



**Postdoctoral position on skin response to mosquito infectious bite and vaccine
at IDMIT, CEA, Fontenay-aux-Roses, France**

Mosquitoes transmit life-threatening pathogens, including flaviviruses, such as Dengue, West Nile, and Yellow Fever (YF) viruses. Global warming and trade, as well as increased population mobility broaden the range of mosquitoes' habitat, and increase the density and diversity of competent vectors and thus favoring flaviviruses outbreaks, and increasing the risk of flavivirus associated-pandemics.

The post-doctoral project aims to (1) develop a relevant mosquito-to-animal model of YF virus transmission; (2) characterize the dynamic of replication and disease in comparison to the subcutaneous injection of YF virus; and (3) evaluate the immunogenicity and protective efficacy of a pan-flavivirus vaccine candidate developed as part of the Flavivaccine HORIZON-HLTH-2023-DISEASE-03-18 program (<https://flavivaccine.eu/>) and decipher its mode of action.

The project will take place in the CEA, INSERM, and University Paris Saclay research unit UMR1184 IMVA-HB/IDMIT in Fontenay-aux-Roses (South suburb of Paris), France. The Alternative Energies and Atomic Energy Commission (CEA) coordinates the IDMIT infrastructure. CEA is a key player in research, development and innovation in the areas of low carbon energies, and technological research for industry and health. IDMIT is a unique infrastructure in Europe dedicated to infectious diseases modeling and preclinical developments, comprising core facilities and complementary expertise dedicated to pre-clinical studies of innovative preventive and therapeutic strategies to control and cure infectious diseases. IDMIT develops preclinical research programs on human vaccines and antimicrobial treatments and provides the scientific community with access to facilities and cutting-edge equipment for R&D projects. IDMIT possesses fully equipped BSL1, BSL2 and BSL3 labs and animal facilities. In addition to joining the Flavivaccine consortium composed of ten public and private institutions, including IDMIT, from seven countries the postdoctoral research fellow will benefit from the international network of IDMIT, made of experts in vaccines, host/pathogen interactions, and immunology.

We offer a two-year CEA postdoctoral contract. Salary depends upon experience. We look for an enthusiastic and highly motivated postdoctoral research fellow to join the groups of Frédéric Martinon & Anne-Sophie Beignon at IDMIT. Candidates must have a PhD in immunology with a track record of peer-reviewed publications and excellent oral and written communication skills, and to be highly organized. Important skills comprise: (1) A previous training and research experience in immunology, vaccinology, or virology; (2) The ability to work both independently and as an integral member of a team since the project will require close interactions with IDMIT core facilities and collaborators of the Flavivaccine consortium; (3) The ability to work in BSL3 conditions; (4) A strong background in multi-parameter cytometry and/or tissue imaging; and (5) A proficiency with high-dimensional data statistical analysis and visualization tools.

A previous experience with vaccine or physiopathological studies in animal model, or with flaviviruses or mosquitoes are desirable, but not required. A previous experience in skin immunity would be a major asset.

Only selected candidates will be invited for interview (virtual format if needed). The position will start in January 2025. The position will remain opened until a suitable candidate is found. Please send a CV, a cover letter and two references to frederic.martinon@cea.fr and anne-sophie.beignon@cea.fr.