The RSPCA and the 3Rs
The scientific animal welfare organisation as a catalyst for change.

Elliot Lilley
Research Animals Department

- Principal goal = replacement of animals with humane alternatives
- ROBUST ETHICAL REVIEW OF ANIMAL USE
  - Challenging necessity and justification
- EFFECTIVE IMPLEMENTATION OF THE THREE RS

RAD part of RSPCA Science Group
CAD FAD WLD
Science driven policy

Penny  Barney  Elliot  Juliet
Research Animals Department

Our approach

- Long history of working with the scientific community
  - Researchers, regulators, animal care staff
- Challenge from ‘within’
  - Ethical review, actual severity reporting, training & competency
- Highlighting problems *and* finding practical solutions
Our key areas of work

- Challenging the use of animals - ethically and scientifically
- Ensuring effective, well enforced regulation of animal experiments
- Raising standards internationally
- Promoting debate which is open and honest
- Promoting animal welfare in tertiary education
- Reducing the use and suffering of lab animals
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RAD staff sit on multiple UK AWERBS including Pharmaceutical companies, Universities, Medical Research Charities and CROs.
Events for members of AWERBs

AWERB Lay Members’ Forum

Since 1999, the RSPCA has been organising a regular meeting for lay and other members of Animal Welfare and Ethical Review Bodies (AWERBs). The meetings provide a forum for people to come together and share experiences of their work. Presentations on some of the many important issues that AWERBs cover are combined with opportunities for group discussion. You can read about many of the previous events below. Ideas for topics to consider at the Forum are always welcome.

2014

The most recent Forum was held in December. Topics included: assessing harms and benefits; experimental design and translatability, fish welfare, retrospective review; update from the European Commission. Abstract booklet (2014) (PDF 1.54MB)

2013

The programme included a range of scientific, welfare and ethical topics and also covered issues relating to the implementation of the revised UK law. Abstract booklet (2013) (PDF 891KB)

2012

Topics included: transposition of Directive 2010/63/EU – with emphasis on issues of particular relevance to the ethical review process; how lay members would like to see the local ethical review process and the new national Animals in Science Committee develop in the future. Abstract booklet (2012) (PDF 851KB).

2011

The theme of ‘Making difficult decisions’. Topics included: evaluating harms and benefits of new technologies; issues relating to humane endpoints and cumulative suffering; harms and benefits in behavioural pharmacology; and the challenge of ethical review in a global context. Abstract booklet (2011) (PDF 592KB)

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RSPCA - Lab Animals

@RSPCA_LabAnimal

Just held workshop on ethical review of animal use, great talks & discussion! Thank you @SEBiology for putting this on the agenda. #SEB3Rs

RSPCA - Lab Animals

@RSPCA_LabAnimal

Just held a really successful session on ethical review of animal use at #FELASA2016 - great turnout & discussions! #3Rs
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- Ongoing meetings with senior Home Office (UK regulator/CA) officials
- Input into development of guidance on new UK law – commented on advisory notes
- Penny (until 2016), Barney (from 2016) member of the Animals in Science Committee (ASC) statutory advisory body
- Barney is member of Laboratory Animal Science Association council, Elliot is member of ETEs
- Members of various learned societies providing input on animal welfare issues
Friday 24 April 2015

More effort needed to end ‘severe’ suffering of lab animals, urges RSPCA

80,000 lab animals experience severe pain, suffering or distress in the UK

Today (24 April) is World Day for Laboratory Animals and the RSPCA is calling for everyone involved in the regulation and use of animals in research to make ending ‘severe’ suffering a top priority - and do much more towards achieving it.
## The regulator

**BEING COLLABORATIVE**

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### Working to reduce the use of animals in scientific research

