RSPCA
ANIMALS IN SCIENCE

Summary Report: Lay Members' Forum 2025

February 2026
Animals in Science Department

Introduction

The 26th Lay Members' Forum, organised by the RSPCA, brought together representatives of Animal Welfare and Ethical Review Bodies (AWERBs) from a wide range of UK research establishments, with the aim of sharing information and experiences around good practice. Discussions included strategies for replacing animals in science, promoting the rehoming (or 'retiring') of lab animals, sex-inclusive research, and environmental enrichment for zebrafish. We also discussed the key points identified from the 2025 AWERB-UK meeting , which you can read more about here.

Report by Ellie Muscat

Contents

Session 1: Strategies for replacing animals in science

Barney Reed from the RSPCA's Animals in Science Department opened the meeting by highlighting a number of initiatives, launched over the past few years in countries around the world, aimed towards phasing out the use of animals in research and testing. He explained how recent significant technological advances were offering increased opportunities, and potential, for replacing animals in a range of scientific fields and tests. As a result there is also political momentum, with more governments and other key organisations worldwide making clear commitments to the goal of phasing out animal use, while creating and providing funding for strategic roadmaps to accelerate this transition.

In February 2024, the previous UK Government announced a plan to accelerate the development, validation, and uptake of non-animal alternatives and a doubling of investment in the 3Rs (Replacement, Reduction and Refinement). The current Government has since launched, in November 2025, a comprehensive roadmap for '*Replacing animals in science*'[1], which includes 28 specific actions and is backed by £75 million in funding. Key activities include £30 million for a new pre-clinical hub promoting collaborative and human-relevant approaches in three major areas of translational research, and £30 million for a new UK Centre for the Validation of Alternative Methods (UKCVAM), dedicated to coordinating the validation of non-animal methods for use in regulatory testing of substances like chemicals. Commentators have described the UK's approach as being ambitious, but balanced and evidence-based, and note that in addition to recognising the challenges involved, it sets out practical measures for working to overcome these.

These activities, however, should be viewed in an international context. In early 2026, the European Commission will publish its own roadmap for phasing-out the use of animals in chemicals testing, whilst the European Research Area Policy Agenda for 2025-2027 includes a commitment and action to 'Accelerate new approach methodologies' in biomedical research[2].

[1] Department for Science, Innovation and Technology (2025). Replacing animals in science: a strategy to support the development, validation and uptake of alternative methods. Available at: gov.uk/government/publications/replacing-animals-in-science-strategy/replacing-animals-in-science-a-strategy-to-support-the-development-validation-and-uptake-of-alternative-methods

[2] European Commission (2025). ERA Policy Agenda 2025-2027. Available at: european-research-area.ec.europa.eu/era-policy-agenda-2025-2027

In the USA, the National Institutes of Health (NIH) has launched new initiatives supporting the development of non-animal alternatives, and prioritising human-relevant research technologies to reduce animal use[3]. Meanwhile, the Food and Drug Administration (FDA) is taking steps to streamline the regulatory adoption of non-animal methods, notably announcing a plan in April 2025 to phase out the animal testing requirements for approvals of new drugs, starting with monoclonal antibodies[4].

Despite the significant scientific and political momentum, the wider development and adoption of non-animal technologies across the scientific community still faces several practical and cultural (relating to 'how science is done') barriers. The faster development and uptake of new methodologies is limited by factors relating to technological progress (alternatives still need to be developed in many areas of research) and acceptance (regulators and journal editors and reviewers need to understand and have confidence in data obtained from new methods).

Furthermore, scientists may not be aware of, or know how to use or interpret, data from new non-animal approaches - and there may be an unwillingness to move away from established practices. Other obstacles include concerns over funding security, professional status (e.g. if this was established via the use of a particular animal model) and career progression, or a lack of local institutional support. This is particularly the case within academia, where around half of all UK animal use takes place. At various stages of project review, the R of 'Replacement' is often given less attention than Refinement or Reduction, and opportunities to support, consider, trial or implement alternatives are being missed[5].

