AWERB
Lay Members' Forum

RSPCA

RSPCA AWERB Lay Members' Forum

Monday 9th December 2013, the Royal Society, London

10.30	**Registration and coffee**
11.00	Welcome **Maggy Jennings, RSPCA**
11.05	A year of the amended Act – an update on progress with implementation, key issues **~ Anne-Marie Farmer/David Buist, Home Office**
	Presentation, Q&A and discussion
11.50	Coping with change – evolution of the AWERB from the ERP; introduction of new roles of Named Training and Competence Officer and Named Information Officer **~ Adrian Deeny, University College London**
12.10	Humane killing – how humane is humane? Latest thinking on use of carbon dioxide and anaesthetics for rats and mice - issues for the AWERB to consider **~ Huw Golledge, Newcastle University**
12.30	'Roadmap' for ending severe suffering – a role for the AWERB? **~ Elliot Lilley, RSPCA**
12.50	**LUNCH**
13.50	Challenging professionals effectively – some experiences from medical and animal ethics committees **~ Bryan Vernon, Newcastle University**
14.10	*Q&A, comments, discussion*
14.20	Replacement – alternative tests, alternative thinking **~ Carl Westmoreland, Unilever**
14.40	Applying the 3Rs in a sepsis research project – an example of the benefits and challenges of integrating the 3Rs in research using sepsis as an example **~ Manasi Nandi, Kings' College, London**
15.00	The role of the National Animals in Science Committee (ASC) – how should it communicate with AWERBs; what can it do for you and you do for it? **~ John Landers, Oxford University/Chair of the NASC**
15.20	*Q&A, comments, discussion*
15.45	**ENDS**

A year of the amended Act – an update on progress with implementation, key issues

David Buist and Anne-Marie Farmer, Home Office Inspectorate

This presentation will summarise the progress made by the Home Office since the transposition of EU Directive 2010/63 into the revised Animals (Scientific Procedures) Act 1986 (ASPA) at the beginning of 2013. An overview of what has been achieved will precede consideration of the tasks still to be completed and review of several current 'hot topics'.

Establishments will also have been busy this year. We will summarise what your establishment should have achieved by now, or may still be working on, and finally what you should be starting to consider for the future.

Coping with change – evolution of the AWERB from the ERP; introduction of new roles of Named Training and Competence Officer (NTCO) and Named Information Officer (NIO)

Adrian Deeny, UCL (University College London)

Some establishments are confronted with challenges in meeting the requirements of the amendments to the Animals (Scientific Procedures) Act 1986 (ASPA). Although for many there has been a seamless transition from the Ethical Review Process (ERP) to the Animal Welfare and Ethical Review Body (AWERB), for large academic establishments the amendments have resulted in a major review of record-keeping and other management procedures.

Every establishment is developing its own approach to working with the new amendments to the ASPA. At UCL, we have decided upon an evolutionary, rather than a revolutionary, approach that uses existing resource where possible. The significant challenges of ensuring the maintenance of training records for 1900 licensees means that engagement of project licensees is essential. In addition, recording systems for training, supervision and competence are in development to assist licensees and Named Persons. In the UCL setting, the Establishment Licence Holder is also the Named Training and Competency Officer (NTCO). A Training Manager supported by a Training Working Group develops training modules – in addition to Home Office Modules 1 to 4 – for animal care and research staff.

In addition to these initiatives, the development of software, and anticipating requirements for reporting 'actual severity' have been resource-hungry, and have been in the absence of finalised published guidance. Although outcome must always be the product of process, engagement with the latter is – and will be for some time – the focus of our resources.

We hope this presentation will stimulate comments and discussion regarding how other establishments and their AWERBs are dealing with the changes.

Humane killing – how humane is humane?

Huw DR Golledge, Centre for Behaviour and Evolution, Institute of Neuroscience, Newcastle University, UK

Millions of laboratory animals are used for scientific purposes each year and almost all will eventually be killed. It is both an ethical and legal imperative that these animals are killed humanely, hence the new European Directive on the use of animals for scientific purposes (2010/63/EU) mandates that animals should be killed with the minimum possible pain, suffering or distress. However, in many cases it is not clear which techniques are the most humane. For some species such as zebra fish and pigs there are techniques available that appear to be humane, however, the vast majority of animals used in research are rodents and there is no consensus that any methods commonly used to kill these species are humane.

Using the latest experimental evidence from my laboratory and others, I will summarise the latest evidence regarding the humaneness of the most commonly used methods to kill rodents, as well as newer methods which have been suggested to be more humane. Techniques covered will include carbon dioxide, inert gases, anaesthetic overdose and physical methods. Evidence suggests that inhalation methods such as carbon dioxide or anaesthesia with volatile anaesthetics cause aversion and therefore may cause distress. Injected overdoses of some anaesthetic agents such as pentobarbitone may be painful. Concerns surrounding physical methods include the possibility of failure to kill the animal (whilst causing pain) and the possibility of a delay between carrying out the methods and the loss of consciousness.

