Merial Veterinary Scholars Program – France

Vet school: Ecole Nationale Vétérinaire de Toulouse

Molecular epidemiology of avian viruses in Morocco

**Laboratory:** UMR INRA-ENVT IHAP, team “Virology”

Our team of virology is part of the joint research unit of the National Veterinary School of Toulouse (ENVT) and the National Institute for Agronomy Research (INRA) Interactions Host Pathogens. This year we are 14 permanent staff members (including scientists and research technicians), 7 PhD students and two post-doctoral fellows. DVM and undergraduate students also join the team for their theses or short internships. Our group investigates the mechanisms of host-virus dialogue, using both *in vitro* and *in vivo* approaches. More details can be found on our website: [http://www.envt.fr/virology-ihvv-research-group?destination=node/341](http://www.envt.fr/virology-ihvv-research-group?destination=node/341).

**Principal investigator:** Mariette Ducatez

**Scientific background**

Within the framework of our collaboration with the Institut Agronomique et Vétérinaire Hassan II in Rabat, Morocco, we study the circulation and evolution of avian coronaviruses in Morocco. In Africa, very little is known on avian viruses, their circulation, evolution and spread. The aim of the internship is to understand putative virus exchanges between wild and domestic birds and between geographic areas. We will work on Moroccan field samples, screen them for avian viruses by RT-PCR, isolate virus in embryonnated eggs, and carry out a molecular characterization of the strains (partial or full genome sequencing, phylogenetic analyses). Our findings will be compared with available data available from Europe and North Africa.

**Keywords:** avian respiratory virus, avian coronavirus, Morocco, molecular epidemiology

**References from the laboratory (Avian viruses in Morocco)**


Fellahi et al. Phylogenetic Analysis of Avian Infectious Bronchitis Virus S1 Glycoprotein Reveals Emergence of a New Genotype in Moroccan Broiler Flocks, Virology Journal 2015

Fellahi et al. Prevalence and molecular characterization of avian infectious bronchitis virus in poultry flocks in Morocco from 2010 to 2014 and first detection of Italy 02 in Africa, Avian Pathology 2015