

Creating an effective, inclusive and open Animal Welfare and Ethical Review Body: learning and legacy

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Abstract

This paper reports on our use of reflective practice to analyse and map the evolution of our legacy Animal Welfare and Ethical Review Body (AWERB) over 7 years. We identified 6 interconnected principles that support underlying behaviours and present them in the form of a roadmap for AWERBs to deliver all their tasks as laid out in the United Kingdom (UK) Animal (Scientific Procedures) Act 1986 (ASPA). These principles are:

- 1) Getting going – getting buy-in and building processes and mechanisms that support your values and task delivery.
- 2) Identity and visibility – establishing your presence.
- 3) Speaking up and listening up – establishing dialogical reciprocity and symmetrical value systems.
- 4) Diversity and inclusion – identifying and removing systemic barriers to participation.
- 5) Recognising and rewarding – to value all participation and investments.
- 6) Self-assessment – to identify what is working well and where improvements can be made.

These combined principles promote the overarching outcome of continued improvement. In mapping these principles alongside the AWERB tasks we used a series of case studies to provide further contextualisation and insights and finished by outlining practical steps to help AWERB apply the 6 principles.

Introduction

These critical reflections were collaboratively produced by a subset of AWERB and then reviewed by the whole AWERB at AstraZeneca with the aim to accurately and honestly describe the challenges and feelings of those involved in the AWERB initiatives and to share some of the practical outputs that helped us build a Culture of Care and Openness. Whilst we focus on the AWERB as a UK oversight body for animal research within organisations, we believe our learnings can also be applied to animal research oversight bodies outside of the UK.

This paper briefly outlines the current legal and ethical obligations of UK AWERBs, highlighting the challenges in meeting these requirements and the complexities involved in fostering a culture that manages interpersonal and inter-professional tensions arising from processes of change, improvement and development. We begin by describing the context of our AWERB and exploring what continual improvement looked and felt like for its members. This was followed by a people-centred chronological narrative that contextualised the practical steps taken to implement the 6 principles. Next, we present 3 case studies that offer deeper insights by reflecting on pivotal moments of improvement and their impact on AWERB Culture and Care. Finally, we share additional thoughts on how these lessons can be applied

by any AWERB or ethical review body seeking to create and sustain a meaningful, collaborative and evolving Culture of Care.

Background

An AWERB is required by each animal breeding, supplying and user establishment under the United Kingdom (UK) Animals (Scientific Procedures) Act 1986.¹ An AWERB functions to assess the likely benefits of the research involving animals, to minimise the harms caused to the animals used in the research and to improve public accountability via robust governance. AWERB tasks (Table 1) include promoting awareness of animal welfare and the 3Rs; acting as a forum for discussion to develop ethical advice for the establishment licence holder (ELH); supporting named persons and other staff dealing with animals, provision of appropriate training; and promoting a Culture of Care within the establishment and the wider community.² Lay and external/independent members of AWERBs act as the voice of society in ethical discussions and decision making. The ELH is responsible for having an effective AWERB that delivers all its tasks (Table 1 below).

The effective functioning of AWERBs is crucial for maintaining high ethical standards in animal research. However many AWERBs have been shown to struggle with delivering robust ethical analysis, with some members expressing that they do not do ethics.³ Many AWERBs tend to focus heavily on project licence reviews often at the expense of the other tasks outlined in Table 1. Contributing factors include limited time, resources and engagement. Particularly from scientists and senior leaders including the ELH.³

As the critical oversight body, AWERBs should be able to provide evidence of their effectiveness across all their mandated tasks (Table 1). In 2021, the Home Office mandated significant changes to the operating model of the Animals in Science Regulation Unit (ASRU) to align with leading regulatory practices.⁴ These changes introduced a framework of audits and performance indicators^{5,6} likely increasing the emphasis on governance within establishments and AWERBs are a central and critical body for this.

It is important to acknowledge that in the UK most animals used in scientific procedures are in academic research settings. A Wellcome Trust report highlighted several areas for improvement in research culture, such as mentoring, development, deterring bad behaviour, fostering an environment where individuals can speak up without fear of reprisal and sharing best practices.⁷ These factors could significantly impact the effectiveness of an AWERB, making the roadmap we developed particularly useful for AWERBs in large academic institutions.

This paper is written from the perspective of a small AWERB within a large corporate entity. Unlike other groups that might be overwhelmed with numerous project licence applications, our AWERB had fewer licences to review, potentially allowing us more time to focus on other tasks. However the decision to actively and consistently pursue excellence across all AWERB tasks was deliberate. We aimed to define and deliver clear goals ensuring all tasks were addressed.

Our AWERB operated as an open meeting, regularly attended by Animal Technicians and researchers who were not formal AWERB members. This inclusivity allowed for a rich diversity of perspectives and contributed to

Description of Task
Advise staff dealing with animals in the licensed establishment on matters related to the welfare of the animals in relation to their acquisition, accommodation, care and use (1) .
Advise on the application of the 3Rs and keep it informed of relevant technical and scientific developments (2) .
Establish and review management and operational processes for monitoring, reporting and follow-up in relation to the welfare of animals housed or used in the licensed establishment (3) .
Advise the establishment licence holder whether to support project proposals, primarily considering such proposals from a local perspective and bringing local knowledge and local expertise to bear (4) .
Follow the development and outcome (retrospective review) of projects carried out in the establishment, taking into account the effect on the animals used, to identify and advise on elements that could further contribute to the 3Rs (5) .
Assist with the retrospective assessment of relevant projects carried out at their establishment (6) .
Advise on re-homing schemes, including the appropriate socialisation of the animals to be re-homed (7) .
More generally, – promoting a Culture of Care, supporting named people, provide a forum for discussion, promoting awareness of Animal Welfare (8) .
Respond to enquiries and consider advice received from the Animals in Science Committee (9) .

Table 1. Tasks of an AWERB.

a more comprehensive oversight process. Additionally knowing that our facility was scheduled to close and research would move to a new location we were motivated to formalise our care practices and cultures. Our aim was to create a legacy that could benefit other establishments, especially those struggling, either openly or silently, with delivering all AWERB tasks.

While many examples of what an AWERB should be exist, there is a scarcity of specific, critical accounts on *how* to achieve this. Recognising that care practices are contingent, embodied and emplaced, we used methodologies from creative facilitation and reflective practice to deconstruct and reconstruct how behaviours and processes had influenced each other. This approach allowed us to provide an account not just of our successes but also of the challenges we faced and how it felt to work towards a Culture of Care.

