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(54) Title: MELAN-A PEPTIDE ANALOGUE-VIRUS-LIKE-PARTICLE CONJUGATES

(57) Abstract: The present invention is related to the fields of molecular biology, virology, immunology and medicine. The invention provides a modified virus-like particle (VLP) comprising a VLP which can be loaded with immunostimulatory substances, in particular with DNA oligonucleotides containing non-methylated C and G (CpGs), and particular peptides derived from MelanA linked thereto. Such CpGVLPs are dramatically more immunogenic than their CpG-free counterparts and induce enhanced B and T cell responses. The immune response against MelanA peptide analogues optionally coupled, fused or attached otherwise to the VLPs is similarly enhanced as the immune response against the VLP itself. In addition, the T cell responses against the MelanA peptide analogues are especially directed to the Thl type. Antigens attached to CpG-loaded VLPs may therefore be ideal vaccines for prophylactic or therapeutic vaccination against allergies, tumors and other self-molecules and chronic viral diseases.

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