



– Newsletter from the Animal Facility at Biomedicine –

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1) Nominations for the 3R Price 2022 for Increasing Animal Welfare in Research

The Animal Welfare Body at AU Health works to ensure that conducts and best practices for animal welfare are always implemented and shared across the various research disciplines at the Department of Biomedicine and the Department of Clinical Medicine.

The prize is instituted to create awareness on the importance of implementing the 3Rs in Excellence in Science.

The 3Rs stand for replacement, refinement and reduction.

Do you know a PhD student at the Faculty of Health who planned the use of animal experiments in a research project and actively implemented one or more of the 3Rs?

Then you can nominate the PhD student for the 2022 3R prize.

Link: <https://phd.health.au.dk/aboutus/events/phdday2022/>

Nominations must be submitted **no later than 25th of November 2022**.

2) Invitation to Annual Seminar on Animal Research at Health 2022

To facilitate and support networking and sharing of good practices and ideas between users, students, scientists and staff working with animal research, the Animal Welfare Body at AU Health is privileged hosting the Animal Research seminar 2022 the 1st for December.

The seminar covers presentations on reporting quality in preclinical animal research, and a talk on use of an *ex vivo* primary cell model presented by the 3R prize winner 2021.

Also, the program holds a presentation on systematic review, and a talk on genetic drift and genetic monitoring, topics that are all important for improving science and implementing the 3Rs in animal research,





Please find a more detailed program and information on signing up on the homepage.

Link: <https://dyrefaciliteter.au.dk/dyrevelfaerdsudvalg-paa-health/seminar-animal-research-2022>

3) Genetic drift – Management of transgenic and genetically modified animals

Genetic drift occurs in any independent mouse breeding colony and has the potential to negatively affect experimental reproducibility and scientific conclusions.

Spontaneous mutations caused by genetic drift may go unrecognized for years, until observed changes in phenotype occur or the specific research questions that depend on such mutations happen to be addressed. While it cannot be stopped completely, genetic drift and the impact on experimental results can be minimized through careful and thoughtful colony management practices.

As part of the colony management practice, the Animal Facility will have increased focus on genetic background and genetic drift, and will support monitoring of transgenic and genetically modified strains.

This means that animal technicians or vets will contact you if we experience that a strain is displaying phenotypic changes that is not supposed to be there or breeding performance suddenly declines. This can be a sign of the strain is drifting and needs backcrossing or refreshment of the background strain.

Also, if you have already experienced unwanted phenotypic changes or want to do an analysis of your strain, or you are just interested in hearing more, you are welcome to contact your animal technician or one of the vets for a talk on how to proceed.





4) Reduction in surplus animals – internally and externally

INTERNALLY.

To reduce overproduction and unnecessary waste of animals during breeding of transgenic animals at the Animal Facility, technicians will contact you if we experience breeding of animals that are not being actively used over longer periods of time.

These strains should be cryopreserved, or a plan for use must be presented.

This initiative has both 1) an ethical perspective in terms of reducing the number of surplus animals being bred and euthanized, 2) capacity benefits in terms of creating space in the animal facility, and 3) economical savings in terms of reducing costs for housing of animals.

EXTERNALLY.

Production of animals for experimental use by commercial vendors is vastly driven by the demand set forth by the research community. In EU, the number of produced animals not being used for experimental purposes equals or exceeds the number of animals being used for experimental purposes.

The number of animals not being used for experimental purposes comprises to a great extent animals that commercial vendors produce as surplus animals to fulfill and cover expected demands and *ad hoc* inquiries from the research communities, both from the industry and academia.

A significant step forward minimizing the surplus production of animals for experimental purposes, includes a much better and closer coordination between demand by the research communities and supply by the commercial vendors.

Especially having a short duration in time between order and required delivery, puts pressure on the number of animals being produced and being available in stock by vendors.

To support the vendors better adjusting production of animals to the expected demand, the research communities must place orders for animals more in advance.

Thus, to push forward on this, the Animal Facility will extend deadline for ordering of animals by one week (see the following section).





5) Ordering of animals

The deadline for animal orders is changed so you have to place your order no later than Sunday 1½ week before delivery.

This applies to all orders from both Janvier and Taconic.

For example: An order for delivery in week 50 should be placed no later than Sunday December 4 in week 48.

Orders for Jax and Charles River can be ordered with same deadline, but will often have longer delivery times.

When ordering time-mated, pregnant females or large numbers of animals with the same age or sex, we recommend sending these orders as early as possible.

