Terms of Reference

FELASA Working Group on
Rat housing

Background

Commission Recommendation (2007/526/EC) states that 'all animals should be allowed adequate space to express a wide behavioural repertoire. Animals should be socially housed wherever possible and provided with an adequately complex environment within the animal enclosure to enable them to carry out a range of normal behaviours.'

However, the established legal minimum cage dimensions for rats, set out in Annex III to the Directive, are such that they cannot perform many of their natural behaviours. For example, rats cannot run, stand upright, burrow, climb, or build a good quality nest in standard laboratory rat housing systems. The current enclosure dimensions do not provide enough room for complexity, nor do they enable the rats to compartmentalize their home cage. The drive to perform these behaviours is innate in rats, despite decades of breeding in captivity, and a range of studies investigating the preference of rats for bedding, shelter, complexity and segregation of space show the need for more space to accommodate this. This clearly shows that with regard to rat housing, Annex III of the EU Directive seriously falls short of the requirement in Directive Article 33(1)(b) to minimise restrictions on the extent to which animals can satisfy their physiological and ethological needs. This will have a significant negative impact not only on animal welfare, but also on the science. For example, a robust meta-analysis of 240 studies has shown that conventional laboratory housing increases morbidity and mortality in both mice and rats in a range of research fields, raising questions about the validity and generalisability of the data.

Some establishments have already recognised, and acted on, the need for larger and more complex rat housing either by using home-made solutions, such as linking multiple cages to create more space, or using commercially-available solutions. Despite these initiatives, many laboratory rats are still housed in cages

that comply with the legal minimum, including a cage height of 18 cm. This Working Group will define improved rat housing standards that can be consistently applied, using a broad evidence base to ensure that these are feasible and will benefit animal welfare, data quality and staff wellbeing.

Tasks, proposed line of work

The working group shall:

- Investigate and report current standards and practices for housing laboratory rats in institutes across Europe, including industry, academia, breeding and supplying establishments, with a primary focus on enclosure dimensions;
- Review the scientific literature on rat behaviour and welfare needs, and the impact on data quality if these needs are not met;
- Obtain input from animal technologists and animal unit management on practical/health and safety considerations around working with different sizes of rat cage;
- Use the above information on current practice, and the literature, to develop and publish recommendations for good, and best, practice in rat housing. This will include assessments of the animal welfare and scientific benefits, also acknowledging and addressing the potential economic impacts of any proposed changes to stocking density, cages per footprint area, cost of upgrading cages, plus effects on animal unit staff and management etc);
- Identify areas for further research to inform refinements to rat housing and promote these to researchers and funding bodies;
- Publish the outcomes of the review in an open access journal and promote this internationally, e.g. to national laboratory animal science associations outside Europe, ICLAS, AAALAC.

Composition of the working group

At least six members of FELASA Member Associations, preferentially with documented experience in developing standards for laboratory animal housing and/or rat behaviour and welfare, should be considered for this working group.

Budget

A total of 4000 Euro for 1-2 face-to-face meetings.
3000 Euro for Open Access publication.
500 Euros for promotional materials.

Deadline

Two years after start.