Animal Experimentation Council

Guidelines for standardised procedures in animal experiments

The Animal Experimentation Council bases its decisions upon the individual evaluation of each application. General guidelines advise on the completion of applications and do not exempt the applicant from his/her duty to describe accurately all acts of experimentation planned to be carried out on the animals. Only the wording of the licence determines the scope of the permitted procedures.

These guidelines describe standardised procedures and effects, which are often part of applications to carry out experiments on animals. These procedures and their impact on the animal can be expected to be approved within the described limits as part of an animal experiment, unless the application contains other special conditions which would militate against approval, such as, for example, the existence of a less harmful method of achieving the same objective. Exemption may be granted from the described procedures under special circumstances, but only after precise description of the specific conditions which could justify an exemption.
Guidelines for fasting of mice and rats in experiments

Mice and rats are generally housed with free access to food and water twenty-four hours a day. That is to say, that feed is consumed ad libitum. Fasting means that these animals are denied access to feed for a limited period of time. During this time the animals continue to have free access to water. Restricted feeding is a method of changing the weight development of laboratory animals; with this procedure, the typical, daily amounts of feed provided are incompatible with normal weight gain. These rations are consumed within a short period. Restricted feeding therefore involves daily fasting over the greater part of the 24-hour period.

Fasting of laboratory animals may be undertaken for a number of reasons, e.g. to empty parts of the intestines, in metabolic studies to initiate a specific metabolic/physiological state, or in behavioural experiments to increase motivation for certain reactions.

Applications for permission to carry out experiments must contain a precise objective for fasting, together with a precise description of the fasting period(s) which it is proposed that the animals will undergo. Fasting must as far as possible take place during the animals’ inactive periods (during the light phase of the daily cycle of light and darkness). It is always necessary to justify why the objective of the investigations described in the application form cannot be achieved using a shorter fasting period than that which is proposed.

An adult animal may, during a period of fasting, lose a maximum of 20% of its body weight. Under a restricted feeding regime, weight loss must not exceed 20% in comparison with the weight of corresponding animals of the same strain, age and sex. For longer lasting periods of fasting, the project application must contain a description of how special monitoring and assessment of the animal’s welfare will be carried out. If fasting is to be used in behavioural experiments, an explanation must be given as to why other forms of motivation cannot be used instead, such as feeding with different types of food during the experiments (special treats).

The impact of fasting depends upon the animal’s genetic background and metabolic state at the start, as well as the length of the fast and its timing in relation to the daily cycle of light and darkness. In adult animals the impact of fasting may range from mild to severe suffering. Pregnant and lactating animals, unweaned pups, and immature animals which are still growing are especially sensitive to the effects of fasting. Assessment of the degree of suffering likely to be experienced by these animals must explicitly take their increased sensitivity into account.