The aim of the next presentation, given by Dr Timothy Hopkins of Queen Mary's University London, was to provide attendees with an example of a new, non-animal technology. Organ-on-a-Chip technology, capable of replicating key aspects of human physiology outside of the body, can offer more accurate, faster and cost-effective approaches to understanding diseases and developing and testing effective new medicines.

[3] National Institutes of Health (2025) NIH to prioritize human-based research technologies. nih.gov/news-events/news-releases/nih-prioritize-human-based-research-technologies

[4] U.S. Food and Drug Administration (2025) FDA announces plan to phase out animal testing requirement for monoclonal antibodies and other drugs. fda.gov/news-events/press-announcements/fda-announces-plan-phase-out-animal-testing-requirement-monoclonal-antibodies-and-other-drugs

[5] The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs. A report by Dr Frances Rawle, commissioned by the NC3Rs, nc3rs.org.uk/role-review-and-regulatory-approvals-processes-animal-research-supporting-implementation-3rs-2023

Tim explained how scientific research typically relies on simplified models to understand how diseases start and progress, as well as to develop and test new treatments. While research has historically used cell-based in vitro models and in vivo animal models, there is a growing need for more accurate systems that can avoid and reduce animal use. Organ-on-a-Chip technology addresses this need by growing living cells in small engineered chambers and channels where scientists can exert precise control over both internal and external conditions. The cells in the chip require a comprehensive support system including nutrients, appropriate environmental factors and waste removal. Unlike 'traditional' in vitro cultures, these systems mimic the dynamic nature of human tissue, for example by incorporating mechanical and inflammatory stimulation, so this technology can be used to study diseases such as arthritis.

Organ-on-a-Chip technologies are being developed across a range of scientific fields, and are demonstrating value in both providing insights into fundamental biological research and also in helping to identify and develop new treatments for disease. As a result, this technology is attracting significant and growing interest from engineers, clinicians, pharmaceutical companies, regulators and policy-makers.

Discussion

Discussion focused on awareness of the new UK Government Strategy '*Replacing animals in science*'[1], and how individual research establishments can support this. Participants also explored the role that lay members can play in facilitating engagement from their AWERBs with the aims and activities of the Strategy. Overall, there was a high level of awareness of the Strategy, but many participants had not yet formally discussed it within their AWERBs, although they planned to raise it in future meetings. People wanted to know how establishments can keep up-to-date with rapidly emerging new technologies - including what they are, how they work, how they might be used, and where they might be able to (partly or completely) replace the use of animals. One lay member recognised the AWERB would need to consider how they could be confident about which Replacement techniques might be applicable to the specific research fields undertaken at their establishment, particularly where specialist knowledge may be required. Whilst attendees agreed that it is not the primary responsibility of the AWERB to remain up to date with all scientific and technological advances, they did feel they needed to be reassured about how this information was flowing into and around the establishment.

It was felt that the major responsibilities sit with the Named Information Officer (who will need to be properly supported in achieving this part of their role) and the Project Licence (PPL) applicant, who should be able to clearly demonstrate how they have considered each of the 3Rs, including Replacement.

Another participant highlighted that some non-animal methods can still rely on animal-derived products for their development and maintenance. Therefore discussions around what 'Replacement' looks like, and activities aimed at fully replacing animal use, should also consider this aspect.

Action points

- **Ask for discussion of the UK Government Strategy 'Replacing animals in science' to be added to the next AWERB meeting agenda**
- **Suggest your AWERB has 'supporting Replacement' as a strategic ambition, identifying which specific areas of animal use within their own establishments offer the highest potential for transitioning to non-animal methods**
- **Ask your AWERB to review how the establishment supports scientists to transition to non-animal methods in their institutions, for example by facilitating collaborations or access to training opportunities**
- **Check your AWERB's approach to the R of Replacement, ensuring that project licence applicants demonstrate how they have rigorously considered the potential for using non-animal alternatives**
- **Explore how the AWERB could encourage the establishment to review opportunities for contributing to external initiatives and stay engaged with the broader goals and activities detailed in the national strategy**

