

India, Aus univ to work on trials on novel dengue-control

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New Delhi, Feb 7 (PTI) India today entered a partnership with an Australian university to conduct laboratory trials on a global vector-control method, whereby a naturally occurring bacteria is introduced into dengue virus-carrying mosquitoes to "inhibit" viral transmission.

As part of a Memorandum of Understanding signed here between Indian Council of Medical Research (ICMR) and Monash University, the efficacy of the disease-control method will be tested at Vector Control Research Centre (VCRC) in Puducherry before undertaking any field trial.

"Monash University came up with this strategy six years ago, when trials on introduction of Wolbachia bacteria in aedes aegypti mosquitoes, were conducted in Cairns in Australia. And, results were fine.

"Besides Australia, we have partnered with a few other countries -- Brazil, Colombia, Indonesia and Vietnam -- where such methods are being used. It would now be tested in Indian environment," Scott O'Neill, professor and Director of Eliminate Dengue Program at the university, said.

The pact was signed in the presence of Secretary, Department of Health Research and Director General of ICMR, Soumya Swaminathan, Prof O'Neill, Director, VCRC, P Jambulingam and several other senior researchers.

"The first phase of the trial would be held for 12 months," he said.

"As part of the MoU, now aedes aegypti strain carrying Wolbachia bacteria is proposed to be imported to India from Monash University, which transfer technology to us at VCRC. We are setting up our labs there, meanwhile, as we are meeting formalities to get the strain imported," Swaminathan said.

Aedes aegypti is one of the two main mosquito species which transmit dengue and chikungunya viruses. Delhi saw one of the worst outbreak of the vector-borne disease last year.

"The chikungunya outbreak was not the trigger though as we had been working on this collaboration before it. Also, once we are satisfied with our lab trials, only then we will go for field trials, which would be a pilot project under which a few cities would be chosen based on several parameters," Swaminathan said.

"The method involves either introducing Wolbachia (considered biological control agent for vector infection transfer) to the egg of wild mosquitoes or injecting it in an adult aedes aegypti. The Wolbachia-carrying mosquitoes then go further and breed with more wild mosquitoes.

"The method is not a mosquito population control programme but only a way to inhibit their virus transmission capabilities. The strategy also does not seek to interfere with their breeding cycles but only sort of turn them harmless," O'Neill said.

The Australian professor said, "In different countries, Monash works with partnering institutions and the research is also funded by philanthropic and other organisations."