



A GENETICALLY MODIFIED ORGANISM (GMO) is an organism that is not human, or microorganism, whose genetic material is altered by processes that alter the genetic material differently than occurs under natural conditions through crossing or natural recombination.

Work with GMOs is regulated by:

- the Management of Genetically Modified Organisms Law (ZRGSO) and subordinate regulations.
- the Rules on work with animals.
- internal rules at the Jožef Stefan Institute.

Contained use of GMOs can occur in:

- a large airtight box.
- a laboratory or other enclosed space in which GMOs are handled.
- a laboratory with doors always closed.

Contained use of GMOs encompasses:

- working in an enclosed system where the organism is genetically modified.
- work in which GMOs are grown, propagated, stored, transported, destroyed, disposed of or otherwise used.
- working in an enclosed system for which containment measures are implemented.
- all of the above.

GMOs are classified in biosafety class 2 when:

- the recipient organism, parental organism, source organism, insert, vector or newly created GMO can cause diseases in humans, animals or plants, but effective disease prevention or treatment is available; if adverse effects occur in the environment, they are correctable.
- so determined by the project manager.
- we do not know how to classify them.

An extraordinary event when working with GMOs classified in the 1st or 2nd biosafety class is:

- any uncontrollable event or series of events in a contained system, where there was no release of the GMO into the environment or threat to human life or health, and we may independently take appropriate action.
- any unplanned event that surprises you in the lab.
- when you can't find your samples in the fridge.

The risk assessment is

- a document to be prepared for contained use of any GMO or non-GMO.
- a document prepared before the start of work with a GMO or a non-GMO and is updated once a year.
- the identification and assessment of risks that may arise from working with GMOs in a contained system on a case-by-case basis, the risk being the likelihood that handling GMOs will have a direct or indirect, immediate or long-term or long-term cumulative impact on the environment or human health, particularly with respect to the conservation of biodiversity, the preservation of indigenous plant varieties and animal breeds, soil fertility, the food chain, or human and animal health.
- all of the above.

Before working with GMOs:

- I get familiarized with all the documents for contained use of GMOs, complete training on working with GMOs from mentor or head of lab and sign a statement that I am aware of the hazards and procedures involved working with GMOs.
- I check that no one else is in the laboratory.
- I have coffee.

What to do with waste generated from work with GMOs:

- I pour it into the drain as soon as possible.
- I throw it in ordinary trash, in which I first put an extra bag.
- I appropriately inactivate all waste and keep records.
- I leave it on my desk for seven to ten days.



If an extraordinary event or accident occurs while working with GMOs in a contained system:

- I call my mom.
- I follow the Contingency Plan and notify the Biosafety Officer.
- I do nothing and leave the lab.

Once a year I have to attend a training on working with GMOs at Jožef Stefan Institute.	TRUE	FALSE
If there is no risk assessment available for working with a specific GMO I want to work with in a contained system, I have to prepare it before I start working with it.	TRUE	FALSE
If, when preparing a risk assessment for the intended work with a new GMO, the work is classified in the 2nd biosafety class, I must, with the help of the Biosafety Officer, report this work to the ministry responsible for the environment and obtain the appropriate work permit.	TRUE	FALSE
Under no circumstances I need to use gloves in the lab.	TRUE	FALSE
When working with GMOs classified in the 2nd biosafety class in an enclosed system without the permit issued by the competent ministry, the legal entity (i.e. JSI), the responsible person of the management (i.e. the director) and the individual are fined for the offense (summed together) from € 15,850 to € 263,800.	TRUE	FALSE
When during an inspection irregularities are detected, the inspector may prohibit or suspend work with GMOs, or order the correction of irregularities within a certain period of time or order destruction of GMOs.	TRUE	FALSE
The choice of containment measures for working with GMOs is determined by the recipient organism, the source organism, the vector, the insert, the newly formed GMOs and the nature of the work with them.	TRUE	FALSE
We update the documents for work with GMOs once a year, paying attention to any new information that may affect the level of risk or the biosafety classification of work with GMOs.	TRUE	FALSE
Eating and storing food and drink and smoking are prohibited in the laboratory.	TRUE	FALSE
When transferring samples or waste between laboratories, the "one-glove rule" applies, so that the hook is always touched with the non-gloved hand.	TRUE	FALSE
I should always wash my hands before leaving the lab.	TRUE	FALSE
Any amount of GMO released or spilled when working in a contained system must be decontaminated immediately or as soon as possible with an appropriate decontaminant, as well as materials that have come into contact with the GMO.	TRUE	FALSE
A safety data sheet is a document that contains safety information about a specific substance (chemical). It is intended for persons who come into contact with this substance at work and for medical personnel who care for an individual if dangerous medical conditions have occurred due to the influence of this substance.	TRUE	FALSE
I can wear open-toe shoes in the lab.	TRUE	FALSE
When working in the laboratory, I follow the written instruction for working with GMOs and keep a laboratory diary of my work.	TRUE	FALSE
When I work with biological samples or organisms that are not genetically modified, I follow the Rules on the protection of workers from risks related to exposure to biological agents at workplace.	TRUE	FALSE
Containment measures limit the contact of GMOs with the environment and the public and eliminate or reduce the possibility of GMOs to reproduce or to transfer modified genetic material outside the contained system.	TRUE	FALSE