

Naturewatch

MP Briefing

EDM 545 – Scientific Procedures on Animals and the use of Non-animal Alternatives

Summary

This year, it is 50 years since Russell and Burch published *The Principles of Humane Experimental Technique* outlining the 3R's approach (refinement, reduction and replacement), and yet despite the 3R's being recognised as a model approach, the number of animals continues to peak at levels, not seen since 1991.

New hi-tech procedures, that replace the need for animal testing, do offer hope of humane scientific research, yet progress towards implementing the 3R's and non-animal alternatives has been desperately slow.

This briefing gives an overview of the present project licensing system, highlighting serious deficiencies in how it operates, and suggests a series of measures to quicken the pace towards alternatives.

An outline of the UK's environmental taxes and the positive impact these are having in terms of modifying behaviour, reducing emissions, while raising revenue for projects that offset environmental problems provides sound justification for the introduction of an Animal Procedure Duty, that would similarly:

- Provide an incentive to researchers to use non-animal alternatives.
- Raise revenue that is directly invested in research into non-animal alternatives.
- Recognise and value the life of every animal used in experiments.

While other measures that provide incentives encouraging research using non-animal alternatives are also considered. Including: government funding bodies to specifically call for projects involving alternatives, that will in turn encourage scientists to think about research questions in different ways, possibly averting or reducing animal use.

**Please add your signature to EDM 545 and demonstrate your support
for measures that will encourage the use of non-animal alternatives.**

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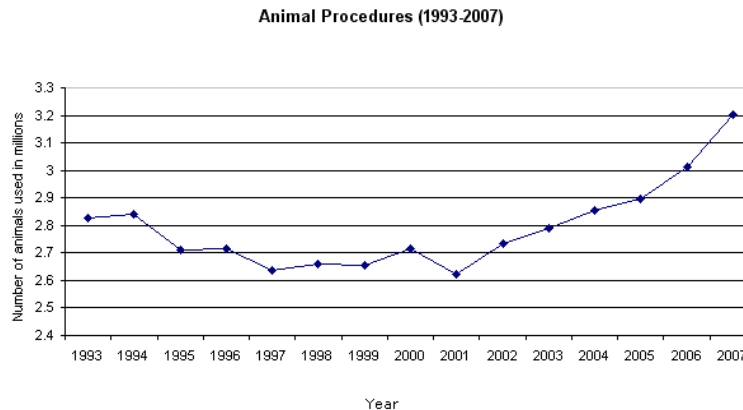
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Animals in Experiments: the current situation



Home Office statistics¹ for animal experiments in 2007, confirm levels of animal testing in the UK have risen 21% since Labour came into power in 1997. Prior to 1997, under a Conservative government they had been in steady decline.

- Over 6 successive years, the number of animal experiments has steadily increased, year on year, and currently tops 3.2 million.
- In simple terms, this means that more than half a million more animals were used in 2007, than in 2000.
- This upward trend returns the UK to a level of animal testing not seen since 1991.

At issue

The continued high level of animal use is unacceptable. Concerns over the increase in animal experiments, have been mounting for some years, and have been voiced by many, including former government adviser Michael Balls

"It's high time the way animal experiments are licensed in this country was re-examined. I had great hope that the system would ensure that animal use was reduced and suffering would be minimised when I was involved in the passage of the new law in 1985 and 1986, but it seems clear that it is failing in both regards."²

While Animal Procedures Committee member, Michael Festing wrote in 2004 of the need for researchers to improve experimental design, which in turn would save animal lives.

"Better design and analysis would improve the scientific validity of their work and reduce the number of animals needed to obtain a given level of scientific information."³

50 years of failing the 3R's

Naturewatch strongly supports the valuable work of the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3R's), and similar organisations. Yet while new hi-tech procedures, that replace, the need for animal testing, offer hope of humane scientific research, progress towards non-animal alternatives and the 3R's (refinement, reduction and replacement) has been desperately slow.

This year 2009, it is 50 years since Russell and Burch published *The Principles of Humane Experimental Technique*⁴, outlining the 3R's approach. Over the years, expert working groups, have recognised the 3R's as a model approach, yet despite of this, in 2007, the number of animals used in experiments reached its highest level in 16 years.

¹ Home Office. 2007, *Statistics of Scientific Procedures on Living Animals*

² Connor, S. 24-7-2007 "GM Mice raise animal tests to highest level for 15 years". *The Independent*

³ Festing, M.F.W. 2004, Preface, *ATLA* 32, suppl. 2, i-ii

⁴ Russell, W & Burch, R. 1959, *The Principles of Humane Experimental Technique*.

50 years of failing the 3R's (cont'd.)

