Claims

1. A combined measles-malaria vaccine comprising a recombinant measles vaccine virus expresses malaria antigens capable of eliciting immune response both against measles and malaria, wherein one of said antigens is malaria antigen d42 fragment of MSP1.

2. The combined measles-malaria vaccine as claimed in claim 1 wherein the recombinant measles vaccine virus expresses said MSP1 malaria antigen in both anchored and secreted forms from the 3D7 strain and/or from the MAD 20 strain.

3. The combined measles-malaria vaccine as claimed in claim 2, wherein the recombinant measles vaccine virus expresses said MSP1 malaria antigen in both anchored and secreted forms from the FCB1 strain.

4. The combined measles-malaria vaccine as claimed in any preceding claims wherein the malaria antigen is cloned between P and M or H and L protein of recombinant measles vaccine virus.

5. The combined measles-malaria vaccine as claimed in any preceding claims wherein the recombinant measles vaccine virus comprises SEQ ID NO. 7 and 8.

6. The combined measles-malaria vaccine as claimed in any preceding claims, wherein said vaccine comprises a mixture of two or several such viruses.

7. The combined measles-malaria vaccine as claimed in claim 6, wherein said viruses are devoid of defective interfering particles (Dis).

8. The combined measles-malaria vaccine as claimed in claim 7 wherein the adventitiously arisen DI particles have been eliminated by plaque purification or end point dilution or physical methods.

9. The combined measles-malaria vaccine as claimed in claim 8, wherein said physical method is differential centrifugation.

10. The combined measles-malaria vaccine as claimed in any preceding claims, wherein said vaccine comprises a suitable stabilizer, ideal for parenteral application.

11. The combined measles-malaria vaccine as claimed in claim 10, wherein said stabilizer is selected from gelatin and/or human serum albumin and sorbitol as main components.

12. The combined measles-malaria vaccine as claimed in any preceding claims, wherein said vaccine comprises a suitable stabilizer and/or adjuvant ideal for intranasal, inhalation, oral, trans-dermal application or for suppository formulation.

13. The combined measles-malaria vaccine as claimed in any one of claims 1-12, wherein the recombinant measles vaccine virus expresses a combination of said antigens.

14. A measles vaccine virus vector comprising the nucleotide sequence of an antigen of malaria, wherein said antigen is malaria antigen d42 fragment of MSP1.

15. The vector as claimed in claim 14 wherein the nucleotide sequence is selected from SEQ ID NO. 7 and 8.

16. The vector as claimed in claim 14 or claim 15 wherein the measles vaccine virus vector further comprises nucleotide sequence selected from SEQ ID NO. 1-2.

17. A host cell comprising the vector of claim 14.

18. A host cell according to claim 17, wherein said host cell is selected from E.coli or a mammalian cell line.

19. The combined measles-malaria vaccine as claimed in any one of claims 1-13, or the measles vaccine virus vector accordingly to any one of claims 14-16, wherein the recombinant measles virus originates from a vaccine strain derived from Edmoston Zagreb.

20. The combined measles-malaria vaccine as claimed in any one of claims 1-13, or the measles vaccine virus vector according to any one of claims 14-16, wherein said recombinant measles vaccine virus encodes in addition to the malaria antigens a protein with adjuvantic properties.

21. The combined measles-malaria vaccine as claimed in any one of claims 1-13, or the measles vaccine virus vector according to any one of claims 14-16, wherein said recombinant measles virus encodes in addition to the malaria antigens an interleukin.

22. The combined measles-malaria vaccine as claimed in claim 21, or the measles vaccine virus vector according to claim 21, wherein said interleukin is interleukin 2.