Our uncertainties about the humaneness of the deaths of laboratory rodents serve to emphasise that the method of death of an animal used in research should form an integral part of the harm/benefit analysis of any procedures which result in the killing of that animal – and Is an issue the AWERB needs to consider. Furthermore, it is imperative that the method used to kill animals should be carefully selected, taking into account the latest knowledge about the humaneness of the technique whilst also ensuring that the scientific aims of the study are achieved.

‘Road map’ for ending severe suffering – a role for the AWERB?

Dr Elliot Lilley, RSPCA Research Animals Department

The level of pain or distress experienced by animals used in experiments depends on the nature of the research and is classified as ‘mild’, ‘moderate’ or ‘severe’ under UK law. Any level of suffering is a concern, but ending severe suffering is a top priority. There are two major benefits: (i) the ethical benefit of reducing suffering and (ii) the scientific benefit – it is widely acknowledged that good quality science goes hand in hand with good welfare.

The revised ASPA requires that, for the first time, researchers are required to record and report the actual level of suffering (mild, moderate or severe) that individual animals experience during procedures. This is therefore an excellent time to look more closely at the sources and nature of suffering within the research context, to evaluate the effectiveness of current refinement practices and to seek more effective ways of avoiding or minimising all unnecessary pain and psychological distress experienced by animals. The local AWERB can play a key role in this process. It can also provide a driving force in working towards ending severe suffering within individual establishments.

This talk will outline the key questions and practical considerations that establishments and AWERBs need to address in order to reduce suffering for all animals and to work towards ending severe suffering.

Challenging professionals effectively – some experiences from medical and animal ethics committees

Bryan Vernon, Newcastle University

Appointing lay members demonstrates that an organisation is aware that it must appear transparent and accountable. Once they are appointed, siren voices from the rocks try to pull them in two directions: the first calls them to become part of the institution, flattered by the deference paid to them by professional members. The second calls them to remain adamantly loyal to their deeply-held beliefs and defiantly refuse to engage constructively or give professionals credit for such accommodation as they are willing to make to take some account of these views.

In this talk I shall offer a number of tips for steering a straight course based on many years' experience as a woefully ignorant lay person involved in areas where I am not qualified to speak.

Replacement – alternative tests, alternative thinking

Carl Westmoreland, Safety and Environmental Assurance Centre, Unilever

'Replacement' refers to methods that avoid or replace the use of animals defined as 'protected' under the ASPA in an area where they would otherwise have been used.

Historically, replacement and 'alternative tests' have concentrated on 1-for-1 replacement tests for existing animal tests using either (i) approaches which do not use animals at all, e.g. computer models or *in vitro* models, or (ii) approaches which avoid or replace the use of 'protected' animals e.g. using invertebrates or immature forms of vertebrates. Several databases of such 'alternative tests' exist such as the DB-ALM hosted by the European Union Reference Laboratory for alternatives to animal testing (EURL-ECVAM, **http://ecvam-dbalm.jrc.ec.europa.eu/**). In the area of non-animal approaches for toxicology testing, several methods have been evaluated as being valid alternatives for the animal tests they were designed to replace and OECD methods have been issued for their use in a regulatory setting.

However, when thinking about 'replacement' it is useful to think beyond the question 'How could I do this animal test without animals?' and to think more broadly 'What is the underlying question I am trying to answer and can this be addressed with non-animal approaches?'

Examples will be discussed from the area of safety assessment, to show how the National Research Council's publication '*Toxicity Testing in the Twenty-First Century (TT21C): A Vision and a Strategy*' (NRC 2007, see **www.tt21c.org**) has challenged toxicologists to think less about the current animal tests used to underpin drug/chemical safety, and more about the ways in which cutting-edge chemistry/ pathways biology and computational modelling can be used to 'transform toxicity testing from a system based on whole-animal testing to one founded primarily on *in vitro* methods that evaluate changes in biologic processes using cells, cell lines, or cellular components, preferably of human origin'.

These examples will be used to stimulate AWERB thinking on how similar approaches could be used in other areas of research.

Reference

- NRC (2007) *Toxicity testing in the twenty-first Century: A vision and a strategy. Committee on Toxicity and Assessment of Environmental Agents.* National Research Council, Washington, DC

Applying the 3Rs in a sepsis research project – an example of the benefits and challenges of integrating the 3Rs in research using sepsis as an example

Manasi Nandi, Kings' College, London

Sepsis (an infection in the blood stream) can lead to septic shock, a syndrome characterised by a profound drop in blood pressure which can lead to organ failure. Septic shock is one of the leading causes of death in intensive care units. Current treatment approaches are ineffective for many patients and new approaches are needed.

Animals are used to study sepsis and septic shock but this can cause severe suffering and raises challenging questions for the harm-benefit evaluation of such research.

In order to minimise unnecessary suffering of the animals, our group has developed a multiparameter monitoring approach which enables us to measure blood pressure, heart rate, temperature, organ perfusion and the extent of organ damage simultaneously. This provides a detailed set of results relating to whole body physiology whilst minimising animal distress, reducing the total number of animals required and increasing the physiological relevance of the data.