Session 2: Strengthening AWERBs: resource, engagement and recognition

Ellie Muscat presented on the five key points identified in the AWERB-UK 2025 meeting on *'Strengthening AWERBs: resource, engagement and recognition'* [6]. The meeting addressed concerns about time and resources available for the AWERB, which was an issue that has been raised frequently across various forums, such as previous AWERB-UK meetings, previous Lay Members' Forums and also at the 2024 University of Oxford/RSPCA AWERB Hub Workshop. The aim of the 2025 AWERB-UK meeting was to identify ongoing issues that are hindering the effective operation of some AWERBs and preventing them from developing their Culture of Care. As part of this meeting, group discussions identified operational challenges inhibiting the AWERB from achieving overall effectiveness, with the aim of prioritising the most critical issues that require immediate attention.

The five operational challenges for AWERBs identified were:

- **Lack of recognition and reward for members**
- **Lack of training and Continuing Professional Development (CPD) for members**
- **Insufficient time for all those directly and indirectly involved**
- **Need for 'professionalisation' of the AWERB (including career progression)**
- **Lack of liaison with Research Integrity Committees and similar bodies**

Ideas for addressing these challenges were also identified, and more detail can be found in the AWERB-UK report[6]. Most ideas related to enhancing operational efficiency, formally acknowledging the roles and responsibilities of AWERB members, and fostering collaboration between AWERB and other internal bodies at the establishment.

Following this introduction, Lorena Sordo Sordo led a discussion session, where attendees reflected on whether the operational challenges were recognised at their establishment, as well as identifying opportunities and obstacles around implementing the action points identified in the report.

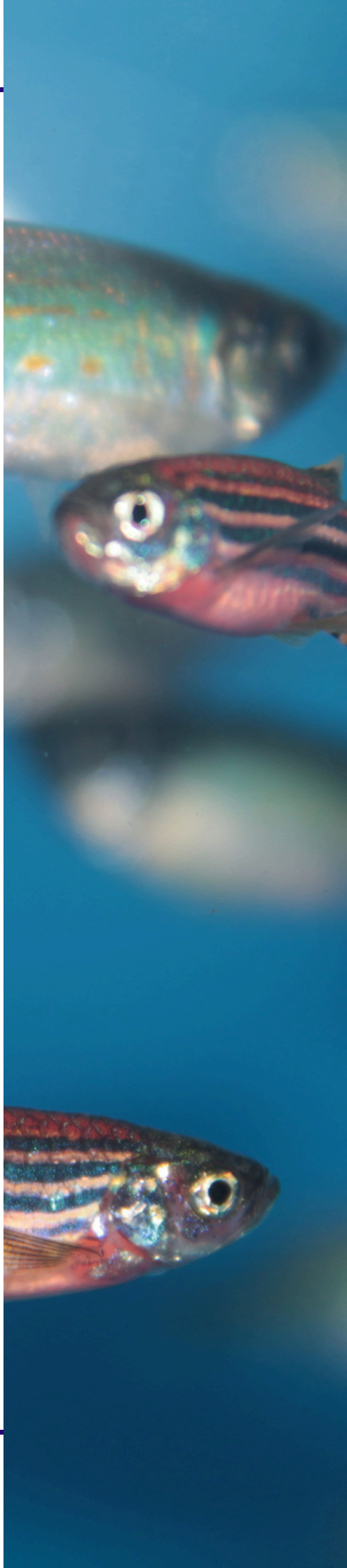
[6] RSPCA/LASA/LAVA/IAT Strengthening AWERBs: Resource Engagement and Recognition, AWERB-UK report (2025) science.rspca.org.uk/documents/d/science/awerb-uk-report

Discussion

Participants agreed with the challenges identified in the AWERB-UK report, particularly the lack of formal recognition and adequate training for members, as well as difficulties with finding enough time for the work. While there was a genuine desire to take action and improve how the AWERB operates, participants noted that two main things stand in the way: a lack of budget and a history of discussing good ideas that are then rarely put into practice. To overcome this, the group felt that the role of the committee needs to be treated as a professional responsibility rather than a ‘nice to have’, with the work officially written into people's job descriptions and performance reviews. By making these changes, the hope is that the AWERB's importance will be more visible to senior management, making it easier to secure the funding and time needed to truly support the AWERB and realise its potential.

