CLAIMS

1. An isolated binding protein that specifically binds to Chikungunya virus, comprising:
   a. a heavy chain amino acid sequence comprising at least one of the CDR's selected from the group consisting of: (a) CDRH1's of SEQ ID NOs: 10 or 30, (b) CDRH2's of SEQ ID NOs: 12 or 32, and (c) CDRH3's of SEQ ID NOs: 14 or 34, and/or
   b. a light chain amino acid sequence comprising at least one of the CDR's selected from the group consisting of: (d) CDRL1's of SEQ ID NOs: 16 or 36, (e) CDRL2's of SEQ ID NOs: 18 or 38, and (f) CDRL3's of SEQ ID NOs: 20 or 40.
2. The isolated binding protein of claim 1, wherein said binding protein comprises a heavy chain amino acid sequence that comprises a CDRH1 selected from SEQ ID NOs: 10 or 30, a CDRH2 selected from SEQ ID NOs: 12 or 32, and a CDRH3 selected from SEQ ID NOs: 14 or 34, and/or a light chain amino acid sequence that comprises a CDRL1 selected from SEQ ID NOs: 16 or 36, a CDRL2 selected from SEQ ID NOs: 18 or 38, and a CDRL3 selected from SEQ ID NOs: 20 or 40.
3. The isolated binding protein of claim 1 or 2, comprising a heavy chain amino acid sequence which comprises a VH domain amino acid sequence selected from the group consisting of SEQ ID Nos: SEQ ID NOs: 6 and 26, and/or a light chain amino acid sequence that comprises a VL domain amino acid sequence selected from the group consisting of SEQ ID NOs: 8 and 28.
4. The isolated binding protein of any of claims 1to 3 comprising the VH domain amino acid sequence of SEQ ID NO: 6 and the VL domain amino acid sequence of SEQ ID NO: 8.
5. The isolated binding protein of any of claims 1 to 3 comprising the VH domain amino acid sequence of SEQ ID NO: 26 and the VL domain amino acid sequence of SEQ ID NO: 28.

6. The isolated binding protein of any of claims 1 to 5 which is an antibody or an antibody fragment.
7. The isolated binding protein of claim 6 wherein said antibody is fully human.
8. A functional variant of a binding protein of any of claims 1 to 7, characterized in that said functional variant binds to Chikungunya virus.
9. The isolated binding protein of any of claims 1 to 7 or the functional variant of claim 8 wherein said binding protein or functional variant has neutralizing activity against an arbovirus from the Togaviridae family, preferably from the genus *alphavirus*, more preferably the Chikungunya virus.
10. An immunoconjugate of the binding protein of any of claims 1 to 7 or 9 or of the functional variant of any of claims 8 or 9 wherein said binding protein or functional variant is coupled to at least one labeling and/or effector group.
11. An isolated nucleic acid molecule comprising a nucleic acid sequence encoding the binding protein of any of claims 1to 7 or 9, the functional variant of any one of claims 8 or 9 or the immunoconjugate of claim 10.
12. A vector comprising the nucleic acid molecule of claim 11.
13. A host cell comprising the nucleic acid molecule of claim 11 or the vector of claim 12.
14. A method for producing the isolated binding protein of any of claims 1 to 7 or 9, the functional variant of any one of claims 8 or 9 or the immunoconjugate of claim 10, comprising the step of producing said binding protein, functional variant or immunoconjugate in a host cell of claim 12 and optionally, isolating said binding protein, functional variant or immunoconjugate.
15. A pharmaceutical composition comprising as an active agent at least one isolated binding protein of any of claims 1 to 7 or 9, at least one functional variant of any of claims 8 or 9 and/or at least one immunoconjugate of claim 10, and a pharmaceutically acceptable carrier, diluent or adjuvant.
16. The isolated binding protein of any of claims 1 to 7 or 9, the functional variant of any of claims 8 or 9 and/or the immunoconjugate of claim 10 as a medicament.