<table>
<thead>
<tr>
<th>Title/lead organisation(s)</th>
<th>Actions (underway or proposed)</th>
<th>Measures of success and key milestones</th>
<th>Timelines</th>
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<tbody>
<tr>
<td>1.5 Refinement of models</td>
<td>Work to refine the most severe models to avoid or reduce animal suffering. Models to be considered include:</td>
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| (RSPCA with HO)            | - Experimental Autoimmune Encephalomyelitis (EAE); - Seizures; - Rheumatoid arthritis; and - Sepsis. | - Reports on each of the selected topics prepared and published. - Recommendations promulgated.       | i) EAE report published late 2012.  
iii) Rheumatoid arthritis report to be published early 2014.  
v) Inspectors report active implementation by licence applicants. |
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- Represent the EU animal welfare sector in *EC Expert Working Groups* set up to *establish important guidance* for how all 28 Member States implement the new EU Directive (*ongoing*).

- Delivered *+15 major training events* for *government officials, members of animal ethics committees, scientists* and *animal care staff* in countries such as Bulgaria, Croatia, China and Taiwan.

- Produced *translated versions of key information* for *reducing the impact of experiments*, and on *improving animal welfare*. 
欢迎来到实验动物福利操作技术规范网站。本网站提供一系列的技术资料供研究人员学习实验动物研究中常用的最佳操作技术方法。主要涉及使用最多的实验动物小鼠和大鼠。未来本网站还将会增加有关小鼠和大鼠的操作技术和其他实验动物的技术资料。

本网站中的技术资料是由泰恩纽卡斯尔大学（Newcastle University）编写，同时动物技术研究所（the Institute of Animal Technology）和美国实验动物3R研究中心（NC3Rs）提供支持。

本网站视频可以下载，但要遵循“使用条款”中的规定，不得用于商业用途。如果视频不能正常播放，请加载Flash插件。网页中的视频链接可能不可下载时，请点击“英文对照”，去对应的英文网站下载。请您把对本网站的意见和建议反馈给我们（info@cnitas.org），以便于我们改进工作。

这是一份全面的培训研究人员使用最佳操作方法开展实验动物的手术无菌技术的指南。

Examples of training events and translated resources
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Input into UK Concordat on Openness on Animal Research – over 50 organisations have signed up

RSPCA concerns relating to underplaying harms to animals and overstating benefits

We provided impartial expert advice for a series of 4 public dialogue events
Our key areas of work

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- Reducing the use and suffering of lab animals
• Approach Doctoral & Graduate Schools to ascertain current provision
• Engage with Institutions to embed animal welfare, ethics & 3Rs in graduate programmes
• Develop & disseminate teaching materials
• Measure outcomes
Pilot course: Animal Research: Critical, Challenging & Creative Thinking

1. Animal use, 3Rs, alternatives, spectrum of opinion & ethics, openness & transparency, public opinion & engagement

2. Research integrity, challenges facing science community, quality of published research & ethical dilemmas

3. The importance of experimental design & how to avoid common pitfalls. Refinement & reduction in practice

4. Animal welfare, importance of identifying & minimising harms; welfare indicators & welfare assessment in practice

Describe your project in 3 sentences. What are the benefits to society? What are the harms to the animals?

12 hours
2 days
25 students
1st yr PhD

Group evaluation of two recent papers in animal research – do they adhere to publication guidelines? Are there ethical concerns?

Welfare assessment pub quiz with prizes!
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The UK Joint Working Group on Refinement (JWGR) is an initiative established by four organisations: the British Veterinary Association - Animal Welfare Foundation, the Fund for the Replacement of Animals in Medical Experiments, the RSPCA and the Universities Federation for Animal Welfare. The RSPCA co-ordinates the Group and provides the secretariat.

The JWGR organises working groups with experts from industry, academia and animal welfare to prepare reports on a variety of specific topics. They set out recommendations for good practice and define practical ways of reducing suffering associated with husbandry and procedures.

These reports are usually published in the UK journal *Laboratory Animals*. Examples include:
Refinement
Joint Working Group On Refinement 1993-2011
Refinement
AGGREGATION OF MARGINAL GAINS?

