



Nancy Laboratory for Rabies and Wildlife

The Nancy Laboratory for Rabies and Wildlife has 47 members of staff. It specialises in animal rabies and certain dominant and emerging zoonoses in wildlife, with a concentration on alveolar echinococcosis. It plays a part in monitoring the health of wild animals nationwide:

- *it studies pathogens (viruses and parasites);*
- *it monitors the emergence and/or spread of diseases, analyses their causes and assesses health risks.*

Through this work, the laboratory participates in gathering and interpreting data for monitoring the health of wild animals. As a WHO collaborating centre, it contributes to the development and application of rabies guidelines and provides scientific opinions on the methods for controlling animal rabies.

Main partners

European Commission, Directorate General for Food, World Health Organization (WHO), World Organisation for Animal Health (OIE), Entente rage et zoonoses (ERZ – French Rabies and Zoonoses Alliance), National Hunting and Wildlife Agency (ONCFS), Network of 53 international laboratories for rabies serology, Veterinary Laboratories Agency (VLA, Weybridge, UK), University of Franche-Comté, Institut Pasteur, Meurthe-et-Moselle Departmental Council, Lorraine Regional Council, Grand Nancy urban community.

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As the National and European Reference Laboratory for rabies, it provides scientific and technical support as well as expertise to the European, French and international health authorities.

As a Reference Laboratory for the World Organisation for Animal Health (OIE), it actively participates in the development and standardisation of diagnostic methods.

The Nancy Laboratory for Rabies and Wildlife has two research units (the Lyssavirus Unit and the Wild Animal Pathology Unit), three departments and a test centre.

Reference activities

- *Zoonoses: World Health Organization collaborating centre (research and management).*
- *Rabies serology: European Union Reference Laboratory.*
- *Rabies: OIE Reference Laboratory, National Reference Laboratory and EU Reference Laboratory.*
- *Echinococcosis: National Reference Laboratory.*

Types of analysis

- *Diagnosis for rabies epidemiological surveillance.*
- *Monitoring of the infection of bats by lyssavirus.*
- *Epidemiological monitoring of rabies.*
- *Titration of rabies antibodies in dogs and cats vaccinated against rabies, and in foxes.*
- *Control of vaccines (oral and parenteral use).*
- *Analysis of tetracycline on fox teeth (biomarker for oral vaccination).*
- *Diagnosis of echinococcosis in animals.*
- *Serological analyses (hemorrhagic fever with renal syndrome).*

Inter-laboratory proficiency tests (ILPTs)

Titration technique for neutralising antirabies antibodies.

Main research programmes under way

- *Rabies in bats in France: assessment of the pathogenicity of certain viruses circulating in France in domestic carnivores and foxes.*
- *Development and standardisation of methods: rabies serology, lyssavirus real-time PCR, echinococcosis diagnosis.*
- *Alveolar echinococcosis: national mapping of the parasite's range, testing control methods, studying the role of dogs and cats in the cycle, assessing carriage in urban foxes.*
- *Hydatidosis: survey of the current presence of the parasite in the south of France and Corsica, genotyping of existing strains.*
- *Lyme disease: study of the presence of the bacterium in ticks and rodents in Franche-Comté.*
- *Tick-borne encephalitis: epidemiology of tick-borne encephalitis in Alsace.*

