

EXECUTIVE SUMMARY



This Annual Report, 2005-06 coincides with the completion of two decades of the CRME's highly fruitful medico-entomological research activities. During the past year the Centre had conducted investigations on as many as 20 diversified research lines under five major areas, viz., Japanese encephalitis, Lymphatic filariasis, Dengue, Vector control (VC) and outbreak investigations studies in all the four south Indian states, as well as in other states in the country.

The Centre concluded its collaborative research project with the IICT, Hyderabad on JE epidemic prediction using entomological and epidemiological parameters. Centre continued to provide laboratory back up to the entomological zonal offices in Tamil Nadu, as also to other states, in establishing detection of JE antigen in the desiccated mosquitoes dispatched to the CRME from field via ordinary snail mail. Studies with respect to determination of status of microfilaraemia and antigenaemia continued in both MDA alone villages and those villages with VC in Villupuram district. Vector control component demonstrated that could work very well as a supplementary tool to the benefits gained by the mass drug administration integrated with VC. Dengue research programmes continued in both Chennai (Tamil Nadu) and Thiruvananthapuram (Kerala). In Chennai it was obvious that there was a rise in comprehending the significance of community participation and its impact on control of dengue vectors. While *Aedes aegypti* was the proven vector for dengue viruses in Chennai, it was solely *Ae. albopictus* which transmitted the dengue viruses in Kerala. The development of *Mos Tyag* from a *Cymbopogon* sp. is a major breakthrough in curtailing man-vector contact. With the genomic studies in dengue virus and vectors, the Centre has made a successful entry in the vector molecular taxonomy. Like JE, the Centre also developed expertise in detecting dengue antigens from the desiccated mosquitoes.

Following CRME participated in a multicentric and multi-institutional study on the threat of vector-borne diseases, more studies with particular reference to change in haematophagous insect fauna. CRME in recent years increased efforts for human resource development activity and first step has conducted "Training-cum-workshop for the health officials from various states for JE and dengue during January and March 2006 respectively. In addition trainings were imparted to many university and college students in various aspects of mosquito control and ecology. The CRME is evolving as major medico-entomological institution and its success is penned by the inexhaustible perseverance and dedication of scientists, and other staffs of the Centre.

Of the 11 scientific publications brought out in all, several were published in scientific journals with high Impact Factor (e.g., *The Lancet*, *Tropical Medicine & International Health*, *Journal of Medical Entomology*, *Lancet Infectious Diseases*, *Indian Journal of Medical Research*, *Medical & Veterinary Entomology*, *Parasitology International*, *Japanese Journal of Infectious Diseases*). Invariably all the scientists were encouraged to attend various national and international conferences in their field of specializations.

Centre has further modernized its already fully computerized library facility, with about 20 international journals subscribed and scores of books added. The building of the institute has got excellent addition in the form completely air-conditioned Conference Room and Auditorium where future major meetings and colloquiums are planned for organization..

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Officer in-Charge