In 2005, the Nuffield Council on Bioethics questioned why replacements in specific research areas were not available,⁵ and identified several non-scientific barriers to replacement of animal research, including funding, the lack of incentives, and the conservatism of some researchers to use alternatives.⁶

While the opening of the NC3R's in 2003, and the injection of funding provided by the government in December 2007 have been warmly welcomed, European Commission figures confirm the UK is the second highest user of animals in Europe⁷.

Measures have to be implemented to deal with these barriers, halt increases in the numbers of animals used, and promote animal replacement methods. Other pressing issues of national concern, have seen the introduction of measures that aim to influence behaviour and raise revenue that is directly invested into solving the problem in hand.

Measures to moderate and influence

Since coming to power in 1997, the government have introduced a series of environmental taxes, based on the premise: *"How and what governments tax sends clear signals about the economic activities they believe should be encouraged or discouraged, and the values they wish to entrench in society."*⁸

Case 1. UK's green tax plans to curb carbon emissions. The effect of rising carbon dioxide emissions on climate change, have led to measures that aim to influence the behaviour of the aviation industry and drivers in general, while raising revenue for projects that offset environmental problems.⁹ The measures announced in the 2008 Budget, include:

- **Vehicle Excise Duty (VED)** From 2010 the cleanest cars will pay no VED in their first year, rewarding drivers of the cleanest cars.
- **One-off Purchase supplement** on cars emitting more than 255Gkm comes into effect 2010 – Cost in 1st year £950 / £455 of which is VED
- **Tax on Aviation Fuel** - This is a new duty payable per plane¹⁰, which *"offers clear incentives for the aviation industry to invest in cleaner fleets"*¹¹

Case 2. Climate Change Levy. Introduced in April 2001, the levy sets out to reduce carbon emissions in commerce, industry and the public sector. The aim of the levy is to encourage users to improve energy efficiency and reduce emissions of greenhouse gases.¹²

Case 3. Landfill Tax. Introduced in 1996, the Landfill Tax is intended *"to stimulate reductions in the levels of waste going to landfill and encourage the development of more sustainable waste management practices."*¹³ Paid on top of normal landfill rates, it encourages companies, councils or other organisations to use alternative means of waste disposal, e.g. recycling.

Since its introduction, Defra note that *"overall quantities of waste recorded at landfill sites registered for the tax fell from around 96 million tonnes in 1997-98 to around 72 million tonnes in 2005-06, a reduction of around 25%."*¹⁴

Case 4. The Congestion Charge. Introduced in London in 2003, the scheme succeeded in reducing the volume of traffic in central London – *"Estimates of year-on-year changes in traffic levels during charging hours show a reduction of 18 percent in traffic entering the zone during charging hours"*¹⁵

⁵ Nuffield Council on Bioethics. 2005, *The ethics of research involving animals*. p.275

⁶ Nuffield Council on Bioethics. 2005 *The ethics of research involving animals*. [11.30] pp.196-199

⁷ European Commission. 5.11.2007, *Fifth Report on the Statistics on the Number of Animals used for Experimental and other Scientific Purposes in the Member States of the European Union* {COM (2007) 675 final}

⁸ http://www.hm-treasury.gov.uk/topics/environment/topics_environment_policy.cfm [accessed 6.08.08]

⁹ House of Commons Treasury Committee. 1.04.08, *The 2008 Budget: Ninth Report of Session 2007-2008*.

¹⁰ HM Treasury. 2007 *Pre-Budget Report and Comprehensive Spending Review 2007*, p.123, para 7.56

¹¹ Treasury Committee. 2008, *Fourth Report of Sessions 2007-2008, Climate Change and the Stern Review: the implications for Treasury Policy*. HC 231, para 115

¹² HM Treasury. March 2006, *The Climate Change Levy package*.

¹³ House of Commons Environment, Food and Rural Affairs Committee. *Waste Policy and the Landfill Directive: Fourth Session 2004-2005*

¹⁴ <http://www.defra.gov.uk/environment/waste/strategy/factsheets/landfilltax.htm> [accessed 9.09.08]

¹⁵ Transport for London. February 2004, *Congestion Charging: Update on scheme impacts and operations*.

Other tax increases that have been introduced to influence behaviour include tax rises on cigarettes and alcohol, in response to concerns about unhealthy or unsociable behaviour. Each of these instances recognises that by applying charges individuals will consider the cost of their actions, take steps to minimise the cost, which in turn is beneficial to the problem in hand.

Animal experiments: the current licensing system

So given the instances above, how does the current licensing system measure up? Researchers are required to complete a project license application form, for every procedure they plan to undertake, that sets out the research to be undertaken and the number of animals used. This is then submitted to the Animals in Scientific Procedures Inspectorate (ASPI) for evaluation.