Action points

- **Read the AWERB-UK Report on Strengthening AWERBs: resource, engagement and recognition and discuss the challenges and potential actions, if necessary, in your AWERB meeting**
- **Ask your AWERB Chair to liaise with the Establishment Licence Holder and leadership teams, to integrate AWERB work into workload allocations and personal development plans**
- **Suggest your AWERB reviews what induction and training is available for new members, while also ensuring there are opportunities for CPD. For example, you could suggest integrating some CPD into meetings or away days**



Session 3: Current topics

Sex Inclusive Research Framework (SIRF)

The third session of the day featured talks on current issues of interest. The first was from Natasha Karp from AstraZeneca, who gave a presentation on the Sex Inclusive Research Framework (SIRF) clinical data, confirming that biological sex and gender significantly impact disease prevalence, symptoms, and drug side effects. For instance, while COVID-19 was more common in women, men experienced higher death rates due to biological factors, such as differences in cell receptors, and gender-based behaviours, e.g. a lower likelihood of using preventative measures. Despite these clear differences, laboratory research remains heavily biased towards using only male samples to 'simplify' experiments. A broad look at biological research revealed that while the inclusion of both sexes improved to 48% by 2019, nearly 22% of animal studies still fail to even mention the sex of the subjects. Furthermore, even when both sexes are included, only 42% of studies actually analyse the data to see if results differ between them.

This neglect has severe consequences; for example, 80% of drugs withdrawn from the US market between 1997 and 2000 posed greater health risks to women than men. Additionally, the sleep aid Zolpidem required a 50% dosage reduction for women years after its release because women clear the drug from their bodies more slowly. In pain research, over 72% of studies used only male subjects, potentially missing vital information about how pain works in women. To address this, Natasha Karp and a collaborative group developed the Sex Inclusive Research Framework (SIRF). Published in Nature Communications in 2025[7], SIRF is an assessment tool, suitable for AWERBs, designed to help evaluate research proposals.

It uses a 'traffic light' system to check if a researcher's justification for using only one sex is valid or based on common misconceptions regarding cost and variability. This initiative continues through SIRF-UP, a collaboration with the EU to standardise these better research practices globally.

[7] Karp, N.A., Berdoy, M., Gray, K., Hunt, L., Jennings, M., Kerton, A., Leach, M., Tremoleda, J.L., Gledhill, J., Pearl, E.J., Percie du Sert, N., Phillips, B., Reynolds, P.S., Ryder, K., Stanford, S.C., Wells, S. and Whitfield, L. (2025). The Sex Inclusive Research Framework to address sex bias in preclinical research proposals. Nature Communications, [online] 16(1). doi: doi.org/10.1038/s41467-025-58560-5.

Rehoming or 'Retiring'

The second talk of the session was from Jessie McConnell-Hellier of Replacing Animal Research, who gave a talk on rehoming or 'retiring' laboratory animals. While the organisation's primary mission is the ultimate Replacement of animal use through funding, education and policy, it advocates for improved standards for animals who are currently being used. Under the Animals (Scientific Procedures) Act 1986 (ASPA), 'rehoming' requires Secretary of State consent based on factors including the animal's health, public safety, and the existence of an adequate socialisation scheme. However, ASPA's definition of 'rehoming' includes destinations such as zoos, slaughterhouses and laboratories abroad. To address this, the charity suggests adopting more precise terminology like 'discharged,' 'transferred,' or 'retired' to better reflect an animal's actual fate. Furthermore, there are no government-published data on rehoming, despite evidence from a 2020 survey showing that at least 19 UK facilities rehomed over 2,300 animals between 2015 and 2017. The presentation concluded that while rehoming should be a common practice, the current framework requires more support around implementation and greater transparency, specifically calling for the inclusion of species-specific rehoming numbers and destinations in the annual UK statistics.

