

Principles and Practices of the Swiss National Science Foundation concerning Research Using Animals

1 Summary

As a public funding organisation, the Swiss National Science Foundation (SNSF) is committed to supporting excellent science while upholding the highest standards of research integrity. The SNSF therefore fully adheres to the requirements of federal law and mandates that scientific research involving animals¹ must respect the animal's dignity² and welfare³. The SNSF is committed to helping to ensure that all funded animal research complies with Switzerland's legal frameworks regulating animal research, as outlined in the Animal Welfare Act (AniWA)⁴ and the Animal Protection Ordinance (AniPO)⁵.

The SNSF shares the aims of the Swiss Confederation, society, and scientific community to safeguard the dignity and welfare of experimental animals and to advance the overarching goal of reducing animal use in research to an absolute minimum. This is in accordance with the principles of the 3Rs: Replacement, Reduction, and Refinement, as defined by William Moy Stratton Russell and Rex Leonard Burch in 1959⁶.

Animal experiments can only be conducted if the expected knowledge gain justifies it, and if no valid alternative methods can provide results of comparable quality or reliability. This requirement aligns with the Animal Welfare Act (AniWA) and the Animal Protection Ordinance (AniPO).

¹ Non-human animals, including vertebrates, decapods, cephalopods, mammals, birds, and reptiles in the final third of gestation or incubation, as well as independently feeding larval stages of fish and amphibians as stipulated by the Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

² Dignity as defined in the Animal Welfare Act (AniWA, Art. 3a.): *dignity* means the inherent worth of the animal that must be respected when dealing with it. If any strain imposed on the animal cannot be justified by overriding interests, this constitutes a disregard for the animal's dignity. Strain is deemed to be present in particular if pain, suffering or harm is inflicted on the animal, if it is exposed to anxiety or humiliation, if there is major interference with its appearance or its abilities or if it is excessively instrumentalised.

³ Welfare or well-being as defined in the AniWA (Art. 3b.): *well-being*: the well-being of animals exists if:

1. husbandry and feeding are such that their bodily functions and their behaviour are not disturbed and excessive demands are not made on their capacity to adapt,
2. species-specific behaviour within the limits of their biological capacity to adapt is guaranteed,
3. they are clinically healthy,

⁴ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

⁵ Animal Protection Ordinance (AniPO): [SR 455.1 - Tierschutzverordnung vom 23. April 20... | Fedlex](#) / [RS 455.1 - Ordonnance du 23 avril 2008 sur la pr... | Fedlex](#)

⁶ W. M. S. Russell, R. L. Burch, *The Principles of Humane Experimental Technique*, Methuen, London, UK 1959.

The SNSF expects both researchers applying for funding and evaluators assessing research proposals to carefully judge the necessity of any planned animal experiments. Evaluators are called upon to thoroughly assess the scientific appropriateness of the proposed animal experiments for addressing the research questions.

The SNSF supports this process by guiding applicants in the design of their research proposals. At any point, researchers carry full responsibility for ensuring compliance with existing legislation.

These Principles and Practices outline the SNSF's responsibilities and expectations for projects involving animals.

2 Guiding Principles

Within the limits of its legal mandate to promote original and innovative fundamental, applied and use-inspired research, the SNSF is committed to upholding scientific excellence, integrity, and responsibility in all the research it supports. These principles form the basis for the SNSF funding instruments that support the Swiss research community and are guided by global standards and innovation in research and technology. At the same time, these principles steer the continued refinement of the SNSF's strategic objectives, the formulation of forward-looking guidelines, and the development of science policy.

The SNSF guiding principles relevant to the use of research animals include:

- To uphold scientific excellence, integrity and responsibility in all research it supports, including research using animals.
- To only fund animal research when the use of animals is essential to answer significant scientific questions, and when no reasonably feasible alternative approach can provide results of comparable quality and relevance.
- To endorse and require implementation of the 3R principles – Replacement, Reduction and Refinement – in all experimental designs where the use of animals is considered.
- To require researchers to uphold the highest standards of integrity, including the protection of animal welfare and dignity, in accordance with the law.