The chronological narrative, case studies and 6 principles (Figure 2) presented in this paper aim to document our journey of continual improvement. We share not only our

achievements but also our failures, lessons learned and what we might do differently in the future. This paper is therefore an honest reflection of hard work and our successes which were at times uneasily earned.

This paper emerged from discussions within our AWERB about our legacy and how we could share good practices and promote a Culture of Care more widely. It introduces our 6 principles (pictured as a roadmap, Figure 2) as a strategic, reflective and evolving method for systematically reviewing and improving an AWERB to ensure all tasks are effectively delivered.

Methodology

This paper reports on the AWERB process through the lens of continual improvement. It is presented from the perspective of an independent member reflecting on their experience of questioning and reconstructing the evolution of an AWERB's Culture of Care, knowledge production and potential areas for improvement.

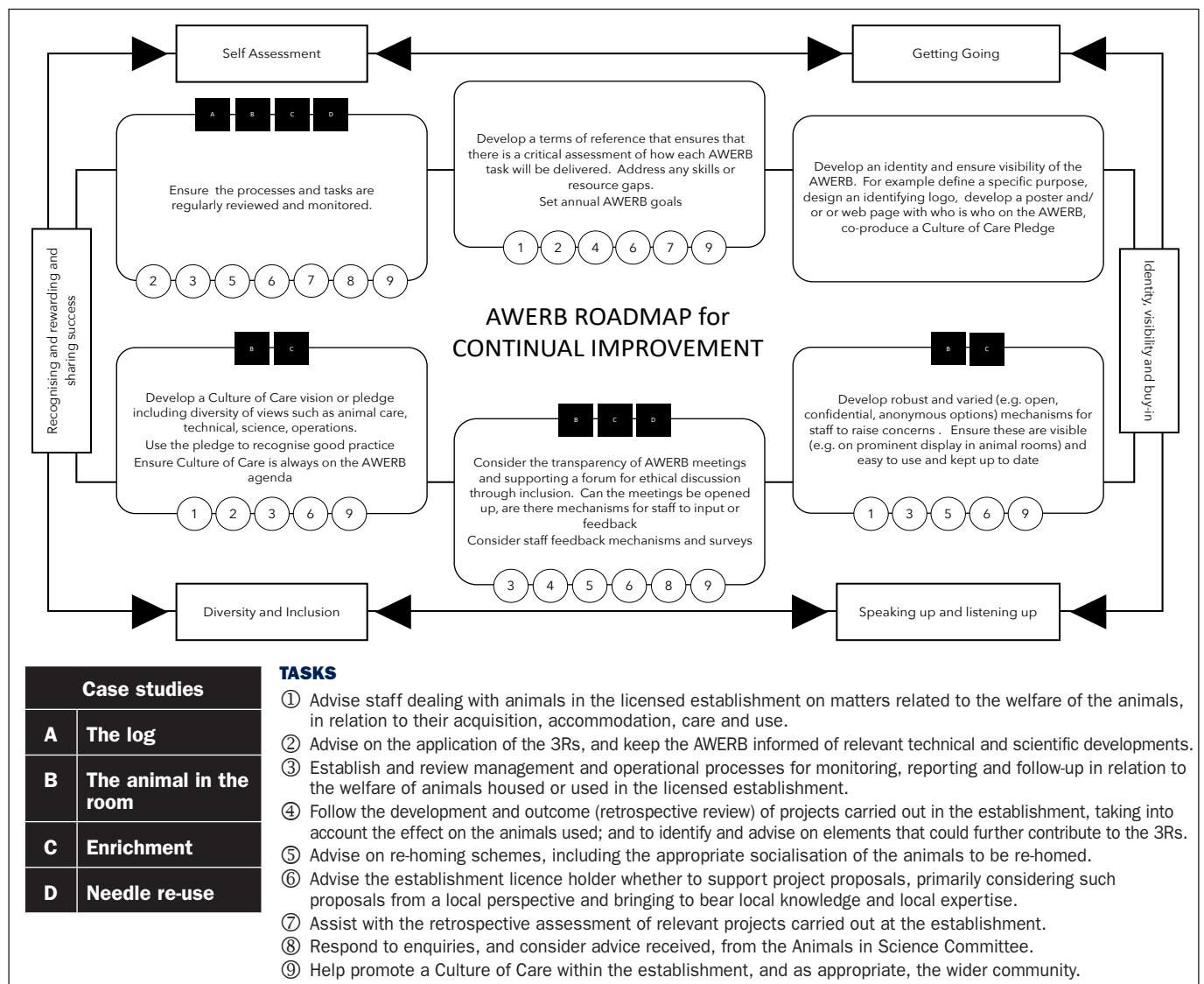


Figure 2. AWERB Roadmap.

During a dedicated AWERB meeting, 4 key topics emerged as pivotal moments in the AWERB's development and cultural shift. These topics were used to create the case studies:

- the log
- the mouse in the room
- enrichment
- needle re-use

which are outlined in this paper.

The case studies based on real-life events rather than fictionalised scenarios were chosen to elicit rich, detailed and honest interview data within time constraints.⁸ The independent member designed a guided reflective practice template (Appendix 1) based on the focussed conversation method.⁹ This approach goes beyond mere fact-recollection allowing for emotional responses that capture the participatory experiences of the AWERB members. Two staff members completed the reflective exercise for each topic and these responses were then crafted into narrative case studies and reviewed and refined with input from the wider AWERB.

In the following sections we chronologically describe the process of establishing AWERB and developing its principles, present the 4 case studies that reflect on the affect experience of pivotal developmental shifts and conclude with practical steps aligned with the 6 principles.

Chronological narrative: Developing the AWERB as a process of continual improvement

An AWERB is a dynamic process and not just a body that comes together for meetings. To function effectively everyone involved needs to understand its purpose and how they can contribute. Since AWERBs are continually evolving it is essential to recognise that people's perceptions of the AWERB can influence its operations.

We consciously decided to reshape how our AWERB functioned and the experience of being part of it. This ongoing effort introduced new initiatives aimed at actively fostering, strengthening and embedding an inclusive culture rooted in respect. To achieve this we needed to co-create a strong identity, clear purpose and a shared sense of belonging.

We describe our journey chronologically and with reflection identify the 6 interconnected principles that can deliver continual improvement.