17. The isolated binding protein of any of claims 1 to 7 or 9, the functional variant of any of claims 8 or 9, the immunoconjugate of claim 10 and/or the pharmaceutical composition of claim 15 for use in the prevention or treatment of the infection of an arbovirus from the Togaviridae family, preferably from the genus *Alphavirus* more preferably the *Chikungunya virus*.

18. Use of the isolated binding protein of any of claims 1 to 7 or 9, the functional variant of any of claims 8 or 9 or the immunoconjugate of claim 10 for diagnostic or screening purposes.

19. A kit comprising at least one isolated binding protein of any of claims 1 to 7 or 9, at least one functional variant of any of claims 8 or 9, at least one immunoconjugate of claim 10 and/or at least one pharmaceutical composition of claim 15.

CLAIMS

1. An isolated antibody or antibody fragment that specifically binds to Chikungunya virus, comprising:
    a. a heavy chain amino acid sequence that comprises the CDRH1 of SEQ ID NO: 10, the CDRH2 of SEQ ID NO: 12, and the CDRH3 of SEQ ID NO: 14, and a light chain amino acid sequence that comprises the CDRL1 of SEQ ID NO: 16, the CDRL2 of SEQ ID NO: 18, and the CDRL3 of SEQ ID NO: 20; or
    b. a heavy chain amino acid sequence that comprises the CDRH1 of SEQ ID NO: 30, the CDRH2 of SEQ ID NO: 32, and the CDRH3 of SEQ ID NO: 34, and a light chain amino acid sequence that comprises the CDRL1 of SEQ ID NO: 36, the CDRL2 of SEQ ID NO: 38, and the CDRL3 of SEQ ID NO: 40.
2. The isolated antibody or antibody fragment of claim 1 comprising the VH domain amino acid sequence of SEQ ID NO: 6 and the VL domain amino acid sequence of SEQ ID NO: 8.
3. The isolated antibody or antibody fragment of claim 1 comprising the VH domain amino acid sequence of SEQ ID NO: 26 and the VL domain amino acid sequence of SEQ ID NO: 28.
4. The isolated antibody or antibody fragment of any of claims 1 to 3 which is a humanized antibody or antibody fragment.
5. The isolated antibody or antibody fragment of any one of claims 1 to 3 wherein said antibody is fully human.
6. An immunoconjugate of the antibody or antibody fragment of any of claims 1 to 5 wherein said antibody or antibody fragment is coupled to at least one labeling and/or effector group.
7. An isolated nucleic acid molecule comprising a nucleic acid sequence encoding the antibody or antibody fragment of any of claims 1 to 5 or the immunoconjugate of claim 6.
8. A vector comprising the nucleic acid molecule of claim 7.
9. A host cell comprising the nucleic acid molecule of claim 7 or the vector of claim 8.
10. A method for producing the isolated antibody or antibody fragment of any of claims 1 to 5 or the immunoconjugate of claim 6 ~~10~~, comprising the step of producing said antibody or antibody fragment or immunoconjugate in a host cell of claim 9 and optionally, isolating said antibody or antibody fragment or immunoconjugate.

11. A pharmaceutical composition comprising as an active agent at least one isolated antibody or antibody fragment of any of claims 1 to 5 and/or at least one immunoconjugate of claim 6, and a pharmaceutically acceptable carrier, diluent or adjuvant.
12. The pharmaceutical composition of claim 11, which comprises the isolated antibody or antibody fragment according to claim 1.a and the isolated antibody or antibody fragment according to claim 1.b.
13. The isolated antibody or antibody fragment of any of claims 1 to 5 and/or the immunoconjugate of claim 6 as a medicament.
14. The isolated antibody or antibody fragment of any of claims 1 to 5, the immunoconjugate of claim 6 and/or the pharmaceutical composition of claim 11 or 12 for use in the prevention or treatment of the infection of the Chikungunya virus.
15. Use of the isolated antibody or antibody fragment of any of claims 1 to 5 or the immunoconjugate of claim 6 for *in vitro* diagnostic or screening purposes.
16. A kit comprising at least one isolated antibody or antibody fragment of any of claims 1 to 5, at least one immunoconjugate of claim 6 and/or at least one pharmaceutical composition of claim 11 or 12.