CLAIMS

1. Use of an antibody therapy for targeting intracellular oncoproteins or proteins to prevent cancer metastasis.

2. Use of an vaccine therapy comprising an oncoprotein protein for vaccination to stimulate a host to produce its own antibodies to prevent tumor formation.

3. Use according to Claim 1, in which the antibody therapy is an intracellular antibody therapy.

4. Use according to Claim 2, in which the vaccine therapy is an intracellular vaccine therapy.

5. A method of treatment of cancer, such as metastatic cancer, in an individual suffering or suspected to be suffering from cancer, the method comprising administering a therapeutically effective amount of an antibody capable of binding to an intracellular oncoprotein to the individual.

6. A method according to Claim 5, in which the antibody is capable of binding to an intracellular oncoprotein, preferably by being capable of crossing the plasma membrane of a cell.

7. A method according to Claim 5 or 6, in which the antibody comprises a monoclonal antibody, a chimeric antibody or a humanised antibody.

8. A method according to Claim 5, 6 or 7 in which the antibody is capable of binding to and inhibiting a biological activity of the intracellular oncoprotein, such as protein tyrosine phosphatase (PTP) activity.

9. A method of prevention of cancer, such as metastatic cancer, in an individual suffering or suspected to be suffering from cancer, the method comprising administering a prophylactically effective amount of an intracellular oncoprotein, or a variant, homologue, derivative or fragment thereof to the individual.

10. A method according to any preceding claim, in which the intracellular oncoprotein does not comprise an extracellular domain or a transmembrane domain.

11. A method according to any preceding claim, in which the intracellular oncoprotein comprises a cytoplasmic or nuclear oncoprotein.

12. A method according to any preceding claim, in which the cancer is associated with or caused by over-expression of the intracellular oncoprotein.

13. A method according to any preceding claim, in which the cancer is selected from the group consisting of: acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), adrenocortical cancer, anal cancer, bladder cancer, blood cancer, bone cancer, brain tumor, breast cancer, 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, hepatocellular 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.

14. A method according to any preceding claim, in which the cancer is a metastatic cancer.

15. A method according to any preceding claim, in which the number of metastatic tumours in a treated individual is reduced by at least 50%, at least 60%, at least 70%, at least 80% or at least 90%, compared to an untreated individual.

16. An antibody capable of binding to an intracellular oncoprotein for use in a method of treatment of cancer, such as metastatic cancer, the method comprising administering a therapeutically effective amount of the antibody capable of binding to an intracellular oncoprotein to an individual suffering or suspected to be suffering from cancer.

17. An intracellular oncoprotein, or a variant, homologue, derivative or fragment thereof, for use in a method of prevention of cancer, such as metastatic cancer, the method comprising administering a prophylactically effective amount of an intracellular oncoprotein, variant, homologue, derivative or fragment thereof, to an individual suffering or suspected to be suffering from cancer.

18. A pharmaceutical composition comprising (a) an intracellular oncoprotein, or a variant, homologue, derivative or fragment thereof or (b) an antibody capable of binding to an intracellular oncoprotein, together with a pharmaceutically acceptable excipient, diluent or carrier.

19. A method, antibody, intracellular oncoprotein or pharmaceutical composition as hereinbefore described with reference to and as shown in Figures 1 to 8 of the accompanying drawings.

CLAIMS

1. Use of PRL3 or a polypeptide having at least 95% sequence identity to PRL3 in the manufacture of a medicament for use in a method of treating or preventing a PRL3 expressing cancer in a human individual suffering or suspected to be suffering from a PRL3 expressing cancer, the method comprising administering a therapeutically or prophylactically effective amount of PRL3 or a polypeptide having at least 95% identity to PRL3 to the individual.

2. Use according to claim 1 wherein the cancer is metastatic cancer.

3. Use according to claim 1 or claim 2 wherein medicament is a cancer vaccine.

4. Use according to any preceding claim, in which the PRL3 is human PRL3.

5. The use according to any preceding claim, in which the cancer is associated with or caused by over-expression of PRL3.

6. Use according to any preceding claim, in which the cancer is selected from the group consisting of: acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), adrenocortical cancer, anal cancer, bladder cancer, blood cancer, bone cancer, brain tumor, breast cancer, 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, hepatocellular 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.

7. Use according to any preceding claim, in which the number of metastatic tumours in a treated individual is reduced by at least 50%, at least 60%, at least 70%, at least 80% or at least 90%, compared to an untreated individual.

8. A pharmaceutical composition comprising PRL3, or a polypeptide having at least 95% identity to PRL3 together with a pharmaceutically acceptable excipient, diluent or carrier.