11. The composition of claim 9, wherein said muramyl peptide is N-acetylmuramyl-L-alanyl-D-isoglutaminyl-L-alanine-2-(1,2-dipalmitoyl-sn-glycero-3-(hydroxyphosphoryloxy))ethylamide.

12. The composition of claim 1, wherein said oil is an animal oil.

13. The composition of claim 12, wherein said oil is squalene.

14. The composition of claim 1, wherein said composition comprises up to 15% by volume of said oil.

15. The composition of claim 1, wherein said composition further comprises an additional emulsifying agent.

16. The composition of claim 15, wherein said additional emulsifying agent is selected from the group consisting of sorbitan esters, polyoxyethylene sorbitan mono-, di-, or triesters, polyoxyethylene fatty acids, polyoxyethylene fatty acid ethers, and combinations thereof.

17. The composition of claim 15, wherein said additional emulsifying agent is selected from the group of polyoxyethylene sorbitan 20 monooleate, Span 85 sorbitan trioleate, and combinations thereof.

18. The composition of claim 15, wherein said composition comprises up to 2.5% by weight of said additional emulsifying agent.

19. The composition of claim 1, wherein said antigenic substance is a viral particle or subunit.

20. The composition of claim 1, wherein said antigenic substance is a virus molecular antigen.

21. The composition of claim 1, wherein said antigenic substance is selected from the group of proteins consisting of HSV gD2, HIV gp120, HSV gB2, CMV gB, HCV protein and influenza vaccine antigens.

22. A method of stimulating an immune response in a host animal, comprising:

administering an effective amount of a protective antigen to said animal in association with liposomes wherein the liposomes have a net negative charge, wherein said liposomes and said antigen or antigens are administered in admixture with a continuous aqueous phase containing an oil-in-water emulsion, wherein said oil in said emulsion is a metabolizable oil and said emulsion is present in an amount sufficient to increase immune response relative to that of said antigen and liposomes in the absence of said emulsion.

23. The method of claim 22, wherein said antigen is selected from the group of proteins consisting of HSV gD2, HIV gp120, HSV gB2, CMV gB, HCV proteins and influenza vaccine antigens.

24. The method of claim 22, wherein said oil-in-water emulsion further contains an immunostimulating amount of a muramyl peptide.

25. The method of claim 22, wherein said antigenic substance is also present in said continuous phase.

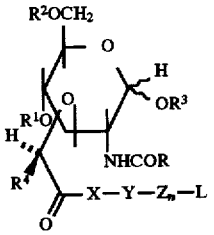
26. The method of claim 22, wherein said liposomes comprise fusogenic liposomes.

27. The method of claim 22, wherein said liposomes and said emulsion are present in a volume ratio of from 1:10 to 10:1.

28. The method of claim 22, wherein said liposomes and oil droplets present in said emulsion are present as particles of substantially the same size distribution range.

29. The method of claim 28, wherein said particles are substantially all less than 1 micron in diameter.

30. The method of claim 24, wherein said muramyl peptide is a compound of the formula



wherein R is H or $COCH_3$;

R^1, R^2, and R^3 independently represent H or a lipid moiety;

R^4 is hydrogen or alkyl;

X and Z independently represent an aminoacyl moiety selected from the group consisting of alanyl, valyl, leucyl, isoleucyl, α-aminobutyryl, threonyl, methionyl, cysteinyl, glutamyl, isoglytamyl, glutaminyl, isoglutaminyl, aspartyl, phenylalanyl, tyrosyl, tryptophanyl, lysyl, ornithinyl, arginyl, histidyl, asparinginyl, prolyl, hydroxypropyl, seryl, and glycyl;

n is 0 or 1;

Y is —$NHCHR^5CH_2CH_2CO$—, wherein R^5 represents an optionally esterified or amidated carboxyl group; and

L is OH, NR^6R^7 where R^6 and R^7 independently represent H or a lower alkyl group, or a lipid moiety.

31. The method of claim 30, wherein said muramyl peptide is either a muramyl dipeptide or muramyl tripeptide or a mixture thereof.

32. The method of claim 31, wherein said muramyl peptide comprises a member selected from the group consisting of muramyl dipeptides and tripeptides linked to a phospholipid moiety through a hydroxyalkylamine moiety.

33. The method of claim 32, wherein said muramyl peptide is N-acetylmuramyl-L-alanyl-D-isoglutaminyl-L-alanine- 2-(1,2-dipalmitoyl-sn-glycero-3-(hydroxyphosphorloxy))ethylamide.

34. The method of claim 33, wherein said oil is squalane.

35. The method of claim 22, wherein said oil is squalane.

36. The method of claim 22, wherein said continuous aqueous phase further comprises an additional emulsifying agent.

37. The method of claim 36, wherein said additional emulsifying agent comprises a member selected from the group consisting of sorbitan esters, polyoxyethylene sorbitan mono-, di-, or triesters, polyoxyethylene fatty acids, polyoxyethylene fatty acid ethers, and combinations thereof.

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