

BIOSAFETY-EUROPE

**Training and mobility policy for the
BIOSAFETY-EUROPE consortium**



Based on the two project questionnaires, partners' experiences, invited speakers and the participants of the project training workshops, the BIOSAFETY-EUROPE consortium has established the following **Training and Mobility policy**:

Objectives of this policy

Training is an integral component of the consortium activities. The consortium aims at enhancing the knowledge of all partners in biosafety and biosecurity principles and best practices as they are applied throughout Europe.

Purpose of any biosafety training

The purpose of any biosafety and biosecurity training shall be as follows:

- To alert staff to the health risks inherent in the manipulation of hazardous biological agents,
- To promote safety measures which will guarantee the safety of staff and the environment,
- To promote the exchange of best practices in biosafety and biosecurity throughout Europe.

General aspects

The responsibility for any biosafety and biosecurity training shall be clearly defined for every department and at every level, for example this could involve a biosafety officer collaborating closely with the scientific management and with the staff who receive the training.

Training shall be available in the country's national language(s), English and further languages as required.

Refresher training on various aspects of biosafety and biosecurity shall be offered to complement the obligatory training offered to each new employee at the beginning of their contract.

Initial training for new employees and guests

Initial training in biosafety and biosecurity for new employees shall take place on their first working day and for guests on their day of arrival. It has to be decided by each facility where and from which date new employees and guests can move unaccompanied in the restricted area.

The programme of initial training shall be individually adapted to the needs of each institution, the professional background of the person and may include an audiovisual presentation of the institute, an explanation of specific biosafety and biosecurity issues at the institute and a visit to its high security area.

Refresher training

The Biosafety office personnel shall organise regular workshops which new employees are expected to attend. All employees are required to attend annual refresher courses. The participation of staff at various workshops shall be tracked in an electronic database. The programme of refresher training workshops shall be individually tailored to the needs of each institution and updated regularly by agreement with all collaborators. It may for example include:

- Correct use of dangerous chemicals and disinfectants
- Disinfection and Sterilisation
- Correct use of Biosafety cabinets
- High Risk groups of microorganisms – Levels of Biosafety
- Radiation safety
- Waste disposal

Mobility

The consortium strongly encourages the mutual exchange of knowledge and best practices through staff exchange, laboratory visits and any other suitable mobility measure within the EU.

Model character of this policy

We propose this general training and mobility policy as a model for future consortia and institutions active in the field of biosafety and biosecurity.

Below, in Annex I to this policy, the Biosafety training policy of the coordinating institution FDEA (Institute for Virology and Immunoprophylaxis, Mittelhäusern, Switzerland) is given as a detailed example of a programme which includes institution-specific training requirements.

Annex I: Training policy of the Institute of Virology and Immunoprophylaxis (IVI), CH-3147 Mittelhäusern

Training

1. General Biosafety training

The personnel from the Biosafety office are responsible for all Biosafety formation for every department and at every level. Permanent workshops (in German and in English) on various aspects of biosafety complete the obligatory biosafety training offered to every new employee at the beginning of their contract.

The purpose of the biosafety training is as follows:

- To alert staff to the dangers inherent in the manipulation of dangerous biological agents.
- To promote safety measures which will guarantee the safety of staff and the environment.

2. Biosafety training for new employees and guests

- For new employees: On their first working day
- For guests: On the day of their arrival at the IVI so that they can move about unaccompanied in the HT. (only visitors must be accompanied)

2.1. Programme

- Audiovisual presentation of the IVI
- Explanation of Biosafety at the IVI
- Visit of the high security sector (HT) Laboratories/animal sector

3. Permanent Workshops

The Biosafety office personnel organize regular workshops which new employees are expected to attend. All IVI employees are invited to attend refresher courses. The participation of staff at the various workshops is noted in a databank. (The Biosafety databank).

3.1. Correct use of chemicals and dangerous disinfectants

Content

- Presentation of chemical products and disinfectants.
- Identification of chemical products and disinfectants.
- Daily manipulation of dangerous chemicals
- Toxicology – First Aid in the event of an accident with chemical products
- Preventive measures
- Storage and disposal of chemical products.
- Bibliography

3.2. Disinfection and Sterilization

3.2.1. Content

- Background research on pathogenic bacteria and development of methods of disinfection.
- Microbiology: Characterization of microorganisms, in particular viruses and bacteria, as well as their resistance
- Chemical and physical methods of disinfection
- Description of the principal disinfectants

- Standards required for a disinfectant
- Quality control for disinfectants against viruses (Accreditation)
- Sterilization
Steam - / Formaldehyde- / Ethylene oxide sterilization

3.3. Correct use of the Biosafety cabinets (Laminarflow)

This workshop comprises a theoretical presentation and a practical demonstration.

3.3.1. Theoretical content

- Description and terminology
- Statistics: infections caught in the laboratory
- Aerosols: definition/formation
- Biosafety cabinets Class I – III
- Correct use of the Biosafety cabinet

3.3.2. Practical content

- Demonstration: working in a biosafety cabinet
- Demonstration: testing for aerosols (by HK, S&T)

3.4. High Risk groups of microorganisms – Levels of Biosafety

3.4.1. Content

- Presentation of high risk groups of microorganisms according to EU and Swiss directives
- Classification of microorganisms
- Biosafety security levels 1 – 4: Safety measures
- Legal requirements

3.5. Management of waste at the IVI

3.5.1. Content

- Instructions for the transfer of material via the autoclave/ formaldehyde airlock
- Laboratory waste (single use material, needles, blades, vacuum-packed disinfecting material, radioactive material etc.)
- Special chemical waste
- Other special waste products

3.6. Radiation safety

3.6.1. Content

- What is radioactivity?
- Definitions / measuring units
- Principal types of radiation
- Working in Laboratory C
- Estimation of accumulated dose.
- Presentation of the law governing radiation safety and the instructions associated with it.

When necessary, workshops may be devoted to other topics.