

EXECUTIVE SUMMARY

The year 2005 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 Disaster management including studies on disease outbreaks in all the four south Indian states.

A collaborative research project with the IICT, Hyderabad on JE epidemic prediction using entomological and epidemiological parameters continued. Japanese encephalitis was also found an important cause of child morbidity among the patients admitted to JIPMER, Pondicherry and RMMCH, Chidambaram as AES cases. 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 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 *MosTyag* 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 an entry in the success of molecular biology. Like JE, the centre also developed expertise in detecting dengue antigens from the desiccated mosquitoes.

CRME participated in a multicentric and multi-institutional study on the likelihood of vector-borne diseases in the aftermath of the 26th December 2004 Tsunami. Although no immediate threats were perceptible, more studies would be needed to be carried out to underline any outcome in the long run.

The success story of the CRME is penned by the inexhaustible perseverance and dedication of scientists, and other staffs of the Centre.

Of the 15 scientific publications brought out in all, a dozen of research papers were published in scientific journals with high Impact Factor (e.g., *The Lancet* <On line>, *Tropical Medicine & International Health*, *Journal of Medical Entomology*, *Journal of American Mosquito Control Association*, *Journal of Clinical Microbiology*, *American Journal of Infection and Control*, *Journal of Clinical Virology*). Invariably all the scientists were encouraged to attend various national and international conferences in their field of specializations.

Centre has developed fully computerized new library facility, with about 20 international journals subscribed and scores of books added. The building of the institute has got an excellent addition in the form of Conference Room.

