

# New resources will help researchers fight mosquito-transmitted diseases at no cost to end users

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Credit: AI-generated image ([disclaimer](#))

Vector-borne diseases account for more than 17 % of all infectious diseases, causing over 700 000 deaths annually, according to a factsheet by the World Health Organization (WHO). These are infections transmitted by vectors like mosquitoes, ticks, flies, sandflies and fleas.

Under an initiative to support research in this field, the EU-funded INFRAVEC2 project recently unveiled its revamped online shop and website.

As explained in a press release on the INFRAVEC2 website, the products on offer include colonies of [mosquitoes](#) not previously available, such as *Anopheles atroparvus*, a widespread European species. This was the major vector of human malaria until Europe was declared malaria-free in 1975. According to the website, "[t]his species would be able to transmit malaria again if [public health surveillance](#) was relaxed and malaria re-entered Europe. It may also transmit human viruses such as West Nile virus." The INFRAVEC2 colony was made available to researchers after mosquitoes were collected from Spain's Ebro River Delta in 2017. It replaces "a decades-old colony and will allow more accurate research on the risks and control of this mosquito."

## **New experiment opportunities**

The INFRAVEC2 website also offers access to new technologies to study [malaria](#) parasites in mosquitoes and combinations of arbovirus-infected mosquitoes as well as opportunities to work in top-level facilities on different disease vectors, including the sandfly. Scientists will be able to perform previously impossible experiments on basic sandfly biology and leishmaniasis, a potentially lethal disease affecting more than 10 million people each year. Sandflies also transmit human viruses, in Europe and elsewhere, which can be studied in the INFRAVEC2 facility. "Access to these new research tools will help researchers more quickly identify useful drugs and insecticides for development."

INFRAVEC2 (Research Infrastructures for the control of vector-borne diseases) was launched in 2017 to provide key research resources to the European vector biology community. It follows the INFRAVEC

(Research capacity for the implementation of genetic control of mosquitoes) project that ran between 2009 and 2014. INFRAVEC2 aims to build a lasting European network of facilities to control insect vector-borne diseases.

The 2015-2016 Zika virus disease outbreak in the Region of the Americas, the re-emergence of yellow fever, and an increase in cases of dengue and chikungunya further highlighted the importance of vector control. INFRAVEC2's infrastructure will be able to respond to current insect-spread disease epidemics. It will also contribute to Europe's ability to predict and prevent future insect-carried disease outbreaks. This is particularly important because rapid unplanned urbanisation, increases in international travel, altered agricultural practices and climatic factors are fuelling the spread of vectors worldwide, putting an increasing number of people at risk. WHO predicts that today more than 80 % of the world's population is at risk of vector-borne diseases.

**More information:** INFRAVEC2 project website: [infravec2.eu/](http://infravec2.eu/)

Provided by CORDIS

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