Medical Xpress

Could the deadly mosquito-borne yellow fever virus cause a Zika-like epidemic in the Americas?

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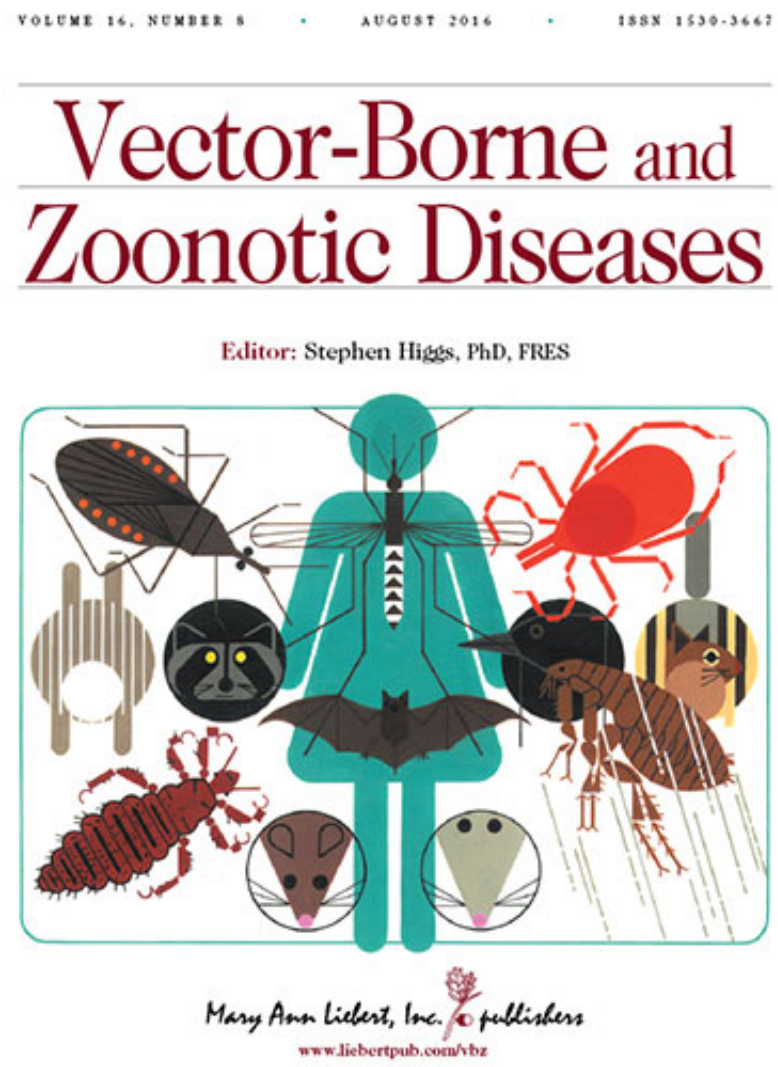

Credit: Mary Ann Liebert, Inc., publishers

Yellow fever virus (YFV), a close relative of Zika virus and transmitted by the same type of mosquito, is the cause of an often-fatal viral hemorrhagic fever and could spread via air travel from endemic areas in Africa to cause international epidemics. The recent reemergence and spread of YFV in Africa and Asia and the dire shortage of YFV vaccine have called attention to the potential public health threat of yellow fever and the need for specific measures to prevent infection and control spread of the virus and its mosquito carrier.

These measures are clearly presented in a Short Communication and accompanying Editorial published in *Vector-Borne and Zoonotic Diseases*, a peer-reviewed journal from Mary Ann Liebert, Inc., publishers, and are available free on the Journal website until August 26, 2016.

In the article "Yellow Fever Remains a Potential Threat to Public Health," Pedro Vasconcelos, Ministry of Health, Ananindeua, Brazil, and Thomas Monath, NewLink Genetics Corp., Devens, MA, state that urban epidemics caused by the spread of Aedes aegypti mosquitoes are currently of great concern due mainly to increasing urbanization, climate change, and air travel, which has put more than 130 countries infested with the mosquito and more than 4 billion people at risk of yellow fever. The authors describe the most recent YFV epidemic in Angola and the reasons for the lack of sufficient vaccine stockpiles. They propose actions to increase vaccine availability and the need for new approaches to combat Aedes aegypti mosquitoes, especially in urban environments.

"As we have recently seen with West Nile, chikungunya, and Zika viruses, vector-borne and zoonotic diseases continue to be a significant and unpredictable threat to mankind," says Stephen Higgs, Ph.D., Editor-in-Chief of *Vector-Borne and Zoonotic Diseases*, and Director,

Biosecurity Research Institute, Kansas State University, Manhattan, KS. "Despite studies of yellow fever that span over more than 100 years, we still lack critical understanding and resources to combat these diseases. The number of cases of yellow fever in several African countries continues to increase despite a major vaccination campaign. We are also seeing travel-related cases in the People's Republic of China. Elsewhere, yellow fever cases have been reported in Brazil, Chad, Colombia, Ghana, Guinea, and Peru."

More information: Pedro F.C. Vasconcelos et al, Yellow Fever Remains a Potential Threat to Public Health, *Vector-Borne and Zoonotic Diseases* (2016). DOI: 10.1089/vbz.2016.2031

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