

DBT-Institute of Bioresources and Sustainable Development (DBT-IBSD)

Molecular surveillance of Japanese Encephalitis Virus in Pigs of North East and Odisha

New Delhi, May 14: Researchers from the Department of Biotechnology's Institute of Bioresources and Sustainable Development (DBT-IBSD), and Institute of Life Sciences (DBT-ILS) have conducted a molecular surveillance of Japanese Encephalitis Virus in Pigs of North East and Odisha in collaboration with Assam Agricultural University (AAU). Japanese encephalitis virus which infects humans was studied in pigs since they act as reservoir and amplifying intermediate hosts for the disease. The study was conducted to understand the prevalence of JEV infection in pigs in three different geographical sites in India - Odisha, Assam and Manipur. Total 857 serum samples were tested by ELISA and RT-PCR, while only RT-PCR was performed in case of 275 tonsils tissues for detection of JEV. It was observed that JEV prevalence was highest in Manipur (positive 39, 25.45% in serum and 10.08% in tonsil) but followed by Assam (positive 15, 3.75% in serum and 0% in tonsils) and Odisha (positive 7, 1.49% in serum and 3.7% in tonsils).

In conclusion, the high JE virus infection rate in pigs in the current locations suggests the need for continuous surveillance of this virus in pigs which will ultimately help to adopt an effective control strategy to prevent the spread of JE infection to humans.

<https://www.sciencedirect.com/science/article/abs/pii/S1567134820301568?via%3Dihub>

Infect Genet Evol. 2020 Apr 20:104325. doi: 10.1016/j.meegid.2020.104325. [Epub ahead of print]

Contact Person & Contact Details:

Professor Pulok Kumar Mukherjee

Director

Institute of Bioresources and Sustainable Development (IBSD), Imphal

E-mail: director.ibsd@nic.in