3 Roles and Responsibilities of Governmental Authorities and the SNSF

3.1 Governmental Authorities

In Switzerland, the protection of animals is governed by the AniWA⁷ and the AniPO⁸, which define permissible and impermissible practices. Under these regulations, any use of experimental animals – pertaining to vertebrates, decapods, cephalopods, mammals, birds, and reptiles in the final third of gestation or incubation, as well as independently feeding larval stages of fish and amphibians (AniPO, Art. 112) – requires prior authorisation by cantonal and federal authorities, based on both legal and ethical assessment. To ensure proper consideration of these aspects, all animal experiments must be

⁷ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

⁸ Animal Protection Ordinance (AniPO): [SR 455.1 - Tierschutzverordnung vom 23. April 20... | Fedlex](#) / [RS 455.1 - Ordonnance du 23 avril 2008 sur la pr... | Fedlex](#)

approved by the Cantonal Veterinary Offices (AniWA, Art. 18.1). Cantonal Animal Research Committees support them by assessing whether proposals comply with legal requirements, and whether the strain imposed on animals meets ethical standards – for example whether the use of research animals is justified by overriding societal interests.

The cantonal authorities ensure that experiments on animals fulfil the following core criteria (AniPO⁹, Art. 137):

- They serve a legitimate purpose (e.g. advancing fundamental biological knowledge, improving human or animal health, environmental protection, development of new methods for replacement, reduction, or refinement (3R) of animal experiments, etc.)
- They make use of appropriate, state-of-the-art scientific methods and experimental designs.
- They involve the indispensable use of a minimum number of animals and the least harmful procedures required to obtain meaningful results to achieve the research objectives.
- They can only be conducted after the successful completion of an authorisation process aimed at minimising harm to animals (AniWA¹⁰, Art. 17) and ensuring that any burden imposed is proportional to the expected gain in knowledge (AniWA, Art. 19.4). A harm–benefit analysis is central to this process, rigorously performed to weigh the expected societal benefits of the research against the impact of the strain placed on the animals involved. Therefore, even scientifically sound research proposals may be rejected if the anticipated harm to animals is deemed by the respective legal authority to be disproportionate (AniWA, Art. 19.4) to the expected outcome of the research.

Responsibility for implementing animal research legislation lies with the cantons (AniWA, Art. 32.2). The Federal Food Safety and Veterinary Office (FSVO) ensures consistent application of the AniWA and related ordinances nationwide. Cantons are also responsible for establishing (or mandating) Cantonal Animal Research Committees (AniWA, Art. 34) to evaluate applications.

Advancing research while protecting animal welfare will remain a challenge. Institutions including the Ethics Committee for Animal Experimentation (ECAE), the FSVO, and the Swiss Academy of Medical Sciences (SAMS) provide best practice recommendations to assist researchers in conducting comprehensive harm–benefit assessments¹¹.

3.2 SNSF

The SNSF is mandated by the State Secretariat for Education, Research and Innovation (SERI), on behalf of the Swiss Confederation, to support research of the highest quality. In its evaluation processes, the SNSF therefore assesses whether the research is scientifically original, timely and methodologically sound, and has relevance for society by driving progress and creating new knowledge. In this context, the SNSF is responsible for evaluating the scientific quality and scientific value of research involving animals, which includes assessment of whether the use and number of animals

⁹ Animal Protection Ordinance (AniPO): [SR 455.1 - Tierschutzverordnung vom 23. April 20... | Fedlex](#) / [RS 455.1 - Ordonnance du 23 avril 2008 sur la pr... | Fedlex](#)

