Chapter – 3
Aims and Objectives
3.1. Aims and Objectives:

3.1.1 To carry-out the Sero-epidemiological surveillance of Chikungunya in and around Vijayapura district.

3.1.2. To carry-out the Molecular confirmation of Sero positive Chikungunya cases.

3.1.3. To carry-out Molecular characterisation of Chikungunya strains.

3.1.3.1 To find out the genotype prevalent in the area and to assess the Phylogenetic relation and homology of current strains with previous isolates.

3.1.3.2. To find out the Mutations in E1 gene of current strains and correlation of its effect on protein structure, virulence, infectivity and host adaptability.

3.2. Hypothesis:

Chikungunya may be endemic in the Vijayapura region. The isolates circulating in the Vijayapura region may belongs to East Central South African (ECSA) genotype and may be closely related to ECSA strains of Re-union islands. The isolates may have novel mutation in E1 gene E1A226V which is responsible for host adaptability with respect to Aedes albopictus mosquitoes and elevated infectivity and virulence characters of Chikungunya virus. The other mutations in E1 gene may also present and which may contribute to the increase in infectivity, virulence and host adaptability and alteration in protein structure of Chikungunya virus.