Enrichment for zebrafish

The final talk of this session was from Chloe Stevens from the RSPCA's Animals in Science Department, who presented a compelling case for providing environmental enrichment for laboratory zebrafish, with evidence that this is fundamental to both animal welfare and scientific integrity. Enrichment is defined as any modification to a captive animal's environment intended to improve their well-being, a necessity for zebrafish as they consistently demonstrate a strong preference for structured habitats over the barren, clinical tanks still seen in some research facilities. Effective strategies highlighted included the provision of physical structures like real or artificial plants, rocks, and shelters, alongside substrates such as gravel or sand. Remarkably, even the simple addition of a gravel image under the tank can significantly increase larval survivorship and reduce anxiety compared to empty environments.

The presentation also stressed the importance of social housing, noting that keeping fish in groups, ideally six or more, reduces anxiety and accelerates recovery from stressful events compared to isolation or pairing. Supplementary interventions, such as offering live food like Artemia to stimulate natural predatory behaviours, allowing access to flowing water, and utilising auditory enrichment, like classical music[8], to reduce stress, further contribute to improving zebrafish welfare.

Crucially, Chloe demonstrated that enrichment is a scientific requirement, as chronic stress can fundamentally distort metabolic rates, immune function, cognitive development, and pain responses. By mitigating these physiological variations, enriched environments produce more robust experimental data. Ultimately, adopting these evidence-based standards ensures that research is both more humane and more translatable, as improved welfare directly correlates with higher quality scientific outcomes.

Action points

- **If your establishment has zebrafish, ask to visit the facility and discuss the use of environmental enrichment, like gravel-patterned backgrounds, or artificial plants**
- **Ask the AWERB to use the SIRF (Sex Inclusive Research Framework) 'traffic light' system as a checklist during project review, and encourage project licence applicants to use it too**
- **Ask to see the establishment's rehoming policy, and ask for discussion around where animals go, whether there are any associated ethical issues, and how the homes or facilities are screened. Where applicable, ask for the use of more transparent terms, such as 'retired' or 'transferred'**

[8] Barcellos, H. & Koakoski, Gessi & Chaulet, Fabiele & Kirsten, Karina & Carlos, Kreutz & Kalueff, Allan & Barcellos, Leonardo. (2018). The effects of auditory enrichment on zebrafish behavior and physiology. PeerJ. 6. e5162. 10.7717/peerj.5162.

Session 4: Advising on the 3Rs

The final session of the day focused on how AWERBs can be more challenging in advising on the 3Rs. It was opened by Professor Emma Robinson from the 3Hs Initiative (Housing, Handling, and Habituation) at the University of Bristol, which is a research-led programme aimed at improving the welfare of laboratory rodents by refining daily management and experimental procedures.

