We claim:

1. Use of an oncolytic virus and an antibody or antigen-binding fragment thereof that binds specifically to programmed death 1 (PD-1) in the manufacture of a medicament for treating or inhibiting the growth of a tumor in a patient with a cancer by combination therapy, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises three heavy chain complementarity determining regions (HCDR1, HCDR2 and HCDR3) of a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 1 and three light chain complementarity determining regions (LCDR1, LCDR2 and LCDR3) of a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 2.

2. The use of claim 1, wherein the oncolytic vesiculovirus comprises an oncolytic vesicular stomatitis virus (VSV).

3. The use of claim 2, wherein the VSV comprises a recombinant VSV.

4. The use of claim 3, wherein the recombinant VSV expresses a cytokine.

5. The use of claim 4, wherein the cytokine comprises an interferon-beta (IFNb).

6. The use of claim 5, wherein a nucleic acid sequence encoding the IFNb is positioned between M and G vial genes.

7. The use of any one of claims 3-6, wherein the recombinant VSV further expresses a sodium/iodide symporter (NIS).

8. The use of claim 7, wherein a nucleic acid sequence encoding the NIS is positioned between G and L viral genes.

9. The use of any one of claims 1-8, wherein the oncolytic virus is Voyager V1.

10. The use of any one of claims 1-9, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises HCDR1, HCDR2, HCDR3, LCDR1, LCDR2, and LCDR3 comprising the amino acid sequences of SEQ ID NOs: 3, 4, 5, 6, 7, and 8, respectively.

11. The use of any one of claims 1-11, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises HCVR comprising the amino acid sequence of SEQ ID NO: 1; and LCVR comprising the amino acid sequence of SEQ ID NO: 2.

12. The use of any one of claims 1-11, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises a heavy chain comprising the amino acid sequence of SEQ ID NO: 9 and a light chain comprising the amino acid sequence of SEQ ID NO: 10.

13. The use of any one of claims 1-12, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises cemiplimab or a bioequivalent thereof.

14. The use of any one of claims 1-13, wherein the oncolytic virus is to be administered to the patient in one or more doses of 10 to 10^{14} $TCID_{50}$.

15. The use of claim 14, wherein the oncolytic virus is to be administered to the patient in one or more doses of 10^{9} $TCID_{50}$ or 10^{11} $TCID_{50}$.

16. The use of claim 13 or 14, wherein one dose of 10^{9} $TCID_{50}$ oncolytic virus is to be administered to the patient, and another dose of 10^{11} $TCID_{50}$ oncolytic virus is to be administered to the patient.

17. The use of any one of claims 1-16, wherein the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient in one or more doses of about 0.1 mg/kg to about 20 mg/kg of body weight of the patient.

18. The use of any one of claims 1-17, wherein the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient in one or more doses of about 1 mg to about 1000 mg.

19. The use of claim 18, wherein the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient in one or more doses of 350 mg.

20. The use of any one of claims 1-19, wherein the oncolytic virus is to be administered to the patient intratumorally or intravenously.

21. The use of any one of claims 1-20, wherein the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient intravenously, subcutaneously or intraperitoneally.

22. The use of any one of claims 1-21, further comprising a therapeutically effective amount of a CTLA-4 inhibitor to be administered, comprising ipilimumab or a bioequivalent thereof.

23. The use of claim 22, wherein the CTLA-4 inhibitor is ipilimumab.

24. The use of claim 22 or 23, wherein one or more doses of the oncolytic virus and one or more doses of the CTLA-4 inhibitor is to be administered concurrently to the patient.

25. The use of any one of claims 22-24, wherein one or more doses of the oncolytic virus and one or more doses of the CTLA-4 inhibitor is to be administered to the patient before one or more doses of the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient.

26. The use of any one of claims 22-25, wherein one or more doses of the oncolytic virus and one or more doses of the CTLA-4 inhibitor is to be administered to the patient 7 days before one or more doses of the anti-PD-1 antibody or antigen-binding fragment thereof is to be administered to the patient.

27. The use of any one of claims 1-26, wherein the oncolytic virus is to be administered to the patient intratumorally or intravenously.

28. The use of any one of claims 22-27, wherein the CTLA-4 inhibitor is to be administered to the patient in one or more doses of about 0.1 mg/kg to about 15 mg/kg of body weight of the patient.

