

Standard operation procedure: External laboratories at IMB housing animals

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EXTERNAL LABORATORIES AT IMB HOUSING ANIMALS

1.0 PURPOSE

- 1.1 To ensure good animal welfare in external laboratories - i.e. laboratories located at the Institute of Basic Medical Sciences (IMB) but outside the Department of Comparative Medicine (KPM) and approved for housing animals.
- 1.2 To minimize the spread of allergens, odours and possible pathogens to surrounding areas.
- 1.3 To minimize the risk of contamination to KPM.
- 1.4 To improve communications between users and staff at KPM.
- 1.5 To promote a safe work environment.
- 1.6 To ensure good hygiene practices in order to prevent contamination to animals, between animals and from animals to personnel.
- 1.7 To ensure good routines in the case of fire or other emergencies.
- 1.8 To ensure that regulations drawn up by KPM and the Norwegian Food Safety Authority (Mattilsynet) are followed.

2.0 DIVISION OF RESPONSIBILITY

KPM

- 2.1 KPM is responsible for ensuring that external laboratories are approved for housing animals by the Norwegian Food Safety Authority.
- 2.2 KPM and all the users are responsible for complying with the criteria laid down by the Norwegian Food Safety Authority.
- 2.3 KPM must ensure that the animal housing room and dressing rooms are equipped with laboratory coats, hoods, masks, gloves, paper towels, cleaning products and disinfectants. These are reserved for the use of KPM personnel unless otherwise agreed.
- 2.4 KPM is responsible for the daily inspection of animals and for changing cages.
- 2.5 KPM euthanizes sick animals when necessary and when discovered during daily inspection.
- 2.6 KPM must inform the users about matters concerning their animals.
- 2.7 KPM is responsible for completing requests in Science Linker (SL).
- 2.8 KPM is responsible for providing clean equipment and for making sure that bottles, supplements and food are available at all times.
- 2.9 KPM provides lists that are signed when cages are inspected and changed.



- 2.10 KPM is responsible for cleaning up after daily inspections and cage changes.
- 2.11 KPM is responsible for moving all dirty equipment from external laboratories to KPM.
- 2.12 KPM is responsible for registering any chemicals belonging to KPM in the Eco Archive.
- 2.13 KPM is responsible for moving all dirty equipment belonging to KPM from external laboratories (placed in KPMe) to the equipment storage room in KPM.

The user

- 2.14 The group leader responsible for the laboratory must inform KPM of the Safety Representative (“verneombud”) for that area.
- 2.15 The group leader in charge of the laboratory is responsible for keeping the area in order. All users are responsible for tidying up after themselves.
- 2.16 The group leader in charge of the laboratory is responsible for ensuring that all users and KPM personnel have received training regarding evacuation in case of an emergency. He/she is responsible for ensuring that all the fire exits are clearly marked and accessible and that sufficient first aid kits and eyewash are available.
- 2.17 The users handle hazardous waste from the laboratory, including emptying the cadaver freezer. The users replace containers for hazardous waste.
- 2.18 The user is responsible for registering any chemicals not belonging to KPM in the Chemical Manager in Eco Online.
- 2.19 The user is responsible for making sure that all the animals have a valid and active FOTS.
- 2.20 The user must provide an HSE declaration if any experiments involving chemical substances, pharmaceuticals, biological materials, infectious microorganisms or other potential health hazards are to be conducted. The PMSK must make sure that the user provides this information.
- 2.21 The user must alert KPM before starting an experiment and provide KPM with all relevant information regarding the experiment.
- 2.22 The user is required to read SOP “14-02 Requirements for starting an experiment at KPM and KPMe” before any experiments are commenced and to mark cages according to the SOP.
- 2.23 The user is responsible for moving animals from KPM (DU-007) to external laboratories. NB! You cannot move from external laboratories to DU-007 on the same day.
- 2.24 Users must alert KPM when animals are moved to other laboratories than KPMe (such as L-123) and when animals are no longer housed in these areas.
- 2.25 The user is responsible for updating the cage cards and Science Linker (SL) with correct information on the room, coordinate and number of animals.
- 2.26 The users are responsible for placing dirty equipment belonging to KPM in the “sluice room” in KPMe. If the user does not have access to KPMe, the equipment must be placed in the equipment storage room in KPM.