¹⁰ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

¹¹ Ethical guidelines for animal experiments: https://www.samw.ch/dam/jcr:b504f0d9-7026-4961-b5a4-35060fd5122d/sams_ethical_guidelines_for_animal_experiments_2025.pdf

proposed are scientifically justified, considering the research question and experimental design. The SNSF expects that applicants have completed a rigorous, state-of-the-art harm-benefit analysis in accordance with ECAE guidelines before submitting a proposal that involves animals. The SNSF does not request applicants to submit Form A of the animal experimentation license application to the cantonal authorities during the grant application process. A Cantonal Veterinary Office, supported by a cantonal animal experimentation committee, is exclusively responsible for reviewing and approving the animal experiment protocols (cf. section 3.1). Thus, even if the SNSF positively evaluates a project application for the high quality of the research proposed, the release of funds - including annual instalments - remains contingent upon providing evidence of a valid animal experimentation licence that covers the animal experiments specified in the proposal.

To fulfil its mandate not only as a funder but also as an organisation shaping research policy, the SNSF continuously refines its research policies and guidelines. These policies are the basis for the scientific evaluation of research proposals. The SNSF has established structures, including the Policy Committee of the Research Council and a dedicated Policy Group on Research Ethics and Integrity (REI), that are tasked with proactively monitoring and responding to developments in research policy, including ethical matters arising in the context of research involving animals. Through these bodies, the SNSF regularly updates its guidelines, including for aspects of animal research, to reflect evolving scientific standards and technological developments, ethical considerations, and regulatory developments.

The SNSF also collaborates with national stakeholders including the Commission for the Swiss Transparency Agreement on Animal Research¹² (STAAR) of the Chamber of Universities and the Swiss 3R Competence Centre¹³ (3RCC), to remain abreast of emerging trends and best practices. These partnerships help to ensure that only necessary animal experiments are conducted to advance knowledge.

4 Responsibility of Applicants

Applicants submitting proposals to the SNSF for funding that involve animal experiments are expected to be fully aware of and comply with Swiss legal requirements – including the requirement that animal experiments are only considered to be justified if they are proportional to the expected gain in knowledge and when no reasonably feasible alternative approaches are available that can yield results of comparable quality and reliability (cf. section 3.1). Beyond legal compliance, applicants are strongly encouraged to adhere to the SNSF's guiding principles when designing their research projects. It is the applicant's responsibility to submit a research proposal that permits thorough scrutiny and evaluation in all relevant scientific aspects. For proposals involving animal experiments, applicants should pay particular attention to the following:

- That there is a scientific necessity for the proposed animal experiments that justifies the strain imposed on the animals relative to the benefits of the proposed research.
- That the principles of Replacement, Reduction and Refinement (3Rs) have been respected in the proposed experimental approach as required by the Animal Welfare Act¹⁴.

¹² Swiss Transparency Agreement on Animal Research (STAAR): <https://www.swissuniversities.ch/en/organisation/bodies/chamber-of-universities/bodies/swiss-transparency-agreement-on-animal-research-staar>

¹³ Swiss 3R Competence Centre (3RCC): <https://swiss3rcc>

¹⁴ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

- That comprehensive information on the species, models, and estimated number of animals to be used in the experiments is provided – accompanied by a clear scientific justification – that allows for a thorough assessment of statistical validity and methodological appropriateness.
- That the proposal is framed using appropriate scientific terminology, with any use of animals being justified strictly on scientific grounds, and with the understanding that ethical and legal assessments are conducted independently by the relevant authorities.

To support compliance with these expectations, the SNSF provides a checklist for applicants, available in Appendix 1 and via links on the relevant SNSF webpages.

5 Responsibility of Reviewers and Evaluation Panellists

To promote original, innovative, ethical, sustainable, and responsible research, the SNSF offers detailed guidance on best practices in evaluation, in line with its evaluation criteria (Funding Regulations¹⁵, Art. 24) and model of excellence¹⁶.

International reviewers and members of evaluation panels receive clear guidelines¹⁷ describing established best practices. To promote a fair, objective, and transparent evaluation process, all panel members undergo regular training to remain up to date with SNSF policies and to strengthen their awareness of key issues including unconscious bias, diversity, equality and research integrity.

