

## Animal facilities

An insectary and animal facilities adjoin the labs. Field-colonized and reference strains of *Aedes aegypti* and *Anopheles* species are currently being reared. With new rooms, extension of the number of colonized species is expected. The animal facility breeds and maintains mice and maintains rabbits for experiments. Colonies of wild animals are planned in the development of the platform.

## Facilities for molecular biology

A laboratory dedicated to molecular biology work, composed of three separate rooms for extraction, amplification and revelation of genetic materials, is available. It is equipped with all necessary equipments, allowing to perform identification of insects, screening of pathogens, characterization of insecticides resistance genes...

## Expertise and guidance to serve collaboration

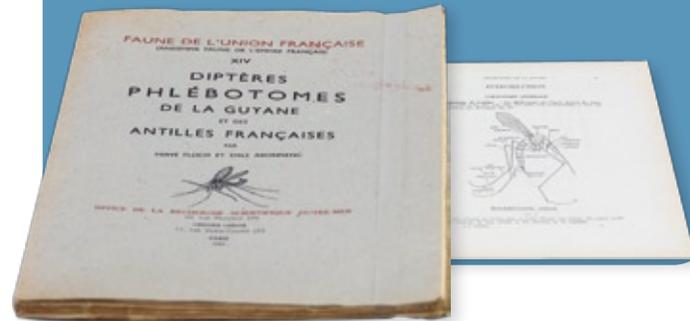
The medical entomologists working in the Vectopole have years of experience, especially in French Guiana. Their skills include field studies, morphological and molecular taxonomy, ecology, genetics, insecticides, the vector competence of insects that transmit arboviruses, *Plasmodium* spp. and *Leishmania* spp. This expertise is shared with visiting scientists and students, to whom the staff provides guidance and support. The new infrastructure stimulates integrated research on infectious and emerging diseases by bringing together specialists in entomology, virology, parasitology and epidemiology.



## In memory of Emile Abonnenc



The Vectopole is named in memory of the first medical entomologist at the Pasteur Institute of French Guiana. It was built as part of the STRonGer programme funded by the European Commission under the Research Potential programme of the 7th Framework Programme for Research and Development (FP7-REGPOT-2011-1).



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# STRonGer

Consortium de recherches transdisciplinaires sur les maladies infectieuses et émergentes



## VECTOPOLE AMAZONIEN EMILE ABONNENC



Institut Pasteur  
de la Guyane



## Discover the Vectopole Amazonien Emile Abonnenc

The Emile Abonnenc Amazonian Vectopole at the *Institut Pasteur de la Guyane* is a research facility for medical entomology. Its location on the north-east edge of the Amazonian forest, its comprehensive technical platform and its experienced staff make this complex a unique environment for studying infectious and emerging vector-borne diseases. The infrastructure was built within the STRonGer project (Strengthening transdisciplinary research on emerging and infectious diseases in French Guiana : linking fieldwork, benchside and bedside), the aim of which was to generate high-quality research in the Guiana shield and the Caribbean region and attract regional and international scientists to conduct field-to-bench research.



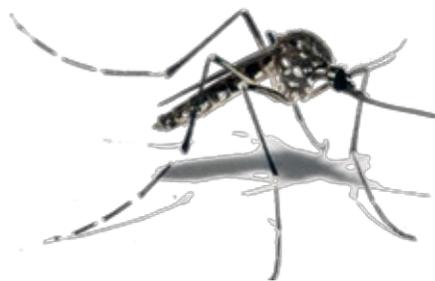
## Taxonomy laboratory : the basis of medical entomology research

Taxonomy and systematics are key research axes of medical entomology studies. This domain, which is insufficiently studied, remains a pillar of research on infectious and emerging diseases in Amazonia. To date, approximately 250 mosquito species and 80 species of sandflies and many other species of insects or arthropods from various groups of medical interest are listed in French Guiana, but much work remains to be done in taxonomy. The Vectopole provides taxonomists with a dedicated space to sort, dissect, mount, identify and archive insects.



## Insecticide laboratory : improving vector control

For decades, the resistance of mosquitoes to the insecticides used for vector control has been monitored at the *Institut Pasteur de la Guyane*. Testing of candidate insecticides began recently in a new laboratory, which provides facilities to screen chemicals for toxicity against larval and adult stages and to study the response of mosquitoes to a variety of compounds.



## Biosafety level 3 laboratory : conducting experimental infections of insects and mammals

A biosafety level-3 laboratory has been built to conduct experimental infection studies of insects and vertebrates. The laboratory provides a safe, efficient technical platform composed of four work spaces. Users of this facility are characterizing vectors and reservoirs and studying host-pathogen interactions. Future research programmes at the frontier of basic and applied sciences are foreseen to better understand disease emergence and spread.

