

7. Guidelines for the use of animals in research at Northumbria University

All UK research councils, most UK medical charities and many professional organisations e.g. *The British Psychological Society* and the *Institute of Biomedical Science* provide their own guidance on the use of animals in research. Underpinning all of these guidelines is the desire to reduce the number of experiments carried out on animals and in particular those defined as protected species under the *Animals Scientific Procedures Act 1986* (Amended 2012) – **ASPA**. The act allows the licensing of experimental and other scientific (regulated) procedures carried out on “protected animals” which may cause pain, suffering, distress or lasting harm to the animal.

Protected species include:

- All living vertebrate animals, excluding man, and any living cephalopod.
- For foetal, larval or embryonic forms the act applies if the mammal, bird or reptile has undergone two thirds of its gestation
- In other cases, protection applies when the animal becomes capable of independent feeding.

Regulated procedures Include:

- Any procedure fitting the category or pain, suffering, distress or harm equivalent to, or higher than, the insertion of a hypodermic needle.
- Dosing, sampling, withholding of food or water are all procedures.

Requirements for licencing:

- Any UK based regulated procedures must be performed in a licensed and designated establishment with a PEL (establishment licence).
- A programme of work involving regulated procedures on protected animals must be authorised by a PPL (project licence).
- Individuals working under the PPL must be authorised by a PIL (personal licence) in order to carry out regulated procedures.

N.B. Northumbria University is not a designated establishment therefore any regulated procedures must be performed, under full licensing conditions, at an appropriate designated establishment (usually another UK university).

Tissue obtained under Schedule 1:

- Specified methods can be used for killing animals without the need for PPL/PIL. However, killing must be performed by a “competent person”.
- Often lists of these people, within the University sector, are compiled by an establishment licence holder (see Requirements for licencing above).

If intending to carry out licensed procedures in conjunction with a licensed establishment then as part of the experimental design (including in grant applications) for a study the 3R's must be considered.

The 3R's:

Replacement refers to methods which avoid or replace the use of animals defined as 'protected' under ASPA. Examples of replacements include the following

- *in vitro* methodologies
- human volunteers
- animals not protected under ASPA such as insects/invertebrates - abattoir material.

Reduction refers to methods which minimise animal use and reduce the future use of animals. This approach has the purpose of enabling researchers, through **good experimental design**, to produce comparable levels of information from fewer animals or more information from the same number of animals.

Refinement refers to improvements to husbandry and procedures which minimise actual or potential pain, suffering, distress or lasting harm to improve animal welfare where the use of animals is unavoidable.

Further information designed to facilitate the 3R's includes:

Arrive guidelines:

Good practice for the reporting of *in vivo* scientific research involving animals is provided at <https://www.nc3rs.org.uk/arrive-animal-research-reporting-vivo-experiments>

The purpose of these guidelines is to maximize information published whilst minimizing, further and unnecessary studies.

Special Considerations

Genetically altered

animals:

Use or generation of genetically modified animals/breeding of protected species e.g. transgenic mouse

models must be licensed under the ASPA. Experiments involving the genetic modification of other species e.g. Insects/invertebrates, excluding the cephalopods, do not require ASPA licensing but should comply with Northumbria University Genetically Modified Organisms (GMO) regulations.

Studies of free living animals:

Guidance on ecological/field studies can be found at <http://www.nc3rs.org.uk/wildlife-research>

Any **regulated procedures** to be performed, in the field, must be appropriately licensed (see above). However note that ASPA does not apply to the tagging/marketing of an animal for identification purposes as long as it causes no more than momentary pain or distress.

Animal use in contemporary art:

Arts and Humanities Research Council (AHRC) guidelines follow Research Councils United Kingdom (UKRI) guidelines in that any animal use in which a **procedure** (see above for definition) is undertaken must have appropriate licensing under ASPA (see above).

Guidance for applicants wishing to carry out studies, at Northumbria, under the University ethical classification system.

HIGH – All use governed by ASPA (full details of experimental design with consideration of 3R's and relevant H.O. licencing details must be supplied (e.g. PPL/PIL numbers).

MEDIUM – Commercially obtained animal tissue (Ideally, the investigator should gain either confirmation of schedule 1 killing or appropriate equivalent); insects/invertebrates including GMO (description of experiments required and must be acceptable under university GMO policy).

LOW – Abattoir derived material. Artist materials e.g. commercially obtained fur (and material not subject to ASPA)

Useful web links

Animals Scientific Procedures Act 1986

National Centre for the Replacement, Refinement and Reduction of Animals in Research UKRIO: [Research integrity: A primer on research involving animals](#)