Preferably, for animals older than six weeks, orders should also be sent as early as possible.

Furthermore, by placing the orders early there is a bigger chance of getting the required number/sex/age of animals for your studies.

This will make animal vendors able to adjust their animal production up or down and we avoid overproduction of animals.

6) Limitations in ordering of animals and technical assistance during Christmas and New Year 2022

Due to the Christmas holiday and reduced number of technical staff available, please be aware that it will not be possible to order animals to arrive in week 52 (December 26-31).

If you need animals during this period, they should arrive earlier.

Orders for week 1 in 2023 (January 1-6) must be send to animalorders@biomed.au.dk before Sunday December 18.

Also, please be aware that technical assistance will be limited during the holiday period





7) Mobile anesthesia units

All mobile anesthetic devices can now be booked in Outlook similar to workstations and other resources in the animal facility.

Please be aware that there are dedicated devices for mice and rats, respectively.

The anesthetic devices are named similar to other resources, for example '1115-K Anesthetic unit 1 (mouse)'.
Furthermore, as a general reminder, please remember to fill the anesthetic vaporizer and clean the mobile unit thoroughly after each use.

Unfortunately, we experience that the mobile units may not be cleaned after use and that remains of feces, bedding, blood etc. are left on the device. This makes it very difficult to maintain high hygienic standards and compromises use of aseptic technique during surgery.

To secure the working environment safety in the laboratory and to secure that the absorptive capacity of the charcoal filters is not exceeded, all users must weigh the charcoal filter connected to the anesthetic equipment's scavenger system before use.

A new charcoal filter is available on the mobile anesthesia unit.

We experience that resources may be booked without being used.

Thus, to make resources available for all, including the mobile anesthesia devices, laboratory working stations and procedure and behavior rooms, it is very important that resources are only booked the time needed.

8) Cleaning of the refrigerator storage room

The refrigerator room inside the autoclave storage (K50, across the clean washing area) used for storage of special rodent diets etc. is almost full, and many things are old and not sufficiently labelled with content or owner.

Everything that is not labelled after January 1st 2023 will be discarded.





Labels and pens will be available on the door into the refrigerator room.

Please remember to label your diets or other materials before January 1st if you want to keep it.

9) Import permit for import of animal byproducts

Department of Biomedicine holds an import permit allowing the researchers at the department to import animal byproducts or materials and reagents containing animal byproducts, e.g., tissue of animal origin, blood samples or similar, from specified 3rd party countries.

Currently, the import permit is managed by the Animal Facility veterinarians.

If you need to use the import permit, you will be provided a PDF copy of the permit along with an information log that must be filled. There are very strict documentation and traceability requirements when dealing with animal byproducts and the import permit can only be used after prior agreement with the veterinarians.

The import permit must not be shared and distributed among colleagues.

10) Power saving initiatives in the animal facility

Two energy/electricity saving ambassadors have been appointed in the Animal Facility.

Thus, the Animal Facility is working persistently on implementing new power saving initiatives and helping the department saving money.

Hence, we have put up flip-signs on all fume hoods in the Animal Facility to make it clear when a fume hood is turned ON or OFF.

When you are going to use the fume hood, simply turn on the fume hood in advance and flip the card to the green side saying 'ON'.

When you are finished working, turn off the fume hood and flip the card to 'OFF' with the red side out.

This is also a kind reminder to please remember to turn workstation and bench lights off when you are finished using them.





11) Animal Facility Management contact information

Head of the Animal Facility: Jakob Harslund, e-mail: jakob@biomed.au.dk

Team leader: Lone Dahl Thomsen, e-mail: lone.d.thomsen@biomed.au.dk

Vice team leader and LAS specialist, Peter Aakær Nielsen, e-mail: pan@biomed.au.dk

Facility Veterinarian: Astrid Gerd Holtet, e-mail: agh@biomed.au.dk

Facility Veterinarian: Thea Thougaard Johansen, e-mail: tjo@biomed.au.dk

Facility Veterinarian: Linda Loisa Kruhøffer, e-mail: lkr@biomed.au.dk

Homepage for the Animal Facility at Department of Biomedicine:

<http://dyrefaciliteter.au.dk/institut-for-biomedicin/>

<http://dyrefaciliteter.au.dk/en/department-of-biomedicine/>

Best regards,

Jakob Harslund

This newsletter is sent to keep the users of the Animal Facility at the Department informed about organizational conditions and management of daily routines and guidelines.

The newsletter is distributed to all employees at Department of Biomedicine at University of Aarhus.