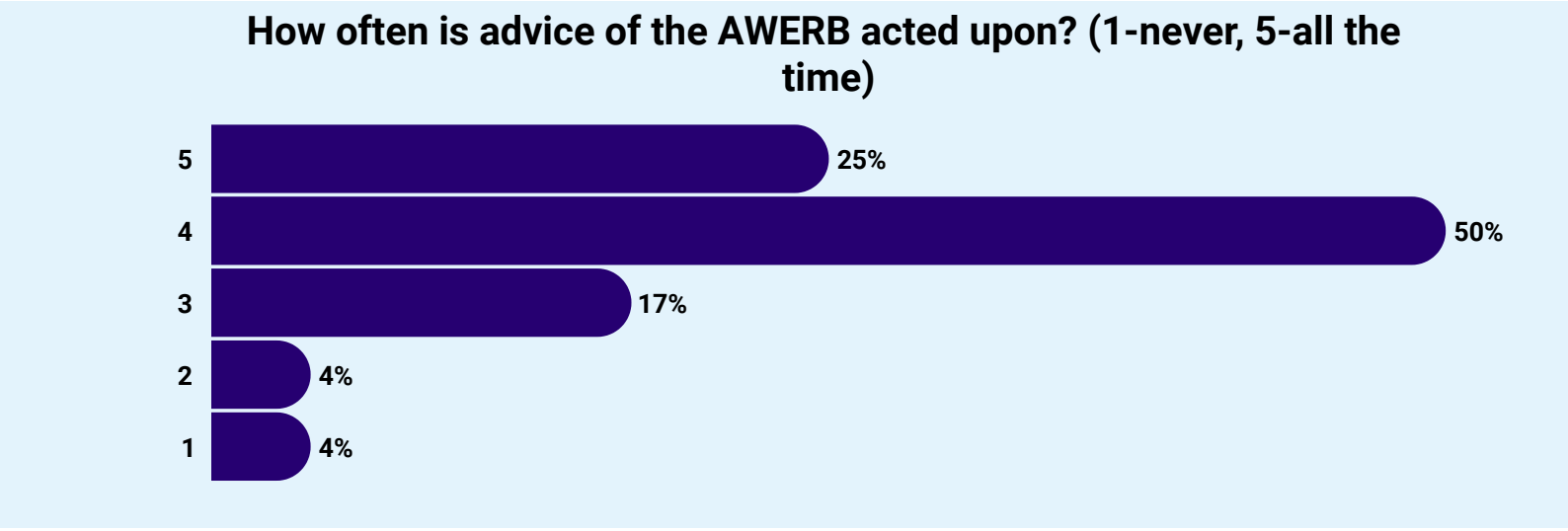
Current laboratory practices often contribute to 'cumulative severity', e.g. due to social stressors, boredom and the fear and discomfort associated with physical restraint during common procedures like oral gavage. To address this, the 3Hs initiative promotes replacing stressful, aversive methods with refined strategies such as voluntary ingestion, where animals voluntarily eat or drink substances in palatable vehicles like condensed milk or flavoured milkshakes. By using masking agents to neutralise bitter tastes, and habituating animals to these rewards at least a week before dosing, researchers can prevent the development of aversions and foster positive associations with human interaction. Although implementing 3Hs approaches may increase the time researchers spend with the animals at first, they offer substantial benefits for animal welfare and staff wellbeing by transforming potentially negative experiences into rewarding ones. This sounds good, but in practice there can be resistance to requests by AWERBs to try the approach and the discussions do not progress any further.

Following this, Heath Jeffries, a lay member of the Pirbright Institute's AWERB, explained how the AWERB persuaded the Institute to adopt voluntary ingestion by demonstrating it as a significant refinement over traditional methods, particularly for their first-ever rat study. The process was led by a proactive animal technician who volunteered to develop the new techniques, ensuring the shift was grounded in practical expertise. To ensure success, the institute collaborated directly with the 3Hs Initiative. Pirbright technicians visited Bristol for training and subsequently hosted a specialist technician at their own facility to assist during a trial study. This approach was highly successful, and technicians further noted that applying the 3Hs handling refinements to mice made them significantly more relaxed and easier to handle than in previous studies. Following an overview of these positive outcomes, the AWERB and Institute formally agreed that the 3Hs approach would be implemented for all future small animal research at the establishment.

