

The list of laboratories dealing with detection and identification of living modified organisms, and their specific activities

1) The National Reference Laboratory for GMO Identification and DNA Fingerprinting, the Crop Research Institute, Prague

The National Reference Laboratory for GMO Identification and DNA Fingerprinting (belonging to the Ministry of Agriculture) serves as the National Reference Laboratory for GMOs (NRL GMO), it is also a member of (i) the European Network of GMO Laboratories and (ii) the electronic Network of Laboratories for the Detection and Identification of Living Modified Organisms, established within the BCH in accordance with the decision of the COP-MOP /5 No. BS-V/9.

The NRL GMO cooperates with the European Reference Laboratory at JRC EC Ispra (Italy) and participates in the validation studies necessary for Approval of GM food and feed release on the European market. It is also a contract laboratory of JRC EC Geel (Belgium) participating in validation studies for new reference materials.

The NRL GMO coordinates the activities of other GMO laboratories in the Czech Republic (National Institute of Public Health Brno, University of Chemistry and Technology Prague, The Central Institute for Supervising and Testing in Agriculture Brno and the State Veterinary Institute Jihlava) within the National Network of GMO Laboratories. It serves as a training centre for the staff of these laboratories and assists in method validation and in developing standards and reference materials for these laboratories. NRL GMO members are the authors of new methodologies and utility models for GMO analyses.

The NRL GMO assists the Ministry of Agriculture of the Czech Republic in official controls of compliance with coexistence rules in the cultivation of agricultural crops, as its contracting laboratory, and cooperates with the Ministry of Environment of the Czech Republic in GMO safety issues. The lab assists in ensuring the safety of food and feed by providing laboratory analyses and by other means. Its members prepare expert opinions for state administration and supervision authorities, and prepare lectures and seminars for the professional public.

For the needs of the public, the laboratory performs qualitative and quantitative analysis of GMOs in food and feed.

For more information see

https://www.vurv.cz/index.php?p=referencni_laboratore&site=institute_en

2) The National Institute of Public Health Brno

The National Institute of Public Health (belonging to the Ministry of Health of the Czech Republic) is the institution charged of monitoring genetically modified organisms in foodstuffs and food. The Laboratory of Molecular Biological Methods (LMBM) of its Department for Health, Nutrition and Food in Brno, which is a member of ENGL (The European Network of GMO Laboratories) and serves as a collaborating laboratory of the Ministry of the Environment of the Czech Republic. LMBM has been analysing in the past about 200 samples per year (e.g. soybeans and soy products, maize flour, rice, potatoes, tomatoes, papaya) for GMOs detection. The results are published in the journal Acta Alimentaria. LMBM participates in the study "HYGIMON" focused on evaluation of health risks of genetically modified organisms used for food production. The study "HYGIMON" was realised by project of the Monitoring the environmental impact on population health of the Czech Republic, subsystem 4: Health effects and risks of human dietary exposure to contaminants. Another important function of LMBM is to collect and keep GMO reference materials ("GMOs

bank”) for the needs of the Ministry of the Environment of the Czech Republic. This collection has now 112 samples of GMO reference materials.

Its members prepare expert opinions for state administration and supervision authorities.

For more information see <http://www.szu.cz/centre-for-health-nutrition-and-food-1>

3) The University of Chemistry and Technology, Prague

The Controlling Laboratory of the Department of Biochemistry and Microbiology of the University of Chemistry and Technology, Prague, a member of ENGL, is concentrated on detection and quantification of plant genetic modifications (e.g. maize, soybeans and products from them) using PCR and real-time PCR methods, and also on genetically modified microorganisms. It participates in various research projects (e.g. genetic modifications of microorganisms and plants for remediation) and in education at all three university levels (Bachelor, Master and Doctoral programmes).

The Laboratory closely cooperates with the National Reference Laboratory in joint research projects and in supervising diploma and PhD theses. It also carries out practical trainings courses focused on detection and quantification of GMOs. Furthermore, members prepare expert opinions for state administration and supervision authorities.

The workplace is listed in the list of laboratories authorized to carry out control activities of presence / quantification of transgenes for the purpose of the Ministry of the Environment.

For more information (in Czech) see <https://biomikro.vscht.cz/akreditovana-lab>

4) The Central Institute for Supervising and Testing in Agriculture, Brno

The Central Institute for Supervising and Testing in Agriculture is an institution of the Ministry of Agriculture with wide range of activities. In the area of GMOs it is in charge of controlling feedstuff and plant material. Its Molecular Genetics Diagnostic Laboratory, a member of ENGL., performs both qualitative and quantitative detection of GMO in seeds and in raw material for feedstuffs production, in particularly maize, soya, canola, rice and feed mixtures. Samples have been analysed for the presence of authorized modifications and proper labelling of feedstuff containing GMO compounds, as well as the presence of unauthorised modifications.

For more information see <http://eagri.cz/public/web/en/ukzuz/portal/laboratories/>

5) State Veterinary Institute, Jihlava

The State Veterinary Institute, a supervision institution under the Ministry of Agriculture, is responsible for the inspection of genetically modified organisms of animal origin. Its laboratory is a member of ENGL. The laboratory also performs detection and quantification of GMOs in food and feed.

For more information see <https://www.svujihlava.cz/8-molecular-biology-laboratory.html>

No official GMO analyses have been carried out last years for purposes of the Czech competent authorities.