3.0 PROCEDURE

General information

- 3.1 You must inform your immediate superior as soon as you know you are pregnant or suspect pregnancy, or if you are planning pregnancy (applies to men and women). Due to exposure to allergens, possible

opportunists and pathogens and hazardous pharmaceuticals and chemicals, pregnant women are recommended not to enter the area without first undergoing an extensive risk assessment related to the use of personal protective equipment (PPE).

- 3.2 Everyone who works with animals must be tested for allergies and asthma every other year and be vaccinated (e.g. Tetanus minimum every 10 years, preferably every 5 years).
- 3.3 Due to potential multi-resistant bacteria, you cannot enter the area if you have recently been hospitalized abroad. Furthermore, access to areas where animals are housed is not allowed if you have a severe cough/throat infection, diarrhoea known to be contagious or with unknown cause, or symptoms of COVID-19 or other highly contagious diseases. The necessary quarantine time will be determined by the head of KPM, depending on your symptoms. Contact your immediate superior and the head of KPM if you have any questions regarding this. Please contact KPM to verify when new access can be granted.
- 3.4 KPM and any other external laboratories have the lowest health security level. You cannot move from an area with lower health security level to an area with a higher health security level the same day. The MDU, including the dirty side of DU-007, has a higher health security level. You must have taken a shower and changed clothes if you have been in a unit with a lower health security level or in another animal facility during the day(s) before.
- 3.5 You are not allowed to enter any area if you keep rodents or rabbits as pets at home.
- 3.6 Equipment that will come in contact with animals must be properly disinfected or sterilized. KPM can assist in this matter.
- 3.7 Relevant SOPs, provided by KPM, are available on the KPM home page. Everyone is responsible for keeping up-to-date with any relevant SOPs.
- 3.8 Training in Science Linker (SL) is given by KPM and can be booked by e-mail.
- 3.9 The user can order animals from KPM through SL and "Move to DU007". The user must update the cage with the correct coordinate in SL and print out a new cage card.
- 3.10 All cages with animals to be transported to external laboratories from DU-007 have to be covered during transportation.
- 3.11 Animals originating from KPM cannot be returned to KPM after being housed in external laboratories.
- 3.12 All dirty equipment must be placed in the "sluice room" in KPM. If the user does not have access to KPM, the surface of the dirty equipment must be disinfected before being moved to the equipment storage room in KPM.

Evacuation and PPE

- 3.13 Everyone is required to evacuate in case of an emergency. If an experiment is taking place, animals should be euthanized if their welfare is at risk or if there is any risk of the animal escaping. Close all cages with animals inside.
- 3.14 Everyone must wear personal protective equipment (PPE) when entering areas housing animals and when handling animals: a coat, inner gloves covering sleeves, hood, mask and clean crocks/shoe covers are mandatory. KPM provides surgical masks. A P2/P3 mask is recommended against particles (can be used for up to eight hours). Mobile phones, keys etc. must be placed in a zip lock bag, and the bag must be sprayed with 70 % ethanol. Perfume is not allowed.

- 3.15 Outer gloves are worn when handling cages and animals. Gloves must be discarded and new ones put on between racks and before handling clean equipment. The inner gloves can be used when handling door handles, computers etc.