• Single large change
  • Boardman bike
  • Robo-athlete
  • Add a motor!

• Series of small changes
  • Better front forks
  • More aerodynamic wheels
  • More aerodynamic helmets
  • Heat pads to warm muscles between races
  • Better suit design
  • Better physiotherapy
  • Psychological support
Refinement
AGGREGATION OF MARGINAL GAINS?

• Single large change
  • Replace all procedures with alternatives
  • Choose not to perform the experiment

• Series of small changes
  • Improve housing and care
  • Improve welfare assessment
  • Implementation of humane endpoints
  • Rigorous ethical review
  • Better experimental design

End Suffering
Suffering reduced, can be applied broadly

http://pilas.org.uk/refinement-lessons-from-the-2012-olympics/
Goal: to end severe suffering

- Convincing the scientific community that ending severe suffering is both desirable and achievable
- Multiple work streams
  - Producing guidance to promote and facilitate ending severe suffering
  - Challenging necessity and justification
  - Forming expert working groups to refine procedures and models

Challenge people to think differently!
A 'Road Map' Toward Ending Severe Suffering of Animals Used in Research and Testing

Elliot Lilley, Penny Hawkins and Maggy Jennings

Ending severe suffering is a desirable goal for both ethical and scientific reasons. The RSPCA has pledged to work toward the end of such suffering for laboratory animals, and in this article we outline a practical approach that establishments can follow to achieve this aim.

Introduction

The introduction of EU Directive 2010/63/EU controlling experiments on animals, and the associated updating of the UK Animals (Scientific Procedures) Act 1986 (ASPA), have focused attention on the need to reduce animal suffering in scientific procedures. Classification of levels of suffering into mild, moderate and severe, and the need to record the levels of severity, have provided added impetus to the drive to refine the most severe modes and procedures, and have resulted in a greater recognition that high levels of suffering impact on an animal’s physiological responses, increasing the variability of experimental data. So, ending severe suffering is a desirable goal for scientific reasons, as well as ethical and legal ones.

There are currently no data on the proportion of the approximately four million procedures carried out on animals in 2013 in the UK that caused severe suffering — or indeed, for any previous year. This will change from 2014, because the EU Directive and the ASPA will require research establishments to assess and report the actual level of suffering experienced by individual animals undergoing regulated procedures. This is good news for these reasons. Firstly, it will give the public a clear indication of the levels of suffering that laboratory animals experience, which will be an important step toward open and honest reporting of animal use in research. Secondly, it will give establishments an opportunity to evaluate how successful their refinement programmes are in reducing suffering, and highlight areas where more work is needed. Finally, these new data will allow regulators, welfare organisations and research funding bodies to focus resources on areas of research where suffering is the most severe and/or refinement is lacking, and to track progress.

Stages on the Road

There are two complementary aspects to the 'road map' approach (Figure 1):

1. The cultural aspect: developing an environment that will support and encourage positive attitudes toward change.

2. The procedural aspect: developing the activities and initiatives that will end severe suffering.

The cultural aspect: establishing the culture of care

Fundamental to ending severe suffering is the belief that this is both desirable and possible.

The procedural aspect: understanding the depth of problems.

This understanding will allow the identification of problem areas, and the development of programmes tailored to each area.
Focus on severe suffering

Welcome to the RSPCA/LASA/LAVA/IAT Severe Suffering web resource.

These web pages provide information and resources that will help you to avoid severe suffering. All of the material can be used by anyone involved with the use of animals in research, but you may wish to follow one of the three different routes for (1) researchers, (2) animal technologists or veterinarians and (3) members of ethics or animal care and use committees, such as Animal Welfare and Ethical Review Bodies (AWERBs) in the UK and Animal Welfare Bodies (AWBs) in the rest of the European Union.

