“A novel strategy against Dengue, employing an innovative autocidal ovitrap”

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Abstract –
Dengue is the most rapidly spreading mosquito-borne viral disease in the world. With approximately 50 million dengue infections, 22,000 deaths annually, and 40% of the world’s population living in the 100 affected countries, the World Health Organization considers dengue the most important mosquito-borne viral disease. The disease is transmitted by the bite of infected female aedes mosquitoes. No vaccine or specific treatment is currently available and mosquito control remains the critical strategy in dengue prevention and control. Conventional applications of insecticides are not adequate to control aedes. This research project aims to test out a novel strategy for aedes mosquitoes control through an innovative larval trap – to be built, deployed and monitored by school children using discarded and inexpensive materials. The project, if proved effective has the potential for easy replication globally. This strategy involving community participation also addresses the challenge of health work force shortage for public health activities faced by resource constrained counties like India.

Grand Challenges Canada (GCC) - an organization funded by the Govt of Canada, had launched an international competition - ‘Rising stars in Global health’, “to support exceptional innovators who have a bold idea with a big impact in the area of global health”. This project was selected for funding in this competition.

Keywords – Innovation, Dengue, Mosquito larvae, Ovitrap

References -


Author’s biography (200 words)

Dr.Jayakrishnan is an Associate Professor in Community Medicine at Government Medical College Kozhikode. He completed MBBS and MD from the same college, and won a full scholarship from the National Institute of Health, USA for a Masters in International Research Bioethics (MIRB) from Melbourne. He has also received a Diploma in R & D from Japan. Jayakrishnan has received training from Johns Hopkins University, Georgetown University, University of Pittsburgh, Monash University & Nagasaki University.

Dr.Jayakrishnan is the Principal Investigator of the biggest international research grant ever awarded to Government Medical College Kozhikode

He has acted as an independent monitor of Pulse polio programme for the World Health Organisation for 6 years, and was involved in the Modernising Government Programme for the Government of Kerala. As the administrative medical officer of a rural health centre, he had successfully introduced several innovations. He is the present secretary of Calicut Medical College Alumni Association, and an executive committee member of the Indian Medical Association Kozhikode, and Kerala Government Medical College Teacher’s Association.
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