

Post-doc position in virology, Toulouse, France

Offer type: post-doc

Financing: Public

Recruiting organization: INRA

Workplace: ENVT, Toulouse – France

Skill area: virology, immunology, cellular biology, animal models

Position duration: 18 months

The post-doctoral project will be part of a study on a recently discovered Orthomyxovirus: influenza D virus. The virus was shown to infect swine and cattle and to efficiently replicate and transmit in ferrets, the animal model of choice for the study of influenza viruses pathogenesis for humans, suggesting that humans could be infected. Our project aims at assessing the emergence threat associated with influenza D viruses' circulation such to provide essential information about host range; origin, diversity, and evolution; pathogenesis; stability in different environments and putative routes of transmission, of influenza D virus in France.

The post-doctoral project will aim at understanding the interactions between influenza D virus and bovine coronaviruses that have been shown to frequently co-infect the same host. A first axis will focus on *in vitro* co-infections on hRT18 cells, looking at viruses' interferences in various infectious conditions. A second axis will look at the co-infection *in vivo* in the calf model. Both approaches should allow us to study the cell/host immune response to the co-infection and compare it to the response induced by infections with a single pathogen. We will also look at the viruses molecular adaptation *in vitro* and *in vivo*.

Expectations of the applicant: social skills and team work, experience in classical virology, molecular biology, and immunology; scientific curiosity; scientific writing of articles for peer-reviewed international journals; skills to carry out experiments in animal facilities (ABSL2) and in the laboratory (BSL2); ability to develop a scientific methodology and techniques adapted to the research project; skills to present the work as well as results during laboratory meetings and at international meetings.

Please submit your letter of interest, C.V. and the names and contact details of two referees to Mariette Ducatez (m.ducatez@envt.fr) or Gilles Meyer (g.meyer@envt.fr).