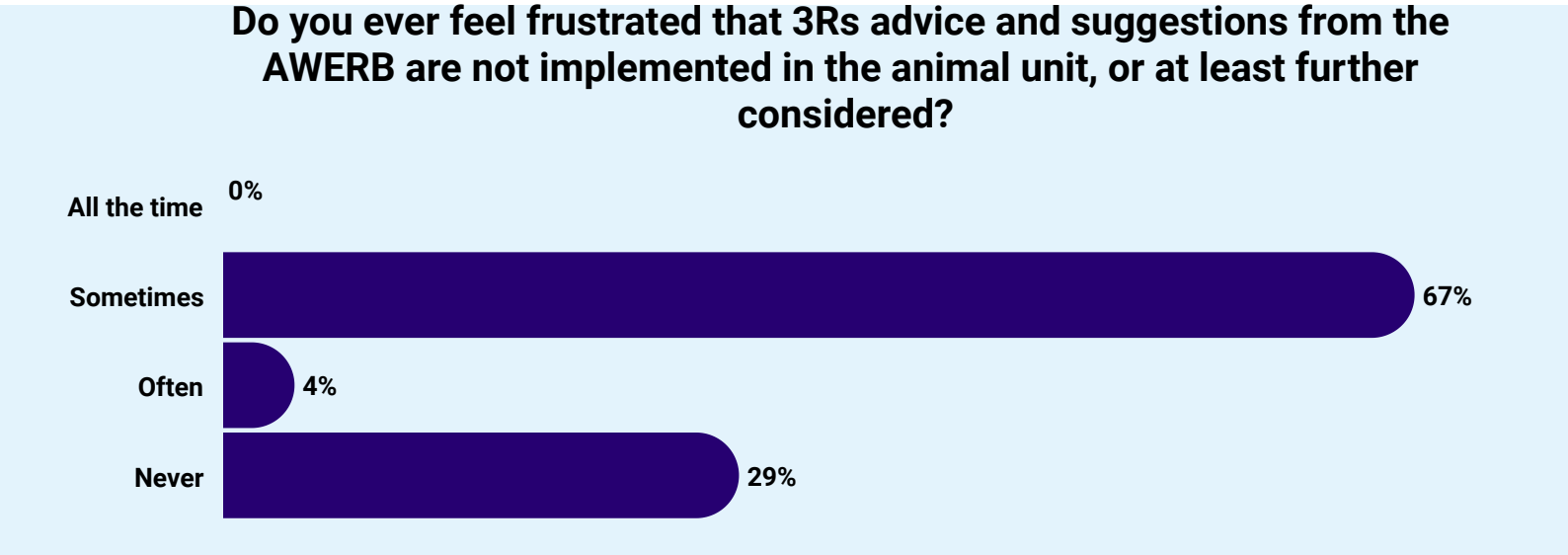
Discussion

The discussion session on this topic highlighted a strong desire for AWERBs to be more persuasive and exert greater authority. In a poll, 70% of participants agreed that AWERBs should be able to insist on 3Rs suggestions being evaluated and implemented unless proven unfeasible.

In addition, it was evident that although AWERB advice is generally well-received with 75% of respondents reporting that advice is acted upon frequently.



There remains a notable gap in execution, as 67% of participants occasionally feel frustrated when their suggestions are not fully integrated into animal unit operations.



To bridge this gap, the session generated diverse strategies for lay members to encourage the uptake of their advice. Key recommendations included engaging with the chair before meetings to discuss issues and adopting a non-confrontational questioning style, such as asking “help me to understand”, to avoid triggering defensive responses. Participants also emphasised the importance of grounding suggestions with evidence from literature, or good practice, and ensuring that all proposed actions are time-bound with clear lines of accountability. Furthermore, lay members were encouraged to leverage the expertise of fellow members and the Named Veterinary Surgeon (NVS), hold establishments accountable to their own public-facing welfare statements, and maintain persistence and follow-up by requesting standing agenda items for 3Rs discussions.

Action points

- **During project review, if a project involves oral gavage, or invasive handling techniques, ask the applicant to consider the 3Hs approach and challenge unevidenced assertions (from anyone) that it will not work**
- **When the AWERB makes a suggestion, ensure that it is not simply dismissed and that the minutes record who is responsible for further research, trials or pilot studies, and when they will report back. Dedicating a permanent slot in every meeting agenda specifically for 3Rs progress updates will help to ensure that previous suggestions don't fall off the radar**
- **Use the establishment’s own public-facing statements as a benchmark during discussions to align internal actions with external promises. For example, statements along the lines of “we always strive to employ best practice” are just not true if an establishment will not even consider evaluating a refinement!**

