

swissuniversities policy for animal research

Adopted by swissuniversities on December 14th, 2016

Universities in Switzerland are among the world's best in the field of life sciences. In most cases, fundamental new discoveries in the field of life sciences and the development of new solutions for today's great social, medical and ecological challenges, result from combining research in diverse disciplines. Research in the life sciences ranges from studying molecular structures or single organisms up to complex biotic communities; work in these fields often necessitates a systemic approach in which – in addition to computer simulation and experiments with cells and tissues in cultures – experiments with living animals are of critical importance.

The respectful, informed and conscientious approach to animal research is a major tenet in the code of ethical conduct, and a prerequisite for obtaining valid research results. The members of swissuniversities, the Rectors' Conference of Swiss Higher Education Institutions, therefore demand that their institutions uphold the principles and standards set out in this policy. The individual universities may also adopt additional internal directives which take their institutions' specific needs into account and which are in line with the swissuniversities policy specifying the common aim of universities in Switzerland.

Swiss universities...

1. ...require of all staff involved in animal research to observe a respectful, informed and conscientious treatment of all experimental animals.
2. ...call upon their researchers to uphold animal welfare as required by law¹ and to promote improvements in terms of the 3 Rs². This is particularly pertinent with regard to: *i*) the application of methods and measures to reduce stress or discomfort to animals before, during and after experiments (*refinement*), *ii*) the use of the most modern experimental procedures designed to minimise the number of animals used and avoid unnecessary duplication of experiments (*reduction*); and *iii*) the replacement of specific animal experiments with alternative procedures whenever possible (*replacement*).

¹ Swiss Federal Law on Animal Protection of 16 December 2005 (Tierschutzgesetz TSchG, SR 455), Art. 3, 17-20; Ordinance on Animal Protection of 23 April 2008 (Tierschutzverordnung TSchV, SR 455.1), Art. 112-149; Ordinance of the FVO on laboratory animal husbandry, the production of genetically modified animals and the methods of animal experimentation of 12 April 2010 (Tierversuchsverordnung, SR 455.163).

² The 3 Rs (replace, reduce, refine) refers to a concept developed by William Russel & Rex Burch (Principles of Humane Experimental Technique, 1959) which today is internationally recognized and which must be taken into account when designing experiments with animals.

3. ...guarantee animal facilities and research infrastructure that ensures professional housing, breeding and care of laboratory animals, while at the same time facilitating research that makes use of state of the art technologies and methods consistent with modern science.

4. ...count on efficient knowledge transfer among researchers, in particular insights gained from negative findings, with the aim of reducing the number of experimental animals as well as of promoting those methods that are most suitable for achieving research objectives.

5. ...ensure that legally required education and training programs in laboratory animal science are of high quality and readily on offer to researchers, laboratory staff and animal care employees involved in animal experiments. Moreover, the institutions call for and promote additional schooling and subject-specific advanced training, whenever required.

6. ...support researchers in their interactions with supervisory and authorising offices. They also help researchers implement measures to protect animals by, for example, hiring independent experts (such as animal protection commissioners or veterinarians) and endowing them with the power to issue directives. Such experts consult and support researchers, act as intermediaries to the authorities and oversee the efficient implementation of the agreed-upon measures. They furthermore encourage researchers to adopt established 3 R procedures and to develop and validate new procedures.

7. ...commit themselves to contribute to a transparent and constructive dialogue on animal experimentation, animal protection and alternatives to animal testing, by supporting persons who engage in public discussions on these topics. They present their stance on animal research in an open dialogue with policy-makers, law enforcement officials and the general public. They strive to promote the increased awareness among future researchers of the complexity of research with experimental animals and, in particular, the sensitivities that exists in society with regard to this topic, thus contributing to a more comprehensive and differentiated opinion on this issue.

All persons working with animals...

8. ...must observe Switzerland's laws³ and this swissuniversities policy for performing animal research. Such persons must possess the professional qualifications required for work with experimental animals, i.e. they must be knowledgeable about the biology of the animals used and be familiar with the legal and institutional requirements.

9. ...are called upon to personally oversee and carefully document any potential stress on the animals before, during and after every experiment. Whenever possible, researchers must work toward reducing stress on the animals by introducing suitable measures. Departures from standard housing conditions are only tolerated if approved by the authorities in charge, in well-justified cases and if they are necessary to achieve the objectives of the experiment.

The persons responsible for keeping animals...

10. ...must uphold the legal requirements and site-specific standards that exist for housing, breeding and care of laboratory animals. These requirements and standards must also be observed when recording the phenotypical expression of genotypes. Together with those carrying out experiments, veterinarians and, in some cases, the authorities, they are responsible for developing standardised, well-documented procedures (e.g. in the form of SOPs⁴). They furthermore share responsibility for implementing such procedures, thereby ensuring the professional and humane treatment of the animals used.

The research leaders ...

11. ...who initiate and direct animal research and who apply for research funding must guarantee that their research group upholds the legal provisions and institutional directives. As heads of re-

³ Legislation on animal welfare (see note 1) as well as the „Ethical Principles and Guidelines for Scientific Experiments on Animals“, Swiss Academies of Arts and Sciences (2005).

⁴ Instructions for Standard Operating Procedures

search, they function as role models for their employees. Research leaders furthermore raise awareness of the problems linked to animal research and encourage schooling and advanced training at all levels. In addition to adhering to legal regulations and internal guidelines, researchers base their work on recommendations from expert organisations in the field of laboratory animal science and on state-of-the-art scientific knowledge.

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