

Carnot Institute *Livestock Industry for the Future* provides R&D competences to livestock sector businesses, mobilizing three main levers for multi-efficient, sustainable and profitable farming: health, nutrition and breeding systems and animal genetics. Improvements are sought both at individual and agro-food chain scales.

Carnot Institute *Livestock Industry for the Future* brings together actors from agro-veterinary research with an international visibility and R&D knowledge and expertise of three Agricultural Technical Institutes which are international leaders in the breeding services.



## Innovation for a multi-efficient, sustainable and profitable livestock industry

### Target markets

- Veterinary medicines
- Vaccines
- Diagnostic tools
- Feed industry
- Breeding systems
- Genetic selection
- Individual animal monitoring

### Our commitment to facilitate partnership

- ➔ A helpdesk, focusing on your needs by giving you access to a network of more than 1000 researchers, engineers and technicians.
- ➔ Professionalism and contract negotiation, to ensure traceability, reliability in setting up contracts.
- ➔ Quality approach ISO 9001 certified.
- ➔ Intellectual property policy that ensures traceability and protection of results.

### Examples of projects carried out with industrial partners

- ➔ Study of intestinal microbiota influence on the robustness of piglets weaning, aiming to reduce the use of antibiotics on farms.
- ➔ Study of new strategies to reduce the decline of immunity caused by the Marek disease virus in poultry.
- ➔ Reduction of environmental impact of monogastric livestock by improving and diversifying nutrients destined for animals and integrating new criteria to select animals.
- ➔ Development of methodology of relevant indicators of animal herd welfare.
- ➔ Study of alternatives to soy meals for dairy cow nutrition.

### For the animal and the agricultural sector: three pillars of competences



#### Health:

- Microbe and animal infection knowledge
- Toxicology
- Epidemiology
- Sanitary management
- Health economy
- Microbial ecology
- Insect vectors
- Reduced and reasonable use of drug therapies



#### Nutrition and breeding systems:

- Feed / Nutrition
- Metabolism
- Microbiota
- Precision Livestock farming
- Integrated systems
- Measurement and promotion of animal welfare
- Measurement and management of pain
- Livestock buildings



#### Genetics:

- Understand and exploit genetic variability
- Multi-criteria animal genetic improvement
- Genomic selection



## Locations of Carnot Institute original tools at your disposal

- ➔ Animal experimentation platforms (under containment or not) ranging from fishes to lactating cows under BSL3 containment.
- ➔ Insectariums of ticks and insect vectors.
- ➔ Pathogenic bacteria collection with more than 2500 strains.
- ➔ Surgery and imagery applied on ovine, caprine and porcine experimental models.
- ➔ Numerous animal models: mouse, arthropods, ruminants, porcine, poultry, fishes.
- ➔ Infrastructures in the intertropical area (Caribbean, Africa, Indian Ocean).
- ➔ Animal and Environmental poison control centre.
- ➔ Numerous high throughput «omics» platforms.
- ➔ Massive data treatment and analysis capacity.
- ➔ Experimental farm network in partnership with field actors allowing to carry out experiments under real conditions.

Research staff  
(full-time equivalent): **1 078**  
including PhD students: **107**

Partnership incomes  
with industry: **13,9 M€**  
Global budget: **94,7 M€**

## CONTACTS

### Thierry PINEAU

Director  
+33 (0)6 42 30 08 40

### Laurent JOURNAUX

Deputy Director  
+33 (0)1 40 04 52 02

### Étienne ZUNDEL

Deputy Director  
+33 (0)2 47 42 76 37

### Olivier RUETSCH

Deputy Director  
+33 (0)1 42 75 93 25

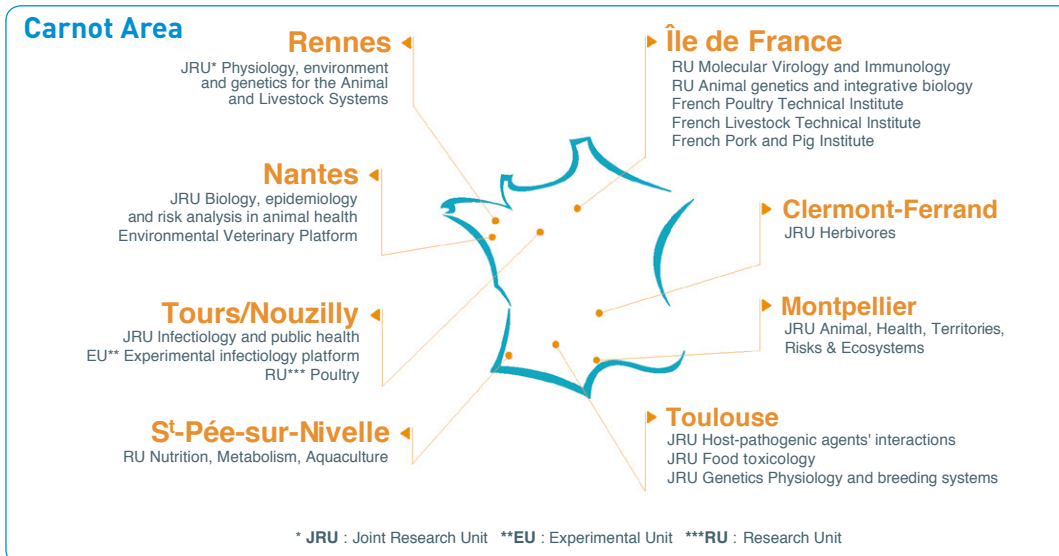
### Fanny WACQUET

Project Manager  
+33 (0)1 42 75 93 26

[contact@francefuturelevage.com](mailto:contact@francefuturelevage.com)



Institut Carnot France Futur Elevage  
INRA Transfert  
28 rue du docteur Finlay  
75015 Paris  
France



[www.instituts-carnot.eu](http://www.instituts-carnot.eu)