CLAIMS

1. An arbovirus particle comprising a mutated FlavivirusArbovirus that replicates in insect cells and does not replicate in mammal cells, comprising an molecularly altered furin tetrapeptide cleavage site in a precursor polyprotein, and optionally, an alteration in a first stretch of amino acids upstream from said site and/or an alteration in a second stretch of amino acids downstream from said site.

1.2. An arbovirus particle comprising a mutated Flavivirus that replicates in insect cells and does not replicate in mammal cells, comprising an alteration in a first stretch of amino acids upstream from a furin tetrapeptide cleavage site of a precursor polyprotein and/or an alteration in a second stretch of amino acids downstream from said site.

2.3. The particle of claim 1 or 2, wherein said site comprises a consensus sequence of Arg-X-Lys/Arg-Arg (SEQ ID NO:16).

3.4. The particle of claim 23, wherein X comprises Arg.

4.5. The particle of claim 2, wherein said first stretch comprises eight amino acids adjacent to said site.

5.6. The particle of claim 2, comprising said alteration in said first stretch.

6.7. The particle of claim 2, comprising said alteration in said second stretch.

7.8. The particle of claim 1 or 2, wherein said polyprotein comprises prM.

8.9. The particle of claim 1 or 2, wherein said polyprotein comprises prE2.

9.10. The particle of claim 1 or 2, comprising a Dengue virus (DV).

10.11. The particle of claim 1 or 2, comprising a Zika virus (ZV).

11.12. A composition comprising the particle of claim 1 or 2 and a pharmaceutically acceptable carrier, diluent or excipient.

12.13. An insect cell comprising the particle of claim 1 or 2.

13.14. The cell of claim 1213, where said insect comprisescell is from an arthropod.

14.15. The cell of claim 1213, wherein said insect comprisescell is from a tick or a mosquito.

15.16. A mammal cell comprising the particle of claim 1 or 2.

16.17. The cell of claim 1516, wherein said cell expresses a DV antigen.

17.18. The cell of claim 1516, wherein said cell expresses a DV antigen at a surface of said cell.

18.19. The cell of claim 1516, wherein said cell expresses a ZV antigen.

~~19.~~20. The cell of claim ~~15~~16, wherein said cell expresses a ZV antigen at a surface of said cell.

~~20.~~21. The cell of claim ~~15~~16, wherein said mammal cell ~~comprises~~is a human cell.

~~21~~22. The particle of claim 1, further comprising ~~said~~an alteration in ~~said~~a first stretch of amino acids upstream from said site and/or said alteration in ~~said~~a second stretch of amino acids downstream from said site.