



**Postdoctoral position:
Biophysical approaches to understanding mosquito blood-feeding behavior**

A **postdoc position** is available to join the [Bites, Blood & Behavior project](#), led by Felix Hol at the Center for Research and Interdisciplinarity (**CRI Paris**) in collaboration with Louis Lambrechts at the Insect-Virus Interactions Unit of **Institut Pasteur** in Paris.

We are looking for an interdisciplinary postdoctoral researcher to join our efforts to characterize the blood feeding behavior of mosquitoes. The successful candidate will develop new technologies to study mosquito biology and leverage these tools to understand the internal (e.g. physiology, pathogen infection, genetics) and external (e.g. environment) drivers of mosquito behaviors that are relevant to pathogen transmission.

Project background:

Mosquitoes are vectors for diseases including dengue and malaria for which half the world population is at risk. Mosquito-borne pathogens are transmitted during blood feeding, yet despite its crucial role in pathogen transmission, blood feeding behavior remains ill understood. We leverage biophysical, engineering, and machine vision approaches to create tools to study questions such as: How do pathogen infections change mosquito behavior? How does the skin microbiome affect biting and blood feeding? What sensory inputs do mosquitoes use to make feeding decisions? By answering such questions, we aim to provide a deep understanding of the (neuro)biology underlying blood feeding, and the effect that physiology has on this behavior. We take inspiration from the field as well as the lab, and anticipate that new insights into mosquito behavior and pathogen transmission will provide valuable knowledge to combat mosquito-borne diseases.

Profile:

A recent PhD and relevant research experience. Relevant backgrounds include, but are not limited to, (quantitative) biology, biophysics, neurobiology, bioengineering, ecology & evolution, entomology, or a related discipline. The project combines mosquito biology, engineering, quantitative imaging, and other techniques and concepts. The ideal candidate therefore has an open and creative mind-set, a strong affinity for quantitative biology (including data analysis) and a passion for solving problems using unconventional approaches. Strong communication skills and English proficiency are required. Prior experience with mosquito research is not required, love for the topic of research, a creative mind, and a strong motivation are.

Institute information:

The project is jointly hosted by Institut Pasteur and the Center for Research and Interdisciplinarity (CRI).

CRI: The Center for Research and Interdisciplinarity ([CRI](#)) experiments and spreads new ways of conducting research, learning, teaching, and mobilizing collective intelligence in life, learning, and digital sciences. The CRI promotes scientists who thrive in dynamic environments, are inspired and motivated by daily interactions with diverse peers, and comfortably mix disciplines to explore uncharted domains.

Institut Pasteur: The Insect-Virus Interactions Unit at Institut Pasteur ([IVI](#)) investigates the ecology, evolution, and genetics of insect-virus interactions to advance our understanding of arthropod-borne virus (arbovirus) transmission by mosquitoes. Institut Pasteur harbors a vast collection of mosquito species and pathogens, state of the art experimental facilities, and a vibrant research community ([Institut Pasteur](#))

Position:

The position is available immediately and will remain open until filled. The expected start date (negotiable) is early 2020. The position is initially for 1 year, with the possibility of extension. Salary is commensurate with experience according to the CRI guidelines.

To apply: please send a CV, a cover letter summarizing research interests and career goals, and contact information of 2 (or more) references to felix.hol@cri-paris.org