Handling cages, daily inspection and cage change

- 3.16 KPM inspects ventilation units daily and contacts the person at KPM responsible for equipment if there are any discrepancies.
- 3.17 Close the door and use the rodent stopper if you open any cages.
- 3.18 KPM inspects animals daily and contacts the user if there are any discrepancies. Mice are changed every 14 days or more often, if necessary. Rats are changed every seven days or more often, if necessary. Cage changes and animal inspections must be recorded on the list.
- 3.19 The staff at KPM euthanize sick animals during inspection when necessary. KPM will inform the user before euthanizing sick animals, if this is ethically justifiable when taking into account the welfare of the animal. The user will be contacted by email and, if deemed necessary, by telephone.
- 3.20 The user must know how to move cages in and out of the rack, so that the cage is properly connected to the ventilation, how to open and close the cage and how to close the filter cover.
- 3.21 The animals must be provided with a sufficient amount of food and water to last for at least the next day, bedding, a sufficient amount of paper and an igloo/tunnel. Any deviation from this must be supported by the FOTS and be clearly stated on the cage card. The user is responsible for making sure of this when taking animals out of the room for experiments. The animal must be left in a good condition. Animals being used in experiments must be given a green cage card showing the proper information.
- 3.22 One rack is one separate unit. Cages must not be moved between racks without first alerting KPM due to the potential different health status of the racks. The function of the sentinels is to monitor the health status of the rack.
- 3.23 Users and staff are not allowed to open cages without the proper use of the mobile changing station/fume hood/extractor arm fume hood due to exposure to and spread of allergens and potential pathogens.
- 3.24 The workstation must be properly cleaned with soapy water and disinfected with 70% ethanol after use. The floor must be swept.
- 3.25 Alert KPM if any equipment is missing or if you need larger quantities.
- 3.26 Dirty cages and bottles must be moved by the KPM staff to the equipment storage room in KPM on the day of the cage change. The outside of this equipment must be disinfected before being moved to KPM.
- 3.27 If the user does not have access to KPMe, the user must place equipment returned to KPM in the equipment storage room in KPM. The outside of the equipment must be disinfected before transfer.
- 3.28 Used coats must be changed daily when cages have been changed. Other coats must be changed when dirty and at least once a week. Place dirty coats in a marked bag. This will be emptied by KPM.



Emergency after hours

- 3.29 In case of an emergency after hours, you can call KPM's security telephone on 90056382. This number is also in use during working hours.

3.30 In the case of problems related to access afterhours, you can call UiO's Security Operation Centre on 22855007.

KPM: E-mail: komparativ@medisin.uio.no Tel: 90056382 (24/7) https://www.med.uio.no/imb/tjenester/komparativ-medisin/
UiO Security Operation Centre: Tel: 22855007 (24/7)

4.0 HEALTH, SAFETY AND ENVIRONMENT (HSE)

Kemetyl technical ethanol 96%	CAS no	Pictogram	Hazard statements	Precautionary statements
Ethanol	64-17-5	 	H225 Highly flammable liquid and vapour H319 Causes serious eye irritation	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P370 + P378 In the case of fire: Extinguish with carbon dioxide (CO ₂), foam, powder or water.

- 4.1 Everyone who works with animals must be tested for allergies and asthma every other year and be vaccinated (e.g. Tetanus), if necessary, at UiO's Occupational Health Service Unit ("Bedriftshelsetjenesten"/BHT).
- 4.2 Cage changes and any handling of animals must be carried out while working under a ventilated changing station/fume hood/extractor arm fume hood in order to prevent exposure to and the spread of allergens and possible pathogens.
- 4.3 Minimum required (PPE): coat, inner gloves covering sleeves, hood, mask and clean crocks/shoe covers. A P2/P3 mask is recommended against particles.
- 4.4 Extra protection, such as using a fume hood, an apron, protective glasses and proper gloves and a facemask are recommended when working with hazardous drugs and chemicals. Kimtech Purple Nitrile Xtra gloves give protection from certain chemicals.

- 4.5 All personnel working with animals in the external laboratories must have attended an approved course in laboratory animal science and have adequate training to ensure the proper handling of the animals.
- 4.6 All personnel handling chemicals must have undergone adequate training and have access to proper protective equipment to ensure the safe use and storage of these chemicals. Everyone should be familiar with Eco Online and the safety data sheets for the chemicals they could be exposed to.
- 4.7 No chemicals are to be stored at a workstation, for example a fume hood. This must be monitored by the person responsible for the laboratory (group leader) and the Safety Representative for that area.

5.0 EQUIPMENT AND MAINTENANCE

- 5.1 Laboratory coat, hair net, surgical mask, gloves, crocks/shoe covers
- 5.2 Zip-lock bags
- 5.3 Cages, water bottles, bedding, food, paper for nest building, igloo, tunnel, running wheel
- 5.4 Paper towels, soapy water, 70% ethanol
- 5.5 Mobile changing station/ fume hood

6.0 HISTORY OF EDITING

- 6.1 21.01.2021 (Frøydis Lie Kilmer)

7.0 REFERENCES

- 7.1