



iBiMED Animal House Operating Rules

September 2018





1. GENERAL PROVISIONS

1.1. The Animal house is a specialized service of the Institute of Biomedicine (iBiMED) of the University of Aveiro, designed for the accommodation of laboratory animals of the species *Mus musculus* (mouse) and *Rattus norvegicus* (rat) to be used for experimental and teaching purposes.

1.2. The care to be provided to the animals at iBiMED Animal house is according to the principles generically referred as '3Rs' which consists on principles of Replacement, Reduction and Refinement. Thus, when using animals for scientific or educational purposes, it must be taken into account the methods to be applied, giving preference to the use of alternative methods. It also should be selected the method that provides satisfactory results and to cause the least pain, suffering or distress to the animal.

1.3. The iBiMED Animal house follows the requirements of the international guidelines and national legislation (DL nº113/2013 7th August), defined by the competent national authority (Direção Geral de Alimentação e Veterinária – DGAV).

1.4. The iBiMED Animal house is a user facility with Biosafety level 2, suitable for performing procedures involving agents with small to moderate risk for people and the environment (microorganisms classified as risk class 1 and 2), according to legislation (DL nº 84/97 of 16th April and portaria nº 405/98).

1.5. The Animal house is a restricted access facility, only accessible to staff and users with specific training and authorization.

1.6. To ensure the maintenance of the sanitary status, it is not allowed to take any personal object (cell phone, jewellery, watch, pens, etc.) into the facility.

2. FACILITY AND GENERAL SERVICES

2.1. The regular working schedule of the Animal house is from 09h00 to 13h00 and from 14h00 to 18h00, from Monday to Friday. On Saturdays, Sundays and holydays the animals and facility general surveillance is assured by the Animal house staff and researchers.

2.2. The iBiMED Animal house facility has staff responsible for the animal welfare and veterinary medical care.

2.3. The Animal house have two separate circuits with independent controlled entrances. Each space has its own changing room, housing rooms and procedures room.



The staff and researchers are not allowed to transit between the two spaces, except with special permission. All rooms are properly identified, as well as the circuit ABSL1 and ABSL2.

2.4. The animals are kept in a controlled environment (of space, light, temperature, humidity, noise and air circulation), adequate to the species and in accordance with the current legislation, in IVC (Individually Ventilated Cages) system, being these cages handled in vertical flow chambers.

2.5. The maintenance of animals (regular cage's changing, water and food *ad libitum* supply) and proper disinfection/sterilization of all material and facility will be done by the Animal house staff, together with the designated researchers for this purpose. Principal investigators will have to pay a fee per animal cage. All extra services provided by the Animal house staff will be extra charged (check the user's rules and cost table on the website).

2.6. The monitorization of hygiene and sanitary conditions of animals and spaces will be performed regularly by the Animal house staff.

2.7. The animal rooms are equipped with an automatic system that ensures cycles of 12 hours light / 12 hours dark.

2.8. The iBiMED Animal house has smoke detectors, fire extinguishers and emergency exit properly identified.

2.9. Any anomaly detected in the facility, environment or animal welfare should be immediately reported to the Animal house Coordinator by email: dcm-bioterio@ua.pt.

2.10. The iBiMED Animal house facility and equipment are common resources subject to booking, so everyone should use them with care, ensuring that everything is clean and tidy after use.

3. ANIMALS

3.1. All animals included in the procedures performed in the Animal house must be linked to a project approved by the competent authority in accordance with the legislation in force. It is the responsibility of the investigator responsible for the project to make available all the information necessary for the Animal house to ensure the best conditions for carrying out the procedures included in the aforementioned project, guaranteeing the welfare of the animals that participate in them. Death as a critical

threshold of a procedure should be avoided and must be replaced by humane end points when the experimental protocol is designed. The use of analgesics and anaesthetics in experimental procedures should always be considered.

3.2. The entry of animals into the Animal house facility will only be possible after the opening of a Project Folder that includes:

- A copy of the final project submitted to the authority responsible for approving protocols using animals for experimental purposes (DGAV);
- The approval by the competent authority (DGAV);
- If the approval by DGAV is not required, a copy of the favourable opinion issued by ORBEA;
- The identification and accreditation of the involved researchers;
- Species, number, strain and particular characteristics of the animals to be used;
- Chronological description of the procedures to be performed (chronogram);
- Any other relevant information.

