Important for humans, animals and the environment

# **Animal research** in Switzerland



#### Animal research allows progress in medicine

- Research into the fundamentals of body functions as well as known and new diseases
- Innovations or developments in the prevention, diagnosis and treatment of diseases in humans and animals
- Training of doctors, veterinarians, animal keepers and scientists

### Animal research protects humans, animals and the environment

 Toxicity/safety testing of active substances and products to protect health and life

The COVID-19 pandemic clearly shows how important animal research is in combating new diseases.





The protection of human and animal health is enshrined in the Swiss Constitution, i.e. diseases must be combated and the safety of chemical substances must be tested.

#### Animal research

- is permitted in basic research to study the anatomy of human beings and animals
- is legally required for testing the efficacy and safety of new medicines, chemical substances and products
- · is prohibited for testing of cosmetic products

#### Animal experiments may only be carried out:

- if there is no alternative to the use of animals
- if they are ethically justifiable, i.e. the scientific benefit outweighs the suffering of the animals
- · by trained specialists
- · with a valid animal research permit
- in compliance with the strict rules of the Swiss Animal Welfare Act and under the control of the cantonal veterinarians

The most gentle method must always be used as well as the smallest number of animals. The distress to the animals must be as small as possible, i.e. any pain must be combated with painkillers, and surgical procedures are carried out under anaesthesia as in humans.

#### The 3Rs principle

Those, who carry out animal experiments must apply the 3Rs principle:

#### Replace:

**Replacement** by cultured cells, tissues or organs or computer simulations wherever possible

#### Reduce:

**Reduction** in the number of animals used per test **Refine**:

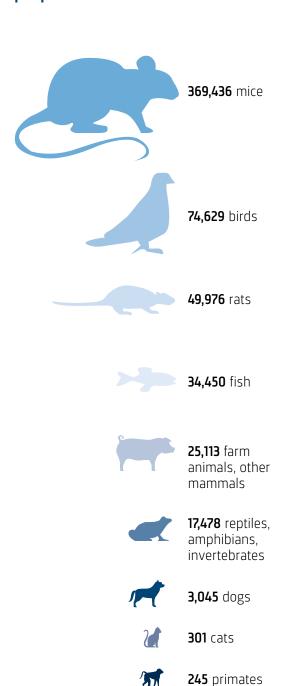
**Improvement in testing** to minimise constraint to the animals and promote their wellbeing

Animal research = scientific experiments on and with animals



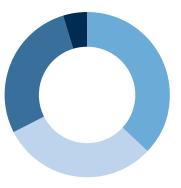
Procedures on animals are performed under the same conditions as on humans. A surgical procedure on a laboratory animal (pig) is shown here

### 574,673 animals were used for scientific purposes in Switzerland in 2021



## Two-thirds of the animal experiments carried out in 2021 had minimal or no adverse effects on the animals.

- **214,039** → degree 0
- **175,232** → degree 1
- **159,650** → degree 2
- **25,752** → degree 3



- Degree 0: Without pain, suffering, harm, fear; e.g. tests done in a better husbandry system for chickens to increase their wellbeing and reduce the rate of injury.
- Degree 1: short-term mild pain, injury, impairment; e.g.
  blood database for dogs, training of veterinary students.
- Degree 2: short-term moderate or long-term mild constraint; e.g. testing of experimental cancer drugs in mice and infection of cattle with lungworms to develop medicines for cattle.
- Degree 3: severe constraint (pain, suffering, injury); e.g. performing kidney transplantation in mice in order to better understand rejection reactions, thus enabling us to counteract them.





#### Swiss Laboratory Animal Science Association (SGV)

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