

Procedure for approval of GMO workers to various containment levels

Introduction

The Regulation on Genetically Modified Organisms, Environmental Management 2013 sets out that employees who carry out work in contained laboratories must be competent. In addition, the following data must be recorded for all GMO employees: name, relevant education, training and experience, containment levels of the projects with which the employee is involved, and a statement signed by the Biosafety Officer (BSO) specifying the function or functions and activities involving genetically modified organisms that the employee is deemed to be competent in.

Within the University of Maastricht (UM) and Maastricht University Medical Centre+ (MUMC+), employees who wish to access contained rooms must complete the form [Approval as GMO worker](#). The BSO will determine the containment levels that the employee is permitted to access based on the employee's experiences. The BSO will store the personal data, the levels that the employee is permitted to access, and the permits/notification of contained use under which the employee is carrying out the work in a database.

The Regulation on Genetically Modified Organisms, Environmental Management 2013 sets out design requirements on laboratories for contained use. Laboratories will be checked to ensure compliance with these design requirements when a laboratory for contained use is commissioned and during annual audits, see the procedure [Safe handling of genetically modified organisms](#).

Criteria for permitting employees access to different containment levels

ML-I laboratory

- The employee is in possession of an SMT certificate **or**
- The employee has ample experience in cloning techniques and/or cell cultivation and has watched the 'Exactly right' video produced by lenW **or**
- The employee will obtain the necessary experience by being supervised in practical work by and receiving instruction from an experienced employee at ML-I level. The employee will also watch the 'Exactly right' video produced by lenW.

ML-II laboratory

- The employee has an ML-I allowance based on the criteria above and has worked intensively for at least two months (minimum 40 culture hours) in an ML-I laboratory. If the employee is to conduct viral experiments, he or she will receive a brief instruction from the BSO relating to safe work and disinfection.
- If an employee has to carry out work in an ML-II laboratory but is not intending to carry out viral activities, he or she may obtain approval for ML-II work excluding viral activities under the aforementioned conditions. Viral activities are understood to be those that involve the production of and infection with viral particles.

Animal laboratory

- The employee is in possession of an Article 9 or 12 certificate
- If work with animals is combined with GMOs (e.g. a retroviral transduced cell line that is injected into animals or injection of adeno/lenti/retroviruses into an animal), the ML-I and ML-II criteria are followed when assessing the permitted level.

Plant chambers and greenhouses

- If work with plants is combined with GMOs (e.g. a genetic modified agrobacterium radiobacter), the ML-I and ML-II criteria are followed when assessing the permitted level.

Remarks

- In case of doubt, the BSO and the employee seeking access must always consult.
- Students are not permitted access to work with level II GMOs, the exception being work with viral transduced cell lines that have already been long-term cultivated.
- Cleaning and waste collection employees are permitted to access ML-I laboratories but may not carry out GMO work.
- IDEE employees have received instruction from the BSO in respect of the rules applicable in a GMO laboratory. After registering with the ABV, they may carry out work in the GMO laboratories. The ABV is responsible for releasing equipment and rooms.

Abbreviations

ABV	Departmental Expert for Biosafety
BSO	Biosafety Officer
GMO	Genetically Modified Organism
IDEE	Instrument Development, Engineering, and Evaluation (UM)
IenW	Ministry of Infrastructure and Water Management; executive body: Bureau GGO
ML-I/ML-II	Microbiological Laboratory Class I/II
SMT	Safe microbiological techniques

References

- Decree and Regulation on Genetically Modified Organisms, Environmental Management 2013, IenW April 2014
- [Website HSBM Maastricht](#)

Further information

For further information, please contact the [BSO](#).