



**EMERG'IN**

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

## EXPERIMENTAL RODENTS AND FISHES INFECTIOLOGY PLATFORM



The **Experimental Rodents and Fishes Infectiology Platform (IERP)** is dedicated to *in vivo* experimentation in infectiology on rodents models and fishes species.

The IERP is a unique structure in Ile de France located on the INRAE campus of Jouy-en-Josas (Paris Saclay University). It has facilities for the **study of group 2 or 3 pathogens** (viruses, bacteria, prions), some of which are classified as **GMOs**. It also offers the possibility of **producing animals with specific health and genetic status** for both rodents and fishes.

Users benefit from the **know-how of highly qualified personnel**, the access to **BSL2 and BSL 3 facilities**, equipped with **state-of-the-art technologies** and the support for project construction.

The **IERP in vivo three-dimensional imaging phenotyping platform** offers state-of-the-art imaging and tissues clearing services. ([www.inrae.fr/zp2](http://www.inrae.fr/zp2))

IERP is a member of several **networks** (InnaSCo, Frontinov, Rmul, ...) and partners of **European programmes** such as Aquaexcel 3.0, VetBioNet and ISIDORE.

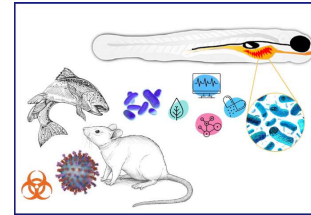
The IERP facilities are open to the entire scientific community, public and private partners, national and international, for an integrated service offering: animal supply, infectiology and phenotyping of experimental animals.



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[www.jouy.inrae.fr/ierp](http://www.jouy.inrae.fr/ierp)



# A privileged environment in Ile de France for animal experimentation in infectiology



## Study of host-pathogen interactions and inflammatory processes:

- Implementation of experimental protocols in BSL2 and BSL3 facilities
- Development of *in vivo* models for the study of human and animal infectious / inflammatory diseases
- Impact of the microbiota on infectious processes and the development of immunity
- Screening of therapeutic molecules

## Supply of animals with specific health and genetic status:

- Transgenic mouse lines (KO, KI, mutants, etc.)
- Iso-genetic trout
- SPF\* rodents
- Germ free Zebrafish

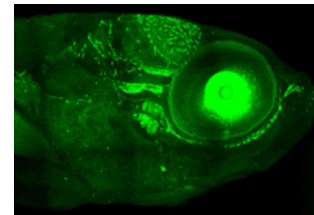


## BSL2 and BSL3 facilities:

- 320m<sup>2</sup> of experimental BSL2 and BSL3 facilities, with a capacity of 3000 mice
- 15 thermoregulated mixed pathogen circuits consisting of 104 aquariums (15 L) and 14 tanks (300 L) in waste or recycled water (trout and carp)
- 5 racks of 18 aquariums (1.5-10L) in waste or recycled water (Zebrafish)

## In vivo 3D imaging phenotyping:

- Confocal/ 2-photon imaging in zebrafish model
- Intravital Bioluminescence Imaging (VIS Spectrum) on trout, carp and rodents
- Immunohistochemistry in toto/Clearing and 3D imaging on tissues (intestines/brains, etc.) or fixed organisms (zebrafish, trout, carp)



## A research and development program:

- Aquaculture engineering (circuit design, housing prototypes)
- Germ free and gnotobiotic Zebrafish production
- Telemetry
- Animal welfare

\*SPF: Specific Pathogens Free



[www.emergin.fr/emergin\\_eng/](http://www.emergin.fr/emergin_eng/)



[www.inrae.fr/en](http://www.inrae.fr/en)