Getting going

To assess how the AWERB could foster continual improvement, we conducted a systematic review of the Royal Society for the Prevention of Cruelty to Animals

and Laboratory Animal Science Association (RSPCA/LASA) Guiding Principles on Good Practice for Animal Welfare and Ethical Review Bodies.¹⁰ This resource offers advice and suggestions for AWERBs to effectively fulfil their tasks. The review formed part of an annual goal examining one chapter at each AWERB meeting. We assessed whether our AWERB met the recommendations outlined in the guidance and identified 3 initial priorities: reviewing and refreshing AWERB membership, creating a Culture of Care subgroup and conducting a structured internal assessment against the task of establishing and reviewing management and operational processes related to Animal Welfare.

The Culture of Care subgroup developed a Culture of Care pledge reflecting the establishment's aims and values. This significant piece of work required persistence and negotiation with research, lab, technical and care staff at all levels to reach a consensus. The final pledge was printed as an A0-sized poster signed by staff and placed at the entrance of the unit. This symbolically positioned the Culture of Care at the forefront of our work and helped keep these commitments visible. In addition the pledge became a central tenet to new AWERB staff induction to set out, embed and welcome people into the attitudes and behaviours we collectively sought to promote and uphold. The development of the pledge helped us in **Getting Going** but could equally have been developed under the principle of **Diversity and Inclusion**.

Identity, visibility and buy-in

An early step was launching a competition to design a logo for our AWERB (Figure 1). Alongside this, we developed

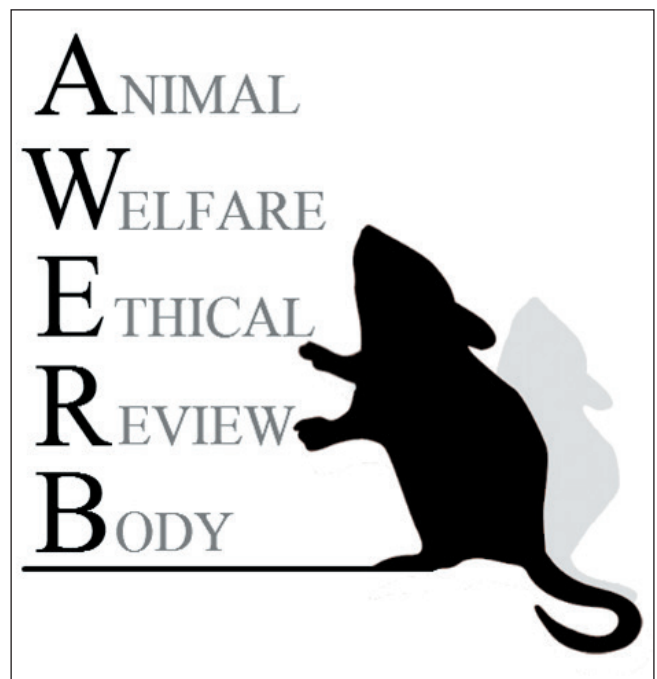


Figure 1. AWERB logo.

posters that clearly outlined AWERB's purpose and identified members in key roles. These posters, featuring the new logo, were displayed throughout the animal unit and research labs. This critical initial step helped establish a visual identity that both literally and metaphorically embedded the AWERB and its evolving Culture of Care within the establishment. It signified that a Culture of Care is a product of the people, place and environment where the work takes place.

The increased visibility and identity of the AWERB prompted staff to reflect on its current purpose, priorities and their roles in shaping these aspects. This increased buy-in led to discussions with some scientific staff expressing concerns that AWERB decisions regarding Animal Welfare often led to changing work practices that they felt lacked robustness and were not evidence-based. This tension between science and welfare is not unique. Decision-making should be evidence-based but conflicts often arise over what constitutes as evidence. To deepen scientists' involvement and buy-in, we collaboratively defined the AWERB's purpose. This led to our second and third actions: developing a clear purpose statement (Table 2) and reviewing the terms of reference which included defining the aims, objectives, roles and responsibilities of AWERB members.

Alderley Park AWERB Purpose

Alderley Park's Animal Welfare and Ethical Review Body provides an ongoing process for critical and ethical led evaluation of practical welfare procedures and scientific evidence to promote the application of all 3Rs; and a Culture of Care that underpins the delivery of our medicines.

Table 2. Alderley Park AWERB purpose.

Speaking up and listening up

We received feedback that some staff members were uncomfortable speaking up in AWERB meetings, particularly in open forums that included non-members. This meant valuable perspectives were being missed. To address this we introduced a confidential email inbox that was monitored by the AWERB chair, independent of the animal unit and research groups. The email address was shared at a meeting and advertised on posters around the unit which displayed the new logo and encouraged staff to use the mailbox for both recognising good work and concerns. We hoped this positive framing would establish this additional communication channel and bring more diverse information and opinions to our discussions.

However the inbox was not widely used. While our goal was to foster a culture of honesty, openness and

respect that would not necessitate such an inbox, its lack of use does not necessarily indicate success. Confidentiality is different from anonymity and staff may have had concerns about how the information shared would be used. While the inbox provided a mechanism for speaking up it may not have addressed fears of participating in a culture of blame or not being heard. To continue improving in this area we further developed the Culture of Care subgroup by nominating an AWERB point of contact, requested collated feedback from the technical team and scientists during our annual retrospective review and utilised anonymous surveys.

Diversity and inclusion

Beyond diversifying communication mechanisms, we also focussed on diversifying AWERB membership. Each AWERB is unique, shaped by the people involved, their experiences, expectations and the specific contexts in which they operate. How an AWERB works is dependent on who the AWERB consists of. Therefore it is crucial for the ELH to have a clear vision for AWERB membership and to be actively involved in appointments. Clear roles and expectations are essential for ensuring cohesive task delivery and the robustness of AWERB goals. Some of our AWERB members, particularly the external lay members, had held their positions for a long time, potentially becoming too familiar with the processes. This familiarity might have led to a lack of critical questioning which is vital for the AWERB's effectiveness. The long-standing members understood the need for fresh perspectives and agreed to step down.

We appointed an entirely new AWERB, clearly outlining each person's role and expectations in their appointment letters. These appointments were made by the ELH in collaboration with the AWERB chair. The inclusion of new members, both internal and external, brought diverse perspectives that enriched discussions and enhanced the work of our meetings. In recruiting new members, we prioritised identifying independent and external candidates who operated outside of the local animal care and research teams. For example, some members were from other AstraZeneca research or manufacturing sites.

