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(54) Title: IMPROVED PRODUCTION AND IN VIVO ASSEMBLY OF SOLUBLE RECOMBINANT ICOSAHEDRAL VIRUS-LIKE PARTICLES

(57) Abstract: The present invention provides an improved method for the in vivo production of soluble assembled virus-like particles ('VLPs') in bacterial cells of Pseudomonad origin. The Pseudomonad cells support assembly of VLPs from icosahedral viral capsid proteins ('CPs') in vivo, and allow the inclusion of larger recombinant peptides as monomers or concatamers in the VLP. The invention specifically provides an improved method for the in vivo production of soluble assembled Cowpea Chlorotic Mottle Virus ('CCMV') VLPs by introducing modifications into the CCMV CP that result in high yield production of soluble CP fusions in a Pseudomonas fluorescens bacterial system. These soluble VLPs can subsequently be purified and used as vaccines.