

National Reference Laboratory for Mycobacteria

The NRL is accredited to ČSN EN ISO/IEC 17025 as a test laboratory and to ČSN EN ISO 15189 as a public health laboratory by the Czech Accreditation Institute.

Head: Ilona Zemanová, M.D.

- has been involved in the national surveillance of tuberculosis and sexually transmitted diseases;
- cooperates with the ECDC tuberculosis surveillance in Europe;
- presents annual reports on mycobacteriology diagnosis in the Czech Republic;
- has been involved in the study of multidrug resistant and extensively multidrug resistant tuberculosis (MDR and XDR TB), monitoring of the incidence of MDR and XDR TB in the Czech Republic, and maintenance of the bank of MDR strains of *Mycobacterium tuberculosis* prevailing in the Czech Republic;
- stores polyresistant and multidrug resistant strains of *Mycobacterium tuberculosis* for further analysis (DNA analysis VNTR typing);
- confirms drug susceptibility testing results in all *Mycobacterium tuberculosis* strains, performs susceptibility testing to first-line antituberculosis drugs by molecular biological methods and extended susceptibility testing to antituberculosis drugs and other antibacterial drugs and provides consultation to clinicians in the area of tuberculosis and respiratory diseases;
- has been involved in the preparation and evaluation of the External Quality Assessment Scheme in Mycobacteriology;
- provides pre- and post-graduate training to healthcare professionals courses at the Institute for Postgraduate Medical Education, workshops in mycobacteriology and pneumology, lecturing for the J.E.Purkyně Czech Medical Association, and training fellowships (for the staff of mycobacteriology laboratories);
- has implemented and uses interferon gamma release assays (IGRAs) to detect TB disease and latent TB infection as well as to screen contacts and TB patients before anti TNF biological therapy;
- tests and checks the quality of in vitro diagnostic products;
- makes amendments to the guidelines on standard methods in the microbiology of mycobacterial infections as needed;
- submission of results to the European Surveillance System (TESSy) at the ECDC and WHO.
- is one of the Global Network of Supranational Reference Laboratories (SRLs);
- as a SRL, the laboratory has been involved in the following projects:
- The WHO/IUATLD Global Project on Antituberculosis Drug Resistance Surveillance
- European Surveillance of Multidrug Resistant Tuberculosis ECDC/RIVM
- Extensive (second-line) Drug Resistance in TB (XDR TB)
- Global Survey of Drug Resistance Patterns Among MT Isolates from Supranational Reference Laboratories.
- Regularly participates in the international quality assessment schemes organized by the *SRL Global Coordinating Centre*, Antwerp, Belgium.