We also recognised that AWERBs can act in a closed fashion and do not always have open and transparent ways of recruiting new members. For example appointments of members can be through personal invitation or through word of mouth often limiting who might contribute. To strengthen the breadth of our AWERB including attracting internal lay members we advertised for members using our internal communications channels across our Cheshire sites. We had over 25 applications from a variety of backgrounds and spoke to everyone who applied before deciding on who to appoint.

Recruiting for external independent or lay members can be even more challenging, often considered an exposure and security risk. Currently there are no publicly available contacts, no sign-up sheets and no referral process for members of the public to express and interest in joining an AWERB.¹¹ This relegates recruitment to private networks which risks only recruiting 'like us' candidates which can prevent lay and external members truly representing a society voice within AWERBs.

AWERB membership was addressed under diversity and inclusion and later in our journey. As a process this might be something that should be addressed at the earliest stages possible or something that is revisited every couple of years as the AWERB evolves.

Recognising, rewarding and sharing success

An AWERB has a role to review management and operational processes in relation to Animal Welfare at the establishment. This may involve discussing potential non-compliance or Standard Condition 18 reports in the meetings alongside the critique of project licences which may result in the tone of the meetings feeling negative. Reviewing events such as potential non-compliance are learning opportunities and this is positive but it is easy to overlook how most of the activities conducted in animal research go well and as planned (see case study The Log). To provide a positive balance in the meetings and to recognise the staff carrying out procedures and care of animals who carry the emotional burden of the work but are often overlooked, we developed an AWERB process to recognise small, bench-side or laboratory improvements that positively impacted Animal Welfare. Individuals who made these contributions were thanked by the ELH and AWERB chair, received a voucher and were acknowledged at the start of each AWERB meeting. We took the opportunity to share some of these improvements with our colleagues at other sites involved in oncology studies thus disseminating good practice.

As an AWERB we also celebrated and shared our successes more widely through blogs and publications.^{12,}

^{13, 14, 15, 16}

Self-assessment

To formalise the evaluation and integration of our new initiatives and approaches, we developed a self-assessment process against the AWERB task of establishing and reviewing management and operational processes for monitoring, reporting and follow-up in relation to the welfare of animals housed or used in the licensed establishment.² This structured internal self-assessment was conducted by the AWERB chair who

formed a small team for this purpose. This assessment reviewed various operational processes as well as study and training documentation. The benefits extended beyond the review itself further raising the AWERB's visibility and lending credibility to the identified areas for improvement. These included developing a structured training and competency program and strengthening record-keeping for personal licensees. Over the history of our AWERB self-assessment became a principle we used often. Self-assessment underpins continual improvement as an outcome. Self-assessment can be used for example to address membership gaps and competencies, AWERB member training, resources and support, AWERB working processes and one or all of the AWERB tasks. There are several resources available that can be used to support self-assessment of different AWERB tasks and processes.^{10, 17, 18, 19, 20, 21, 22} Whilst self-assessment may be challenging in terms of time and resource it provides many positive opportunities to widen participation in AWERB goals, to provide evidence to make a case for support/budget, to develop manageable goals and prioritise which activities to work on and to recognise and celebrate what is going well.

All these actions significantly strengthened AWERB's role within our establishment fostering a more inclusive and collaborative environment. By enhancing AWERB's identity and visibility we increased staff engagement and buy-in, leading to more thoughtful and evidence-based decision-making. The diversification of membership brought fresh perspectives, enriching discussions and improving the depth of our evaluations. Improved communication mechanisms allowed for a broader range of voices to be heard, contributing to a culture of transparency and mutual respect. Ultimately these efforts led to more effective oversight and continual improvement in our Animal Welfare practices, reinforcing a shared commitment to ethical and responsible research. However these were often not easy to achieve and required careful iterative processes to establish and sustain. A defining factor in the shift from a focus on Animal Welfare to Culture of Care is the inclusion and consideration of the affective experiences, emotional labour and care for staff. These are often deliberately absent from the sanitised procedural accounts of change. We made a commitment to centre these in this review and are included in the following case studies, along with mistakes and failures to share a more honest account of the complexities of caring through change.

Figure 2 presents the 6 interconnected principles in a diagram which might be described as a roadmap. The purpose of the 6 principles is to support continual improvement, which is an active and ongoing process, therefore the 6 principles are interconnected and represented in a circular way. Our report is written chronologically mapped to our experience, however an AWERB can begin their journey at any point or multiple points.

Case studies

The edited case studies preserve the original voices where possible. However the 4th case study concerning needle reuse is presented differently and reflects on the asymmetrical emotional impacts of ethical discussions and decision making.

The learning from observations and events log

We aimed to create a transparent and systematic approach to recording, monitoring, and learning from events that had previously been handled on an ad hoc basis. Although formal and informal methods for discussing and responding to events already existed, we lacked a structured way to identify patterns that would formalise and action learning in a constructive manner.

To address this we developed a learning from observations and events log. A standard operating procedure (SOP) document outlining the process for using the log was made mandatory reading for all staff and the initiative was shared at a cross-team staff meeting. Events were investigated, root causes identified and outcomes and learnings shared. The log review became a standing agenda item at AWERB meetings with a report circulated a week prior. Initially this report was shared only with AWERB members but following feedback it was distributed to the entire establishment.

Log items were initially discussed at a dedicated meeting between the ELH, named roles, project licence holders and a facility specialist. The goal was to agree on what items required follow-up and who would be responsible. However these meetings could be lengthy and occasionally challenging. We observed that the learning forms were not always fully or appropriately completed making the compilation of AWERB reports difficult. The process began to feel burdensome. In addition, comments from researchers and the Animal Technicians like “I don’t like to put things on the log, it feels like I’m dobbing colleagues in” or “Oh no, it’s one for the log” became common. The meetings started to provoke unpleasant emotional reactions which could resurface during the AWERB report delivery. What was intended to improve the Culture of Care was in fact having the opposite effect.

To address these challenges we streamlined the process by replacing the forms with a summary added directly into the log. This summary was reviewed by the ELH and the Named Information Officer (NIO), reducing the demand on other people’s time. The new log summary allowed us to focus on key points and use positive language to capture learnings and positive changes. This adjustment helped alleviate some of the emotional burdens associated with the log process.