The RSPCA is a scientific animal welfare organisation that works to progress the 3Rs and encourage effective ethical review of research and testing using animals. We have partnered with LASA, LAVA and IAT to create this resource as part of our ongoing work with respect to animal use, which has a special focus on severe suffering. With a positive approach and good communication, much can be done to reduce suffering — and animal welfare and science will both benefit.

This is the first version of this resource and we will be adding much more. The content has been reviewed by a diverse panel of individuals from industry, academia, regulatory authorities, learned societies and organisations. The authors of this material are indebted to these reviewers for their contributions. Please visit regularly and send us your feedback at research.animals@rspca.org.uk

Why focus on severe suffering?: Scientists

Specific information for research staff on the need to reduce severe suffering.

Why focus on severe suffering?: Animal technologists and vets

Specific information for animal technologists and vets on the need to reduce severe suffering.

Why focus on severe suffering?: AWERB members

Specific information for members of AWERBs or AWBs on the need to reduce severe suffering.
EWG approach

WORKING WITH THE SCIENTIFIC COMMUNITY

* RSPCA chaired and convened groups
  - Researchers (academic, industry & CRO)
  - Animal technologists
  - Veterinarians
  - Regulator (UK Home Office – ASRU)

* Establish **why** severe suffering occurs and set out **practical** solutions
UK HO using sepsis report for first thematic review of sepsis research in the UK
Expert working groups

Future groups

Spinal cord injury
Pancreatitis
Tamoxifen
Bone marrow irradiation

Death as an endpoint
RSPCA/UFAW Rodent Welfare Group

Working to improve the welfare of laboratory rodents is extremely important because the vast majority of animals used in research and testing are mice and rats.

The RSPCA/UFAW Rodent Welfare Group provides a forum for scientists, animal technologists and veterinarians to exchange ideas on implementing the best care and use of laboratory rodents.

A key aim of the Group is to encourage people to take account of the whole lifetime experience of laboratory mice when using and caring for them worldwide.

Annual meetings

The Group holds annual meetings with presentations and interactive sessions, which often address specific themes. Previous topics have included rat welfare, rodent care, rodent welfare assessment and welfare issues associated with Individually Ventilated Cages (IVCs).

Reports of past meetings

The research animals department also produces the meeting reports (see below), which are available to interested scientists and anyone caring for rodents worldwide.

Farm animals in research

Significant numbers of agricultural animals are used in experiments, for example in the research and development of vaccines against diseases such as bovine tuberculosis. They are also used in human medical and veterinary research, and in studies aiming to improve their productivity or to better understand their behaviour and welfare.

A workshop on the care and use of agricultural animals in research, held by the Norwegian Consensus Platform on Alternatives (Norecopa) in 2012, recommended that there should be more discussion forums and meetings on the 3Rs for all those involved in the care and use of these species.

The RSPCA and APHA® (formerly AHVLA) have taken this forward by holding two meetings on the Welfare of Agricultural Animals in Research, in June 2013 and September 2014.

Sharing ideas on welfare and the 3Rs

Meeting topics have included presentations on emotions in farm animals, clicker training for pigs, achieving good welfare standards for animals in vaccine research, reducing suffering in avian influenza research, replacing farm animals in education, and assessing and alleviating suffering. The meetings also included poster sessions and plenty of opportunities to make new contacts and to share ideas about welfare and the 3Rs.

Both meetings were attended by over 80 delegates, including animal technologists, researchers, veterinarians and students, from a wide range of establishments within the UK and overseas. Reports of both meetings, including action points, have been published in the journal Animal Technology and Welfare (and are freely available for download below).
International meeting
Focus on severe suffering

150 delegates from 24 countries
Summary

CHANGE REQUIRES A VARIETY OF APPROACHES

• A spectrum of animal welfare activity is important
• Liaison with the scientific community and being ‘challenging from within’ is a critical part of the spectrum
• Animal welfare organisations play an important role in securing change for animals
• We’ve achieved a lot BUT there is still much to do........
Thank you