

Evaluation of new tools for arbovirus diagnosis

Surveillance activities performed by the AEVD laboratory over the last past years have generated a collection of nearly 15.000 human samples. The ethical agreements and the patients' inform consent allowed the AEVD laboratory to use the leftovers for research and to improve the diagnosis of arboviral infections. The laboratory has been solicited by private companies and the Foundation for Innovative New Diagnostics (FIND) to perform evaluation studies of automated serological tests and lateral flow immunochromatographic assays (Picture 3). These requests concretize the level of expertise of the laboratory and its staff and offer a new source of funding to support IPL activities.



Picture 3: Evaluation of new dengue diagnostic tools

Scientific communications

- Somphavanh SOMLOR et al. “Institut Pasteur dengue surveillance network”. Annual dengue surveillance meeting. December 11th, 2018. (Oral communication).
- Somphavanh SOMLOR et al. Annual dengue surveillance meeting. “Dengue diagnostic and laboratory surveillance”. December 11th, 2018. Champasack, Lao PDR. (Oral communication).
- Somphavanh SOMLOR et al. “Chikungunya” Symposium – “Outbreak Preparedness and Readiness in the Greater Mekong Subregion” on May 28th and 29th 2019 in KunMing, Yunnan, China. (Oral communication).
- Elodie Calvez et al, “Genetic landscape of dengue virus serotype 2 in Vientiane Capital, Lao PDR”. National Research Forum, Vientiane, October 17th, 2019 (Oral communication).
- Thonglakhone XAYBOUNSOU et al. “Kinetic of dengue virus cellular viremia in Lao patients”. National Research Forum, Vientiane, October 17th, 2019 (Oral communication).
- Somphavanh SOMLOR et al. Dengue seroprevalence in Vientiane Capital, Lao PDR. National Research Forum, Vientiane, October 17th, 2019 (Oral communication).
- Somphavanh SOMLOR et al. Incidence of dengue infection in Lao teenagers in Vientiane Capital. Adolescent health research day Vientiane, October 15th, 2019 (poster).

Publications

- Elliott F. Miot, Elodie Calvez, Fabien Aubry, Stéphanie Dabo, Marc Grandadam, Sébastien Marcombe, Catherine Oke, James G. Logan, Paul T. Brey, Louis Lambrechts. Potential of the sylvatic mosquito *Aedes malayensis* to act as an arbovirus bridge vector in a forested area of the Nakai district, Laos”. *Parasites & Vectors*. (submitted)
- Temmam S, Vongphayloth K, Hertz J, Sutherland I, Douangboubpha B, Grandadam M, Thomas Bigot T, Brey P, Eliot M.

Six nearly-complete genome segments of novel reovirus identified in Laotian batflies. 2019. Microbiology Resource Announcements (in press)

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- Tangena JA, Marcombe S, Thammavong P, Chonphetsarath S, Somphong B, Sayteng K, Grandadam M, Sutherland IW, Lindsay SW, Brey PT. Bionomics and insecticide resistance of the arboviral vector *Aedes albopictus* in northern Lao PDR. PLoS One. 2018 Oct 25;13(10):e0206387. doi: 10.1371