The log began receiving recognition from those not directly involved in its production. It even won a Culture of Care Award from the AstraZeneca Council for Science and Animal Welfare (CSAW). While these accolades helped to validate the log’s aims and potential it became clear that its impact varied depending on an individual’s role within the Culture of Care. Power hierarchies and the complexity of critiquing care without highlighting individual shortcomings presented challenges. We sought to address this by shifting to a human and organisational performance (HOP) system of analysis and reporting.²³ This focussed on how events occurred and the new learnings they produced rather than treating each event in isolation.

Around this time a new external AWERB member asked if we had used the log to identify patterns over a longer timescale. With the data and mechanism now in place we discovered that some events occurred more frequently during our busiest time of the year. This insight prompted us to reconsider working patterns and resourcing. We also calculated the percentage of adverse events over a year and found them to be below the threshold expected from human error. We used this information to illustrate to our teams that most work was being done to a high standard and undesired events were rare.¹⁶ This helped build confidence in the log, and it became widely accepted as a positive tool. AWERB members even suggested implementing the initiative in other work areas.

Reflecting on the log process we now recognise that the size of our establishment meant that despite our efforts to avoid blame and not use individuals’ names that individuals may have differently received the process. For such a system to succeed everyone must buy into the concept of collective learning rather than blame. This requires using appropriate language and providing sufficient time to establish and reinforce the idea that the aim is to identify what is at fault rather than who is at fault. Building a culture of collective learning takes time and must be a flexible, responsive and iterative process.

We fully recommend that other AWERBs implement such a system at their establishments. However it is crucial to remember that blame can take different forms:

- from managers
- self-blame
- cross-team blame

and that all forms are unproductive. For example retraining an individual after an undesired outcome can be a form of blame though it is often not recognised as such. Instead we advocate identifying patterns that reveal what is at fault, not who, using HOP principles with the aim of improving working practices and welfare conditions for all.²³

Our experiences in establishing a learning culture and using HOP have now been published.¹⁶ Additionally our

work has been used to develop a global learning log process across AstraZeneca's animal facilities.

This case study shows the importance of attending to the emotional landscape and pre-conceptions that new initiatives can reveal. By acknowledging and responding to staff concerns about blame cultures and transitioning to a HOP approach we shifted the focus to improving the material and emotional conditions for staff rather than staff feeling like they were pressured to improve. This improved efficiency, reduced emotional burdens and led to valuable insights on work patterns. The log now widely recognised and awarded has fostered a positive culture of collective learning and informed global practices across AstraZeneca's facilities.

The mouse in the room

One effective way we found to bridge the gap between inside the unit and the AWERB meeting was by including photographs and videos of the animals being discussed. This approach aimed to bring more understanding and awareness to the issues at hand, especially for those who were unfamiliar with the animal facility or who did not routinely see animals used in research.

Project licences and protocols often referred to animals generically but in our unit only mice were used. This generic language depersonalises the individual animal experience much like a report stating that the population was displaced, without addressing the impact on individual families. However when we introduced photos and videos they brought the living mouse directly in front of those who were deciding their future (or that of their conspecifics). These visuals transformed non-identifiable animals into real mice with whom we could identify and empathise. This was like the identifiable victim effect in humans, where seeing a specific person in need motivates us to act.^{24,25} The discussion about mice became much more tangible when they were seen rather than discussed in abstract terms. As an AWERB we aimed to include representations of the mouse in each meeting.

In AWERB, conversations could be challenging as participants came from diverse backgrounds and had different experiences often leading to varying vocabularies. Medical, clinical, or procedural terminology could sometimes be problematic and confusing. Discussions sometimes faltered over the naming of a skin ulcer (hole, scab, wet lesion, etc.) which reduced clarity around the issue and distracted from discussing the effect on the mouse rather than the semantics.

We found the images enriched our discussions and deepened our understanding of what was at stake. These visuals not only contextualised the impact of procedures or events on the mouse but also allowed

those not in the unit to share in the experiences of the staff. This approach fostered a supportive culture and helped to alleviate the emotional burden on staff responsible for conducting procedures on the mice.

We included photos for 3Rs competitions, as well as images of clinical and study-related conditions. These visuals ranged from positive examples such as a wound healing after tissue glue application to more challenging ones like bite wounds or tumours. Gradually we introduced video footage, including a video walk-through of the unit presented by an external student, footage of mice with hindlimb lameness and videos of mice using raised tunnels for play and resting. These helped normalise the idea that images were part of the narrative. As our lay member aptly put it, "It is helpful to really see what you are talking about!".

Initially the inclusion of visuals elicited some uncomfortable and nervous emotional responses. For some they made the issues at the heart of the AWERB too real, with one scientist member expressing that it makes it too emotional. These reactions were expected and importantly respected too. However as the positive aspects of this approach became evident, with fuller discussions, deeper understanding and a sense of being fully informed, these initial reservations began to ease. The unwavering support of the AWERB chair and ELH as well as the willingness of the Animal Technicians to share their experiences further facilitated this transition. This practice empowered the Animal Technicians, Named Animal Care and Welfare Officers (NACWOs), and Named Veterinary Surgeons (NVSs) to contribute meaningfully to the meeting, showing everyone what they saw and fostering knowledgeable discussions.

The impact of COVID-19 reshaped AWERB practices in 2021 making video links the norm for both facility visits and meetings. With physical access to the unit significantly reduced we experienced first-hand the importance of bringing the mice to the AWERB members.

These pictures were not intended to direct blame or heighten risks for the facility but to show the reality of the mice housed and studied there. Images also helped standardise and discuss adverse effects and humane endpoints across similar studies at different facilities, such as our AstraZeneca sites, ultimately resulting in better care for mice and more robust scientific outcomes.

We reflected that many other AWERBs did not currently include animal pictures in their meetings and might have been missing out on valuable insights. We agreed that this was a practice that should be celebrated and shared. It was okay to bring photos into AWERB meetings and it was not something to be afraid of.

This case study highlights how that without careful attention and active resistance AWERB discussions can

shrink into the hypothetical and become untethered from the material conditions and emotional realities of frontline work. We found that including photographs and videos of mice in AWERB meetings bridged the gap between those working directly with animals and those making decisions about their use in research. These visuals made discussions more tangible, fostering empathy and deeper understanding while helping to overcome challenges related to technical jargon. Although some initial discomfort arose from making the issues too real, the practice ultimately led to fuller more informed discussions. The approach supported staff, standardised care across facilities and emphasised the importance of visual representation in ethical decision-making processes and highlighted the urgent need for more AWERBS to reintroduce the reality of animals into their discussions.