3.3. It will only be possible to enter animals in the Animal house facility after the evaluation of the sanitary certificate of the colony from which they come. The certificate should be recent, and its validity will depend on the agents concerned. The process will be simplified when the animals come from recognized producers.

3.4. The purchase of animals is the responsibility of the users. Their ordering should only be done after the Animal house's direction ensure that all the conditions (sanitary, space and resources) are fulfilled to accommodate the animals.

3.5. The entrance and exit of animals are carried out by Animal house staff in a specific place/equipment and should therefore be previously scheduled. Extraordinary situations will be evaluated on a case-by-case basis, but it is assumed that once the animals leave the Animal house facility they cannot re-enter.

3.6. The Animal house is obliged to register and submit annually, to the competent authority, the animals (number, species, strain, source, etc.) that were received, and which have been effectively used in the facility, under a previously approved project.

3.7. All animals entering in the Animal house facility will be kept in acclimatization in the quarantine room for a period of 5 to 10 days, during which time they cannot be included in any procedure.



3.8. The animals will be kept in pressurized rooms. Their manipulation (substance administration, sampling, surgeries, etc.) will be performed in the manipulation rooms intended for this purpose (procedure rooms), according to reservations made in advance.

3.9. All material that users need, and the Animal house cannot provide, must be delivered at least 48 hours in advance to be properly cleaned, disinfected and/or sterilized. Particular attention should be paid to heat-sensitive materials and to substances intended to be administered directly to animals by oral or parenteral via.

3.10. All rooms must keep a number of cages equal to or less than its capacity, with the proper number of animals per cage. If animal welfare is compromised, the animals should be split into several cages and the investigator being promptly advised.

3.11. All cages, without exception, must be properly identified using the labels provided by the iBiMED Animal house.

3.12. All cages are checked regularly, being made a weekly record of the number of cages per room and the number of animals per cage.

3.13. All the rooms have a Record Book that lists all the activities that take place in the room, either the regular ones (cage's changing, alteration on the division of the animals per cage, cleaning of the room, etc), or the isolated facts related to the animals (changes in health status, deaths with/without apparent cause, behavioural changes, etc.) or environment (change in temperature, humidity or pressure in the room, etc.). All entries in the record book must include the date and name of the user or staff.

3.14. Animals found dead (related to the experimental protocol or without apparent cause) must be removed from the cage and the Animal house facility Coordinator should be immediately informed. The animals will undergo necropsy and additional diagnostic tests if possible/necessary.

4. USERS

4.1. All users and staff should be immunized against tetanus.

4.2. No user or staff may have pet animals of the species housed in the Animal house facility.

- 4.3.** If a user or staff member has been in other animal facility or in contact with rats or mice from other sources, he/she must wait a minimum of 48 hours before re-entering the Animal house facility.
- 4.4.** Users must be accredited by the competent authority (DGAV) to conduct experimental procedures on animals, in accordance with the legislation in force. A copy of the license must be provided, as well as a summary *curriculum vitae* that refers their specific experience and training.
- 4.5.** To obtain permission to enter the iBiMED Animal house facility all users should schedule a meeting to be explained to them the regulation and operational rules, and a visit to the premises. Special authorization is required to use the Animal house facility outside normal operating hours.
- 4.6.** All the procedures that the user will perform must be previously reviewed by the assistant veterinarian, aiming at the implementation of more refined protocols that result in the improvement of the welfare of the animals involved, without prejudice to the experimental objectives.
- 4.7.** All users and staff members should periodically update their theoretical and technical skills in Laboratory Animal Science, with particular emphasis on the species that the Animal facility houses.
- 4.8.** It is the responsibility of users and staff to understand and apply the SOPs (Standard Operating Procedures) made available and properly explained/demonstrated/taught by the most qualified technicians.
- 4.9.** To ensure correct pressurization of the various spaces of the Animal house facility, doors must be kept closed before and after the passage of persons/animals/equipment.
- 4.10.** It is prohibited to use shoes from the outside inside the Animal house. These must be left in the locker room in the respective access zone. It is mandatory to wear the provided protective clothing, such as a gown, cap, mask, shoes and gloves. Before leaving the premises, users should discard all protective clothing in the appropriate containers.
- 4.11.** Inside the iBiMED Animal house facility staff and researchers should only use the spaces/equipment required for the functions they will perform. During this period, they are expected to avoid producing loud and sudden noises. If it is necessary to speak, the tone should be low and paused.