Claims

1. Use of a composition comprising:

a) polyinosinic-polycytidylic acid (PIC),

b) at least one antibiotic or at least one polyamine compound,

c) at least one positive ion, and

d) a virus;

wherein the virus is inactivated, attenuated, or incapable of replication in a human subject;

in the manufacture of a medicament for treatment of cancer.

2. The use according to claim 1, wherein said composition comprises kanamycin, calcium ion and rabies virus.

3. The use according to claim 1 or 2, wherein said cancer is selected from the group consisting of:

oropharyngeal cancer, nasopharyngeal carcinoma, esophageal cancer, gastric cancer, colon cancer, liver cancer, cholangiocarcinoma, gallbladder cancer, pancreatic cancer, lung cancer, tracheal cancer, thymoma, bone cancer, joint cancer, melanoma, mesothelial cancer, breast cancer, cervical cancer, ovarian cancer, prostate cancer, brain cancer, myeloma, blood cancer,

lip malignant neoplasm, tongue root malignant neoplasm, gingival malignant neoplasm, mouth malignant neoplasm, palate malignant neoplasm, parotid malignant neoplasm, tonsil malignant neoplasm, oropharyngeal malignant neoplasm, nasopharyngeal malignant neoplasm, piriform sinus malignant neoplasm, hypopharynx malignant neoplasm;

esophagus malignant neoplasm, gastric malignant neoplasm, small intestine malignant neoplasm, colon malignant neoplasm, rectosigmoid junction malignant neoplasm, rectal malignant neoplasm, anal and anal canal malignant neoplasm, liver and intrahepatic bile duct malignant neoplasm, gallbladder malignant neoplasm, pancreatic malignant neoplasm;

nasal and middle ear malignant neoplasm, nasal sinus malignant neoplasm, laryngeal malignant neoplasm, tracheal malignant neoplasm, bronchial and pulmonary malignant neoplasm, thymus malignant neoplasm, heart, mediastinal and pleural malignant neoplasm;

bone and articular cartilage malignant neoplasm;
skin malignant melanoma;
mesothelial and soft tissue malignant neoplasm;
breast malignant neoplasm;
genital malignant neoplasm, vaginal malignant neoplasm, cervical malignant neoplasm, uterine malignant neoplasm, ovarian malignant neoplasm, placental malignant neoplasm;
penile malignant neoplasm, prostate malignant neoplasm, testicular malignant neoplasm;
urinary tract malignant neoplasm;
eye and appendage malignant neoplasm;
meningeal malignant neoplasm, brain malignant neoplasm;
spinal cord, cranial nerve and central nervous system malignant neoplasm;
endocrine gland malignant neoplasm;
Hodgkin's disease, follicular nodular non-Hodgkin's lymphoma, diffuse non-Hodgkin's lymphoma, peripheral and cutaneous T-cell lymphoma, multiple myeloma, malignant plasma cell tumor, lymphoid leukemia, myeloid leukemia, monocytic leukemia.

4. The use according to claim 1 or 2, wherein the cancer is not caused by the virus.

5. The use according to any one of the preceding claims, wherein the medicament is to be administered to a subject.

6. The use according to claim 5, wherein the route of said administration is selected from the group consisting of intramuscular, intraperitoneal, intravenous, subcutaneous, transdermal, intradermal, intranasal, intraocular, oral, sublingual, intratumoral, and peritumoral.

7. The use according to claim 5, wherein said administration is to be at a frequency selected from the group consisting of once per month, 2 times per month, 3 times per month, 4 times per month, 5 times per month, 6 times per month, 7 times per month, 8 times per month, once per week, 2 times per week, 3 times per week, 4 times per week, 5 times per week, 6 times per week, once

every three days, 2 times every three days, 3 times every three days, once every two days, 2 times every two days, once per day, 2 times per day.

8. The use according to claim 5, wherein

a therapeutically effective amount of the composition is to be administered to a human subject through intramuscular injection at a frequency of 2 times every three days, or

a therapeutically effective amount of the composition is to be administered to a human subject through intramuscular injection at a frequency of once per week.

9. The use according to claim 5 or 6, wherein said cancer is selected from the group consisting of lung cancer, breast cancer, thyroid cancer, kidney cancer, gastric adenocarcinoma, liver cancer, melanoma, tongue cancer, rectal cancer, endometrial cancer, and ovarian cancer; more preferably said cancer is a metastatic tumor.

10. Use of a composition comprising:

a) polyinosinic-polycytidylic acid (PIC),

b) at least one antibiotic or at least one polyamine compound,

c) at least one positive ion, and

d) a virus;

wherein the virus is inactivated, attenuated, or incapable of replication in a human subject;

in combination with an anti-tumor treatment regimen in manufacture of a medicament for treatment of cancer;

preferably, said anti-tumor treatment regimen is selected from the group consisting of chemotherapy, radiotherapy, targeted therapy, and immunotherapy, wherein the therapeutical agent used in said chemotherapy is selected from the group consisting of alkylating agent, anti-metabolic antineoplastic agent, anti-tumor antibiotic, anti-tumor botanical, platinum compound antineoplastic agent, hormonal balance antineoplastic agent, and miscellaneous antineoplastic agent, wherein the therapeutical agent used in said targeted therapy is selected from the group consisting of rituximab, bevacizumab, trastuzumab, imatinib, dinoxetine, cetuximab, nilotinib, and sorafenib, wherein the therapeutical agent used in said immunotherapy is

selected from the group consisting of PD-1 inhibitor, PD-L1 inhibitor and CTLA4 inhibitor;

more preferably, said alkylating agent is selected from the group consisting of cyclophosphamide, ifosfamide and thiotepa, said anti-metabolic antineoplastic agent is selected from the group consisting of methotrexate, mercaptopurine, fluorouracil and cytarabine, said anti-tumor antibiotic is selected from the group consisting of bleomycin, daunorubicin, actinomycin D, mitomycin, doxorubicin and mitoxantrone, said anti-tumor botanical is selected from the group consisting of vincristine, etoposide, teniposide, paclitaxel and docetaxel, said platinum compound antineoplastic agent is selected from the group consisting of cisplatin, carboplatin and oxaliplatin, said hormone balance antineoplastic agent is selected from the group consisting of leuprolide, tamoxifen, flutamide and formestane, said miscellaneous antineoplastic agent is arsenic trioxide.

11. Use of a composition comprising:

a) polyinosinic-polycytidylic acid (PIC),

b) at least one antibiotic or at least one polyamine compound,

c) at least one positive ion, and

d) a virus;

wherein the virus is inactivated, attenuated, or incapable of replication in a human subject;

in the manufacture of a medicament for treatment of cancer; wherein the medicament is for use in combination with an anti-tumour treatment regimen.

12. Use of a composition comprising:

a) polyinosinic-polycytidylic acid (PIC),

b) at least one antibiotic or at least one polyamine compound,

c) at least one positive ion, and

d) a virus;

wherein the virus is inactivated, attenuated, or incapable of replication in a human subject;

in the manufacture of a medicament for treatment of cancer and use of at least one further anti-tumour agent in the manufacture of a medicament for treatment of cancer.

13. Use of a composition comprising:

a) polyinosinic-polycytidylic acid (PIC),
b) at least one antibiotic or at least one polyamine compound,
c) at least one positive ion, and
d) a virus;

wherein the virus is inactivated, attenuated, or incapable of replication in a human subject;
and at least one further anti-tumour agent in the manufacture of a medicament for treatment of cancer.