

Laboratory Animal Science **Mediator between Animal Welfare and Biomedical Research**

The use of animals in science for the elucidation of biomedical and environmental problems is still necessary and even required by society.

Equally necessary and desired is the protection of animals as fellow creatures capable of suffering. Limits are set by scientific and economic obligations.

The resulting tension leaves space for various ethical positions. Neither the scientist experimenting with animals nor the beneficiaries of biomedical achievements (patients, consumers, labourers, environment etc.) nor the citizen with a strong sense of responsibility and committed to animal protection can escape balancing the interests of animals and their welfare against the those of biomedical research. Overall, dogmatic or ideological positions are of no great help. Rather, in each case the use of animals and the unavoidable suffering have to be balanced against the expected gain of knowledge and benefit for humans, animals and environment.

Laboratory Animal Science is a basic science of biomedical research, the knowledge of which is made use of by experimental researchers of various disciplines. Animal welfare officers in institutions and authorities can equally rely on this experience. The information provided by Laboratory Animal Science assigns responsibility for the animals and the general obligation to act on behalf of the requirements and the need for protection of our fellow creatures in research and teaching.

Numerous factors of variance can disturb the interpretation of experimental results or can lead to distress in the experimental animals. The larger the variability is and the lesser it can be controlled the more animals will be required to answer a specific question. *The role of Laboratory Animal Science is to identify the causes for variability as for example the genetic background, infections, as well as housing and experimental conditions, and to develop methods for standardisation or elimination of these factors.*

Advising the conductor of an animal experiment in laboratory animal science with regards to choice of suitable animal model, the biology of the animals, their appropriate care and housing is scientifically founded animal protection. *This is equally valid for optimal planning of an experiment, effective pain reduction and recommendation of alternative or complementary methods that lead to a reduction in the number of animals required, the distress imposed on them, and avoids having to repeat experiments.*

For further improvement of animal protection and conservation in biomedical research the contribution of laboratory animal science is necessary. This can be accomplished with few and minimally stressful studies as for example clinical retrospective investigations and behavioural observations. Animal experiments, however, are indispensable for solving questions of Laboratory Animal Science, not least because the knowledge gained eventually helps to replace, reduce or refine animal experiments.

(Drawn up by the Executive and Advisory Board of the Society for Laboratory Animal Science (GV-SOLAS), 1995)
