

## **PhD fellowship to study dengue virus transmission by mosquitoes in Montpellier, France.**

We offer a 3-year PhD position for a candidate born in a southern country. Under the direction of Dr Julien Pompon and Dr Pascale Zimmermann and co-supervised by Dr Rodolphe Hamel, the PhD candidate will study the role of exosomes in mosquito transmission of dengue virus. Dengue virus threatens more than half of the world population and there is no efficient means to control the disease. The overall aim of the project is to decipher the molecular mechanisms responsible for mosquito transmission of the virus to identify targets to develop novel interventions.

The project includes entomology, molecular and cell biology. The candidate will conduct oral infection of mosquitoes in a newly-built BSL3 insectary and use cutting-edge molecular biology to decipher the mechanisms involved in the virus transmission.

The candidate should have a previous expertise in working with mosquitoes. A previous experience with molecular biology is a plus. We are looking for highly motivated candidate to work in a stimulating environment.

Interested candidate should send a CV and cover letter to [Julien.pompon@ird.fr](mailto:Julien.pompon@ird.fr).

Application will be accepted until 1<sup>st</sup> July 2020.

### **A few representative papers published from the two hosting teams:**

Vial, Thomas, Wei-Lian Tan, Benjamin Wong Wei Xiang, Dorothee Missé, Eric Deharo, Guillaume Marti, et Julien Pompon. « Dengue Virus Reduces AGPAT1 Expression to Alter Phospholipids and Enhance Infection in *Aedes Aegypti* ». *PLOS Pathogens* 15, n° 12 (9 décembre 2019): e1008199. <https://doi.org/10.1371/journal.ppat.1008199>.

Ramesh, Karthik, Varsha A. Walvekar, Benjamin Wong, Ahmed Mahmoud Mohammed Sayed, Dorothee Missé, R. Manjunatha Kini, Yu Keung Mok, et Julien Pompon. « Increased Mosquito Midgut Infection by Dengue Virus Recruitment of Plasmin Is Blocked by an Endogenous Kazal-Type Inhibitor ». *IScience* 21 (22 novembre 2019): 564-76. <https://doi.org/10.1016/j.isci.2019.10.056>.

Ghossoub, Rania, Marion Chéry, Stéphane Audebert, Raphael Leblanc, Antonio Luis Egea-Jimenez, Frédérique Lembo, Sarah Mammar, et al. « Tetraspanin-6 Negatively Regulates Exosome Production ». *Proceedings of the National Academy of Sciences* 117, n° 11 (17 mars 2020): 5913-22. <https://doi.org/10.1073/pnas.1922447117>.

Imjeti, Naga Sailaja, Kerstin Menck, Antonio Luis Egea-Jimenez, Celine Lecointre, Frederique Lembo, Habib Bouguenina, Ali Badache, et al. « Syntenin Mediates SRC Function in Exosomal Cell-to-Cell Communication ». *Proceedings of the National Academy of Sciences* 114, n° 47 (21 novembre 2017): 12495-500. <https://doi.org/10.1073/pnas.1713433114>.