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(54) Title: MICROPARTICLES FOR DELIVERY OF THE HETEROLOGOUS NUCLEIC ACIDS

(57) Abstract: Microparticles with adsorbent surfaces, methods of making such microparticles, and uses thereof, are disclosed. The microparticles comprise a polymer, such as a poly(α-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and the like, and are formed using cationic, anionic, or nonionic detergents. Also provided are microparticles in the form of submicron emulsions of an oil droplet emulsion having a metabolizable oil and an emulsifying agent. The surface of the microparticles efficiently adsorb polypeptides, such as antigens, and nucleic acids, such as ELVIS vectors and other vector constructs, containing heterologous nucleotide sequences encoding biologically active macromolecules, such as polypeptides, antigens, and adjuvants. Methods of stimulating an immune response, methods of immunizing a host animal against a viral, bacterial, or parasitic infection, and uses of the microparticle compositions for vaccines are also provided.