Those directly involved in animal procedures are required to apply for a personal license, for which a set annual fee is payable [see table below]. The same is required of the participating establishment and the breeding /supply establishment.

Participating establishment	£252.00 per annum
Personal licence holder	£226.00 per annum
Breeding & /or supplying establishment Certificate of designation	£1,130 per annum

Deficiencies of the current system

No fee is levied with respect to the project license itself. The present fee system does not reflect the number of animals used in a procedure. The set annual fees required of personal license holders and participating establishments remain the same irrespective of the number of animals involved in procedures or the number of project licenses held.

The situation in Switzerland is very different, researchers pay for each permit to conduct an animal experiment.¹⁶ In the U.K. not applying a charge per project license has the following implications:

1. The current licensing system does not provide incentives to encourage researchers to move from using in vivo methodologies to using non-animal alternatives.

Nuffield Council on Bioethics [2005] noted the conservatism of some researchers to use alternatives. There is a clear need for incentives, that encourage the more widespread use of non-animal alternatives, thus reducing the numbers of animals used.

2. “The licensing system under the Animals (Scientific Procedures) Act 1986 is demanded and provides the Home Office, as regulator, with no mechanism for reducing animal use.”¹⁷ Under-Secretary of State, Meg Hillier’s response when questioned about steps being taken by the Home Office to reduce the number of animals used in scientific procedures in 2007.

The inability of the licensing system to moderate or reduce animal use is a grave oversight. The measures that have been introduced to curb carbon emissions and ease environmental pressures, demonstrate how charges can be used to affect reductions and influence behaviour.

3. Income generated from the Personal License Holder fee is not currently used to provide financial support for research into non-animal methods.¹⁸

Only 0.00002% of UK science budget is currently spent on government funding of non-animal replacements.¹⁹ To put this into perspective, estimates put the current government spend at only 40p on non-animal replacement for every animal used in a British laboratory.²⁰ An income stream to supplement current levels of investment, can only be a positive step forward.

¹⁶ Federal Veterinary Office, Berne, Switzerland [Bundesamt für Veterinärwesen] Correspondence received 1.09.08

¹⁷ Commons Hansard. 3 Sept 2007. Column 1832W. Answer provided by Meg Hillier to question regarding steps being taken by the Home Office to reduce the number of animals used in scientific procedures.

¹⁸ Commons Hansard. 23 July 2007, Answer given by Meg Hillier to question regarding Home Office licensing

¹⁹ Dr Hadwen Trust. July 2008, *Let Down By Labour*

²⁰ Dr Hadwen Trust. July 2008, *Let Down By Labour*

A way forward

Naturewatch urges the government to consider the introduction a series of measures in response to the growing number of animal experiments. These could include the following....

1. Applying a **charge or duty for every animal involved in experiments that cause animal pain, suffering, distress or lasting harm.** As demonstrated by measures to curb carbon emissions. This would -

- ✓ **Provide an incentive to researchers to use non-animal alternatives.**
- ✓ **Raise revenue that is directly invested into projects to counter the problem.**
- ✓ **Recognise and value the life of every animal being used in experiments.**

If a new duty can be introduced per plane to encourage the aviation industry to progress towards cleaner fleets²¹ Then surely it is possible to introduce a duty for every animal subjected to experiments causing pain, suffering, distress or lasting harm. The revenue generated could then be directly invested into the NC3R's, and provide an incentive to reduce animal use wherever possible.

In terms of logistics and paperwork, the current project license application form already requires researchers to clearly state the number of animals to be used, and from this, the duty could be calculated.

2. Measures to encourage research that uses alternatives

Guidelines produced earlier this year, by 5 major funding bodies, clearly set out requirements for those applying for funds, and that the implementation of the 3R's is an integral part of good research practice.²²

Naturewatch believes this approach should be developed further, and encourages government funding bodies to specifically call for projects involving alternatives, that will in turn encourage scientists to think about research questions in different ways, possibly averting or reducing animal use. This would -

- ✓ **Secure more funding for projects that use alternatives**
- ✓ **Raise the profile of alternatives in the research community, giving them "added value"**
- ✓ **Promote 3R's as good practice, helping change behaviour / attitudes**

Conclusion

The Home Office Statistics speak for themselves. There is a pressing need to put value onto animal lives. Naturewatch believes the measures outlined above, would make researchers give more serious consideration to the design of experiments.

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²¹ Treasury Committee, Fourth Report of Sessions 2007-2008, *Climate Change and the Stern Review: the implications for Treasury Policy*, HC 231, para 115

²² BBSRC, MRC, NC3R's, NERC, Wellcome Trust. May 2008, *Responsibility in the use of animals in bioscience research: Expectations of the major research council and charitable funding bodies.*