During the evaluation of research proposals involving animal experiments, reviewers and panel members should pay particular attention to assessing the following:

- The scientific necessity and relevance of the animal experiments in relation to the proposed research objectives.
- That the science is sound, with well justified methods, and an experimental design that ensures that research animals are not unnecessarily used, for instance in replicative studies without clear added value.
- That the principles of Replacement, Reduction and Refinement (3Rs) have been convincingly addressed in the study design.
- Provide constructive feedback based on their evaluation to support the responsible design of research projects. While reviewers are encouraged to flag ethical concerns where appropriate, they are not required to assess compliance with the AniWA¹⁸, as the competence and authority for legal and ethical approval rests with the cantonal and federal authorities.

To support these expectations, the SNSF provides a checklist for reviewers and evaluation panel members, available in Appendix 2 and via links on the relevant SNSF web pages.

¹⁵ SNSF Funding Regulations: https://www.snf.ch/media/en/1HxQ3Oduclgk1Euw/allg_reglement_16_e.pdf

¹⁶ SNSF's model of excellence: <https://www.snf.ch/en/tf8nnJBdUJPCYODI/topic/the-snsfs-model-of-excellence>

¹⁷ Guidelines for reviewers and referees: https://www.snf.ch/media/en/Zp5e2ubmtSKEEYYz/snsf_guide-lines_for_reviewers_and_referees.pdf

¹⁸ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

6 Transparency and Monitoring

The SNSF is committed to monitoring and understanding the development of both animal-based and non-animal-based methods in the research it funds. In this context, it collaborates with national initiatives such as the Swiss Transparency Agreement on Animal Research¹⁹ (STAAR) and the Swiss 3R Competence Centre²⁰ (3RCC) to track trends, promote best practices, and support the implementation of the 3Rs principles (Replacement, Reduction and Refinement). The SNSF is equally committed to ensuring transparency in how these principles are integrated into the evaluation process and the final funding decisions.

As a public funding organisation and a signatory of STAAR²¹, transparency is central to the SNSF's approach. Accordingly, it publishes comprehensive data on all funded projects – including scientific abstracts, lay summaries, and funding amounts – in its public grant database. In addition, annual statistics report the funds allocated to projects involving animal experiments regulated under the Animal Welfare Act²² (AniWA) on the corresponding SNSF webpage²³.

The SNSF systematically monitors the use of animals in funded research projects across all scientific disciplines. This includes tracking the proportion of projects involving animal experiments, their disciplinary distribution, and the species used. These data enable longitudinal assessment of trends and ensure transparency.

7 Closing Remark

These principles and practices are intended to promote research involving animals that is not only scientifically robust but also rooted in research integrity and social responsibility. Recognising the importance and complexity of this field, the SNSF supports the research community by providing clear guidance, applying consistent evaluation standards, and actively engaging with evolving legal and societal frameworks. This is with the aim to safeguard the dignity and welfare of experimental animals and advancing the overarching goal of reducing animal use in research to an absolute minimum.

This document version outlines the SNSF's principles and practices in supporting research involving animals. It does not confer legal obligations beyond existing regulatory frameworks, nor does it replace or reinterpret the responsibilities of cantonal authorities or ethical oversight bodies. The SNSF's role is limited to evaluating scientific merit and necessity within its funding remit, in alignment with Swiss legislation. While more vague formulations may be considered to reduce institutional exposure and allow greater operational flexibility, this document version deliberately favours clarity and transparency to promote responsible research and signal public leadership.

