

## ▶ Animal Handling Procedures

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Lately animal welfare has taken an increasingly value in pre-clinical trials as new scientific knowledge is available to improve scientific procedures and to raise the minimum standards working with live animals. This basic attitude has on the one hand found its way into the demands for day-to-day work with animals and on the other hand into proper publication of scientific results:

Member states of the European Union have to ensure that staff is adequately educated, competent and continuously trained according to the Annex V of the European Directive 2010/63 [1]. This training can for example be made up of certified one- to two week courses, in-house lectures and practical work as requested by local authorities.

Numerous web-tutorials offer their support to interested researchers not only in Europe [2; 3; 4] and scientists working with laboratory animals should thus be up to date regarding the established handling procedures according to the FELASA recommendations [5] including the principles of 3R's [6; 7].

As mentioned above the issue of animal welfare has moreover found its way in many nameable journals which nowadays postulate guidelines to maximise the availability and utility of the information gained from every animal and every experiment and to prevent unnecessary animal use in the future. Authors have to give information on the basis of a checklist of items including detailed experimental procedures such as the route of administration, anaesthesia, analgesia and euthanasia [8].

### References:

1. Directive 2010/63/EU of the European Parliament and of the Council on the protection of animals used for scientific purposes (2010)
2. <http://www.ahwla.org.uk/>
3. <http://www.procedureswithcare.org.uk/>
4. <http://www.humane-endpoints.info/eng/index.php?lang=en>
5. FELASA recommendations for the education and training of persons carrying out animal experiments (Category B) (2000) *Lab Anim* 34, 229-235
6. Russel, WMS, Burch, RL: *The Principles of Humane Experimental Technique*. London (1959)
7. <http://www.nc3rs.org.uk/>
8. Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG: Improving Bioscience Research: Reporting: The ARRIVE Guidelines for Reporting Animal Research (2010) *PLoS Biol* 8(6)