Enrichment

One of our key priorities as an AWERB was to review our enrichment provision for mice. Enrichment is a well-established practice that enhances Animal Welfare by improving the living environments of mice by catering to their social, mental and behavioural needs.^{26, 27, 28} This necessity is widely accepted and we initially assumed it was a universally supported practice. However our review revealed a more complex reality.

Some staff expressed concerns that the amount of enrichment in the cages hindered their ability to observe the mice effectively. As one personal licence holder noted that “There is so much enrichment that it gets in the way of doing the job. With so much of it, you cannot see if there is a welfare concern with a mouse”. Another remarked, “I love the enrichment, but with only a small cage, there’s only so much I can fit in”. In contrast, other staff members felt that these concerns could be mitigated with careful attention from technicians. This divergence in perspectives led to some tension within the unit, highlighting the challenge of balancing optimal enrichment for the mice with the practicalities of working with individually ventilated cages (IVCs) daily.

During our AWERB discussions, the raised tunnel at the front of the cage emerged as a particularly contentious form of enrichment as it significantly reduced visibility. Some staff members were so concerned about this that they refused to use it believing it posed a direct threat to both the mice’s welfare and their own ability to monitor the mice which they found distressing. They felt that the potential harm outweighed the benefits the tunnel might offer. Conversely, others were upset that such enrichment which the mice clearly enjoyed and benefited from was not being utilised.

The AWERB acknowledged that over the years numerous enrichment items had been added to the cages with

little removal and no strategic review. We saw this as an opportunity to gather feedback from those directly working with the mice and the enrichment to identify concerns and address them effectively.

To begin, we distributed a unit-wide anonymous questionnaire, which received a high response rate and provided candid insights. While many team members felt the enrichment met the fundamental needs of the mice, they also identified practical challenges. However the questionnaire alone could not determine the best course of action. As a result, we initiated a more in-depth review, involving a cross-section of staff across the unit.

For example we conducted a trial comparing the use of the raised tunnel versus the swing, across different mouse strains. The trial revealed that mice used the raised tunnel far more than the swing and it also served as shelter.

This information coupled with the collective review led to several changes in our enrichment practices. We opted to use houses with less height and introduced rotating enrichment to enhance visibility in the cages while still providing necessary social, mental and physical stimulation.

Ultimately despite the initial controversy, the decision was made to retain the raised tunnel even though it reduced visibility. However because the review process was transparent, inclusive and collaborative, all staff members accepted the outcome.

Implementing new refinements even in an open culture can be challenging. Their acceptance is closely linked to the care and practicality of those involved. Individuals may feel that new practices are time-consuming, impractical or even pose risks to welfare by disrupting established routines. They may also fear being judged, or judging themselves on their level of care for the animals compared to their care for themselves and their colleagues.

In this case it took an anonymous survey to break down barriers to voicing such concerns, addressing issues like the amount of enrichment, the difficulties it posed and the fear of being judged for possibly caring less than others.

The purpose of an AWERB is to make and bring to bear ethical and value judgments. However it is essential to not make assumptions on behalf of everyone and have a critical awareness on who might accidentally be included in and felt judged by the application of broad unchallenged assumptions of what is good and what is bad. This case study exemplifies what an AWERB can achieve when it works collectively in open, honest and judgment-free ways. This process highlights the importance of open, inclusive dialogue and demonstrated how collective efforts can address complex issues in Animal Welfare.

Needle Re-use

Two AWERB members, who actively participated in the often difficult AWERB deliberations on this topic by sharing their informed and impassioned perspectives from different sides of the harm benefit line, were asked to complete a reflective practice together. Although needle reuse was a highly controversial issue for the AWERB, the staff members involved found it difficult to revisit this topic feeling that it had been thoroughly addressed. Needle reuse at this site has been covered extensively in NC3Rs blog posts^{12,13,14} and a recent CRACK-IT Challenge¹⁵. Therefore they declined to have their reflective practice published in this paper.

The reflective practice was designed to recall both objective and reflective responses and encourage empathy towards others' subjective experiences of a past situation or process. It can be confronting to acknowledge how your actions unintentionally impacted someone else. This learning is important as while it is essential for an AWERB to make ethical judgements, they should be without judging and alienating those involved in the process.

Abstraction is a process of replacing objective facts and nuances from a situation with more generic statements that summarises actions taken. This can erase the structural, operational and cultural forces that shaped how a person acted. Essentialism is a noticeable shift from questioning the reasons for someone's actions and behaviour to criticising the person themselves. This uncritical and invasive thinking can lead people to believe that a person made unethical choices because they are an unethical person.

While the tasks of an AWERB are clear, they, along with the growing literature do not explain how to achieve them. The primary purpose of the AWERB is to assist the ELH to make decisions relating to Animal Welfare. However the methods by which AWERBs make and implement such decisions has not been theorised or formalised. The culture a decision happens in will shape that decision. It is therefore vital that AWERBs are attentive to and resist behaviours that make others feel judged rather than supported and understood.

Discussion

We hope that the 6 principles and case studies derived from personal reflections will assist others in developing, expanding and maintaining their AWERBs. By detailing our processes and candidly addressing the challenges we faced, we aim to share our learning and offer practical insights to enhance the work of everyone involved in and beyond an AWERB.

Our experience has shown that the effectiveness of an AWERB is closely tied to its identity, including

its behaviours and purpose. Defining this identity enhances the AWERB's visibility and credibility within the establishment, encourages buy-in from current members, and aids in recruiting new ones. We have found that designing elements such as a logo, terms of reference and feedback mechanisms, both formal and informal can extend the AWERB's reach and integrate it into everyday practices. This approach allows the AWERB to support good practices continuously rather than only during formal meetings.

While our small size might suggest a reduced administrative burden, we chose to dedicate resources, time and energy to rigorous ethical discussions around Animal Welfare. This decision was made to ensure that our processes are equitable and considerate of all involved. Our meetings were open to all staff within the establishment and while this inclusivity sometimes complicated meeting management, it provided valuable diversity of opinion and fostered a sense of inclusion. Despite occasional challenges we believe the benefits of incorporating diverse perspectives outweigh the difficulties in managing these discussions.

Labels and concepts evolve over time. New terminology should reflect changes in systems and processes that aim to embed new behaviours, values and priorities. However it is easy to adopt new labels without implementing the underlying changes required. Terms like Culture of Care and forum for discussion should not merely serve as rebranding exercises. They should signify genuine shifts in practices. For instance by simply renaming AWERBs to BEWAREs (Bodies Examining Welfare and Animal Research Ethics) would not necessarily result in meaningful changes in operation. The real focus should be on how these concepts are enacted and maintained.