Careful consideration of animal welfare and the 3Rs in the planning, implementation and reporting of research is essential for high quality science. However, some researchers are more 'engaged' with this principle than others. Our group is collaborating with a sociologist to study this and to explore how, through education, mentoring and the support of the AWERB and senior management, values can be challenged and changed.

The role of the National Animals in Science Committee (ASC) – how should it communicate with AWERBs; what can it do for you and you do for it?

John Landers, Hertford College, Oxford & Chair of the ASC

I will give a brief overview of the functions of the Animals in Science Committee (ASC) as set out in the amended ASPA, its composition and establishment, and the competencies of its members. I will outline the specific tasks assigned to the Committee by the Minister for 2013/4 and its continuing responsibilities, focussing on liaison with AWERBs.

The RSPCA sees the involvement of lay perspectives as essential to the integrity of successful ethical review and is committed to supporting and developing the role of lay members.

The Research Animals Department organises an annual meeting for lay and other members of local AWERBs. The meeting provides a forum for people to come together and share experiences of their work. They combine presentations on some of the many important issues that AWERBss cover, with opportunities for discussion.

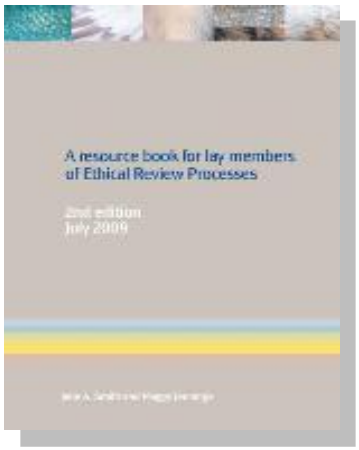
For further information, see: www.rspca.org.uk/laymembers

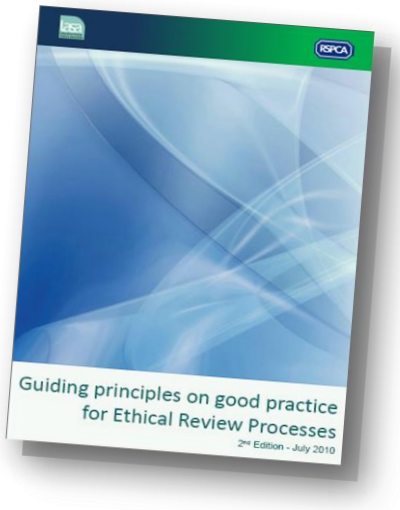
… where you can download two useful resources:

- **A resource book for lay members of Ethical Review Processes**, 2nd edition (2009). This is also available as a hard copy by emailing the address below.

- **Guiding principles on good practice for Ethical Review Processes**, 2nd edition (2010). This was produced by the RSPCA and Laboratory Animal Science Association (LASA) and sets out guidance on each of the seven functions of the ERP.

Both documents are currently being updated to take account of the revised EU Directive and the revised Animals (Scientific Procedures) Act 1986.

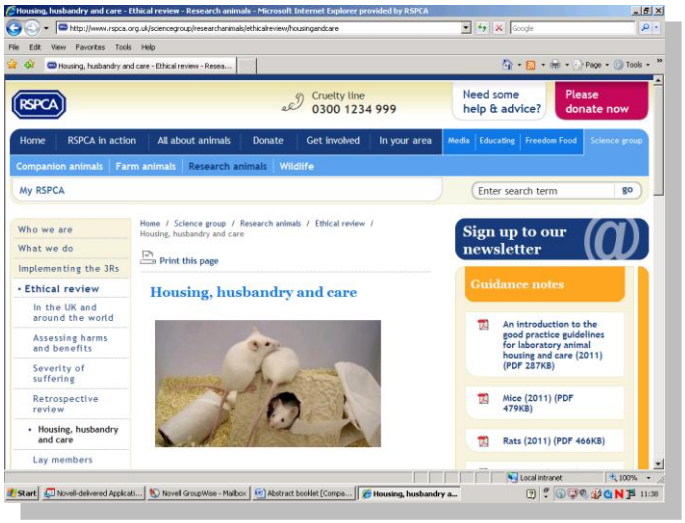




If you would like to register on our mailing list or have any questions regarding ethical review please email us at:
erp-laymembers@rspca.org.uk

On the RSPCA website:

www.rspca.org.uk/sciencegroup/researchanimals/ethicalreview/housingandcare



Our guidance notes on good practice for housing and care were all reviewed and updated in 2011 – all are free to download from the RSPCA website (URL on the left of this page). Species currently included are:

Mice	Rabbits	Cattle	Quail
Rats	Ferrets	Sheep	Pigeons
Hamsters	Dogs	Ducks and geese	Zebra finch
Guinea pigs	Pigs	Domestic fowl	*Xenopus laevis*

There is also information on **cage cleaning mice and rats** and **humane killing**, with more to come including **welfare assessment**, so please check our site regularly.