

CLAIMS

What is claimed is:

1. An injectable therapeutic anticancer pharmaceutical composition, wherein said composition is a mixture comprising:
 - at least one purified viral L1 protein wherein the at least one purified viral L1 is a human papilloma virus (HPV) L1 protein and is free of host-cell and/or non-L1 HPV peptide;
 - a second active pharmaceutical ingredient selected from a local anesthetic, sirolimus, ingenol mebutate, and T4 endonuclease; and
 - a pharmaceutically-acceptable carrier.
2. The pharmaceutical composition of claim 1, comprising a purified viral L1 protein from each of HPV types 6, 11, 16 and 18.
3. The pharmaceutical composition of claim 1, comprising a purified viral L1 from each of HPV types 16, 18, 31, 33, 45, 52 and 58.
4. The pharmaceutical composition of claim 1, wherein the at least one purified viral L1 protein is present in a virus-like particle (VLP).
5. The pharmaceutical composition of claim 1, wherein the at least one purified viral L1 protein and the second active pharmaceutical ingredient and pharmaceutically acceptable carrier are in a unitary dosage form.
6. The pharmaceutical composition of clam 1, wherein the local anesthetic is lidocaine.

7. Use of:

at least one purified viral L1 protein, wherein the at least one purified viral L1 is a human papilloma virus (HPV) L1 protein and is free of host-cell and/or non-L1 HPV peptide,

a second active pharmaceutical ingredient selected from the group consisting of a local anesthetic, sirolimus, ingenol mebutate and T4 endonuclease; and

a pharmaceutically-acceptable carrier,

in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be administered by injection.
8. The use of claim 7, wherein the medicament comprises a purified viral L1 protein from each of HPV types 6, 11, 16 and 18.
9. The use of claim 7, wherein the medicament comprises a purified viral L1 protein from each of HPV types 16, 18, 31, 33, 45, 52 and 58.
10. The use of any one of claims 7 to 9, wherein the at least one purified viral L1 protein is present in a virus-like particle (VLP).
11. The use of any one of claims 7 to 10, wherein the at least one purified viral L1 protein and the second active pharmaceutical ingredient and pharmaceutically acceptable carrier are in a unitary dosage form.
12. The use of any one of claims 7 to 11, wherein the local anesthetic is lidocaine.