We claim :

1. A stable vaccine composition of inactivated Chikungunya virus strain with one or more mutations in the capsid, E1, E2 or E3 structural glycoproteins that enhance the adaptation of the virus to *Aedes aegypti* and capable of infecting *Aedes albopictus,* wherein the strains of the Chikungunya virus isolates are selected from TN01610, TN015110, TN06210, TN06310, TN06410, and AP0109 containing the nucleotide sequences disclosed in SEQ. ID NO.1 to SEQ ID NO.6, respectively and the corresponding full length genomic RNA sequences disclosed in SEQ ID NO.15 to SEQ ID NO.20, respectively.

2. The vaccine composition of claim 1, wherein the Chikungunya virus strain has a non-synonymous mutation K1020E in the structural polyprotein corresponding to E1-K211 E in the E1 structural glycoprotein either singly or in combination with other mutations selected from A232V, D301N, K327N, G380R, K391E, V589A, P867L, G1004R, and A1035V of the structural polyprotein sequence of the Chikungunya virus.

3. The vaccine composition of claim 1, wherein the Chikungunya virus isolates have the structural polyprotein sequences as disclosed in SEQ. ID No.8 to SEQ. ID NO.13 corresponding to nucleotide SEQ ID. NO.1 to SEQ ID NO.6 respectively, for use as vaccine against Chikungunya virus infections

4. The vaccine composition of claim 1 wherein the Chikungunya virus is inactivated by any of the following methods:

i) heat inactivation at 45°C to 60°C for 30 min to 4 hrs;
ii) Ultraviolet radiation at 254 nm for 30 min to 120 min;
iii) Formalin treatment at ratios up to 1:3000 (formalin-.virus) at 2°C-8°C for 7 days or at ambient temperatures ranging from 20°C-25°C for 2 days;
iv) Beta propiolactone (henceforth BPL) ratios up to 1:1000 to 1:2500 (BPL:virus) at 29C-8°C for 7 days or at ambient temperatures ranging from 20°C-25°C for 2 days wherein the additive is selected from glycine, mannitol, sorbitol, sucrose and trehalose;
v) Gamma irradiation by exposing the virus samples to a dose of 10kGy (Kilo Gray) to 25kGy from a ^{60}Co source.

5. The vaccine composition of claim 1 further comprising an adjuvant selected from (a) aluminum hydroxide (b) aluminum phosphate (c) gamma inulin, (d) algammulin (a combination of aluminum hydroxide and gamma inulin) (e) cholecalciferol in oil (f) an oil in water emulsion OWEM1, containing squalene, tween-80, Span-85 in 10 mM phosphate-citrate buffer, (f) oil in water emulsion OWEM2 containing squalene, tween-80, Span-85, alpha tocopherol in phosphate-citrate buffer, (g) an oil in water emulsion OWEM3 containing squalene, tween-80, Span-85, cholecalciferol in phosphate-citrate buffer.

6. The vaccine composition of claim 1, further comprising the viral antigen at doses ranging from 1 μg to 100 μg per human dose in 40 mM phosphate buffer and 150mM NaCl.

7. The vaccine composition of claim 1 for use as therapeutically active ingredient for prophylaxis, treatment and diagnosis of infections caused by Chikungunya virus thereby making it capable of conferring immunity against any genotypic variants or mutants of Chikungunya virus.

8. Chikungunya virus isolates whose structural polyprotein gene sequence is disclosed in SEQ. ID Nos. 1 to 6 and proteins translated thereof, as disclosed in SEQ. ID. Nos. 8 to 13 for use as an immunodiagnostic agent for detection of Chikungunya virus infections in humans.

9. A combined vaccine composition comprising inactivated Chikungunya virus antigen from a strain with one or more mutations in the capsid, E1, E2 or E3 structural glycoproteins that enhance the adaptation of the virus to *Aedes aegypti* and capable of infecting *Aedes albopictus,* wherein the strains of the Chikungunya virus isolates are selected from TN01610, TN015110, TN06210, TN06310, TN06410, and AP0109 containing the nucleotide sequences disclosed in SEQ. ID NO.1 to SEQ ID NO.6, respectively and the corresponding full length genomic RNA sequences disclosed in SEQ ID NO.15 to SEQ ID NO.20, respectively
and inactivated Japanese Encephalitis whole virion antigen
and an adjuvant selected from (a) aluminum hydroxide (b) aluminum phosphate (c) gamma inulin, (d) algammulin (a combination of aluminum hydroxide and gamma inulin) (e) cholecalciferol in oil (f) an oil in water emulsion OWEM1, containing squalene, tween-80, Span-85 in 10 mM phosphate-citrate buffer, (g) an oil in water emulsion OWEM2 containing squalene, tween-80, Span-85, alpha tocopherol in phosphate-citrate buffer, (h) an oil in water emulsion OWEM3 containing squalene, tween-80, Span-85, cholecalciferol in phosphate-citrate buffer for use in a method fort eliciting a protective immune response against Chikungunya virus and Japanese Encephalitis virus infections in humans.