused primarily on determining the impact of animal research on clinical research

Q6 What do you think about the information that is available to the public about research involving animals?

The public should have full access to information on the following aspects of the issue:

a) the importance of systematic scientific evidence to the progress of medical research

b) the importance of having an evidence-base to draw upon for future policy making

c) that the APC cost/benefit analysis fails to assess each project licence for predictive value, productivity and safety

d) that only extensive randomized clinical trials (RCTs) inform on whether a pharmacological property is going to be efficacious and safe for release to the general population

e) the importance of publishing negative results of animal studies

f) that the funding of animal research remains unaccountable

g) that many clinical trials are conducted based on flawed animal data

h) that the public opinion polls and surveys about animal research are mainly designed, funded and/or interpreted by those with a stake in animal research.

i) that in a society that accepts the use of animals in medical research the ethical concern should focus primarily on the human cost/benefit

Notes

We note the following:

1. Some of the original questions have been revised with no explanation in the minutes
2. The minutes for February were published 16th July, *after* the subsequent meeting in May.
3. Minutes for the meeting in May were published 16th July, *after* the subsequent meeting on 2nd July.
4. The minutes for the July meeting were published 2nd October, *after* the meeting in September.
5. The minutes for the September meeting have yet to be published
6. We did not receive any updates/minutes or information about the meetings/consultations as we had specifically requested to do so at your invitation on the website. We only discovered the updates/minutes by chance.
7. The Register of Interests is undisclosed.
8. Of the 18 members on the Working Party, 15 appear to have a stake, in some way, in animal research either through direct links with industry or salaried positions. Those on the Working Party who might be identified as opposing animal research appear to have an allegiance and/or expertise in the 3Rs philosophy, which is primarily an animal welfare initiative. We would have expected to see a panel that included participants having clinical expertise and researchers with skills in research methods and an ability to examine the issues objectively and focused on patients' best interests.
9. The method of selection of members of the Working Party is not transparent.

10. Much of the remit (14th May 2003 minutes 6, 8, 9,) appears to be duplicating the efforts of the Lords inquiry into Animals in Scientific Procedures 2001 - 2002

11. The papers, reports and presentation (14th May 2003 minutes 6, 7, 8) are not available to the public for consultation.

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