

Emerging or resurging infectious diseases with great public health impact include several that are transmitted to humans through the bite of a mosquito, including dengue and malaria. Mosquitoes are an attractive link for transmission control/elimination in the current absence of vaccines and due to limited or, in the case of arboviruses, lack of therapeutic treatments. My research agenda aims at providing knowledge and means to be used to prevent arthropods-borne disease transmission. My research focus lies in the field of vector genomics: I am interested in understanding the genetic mechanisms underlying adaptive traits of vector mosquitoes in relation to the environment and the pathogen they can vector. My work focuses on medically important mosquito species such as the dengue vectors *Aedes aegypti* and *Aedes albopictus* and the malaria vector *Anopheles gambiae*.

In *Aedes aegypti* and *Aedes albopictus*, I am interested in understanding the evolution and variability of vector competence to dengue viruses, a complex phenotype with both genetic and environmental components.

In *Anopheles gambiae*, I am interested in the mechanisms of resistance to insecticides.