

# ANIMAL TESTING

## Animals

Experimental animals: rodents, primates, and more seldom, frogs. Animals include specimens in good health, healthy carriers, those domesticated, raised in facilities, experimentally infected or not infected, and GMO specimens. The source of animals is known to come from certified breeders. The state of health of the animals must be monitored and controlled. Primates are to be subject to special clinical observations, if results from supplementary medical tests (RDW test, serology, stool exam, etc.) are inconclusive.

The breeding and use of transgenic animals requires **GMO certification** in compliance with regulations (cf. the file on biological risks).

The use of animals as models for infectious pathology must be reported to the occupational health and safety inspector at least 30 days before work begins.

## Workplace and equipment

There are several types of animal facilities: conventional, pathogen-free conventional, A2 – A3 specific-purpose Animal testing facilities must meet certain regulatory requirements :

- different species separately housed ;
- the safety of personnel (clothing, washrooms, shower, lounge) ;
- access to a laundry room ;
- use of smooth-surface, wear-resistant, waterproof materials that can be easily decontaminated ;
- ventilation system adapted to the animal species being housed ;
- temperature and humidity control ;
- rooms for clean storage of products separately maintained from those used for waste and dirty material.

The housing of animals and the use of equipment for animals subject to certain specific risks (i.e. infectious micro organisms, transgenesis, chemical, radioactive) are additionally required to comply with specific regulations.

### Animal wards

- fitted cages, pens or boxes designed for animals ;
- ventilated cupboards and isolation units equipped with an autonomous ventilation system ;
- cages with an inbedded filter in the cover to block airborne contamination ;
- disposable single-use cages.

**Microbiology safety cabinet** reserved for injections



A mandatory 5-year licence is delivered by the Department of Veterinary Services after having demonstrated that the laboratory has met all the requirements related to its activities and equipment used.

The head of the animal testing facility must be personally licensed to be authorized to conduct tests on live animals.

## Work practices and equipment

Work with animals must not take place in the area in which they are confined.

GMO animals must be confined separately from non-GMO animals with respect to their related class of risk. The area where animals are confined must be clearly designated.

Authorized workers may enter the area only after having identified themselves with a computerized security badge and code.

### Training of personnel

Training is required for all personnel who work with animals. Training is conducted at several levels :

- level I for supervisor research scientists ;
- level II for persons directly performing experiments ;
- level III for persons working inside animal facilities.

Special training is required to perform surgical operations. Temporary workers may perform experiments on animals under the direct responsibility of the head of the establishment. All personnel using an autoclave must have had prior training in its use.

### Protection of personnel

Special-purpose lab coats and gowns, gloves (1 or 2 pairs) – bouffant caps - boots - masks (surgical-type or mask with filter and seal).

**Ergonomics at the workstation** (load optimization)

Efficient animal experimentation is based on accurate recordkeeping :

- **Animal registers**

animals listed according to species, and for each animal: age, sex, date of entry, origin, date of discharge and destination, date and cause(s) of death, and all other pertinent observations ;

- **Logbook of all entries by personnel entering animal facilities**

a logbook must be maintained and kept available for inspection by the regional sanitation department ;

- **Register of medications**

medication administered in the animal facilities is to be recorded in a register ;

- **Hygiene and safety register**

required when animal facilities are a separately administered entity ;

- **GMO animal register**

when these types of animals are confined and handled.

## Medical surveillance

Vaccinations to be checked – specific vaccinations can be administered. Extra surveillance needed for work with certain animal species (e.g. non-human primates, etc.), or if problems arise, in particular from the use of anaesthetics or from allergic reactions due to animal hair, urine, etc.

## Waste

Waste occurs in different forms :

- Frozen animal carcasses are disposed of with DASRI collection services for infectious waste ;
- Soiled bedding: hazardous waste to be disposed of in sealed and solid DASRI-approved containers ;
- Non-soiled bedding to be disposed of with DIB collection services B ;
- Experimental waste disposed of according to its type (as hazardous waste or with DIB collection services).

In the event of contamination with a biological agent of class 2 or 3, or of a GMO of class 1, 2, or 3, the waste can be disposed of only after it has been inactivated by outside specialists either by :

- autoclaving ;
- chemical procedures.

Use of regulation containers ;

- special containers for sharp and needle waste NFX 30-500 ;
- plastic bags and paper bags lined with plastic NFX 30-507 ;
- plastic drums and jerrycans NFX 30-505 ;
- Can : NFX 30-506.

## In case of an accident

Wounds, scratches, and bites by a laboratory animal, spattering of biological matter, handling of primates: the same procedures to be followed: (refer to Inserm's guidelines of procedures) :

- Cleanse the area with soapy water, rinse, and disinfect ;
- In the case of spattering into the eye: rinse with water-do not remove contact lens. Consult an ophthalmologist ;
- Call a physician, the emergency department, and contact the safety medical officer ;
- Call a physician within 2 hours of risk of HIV or hepatitis ;
- Prepare an accident report ;
- Record the accident in the hygiene and safety register.

### Appropriate contacts

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