CLAIMS

1. A liposome within which RNA encoding an immunogen of interest is encapsulated, wherein the liposome comprises at least one lipid which includes a polyethylene glycol moiety, such that polyethylene glycol is present on the liposome's exterior, wherein the average molecular mass of the polyethylene glycol is above 3kDa but less than 11kDa.
2. The liposome of claim 1, comprising PEG-DMG and/or a lipid of formula (X).
3. The liposome of any preceding claim, wherein the liposome has a diameter in the range of 80-160nm.
4. The liposome of any preceding claim, wherein the liposome comprises a lipid with a cationic head group.
5. The liposome of any preceding claim, wherein the liposome comprises a lipid with a zwitterionic head group.
6. The liposome of any preceding claim, wherein the RNA is a self-replicating RNA.
7. The liposome of claim 6, wherein the self-replicating RNA molecule encodes (i) a RNA-dependent RNA polymerase which can transcribe RNA from the self-replicating RNA molecule and (ii) an immunogen.
8. The liposome of claim 7, wherein the RNA molecule has two open reading frames, the first of which encodes an alphavirus replicase and the second of which encodes the immunogen.
9. The liposome of any preceding claim, wherein the RNA molecule is 9000-12000 nucleotides long.
10. The liposome of any preceding claim, wherein the immunogen can elicit an immune response *in vivo* against a bacterium, a virus, a fungus or a parasite.
11. A pharmaceutical composition comprising a liposome of any preceding claim.
12. A method for raising a protective immune response in a vertebrate, comprising the step of administering to the vertebrate an effective amount of the liposome of claims 1-10, or the pharmaceutical composition of claim 11.

CLAIMS

1. An invention not claimed in any divisional application.