The AWERB functions not only as a forum for discussion but also as a forum of witnessing. In our open AWERB, where anyone from the facility could attend, our discussions were witnessed by a diverse audience. This transparency allowed participants to see whose opinions and expertise were valued. Effective dialogue requires not just speaking up but also listening and acting on feedback. Our examples illustrate how incorporating broader input can enrich ethical reviews and enhance decision-making.

Getting started is different from sustaining momentum. A critical examination of the AWERB infrastructure allows it to address ethical issues through collective, evidence-based decision-making that considers the emotional and professional complexities of all involved. Reporting systems can often be seen as punitive; however our case study, The Log, highlights the importance of fostering behaviours that support their use. Properly embedded, these tools contribute to a learning culture rather than a blame culture.

Our enrichment case study underscores the value of confidential, anonymous, peer and group feedback in navigating complex ethical issues. By diversifying contributors and perspectives we can better address challenges such as enrichment practices which despite being recognised as good practice can still present complex ethical dilemmas. Openness and transparency in decision-making help staff accept and engage with new recommendations, as they feel part of and able to influence the processes.

In sharing our Animal in the Room story, we demonstrate how including images and videos of animals can facilitate richer ethical discussions. Representing the animals in discussions helps address everyday practices that might otherwise remain invisible.

It is crucial to remember that an AWERB should be active beyond its formal meetings. Feedback mechanisms from staff, the facility and the broader establishment are valuable for recognising achievements, such as through AWERB recognition awards and identifying cultural influences that may not be captured by dedicated feedback systems. These interactions emphasise that the AWERB is a dynamic process involving multiple systems, all of which must be considered when refining and reviewing practices.

In reflecting on our experiences and insights it becomes clear that effective AWERB practices require continuous adaptation and thoughtful engagement with diverse perspectives. In summary, fostering a robust and dynamic AWERB involves not only defining its identity and purpose but also actively engaging with and integrating diverse viewpoints. By embedding ethical considerations into everyday practices and maintaining transparency, AWERBs can enhance their impact and effectiveness, ensuring a Culture of Care that genuinely reflects their core values.

Conclusion

Breeding, supplying and user establishments all require an AWERB, which provides formal and legal recognition that their work requires ethical review. As research and societal contexts evolve, an AWERB must be committed to continuous improvement and adaptation to address current and emerging ethical challenges. The 6 principles we outline for the continual improvement of AWERBs serve as a legacy for shared learning, with the hope that the wider community will find valuable, can build upon and enhance over time.

A summary of practical steps follows. These are derived from the 6 principles and case studies presented. As these principles are interlinked we present practical steps without attaching them to a principle.

- Identify skills, resource gaps and ensure diverse perspectives are represented. Review membership regularly and refresh long standing members to bring new perspectives.
- Formally issue membership invitation which clearly outlines expectations, time commitments and terms of appointment.
- Develop and document AWERB's purpose and terms of reference.
- Advertise for lay members within the establishment to bring in new perspectives as the AWERB and its role can lack visibility especially in large establishments.
- Implement mechanisms for anonymously raising concerns and invite feedback from scientists and technicians through retrospective reviews or ad hoc meetings. Open feedback can be solicited or can be facilitated through a structured open survey. The feedback from a breadth of perspectives can identify blind spots.
- Consider opening AWERB meetings to non-members to broaden participation.
- Increase visibility for example through an AWERB logo, poster, internal website presence with membership details and newsletters.
- Use self-assessment to identify what is working well and improvement areas. Recognising that there should be a continual process of improvement the self-assessment results can help identify priorities and to set annual goals in a manner that is realistic for the establishment. Self-assessment can be conducted against any of the tasks and there are several useful resources to assist with this. These assessments can also serve to identify gaps in membership and ways of working. The outcomes can be used to celebrate what is going well and provide evidence for additional resources and support.
- Develop a vision (such as a pledge) and activities centred on a Culture of Care. The vision should encompass care towards staff as well as animals, recognising the emotional burden of animal research.
- Use images of animals in procedures to enrich AWERB discussions and to assist in understanding and consistency.
- Create a collective learning culture that follows up on events (for example through a learning log) where the focus is on improving processes and systems and addressing what is at fault thus avoiding blame.
- Establish a recognition process and celebrate successes. These positive activities can help ensure the AWERB tone is balanced.
- Share successes widely including through external communications (e.g. blogs and publications).

The work of an AWERB is challenging but should always be carried out with care and dedication. While we are proud of our progress, we recognise that there is always more work to be done. This paper aims to outline the structures and processes that support positive engagement and an effective AWERB.

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Appendix 1:

Guided reflective practice template

We aim to create a legacy by collectively writing case studies based on some key issues and initiatives linked to our AWERB. The goal is to publish these so that others can learn not just from what we did but how we tried to do it, how long that took and if we think we succeeded.

Below is a structure and some prompts to aid reflection. These should only be seen as a guide, some may be useful and others not, you do not need to answer them all. The responses should be yours, we are trying to capture different voices and experiences of participating, not a generalised account. We want to include both objective and subjective experiences to help show the complexity of conducting an ethical review and embodying a Culture of Care.

Intent

What issue were we trying to solve?
Where did the need/issue arise from?

Observational (objective facts)

What happened?
What happened first, and then, and then?
What words, lines, or phrases do you remember?

Reflective (what did you experience – feel)

What feelings did you have?
What feelings/emotions did you notice in others?
Did the discussion go beyond your comfort zone?

Interpretive (what are the implications)

What is the significance of the outcome?
When did it start to fall into place?
When did it start to fall apart?
When did you start to see it differently?

Decisional (Action and resolutions)

What is left unfinished?
What does it suggest we need to change?
What would you do differently?
Who needs to hear about this and why?

