CLAIMS

1. Use of a polypeptide in the manufacture of a medicament for the treatment or prevention of cancer by stimulating the production of anti-intracellular oncoprotein antibodies in a subject in need thereof, the polypeptide being a fragment of an intracellular oncoprotein having between 10 and 150 amino acids, preferably between 10 and 100 amino acids, wherein the intracellular oncoprotein fragment does not comprise an extracellular domain or a transmembrane domain.

2. Use according to claim 1 wherein the polypeptide is selected from the group PRL-1, VHZ, Her2, estrogen receptor (ER), an HBV protein and HBV X-protein.

3. Use according to any one of the preceding claims wherein the polypeptide is a fragment comprising an oncogenic mutation.

4. Use according to any one of the preceding claims wherein the polypeptide comprises a plurality of fragments.

5. Use according to claim 4 wherein the polypeptide comprises a plurality of fragments of the same oncoprotein.

6. Use according to claim 5 wherein the polypeptide comprises a plurality of fragments from two or more oncoproteins.

7. Use according to any one of the preceding claims, wherein the method is a method for preventing or reducing cancer metastasis.

8. Use to any one of the preceding claims wherein the patient has a primary cancer that expresses the intracellular oncoprotein.

9. Use according to any one of the preceding claims wherein the polypeptide comprises a fragment of an oncoprotein selected from the group consisting of PRL-1 and VHZ.

10. Use of a fragment of between 10 and 150 amino acids of an intracellular oncoprotein or peptide based on a fragment of said intracellular oncoprotein in the manufacture of a medicament for preventing cancer metastasis in a patient with cancer, wherein the use comprises: identification of the intracellular oncoprotein specific to the patients cancer for administration of the fragment to the patient.

11. Use of a fragment of an intracellular oncoprotein or peptide based on a fragment of said intracellular oncoprotein, the fragment or peptide being between 10 and 150 amino acids in

length in the manufacture of a medicament for treating or preventing cancer in a person, wherein the use comprises: determination of whether a person is suffering from, or likely to develop, a cancer associated with an intracellular oncoprotein before administration to that person the fragment of that intracellular oncoprotein or peptide based on the fragment of that intracellular oncoprotein.

12. The use of claim 10 or claim 11 wherein the fragment comprises an oncogenic mutation.

13. The use of any one of claims 10 to 12 wherein the patient is administered a plurality of oncoprotein fragments.

14. The use of claim 13 wherein the plurality of oncoprotein fragments are combined into one or more peptides that each comprises a plurality of different peptides, each optionally linked by a peptide linker.

15. The use of any one of claims 10 to 14 wherein the patient is induced to produce antibodies against the peptide.

16. The use of any one of claims 11 to 15 wherein the person is to be administered with the intracellular oncoprotein fragment or peptide before they develop the cancer.

17. The use of any one of claims 10 to 16 wherein the person is to be administered with a further dose of the intracellular oncoprotein fragment or peptide.

18. The use of any one of claims 11 to 17 wherein the person is identified as being likely to suffer from a cancer associated with an intracellular oncoprotein by assessing the prevalence of the cancer in family members.

19. The use according to any one of the preceding claims, in which the intracellular oncoprotein comprises a cytoplasmic or nuclear oncoprotein.

20. The use according to any preceding claim, in which the cancer is associated with or caused by over-expression of the intracellular oncoprotein.

21. The use according to any preceding claim, in which the cancer is selected from the group consisting of: breast cancer, hepatocellular cancer, acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), adrenocortical cancer, anal cancer, bladder cancer, blood cancer, bone cancer, brain tumor, cancer of the female genital system, cancer of the male genital system, central nervous system lymphoma, cervical cancer, childhood rhabdomyosarcoma, childhood sarcoma, chronic lymphocytic leukemia (CLL), chronic myeloid leukemia (CML), colon and rectal cancer, colon cancer, endometrial cancer,

endometrial sarcoma, esophageal cancer, eye cancer, gallbladder cancer, gastric cancer, gastrointestinal tract cancer, hairy cell leukemia, head and neck cancer, Hodgkin's disease, hypopharyngeal cancer, Kaposi's sarcoma, kidney cancer, laryngeal cancer, leukemia, leukemia, liver cancer, lung cancer, malignant fibrous histiocytoma, malignant thymoma, melanoma, mesothelioma, multiple myeloma, myeloma, nasal cavity and paranasal sinus cancer, nasopharyngeal cancer, nervous system cancer, neuroblastoma, non-Hodgkin's lymphoma, oral cavity cancer, oropharyngeal cancer, osteosarcoma, ovarian cancer, pancreatic cancer, parathyroid cancer, penile cancer, pharyngeal cancer, pituitary tumor, plasma cell neoplasm, primary CNS lymphoma, prostate cancer, rectal cancer, respiratory system, retinoblastoma, salivary gland cancer, skin cancer, small intestine cancer, soft tissue sarcoma, stomach cancer, stomach cancer, testicular cancer, thyroid cancer, urinary system cancer, uterine sarcoma, vaginal cancer, vascular system, Waldenstrom's macroglobulinemia and Wilms' tumor.

22. The use according to any one of claims 10 to 21 wherein the oncoprotein is selected from the group Estrogen Receptor, an HBV protein, VHZ and Her2, Kras, EGFR, Braf, PI3KCA, beta-catenin, GNAS, Ret, EZH2 or GNAQ.