RSPCA AWERB Resources

Our key guidance documents are available online:

- RSPCA/LASA Guiding Principles on Good Practice for AWERBs
- AWERB directory

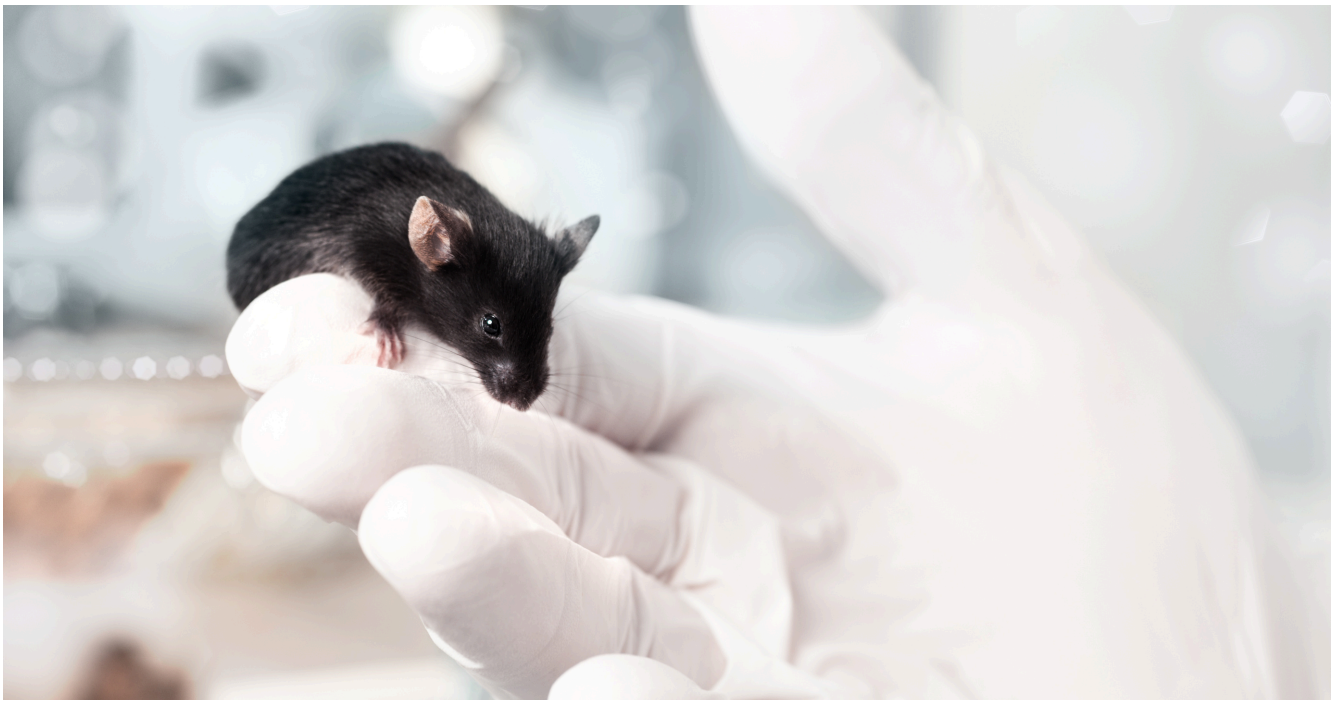
We currently offer online and in-person workshops for AWERB members and those involved in the care, use and regulation of animals in science. Some examples include:

- Developing a good Culture of Care (2 hour - half day)
- Maximising the effectiveness of your AWERB: advising on ethics, project licence applications, training for AWERB members, and AWERB self-assessment (full day)

RSPCA Animals in Science website

animalsinscience@rspca.org.uk

Animals in Science on LinkedIn



RSPCA
ANIMALS IN SCIENCE

Royal Society for the Prevention of Cruelty to Animals -
Animals in Science Department
animalsinscience@rspca.org.uk