¹⁹ Swiss Transparency Agreement on Animal Research (STAAR): <https://www.swissuniversities.ch/en/organisation/bodies/chamber-of-universities/bodies/swiss-transparency-agreement-on-animal-research-staar>

²⁰ Swiss 3R Competence Centre (3RCC): <https://swiss3rcc>

²¹ Swiss Transparency Agreement on Animal Research (STAAR): <https://www.swissuniversities.ch/en/organisation/bodies/chamber-of-universities/bodies/swiss-transparency-agreement-on-animal-research-staar>

²² Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

²³ SNSF web page on research using animals: current website (<https://www.snf.ch/en/279vMLLnUaS-ctG03/topic/animal-testing>) will be revised soon

8 Appendix 1: Checklist for Applicants Submitting Research Proposals Involving Animal Experiments

The SNSF is committed to supporting excellent, original, and innovative research that complies with Swiss legislation^{24, 25}. Regarding research using animals, the SNSF expects that applicants have conducted a rigorous, state-of-the-art harm-benefit analysis in accordance with the guidance of the Ethics Committee for Animal Experimentation²⁶ (ECAE). However, it does not intervene in the application or assessment processes for animal experimentation licences, which fall under the exclusive authority of the cantonal and other federal authorities.

To enable a robust scientific evaluation of proposals involving animal experiments – particularly regarding the appropriateness of the proposed animal use – before submitting a proposal the SNSF expects applicants to have addressed the following points in their detailed research plan as outlined in the *Principles and Practices of the Swiss National Science Foundation concerning Research Using Animals*:

- Ensure that there is justified necessity for the use of animals in the context of the specific research question.
- Ensure that the principles of Replacement, Reduction and Refinement (3Rs) have been applied.
- Ensure that no valid alternative method exists that could achieve the research objectives to the same extent, with equivalent quality and completeness.
- Ensure that comprehensive information on animal species, models and numbers, supported by scientific justification is provided to allow for a thorough assessment of statistical validity and methodological appropriateness.
- Ensure that the scientific rationale is clearly distinguished from the legal considerations, since the latter are assessed separately by cantonal authorities.
- Ensure that the terminology and framing is appropriate for scientific peer review.

²⁴ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

²⁵ Animal Protection Ordinance (AniPO): [SR 455.1 - Tierschutzverordnung vom 23. April 20... | Fedlex](#) / [RS 455.1 - Ordonnance du 23 avril 2008 sur la pr... | Fedlex](#)

²⁶ Ethical guidelines for animal experiments: https://www.samw.ch/dam/jcr:b504f0d9-7026-4961-b5a4-35060fd5122d/sams_ethical_guidelines_for_animal_experiments_2025.pdf

9 Appendix 2: Checklist for Reviewers and Members of Evaluation Panels Assessing Research Proposals involving Animal Experiments

The SNSF is committed to supporting excellent, original and innovative research that complies with Swiss legislation^{27,28}. However, the SNSF does not intervene in the animal experimentation licence application or assessment procedures, which fall under the sole responsibility of the cantonal authorities.

To ensure the fair and transparent evaluation of research proposals involving animal experiments, the SNSF expects reviewers and members of evaluation panels to thoroughly assess – following the guidance set out in the *Principles and Practices of the Swiss National Science Foundation concerning Research Using Animals* – whether the proposed use of animals is scientifically justified and respects the dignity and welfare of the animals involved.

Specifically, reviewers and panel members are asked to consider the following in their evaluation:

- The scientific necessity and methodological suitability of the proposed research involving animals should be evaluated in relation to its overall objectives.
- The proposed animal species, models, and numbers must be scientifically justified, not unnecessarily duplicative, and supported by valid statistical analyses and appropriate methodological approaches.
- Whether the 3Rs principles (Replacement, Reduction, Refinement) have been applied in a meaningful and methodologically sound manner.
- Avoid particularistic ethical judgements or assessing compliance with animal welfare legislation, which lies outside the SNSF's remit.
- Provide constructive, expertise-based feedback to encourage responsible and high-quality study design.

²⁷ Animal Welfare Act (AniWA): <https://www.fedlex.admin.ch/eli/cc/2008/414/en>

²⁸ Animal Protection Ordinance (AniPO): [SR 455.1 - Tierschutzverordnung vom 23. April 20... | Fedlex](#) / [RS 455.1 - Ordonnance du 23 avril 2008 sur la pr... | Fedlex](#)