References

- 1 Animals (Scientific Procedures) Act 1986. <https://www.legislation.gov.uk/ukpga/1986/14/contents> accessed 1 October 2024.
- 2 Home Office. Guidance on the Operation of Animals (Scientific Procedures) Act 1986, Chapter 10 (2014).
- 3 RSPCA Issues with AWERB. Accessed 28 October 2024. <https://science.rspca.org.uk/sciencegroup/researchanimals/ethicalreview/uk/issues>
- 4 Animals in Science Regulation Unit Annual Reports 2019-2021 (originally published 2022, revised 2024). Sections 2 and 3. Accessed 28 October 2024. https://assets.publishing.service.gov.uk/media/6628f6d43b0122a378a7e596/6.8698_HO_Scientific_Procedures_ARA2019-21_REVISIED_FINAL_v6a_WEB.pdf
- 5 Home Office: Full System Audit Process Animals in Science Regulation Unit (ASRU) 2021, Accessed 28 October 2024. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023690/210920_ASRU_Full_Systems_Audit_Process.pdf

- ⁶ Evidence for assessment of compliance against ASPA and licence conditions. Animals in Science Regulation Unit (ASRU) (2021). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023692/210920_Evidence_for_assessment_of_compliance_against_ASPA_and_licence_conditions.pdf Accessed 28 October 2024.
- ⁷ Wellcome Report (2020). What Researchers Think About the Culture They Work in <https://wellcome.org/sites/default/files/what-researchers-think-about-the-culture-they-work-in.pdf> Accessed 28 October 2024.
- ⁸ **Sampson, H., Johannessen, I.A.** Turning on the tap: the benefits of using 'real-life' vignettes in qualitative research interviews. *Qualitative Research*. 2020; 20 (1): 56-72. doi:10.1177/1468794118816618). Accessed 1 October 2024.
- ⁹ **Stanfield, R.B.** (2000). *The art of focused conversation: 100 ways to access group wisdom in the workplace*. Gabriola Island, B.C., New Society Publishers.)
- ¹⁰ RSPCA and LASA, 2015. *Guiding Principles on Good Practice for Animal Welfare and Ethical Review Bodies*. A report by the RSPCA Research Animals Department and LASA Education, Training and Ethics Section. (M. Jennings.ed.) [AWERB Guiding Principles 2015 final.pdf](https://www.rspca.org.uk/documents/1494935/9042554/AWERB+forum+for+discussion+booklet.pdf/36fdb4db-8819-cbd3-89ec-c9a7e67bf07c?t=1583938525299) Accessed 1 October 2023.
- ¹¹ **Crudgington, B., Scott, N., Thorpe, J., and Fleming, A.** (2024). Building participation through fictional worlds. In *Researching animal research*, Manchester, England: Manchester University Press. Available from: <<https://doi.org/10.7765/9781526165770.00026> [doi.org]> Accessed 14 October 2024.
- ¹² **Whitfield, L. and Robinson, S.** Reuse of needles is this an indicator of a culture of care. (2017). Accessed 1 October 2024. <https://nc3rs.org.uk/news/reuse-needles-indicator-culture-care>
- ¹³ **Robinson, S.** Single use of needles: putting refinement into practice. (2019). <https://nc3rs.org.uk/news/single-use-needles-putting-refinement-practice> Accessed 1 October 2024.
- ¹⁴ **Robinson, S.** Single use of needles: how AWERBs can support refinement in practice. (2021) Accessed 1 October 2024. <https://nc3rs.org.uk/news/single-use-needles-how-awerbs-can-support-refinements-practice>
- ¹⁵ NC3Rs Innovation Platform. Challenge 34 Sharp and to the Point. <https://nc3rs.org.uk/crackit/sharp-and-point> Accessed 1 October 2024.
- ¹⁶ **Robinson, S., White, W., Wilkes, J. and Wilkinson, C.** Improving culture of care through maximising learning from observations and events: Addressing what is at fault (2022). *Laboratory Animals*. 56, 135-146. <https://journals.sagepub.com/doi/pdf/10.1177/00236772211037177>
- ¹⁷ **Rawle, F.** The role of review and regulatory approvals processes for animal research in supporting implementation of the 3Rs (2023). <https://nc3rs.org.uk/news/new-report-3rs-animal-research> Accessed 1 October 2024.
- ¹⁸ **Robinson, S. et al., Robinson et al.** The European Federation of the Pharmaceutical Industry and Associations' Research and Animal Welfare Group: Assessing and benchmarking 'Culture of Care' in the context of using animals for scientific purpose (2020). *Laboratory Animals* 54, 421-432. <https://doi.org/10.1177/0023677219887998>
- ¹⁹ **Hawkins, P. and Bertelsen, T.** 3Rs-Related and Objective Indicators to Help Assess the Culture of Care (2019). *Animals*, 9, 969. <https://doi.org/10.3390/ani9110969>
- ²⁰ RSPCA Delivering effective ethical review. The AWERB as a forum for discussion. <https://science.rspca.org.uk/documents/1494935/9042554/AWERB+forum+for+discussion+booklet.pdf/36fdb4db-8819-cbd3-89ec-c9a7e67bf07c?t=1583938525299> Accessed 28 October 2024.
- ²¹ NC3Rs 3Rs Self-Assessment Tools. <https://nc3rs.org.uk/3rs-resource-library/3rs-SAT> Accessed 28 October 2024
- ²² **Robinson, S. and Kerton, A.** (2021). Contributing to your Culture of Care. *Animal Technology and Welfare* 20, 211-214.
- ²³ **Conklin, T.** *The 5 Principles of Human Performance: A contemporary update of the building blocks of human performance for the new view of safety*. Independently Published. New Mexico, 2019.
- ²⁴ Why are we more likely to offer help to a specific individual than a vague group? <https://thedeisionlab.com/biases/identifiable-victim-effect> Accessed 1 November 2024.
- ²⁵ **Moorlock, G. and Draper, H.** 'Empathy, social media and directed altruistic living organ donation' (2018). *Bioethics* 289-297.
- ²⁶ RSPCA How can I use environmental enrichment to provide opportunities for my mice to experience good welfare? <https://kb.rspca.org.au/knowledge-base/how-can-i-use-environmental-enrichment-to-provide-opportunities-for-my-mice-to-experience-good-welfare/#:~:text=Environmental%20enrichment%20describes%20the%20provision%20of%20physical%20and,their%20individual%20interests%2C%20which%20underpins%20good%20animal%20welfare> Accessed 1 November 2024.
- ²⁷ **Young, R.J.** (2006). *Environmental Enrichment for Captive Animals*. UFAW Animal Welfare Series. Blackwell Publishing.
- ²⁸ NC3Rs. Choosing Appropriate Enrichment. <https://nc3rs.org.uk/3rs-resources/evaluating-environmental-enrichment/choosing-appropriate-enrichment> Accessed 1 November 2024.