

## **Safety procedure for the use of genetic engineering laboratory areas class 1**

The safety procedure for genetic laboratories is developed on material from the Danish labor inspection AT-vejledning C.0.4-3 called "*Klassifikation af laboratorier, anlæg til production mv*" ("*Classification of laboratories, facilities for production etc*").

<https://at.dk/regler/at-vejledninger/k/c-0-4-klassifikation-af-laboratorier>

Biological active material is defined as living organisms, cells or viruses containing DNA or RNA derived by genetically modification. Isolated DNA, RNA or protein created by genetic engineering is therefore not comprehended by this definition.

Working with biological active material must only be preformed in laboratories approved as "Genetic engineering class 1"

## **Access- and work rules for class 1 laboratories**

When accessing and working in a classified laboratory there must always be worn buttoned lab coat. The lab coat is removed when leaving the laboratory area, there by containing contaminated biological active material.

When working in the laboratory there must be worn disposable gloves of the type: Nitrile PPE category 3((EU) 2016/425)

Cleanings staff are trained in cleaning the room by the laboratory responsible. The same rule apply to technical personal and contractors.

It is required to always washing hands before leaving the laboratories.

## **Prohibitions applying for the laboratory area**

It is not allowed to bring food or beverages into the laboratory.

Bags, outerwear and laptops are not to be brought.

Cardboard boxes and other items able to soak up liquids may not be the laboratories.

The use of cell phones and tablets are only allowed in direct documentation of the experiments preformed and to searching documents relevant for the experiments. Cellphones and tablets must be disinfected with 70% ethanol before removing from the laboratories.

Liquids which has been in contact with biological active material must not be discarded in the drains, but has to be either autoclaved of disinfected with Rodalon before disposing.

Paper and plastic which has been in contact with biological active material must be disposed in the yellow bins marked "Klinisk risiko affald" / "Clinical waste".

Disposable gloves must always be disposed in bin marked with "Clinical waste".

All bulletins in the laboratories must be laminated.

The doors must be kept closed and be marked with sign "Genetic engineering laboratory area class 1"

Mouth pipetting is strictly forbidden.

## **Working with genetic modified organisms**

The workspace must be kept tidy and be cleaned with disinfecting cleaning agents before and after the work. Notebooks, pencils, cellphones and tablets must only be stored in the marked "GMO free" zones. These zones must not be used for experiments.

If a spill occurs containing biological active material it is to be wiped at once and the area is washed with 70% ethanol or Rodalon. If a major accident occurs contact the work environment representative or course responsible.

Aerosol generating procedures must be performed in a fumehood or LAF-bench. All work where active biological agents is pipetted, streaked, cultivated, etc. must be performed in a LAF-bench. Needles, scalpels, object glass and other sharp utensils which has been in contact with active biological material must be disposed in the special needle boxes and disposed as clinical waste.

The users of the laboratories are responsible for the cleaning off work areas, LAF-benches, and fume hoods. All surfaces are cleaned with 70% ethanol or Rodalon.

Cleaning staff is responsible for cleaning the floors and vertical surfaces.

## **Waste and reusable utensils**

Glassware are either autoclaved or put into a Rodalon solutions before being removed from the laboratories. Waste containing biological active material is autoclaved before being removed from the laboratories or disposed in the yellow clinical risk bins.

## **Spills and accidents**

All accidents or "near accidents" are to be reported to the work environment representative.

## **Storage and transport of genetic modified organisms**

The freezer used for storage of biological active material is marked with a "genetic engineering laboratory class 1" hazardous sign.

Containers which contains biological active material is sealed and marked with yellow tape before it is removed from the room in the specific marked trays.

Eppendorf tubes which is transported outside off the classified area must be transported in easy cleanable racks marked with yellow tape in the specific marked trays.

## **Responsibility**

The laboratory responsible has duty to instruct staff and students in performing projects responsible and in accordance with the available safety regulations regarding the classified laboratories. It must always be possible to call a professionally competent person.

A call list with contacts on the laboratory responsible is bulletined at the entrance off the laboratories.