



Det lokala djurskyddsorganet

Recommendation to use both sexes in experiments (rodents, poultry and passerine).

This is a recommendation from the local Animal Welfare Body on SU regarding the use of both sexes when performing animal experiments with rodents.

Background

Including both sexes in your experiments is increasingly being expected by regulators, funders and publishers. The choice of which sex to use is depending on the research question. However, the default position should be to use both sexes unless there is a clear reason not to.

Where the subjects of research comprise organisms capable of differentiation by sex, the research should be designed and conducted in a way than can reveal sex-related differences in the results, even if these were not initially expected. Research should include all groups who have the potential to benefit from the findings.

Also, all animals which are born from a breeding are automatically included in the mandatory statistical data of research animal use in Sweden. As all breedings produce both male and female offspring, this means that even if you choose not to include males or females from your own breedings in your experiments, they will all still be deducted from your stated total use of animals in your ethics permit.

Policy

Unless there are specific scientific reasons, both sexes should be used in experiments.

This is in line with *Reduce*. The ‘reduce’ principle is defined as using the lowest number of animals, to give an appropriately designed and analyzed animal experiment that is robust and reproducible, and truly adds to the knowledge base.

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It is also in line with *Refine* as it can improve the possibility of translating the results to humans. Sex differences can impact metabolism of drugs and hormones, and non-specific effects of drugs and their side-effects.

It is important to note that the use of both sexes of animals is not in conflict with 3Rs principles even if additional animals are required, as in that case additional information would have been gathered by the experiment and the results could be more widely applicable. It is in accordance with 3Rs principles to use additional animals if, when using both sexes, more widely applicable and informative experimental data are acquired. The scientific community should be reassured of these principles.

References

Janine A. Clayton, Francis S. Collins. 2014. Policy: NIH to balance sex in cell and animal studies. *Nature* 509: 282-283.

MRC/NC3Rs webinar: Using both sexes in animal experiments. [MRC/NC3Rs webinar: Using both sexes in animal experiments | NC3Rs](#)

Working Group on Sex in Experimental Design of Animal Research. Meeting report. [Working Group on Sex in Experimental Design of Animal Research \(ukri.org\)](#)