I claim:

1. A composition for use in a method for the prophylaxis or treatment of a dengue virus infection in a subject, the composition containing at least one peptide ~~or oligopeptide comprising or~~ consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, ~~2, 4,~~ 11, and 12~~, 13~~ and ~~an active~~ functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences, wherein said peptide ~~or oligopeptide amino acid sequence~~ binds to class I MHC molecules to induce a cytotoxic T lymphocyte-mediated immune response.

2. The composition for use according to claim 1 further comprising a pharmaceutically acceptable carrier.

3. The composition for use according to claim 2 wherein the pharmaceutically acceptable carrier is an adjuvant or at least one cytokine.

~~4. The composition for use according to claim 1 wherein said peptide comprises amino acid length is greater than 14 up to 30 to 40 amino acids in length.~~

~~5. The composition for use according to claim 1 wherein said oligopeptide comprises amino acid of 8-14 amino acids in length.~~

~~6~~4. The composition for use according to claim 1 wherein said amino acid sequence comprises at least one T cell epitopic peptide.

~~7. The composition for use according to claim 1 wherein said functional fragment differs by no more than one amino acid from any one of amino acid sequences selected from SEQ ID NO: 1, 2, 4, 11, 12 and13.~~

~~8~~5. The composition for use according to claim ~~7~~ 1 where the one amino acid difference is a conservative amino acid substitution.

~~9~~6. The composition for use according to claim ~~7~~ 1 where the amino acid difference is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

~~10~~7. The composition for use according to claim 1 wherein said cytotoxic T lymphocyte-mediated immune response is against at least one serotype specific dengue virus infection.

~~11~~8. The composition for use according to claim ~~10~~ 7 wherein said cytotoxic T lymphocyte-mediated immune response is against serotype specific dengue virus infections from a group consisting of serotype 1, 2, 3, 4, and combinations thereof.

~~12~~9. The composition for use according to claim ~~11~~ 8 wherein said cytotoxic T lymphocyte-mediated immune response is against serotypes 1, 2, 3, and 4.

~~13~~10. A composition for use in a method of inducing a cytotoxic T lymphocyte-mediated immune response in a subject, said method comprising administering an effective amount of said composition, wherein the composition contains at least one peptide ~~or oligopeptide comprising or~~ consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, ~~2, 4,~~ 11, and 12~~, 13~~ and ~~an active~~ functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences.

~~14. The composition for use according to claim 13 wherein said peptide comprises amino acid length greater than 14 up to 30 to 40 amino acids in length.~~

~~15. The composition for use according to claim 14 wherein said oligopeptide comprises amino acid of 8-14 amino acids in length.~~

~~16~~11. The composition for use according to claim ~~13~~ 10 wherein said amino acid sequence comprises at least one epitopic peptide.

~~17. The composition for use according to claim 13 wherein said functional fragment differs by no more than one amino acid from any one of amino acid sequences selected from SEQ ID NO: 1, 2, 4, 11, 12 and 13.~~

~~18~~12. The composition for use according to claim ~~17~~10, wherein the one amino acid difference is a conservative amino acid substitution.

~~19~~13. The composition for use according to claim ~~17~~10, wherein the amino acid difference is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

~~20~~14. A dengue virus vaccine comprising a composition containing at least one peptide ~~or oligopeptide comprising or~~ consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, ~~2, 4,~~ 11, and 12 ~~and 13~~ and ~~an active~~ functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences.

~~21~~15. A vaccine for use in a method of preventing disease caused by dengue virus in a subject, the method comprising administering an effective amount of said vaccine to the subject, wherein said vaccine is the vaccine of claim ~~20~~14.

~~22~~16. A polynucleotide sequence encoding a peptide ~~or oligopeptide comprising or~~ consisting of an amino acid sequence that has at least 95% sequence identity to an amino acid sequence selected from the group consisting of SEQ ID NO: 1, ~~2, 4,~~ 11, and 12 ~~and 13~~, wherein said peptide ~~or oligopeptide amino acid sequence~~ binds to class I MHC molecules to induce a cytotoxic T lymphocyte-mediated immune response, for use in a method of inducing in a subject an immune response to at least one dengue virus.

I claim:

1. A composition for use in a method for the prophylaxis or treatment of a dengue virus infection in a subject, the composition containing at least one peptide consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, 11, and 12 and a functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences, wherein said peptide binds to class I MHC molecules to induce a cytotoxic T lymphocyte-mediated immune response.

2. The composition for use according to claim 1 further comprising a pharmaceutically acceptable carrier.

3. The composition for use according to claim 2 wherein the pharmaceutically acceptable carrier is an adjuvant or at least one cytokine.

4. The composition for use according to claim 1 wherein said amino acid sequence comprises at least one T cell epitopic peptide.

5. The composition for use according to claim 1 where the one amino acid difference is a conservative amino acid substitution.

6. The composition for use according to claim 1 where the amino acid difference is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

7. The composition for use according to claim 1 wherein said cytotoxic T lymphocyte-mediated immune response is against at least one serotype specific dengue virus infection.

8. The composition for use according to claim 7 wherein said cytotoxic T lymphocyte-mediated immune response is against serotype specific dengue virus infections from a group consisting of serotype 1, 2, 3, 4, and combinations thereof.

9. The composition for use according to claim 8 wherein said cytotoxic T lymphocyte-mediated immune response is against serotypes 1, 2, 3, and 4.

10. A composition for use in a method of inducing a cytotoxic T lymphocyte-mediated immune response in a subject, said method comprising administering an effective amount of said composition, wherein the composition contains at least one peptide consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, 11, and 12 and a functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences.

11. The composition for use according to claim 10 wherein said amino acid sequence comprises at least one epitopic peptide.

12. The composition for use according to claim 10, wherein the one amino acid difference is a conservative amino acid substitution.

13. The composition for use according to claim 10, wherein the amino acid difference is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

14. A dengue virus vaccine comprising a composition containing at least one peptide consisting of the amino acid sequence selected from the group consisting of SEQ ID NO: 1, 11, and 12 and a functional fragment of any one of said sequences, wherein said functional fragment differs by no more than one amino acid from any one of said sequences.

15. A vaccine for use in a method of preventing disease caused by dengue virus in a subject, the method comprising administering an effective amount of said vaccine to the subject, wherein said vaccine is the vaccine of claim 14.

16. A polynucleotide sequence encoding a peptide consisting of an amino acid sequence that has at least 95% sequence identity to an amino acid sequence selected from the group consisting of SEQ ID NO: 1, 11, and 12, wherein said peptide binds to class I MHC molecules to induce a cytotoxic T lymphocyte-mediated immune response, for use in a method of inducing in a subject an immune response to at least one dengue virus.