



National Reference Laboratory for Experimental Immunotoxicology

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The National Reference Laboratory for Experimental Immunotoxicology was established by the Ministry of Health of the Czech Republic. It pursues the scientific research, reference activities and provides expert and consulting services in the field of in vitro toxicology. It systematically monitors information in the field of experimental immunotoxicology, collects and stores all necessary data (especially standards, methodologies, databanks) for the performance of activities, for cooperation with similar foreign facilities and for the interpretation and evaluation of the obtained data.

The activities are focused on the development, verification, standardization and implementation of new methods in the field of experimental immunotoxicology in compliance to the principles of quality assurance systems and quality control management (GLP, ISO standards), providing draft methodological guidelines and standard methodologies. The Laboratory actively participates in a number of research tasks, providing preclinical tests of immunotoxic effects of chemical substances and other environmental factors according to the requirements of health institutes, manufacturers and other organizations, using experimental studies in vitro. One of the tasks of the Laboratory is to create specialized professional materials for intervention programs with regard to the possible influence of the health status of the population, and assistance in resolving epidemiologically or hygienically serious situations, carrying out assessment, consulting, coordination and methodological activities. The Laboratory provides information on knowledge gained through their own activities and monitors the experience of other workplaces, including the foreign ones. It actively cooperates and provides training in new in vitro methodologies, in the implementation of new devices and procedures in practice and actively participates on scientific conferences or consultation days on professional topics. The Laboratory provides verification and refinement of the results obtained in other laboratories according to the principles of good laboratory practice. It provides the reference work in the form of the highest specialized services.

Currently, the activity of the National Reference Laboratory for Experimental Immunotoxicology is focused mainly on development, implementation and validation of in vitro toxicological methods, employing mainly cell and tissue cultures in order to replace conventional animal testing in the field of immunotoxicity and neuroendocrine toxicity. It represents one of the leading qualified laboratories for in vitro toxicology in the Czech Republic.

The National Reference Laboratory for Experimental Immunotoxicology was notified as the member of the



EU-NETVAL network of qualified European laboratories. The network of currently 35 qualified laboratories is used by the European Commission to collaborate on the development and validation of in vitro toxicological methods without the use of laboratory animals, with higher relevance for humans. The cooperation is coordinated by the EU Reference Laboratory for Alternatives to Animal Testing EURL-ECVAM, which is an integral part of the European Commission's scientific service center, Joint Research Science Center (JRC). The head of the Laboratory is a member of the OECD expert working groups and is involved in the activity of leading European scientific societies in the field of in vitro toxicology (ESTIV) and alternatives to animal testing (EUSAAT).

The Laboratory is accredited by the Czech Accreditation Institute as a testing laboratory according to EN ISO/IEC 17025:2005 and is involved in quality assurance activities in accordance with the principles of good laboratory practice (GLP). The head of the laboratory is the appointed head of the quality assurance department in the system of GLP.

The NRL for Experimental Immunotoxicology uses the personnel capacity of the Unit for Alternative Toxicological Methods. The developed and implemented toxicological methods expand the offer of expertise performed by the Unit for Alternative Toxicological Methods, increasing the scientific potential and competitiveness of the Centre of Toxicology and Health Safety in the National Institute of Public Health.

[Accreditation](#)

[Performed tests](#)