



**EMERG'IN**

Research infrastructure for the control of animal and zoonotic emerging infectious diseases through *in vivo* investigation.

## FACILITY FOR EXPERIMENTAL STUDIES IN WILD CARNIVORES OF THE LRFSN

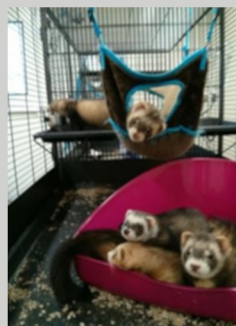


The facility for experimental studies in wild carnivores of the LRFSN (Nancy Laboratory for Rabies and Wildlife) provides unique opportunities to understand *in vivo* host/pathogen interactions in endemic **wild species** susceptible to transmit major zoonotic pathogens under « **One Health** » objectives.

The LRFSN animal facility based in Atton is dedicated to host **experimental studies with wild canids** (foxes, raccoon dogs), **mustelids** (badgers, ferrets), **procyonidae** (raccoons) and **wild rodents**. The facilities benefit from husbandry areas, sample collection/surgical procedures and laboratories at **biosafety levels 2 and 3**.

Experienced handlers and veterinarians hold the suitable authorizations for **trapping animals from the wild**. They provide the **best welfare conditions** to the wild animals, both at capture in the wild or under captive carnivore's conditions.

The facility for experimental studies in wild carnivores attract a large number of innovative projects and leading edge in infectiology and toxicology through national and international partnerships.



## A device dedicated to infectious disease and wildlife toxicology



*In vivo* host-pathogen interactions focusing on pathogenicity and cross-species transmission:

- 🦠 Infectious challenges (virus, bacteria, parasites) on **wild and captive carnivores** (foxes, raccoon dogs, badgers, ferrets).
- 🦠 Immune responses.
- 🦠 Protective responses of **vaccine candidates**.

**Specialised expertise for handling wild carnivores:**

- 🦠 Trapping in the wild of European species (badgers, rodents, bats, etc...).
- 🦠 Local and general anesthesia.
- 🦠 Experimental infection and sample collection in wild and captive animals.



**Facilities suitable for large cohorts of wild carnivores, either in groups or isolation, at biosafety levels 1, 2 and 3:**

- 🦠 206 m<sup>2</sup> in covered areas suitable for **non-aerosolised pathogens**.
- 🦠 285 m<sup>2</sup> of BSL 1.
- 🦠 88 m<sup>2</sup> of BSL 3.

**A large collection of unique samples:**

- 🦠 From **captive animals** (different species/ age/ sex/ infectious agents).
- 🦠 Taken from the **wild** of these same species for real epidemiological monitoring.



**Capacity for immunological and molecular analysis of blood and tissue samples** (on site and LRFSN laboratory):

- 🦠 Behaviour (through telemetry).
- 🦠 Peripheral immune responses (cellular and serological).
- 🦠 Molecular diagnostic.



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