29. The use of any one of claims 22-28, wherein the CTLA-4 inhibitor is to be administered to the patient in one or more doses of about 1 mg to about 600 mg.

30. The use of claim 29, wherein the CTLA-4 inhibitor is to be administered to the patient in one or more doses of 50 mg.

31. The use of any one of claims 22-30, wherein the CTLA-4 inhibitor is to be administered to the patient intravenously, subcutaneously or intraperitoneally.

32. The use of any one of claims 1-29, wherein the cancer is selected from adrenal gland tumors, biliary cancer, bladder cancer, brain cancer, breast cancer, carcinoma, central or peripheral nervous system tissue cancer, cervical cancer, colon cancer, endocrine cancer, neuroendocrine cancer, hematopoietic cancer, esophageal cancer, fibroma, gastrointestinal cancer, glioma, head and neck cancer, Li-Fraumeni tumors, liver cancer, lung cancer, lymphoma, melanoma, meningioma, multiple neuroendocrine type I and type II tumors,

nasopharyngeal cancer, oral cancer, oropharyngeal cancer, osteogenic sarcoma tumors, ovarian cancer, pancreatic cancer, pancreatic islet cell cancer, parathyroid cancer, pheochromocytoma, pituitary tumors, prostate cancer, rectal cancer, renal cancer, respiratory cancer, sarcoma, skin cancer, stomach cancer, testicular cancer, thyroid cancer, tracheal cancer, urogenital cancer, and uterine cancer.

33. The use of any one of claims 1-30, wherein the combination therapy to be administered leads to at least one therapeutic effect selected from: reduction in tumor cell number, tumor regression, partial response, and complete response.

34. The use of any one of claims 1-33, wherein the combination therapy to be administered leads to at least one improvement selected from: abscopal effect, delay in tumor growth, increase in overall survival, increase in progression free survival, increase in overall response rate, increase in complete response, increase in partial response, and increase in stable disease, as compared to patients treated with a monotherapy selected from: the oncolytic virus and the anti-PD-1 antibody or antigen-binding fragment thereof.

35. The use of claim 34, wherein the combination therapy to be administered leads to at least one improvement selected from: abscopal effect, delay in tumor growth, increase in overall survival, increase in progression free survival, increase in overall response rate, increase in complete response, increase in partial response, and increase in stable disease, as compared to patients treated with oncolytic virus monotherapy.

36. The use of any one of claims 1-35, wherein the tumor growth is inhibited by at least 50% as compared to an untreated patient.

37. The use of any one of claims 22-33, wherein the combination therapy to be administered leads to at least one improvement selected from: abscopal effect, delay in tumor growth, increase in overall survival, increase in progression free survival, increase in overall response rate, increase in complete response, increase in partial response, and increase in stable disease, as compared to patients treated with a monotherapy selected from: the oncolytic virus, the anti-PD-1 antibody or antigen-binding fragment thereof, and the CTLA-4 inhibitor.

38. The use of claim 37, wherein the tumor growth is inhibited by at least 50% as compared to a patient to be administered the oncolytic virus, the anti-PD-1 antibody or antigen-binding fragment thereof, or the CTLA-4 inhibitor as monotherapy.

39. The use of claim 37 or 38, wherein the tumor growth is inhibited by at least 50% as compared to a patient to be administered any two of the oncolytic virus, the anti-PD-1 antibody or antigen-binding fragment thereof, and the CTLA-4 inhibitor.

40. The use of any one of claims 1-39, further comprising an additional therapeutic agent or therapy to be administered to the patient.

41. The use of claim 40, wherein the additional therapeutic agent or therapy is selected from: radiation, surgery, a chemotherapeutic agent, a cancer vaccine, a B7-H3 inhibitor, a B7-H4 inhibitor, a lymphocyte activation gene 3 (LAG3) inhibitor, a T cell immunoglobulin and mucin-domain containing-3 (TIM3) inhibitor, a galectin 9 (GAL9) inhibitor, a V-domain immunoglobulin (Ig)-containing suppressor of T-cell activation (VISTA) inhibitor, a Killer-Cell Immunoglobulin-Like Receptor (KIR) inhibitor, a B and T lymphocyte attenuator (BTLA) inhibitor, a T cell immunoreceptor with Ig and ITIM domains (TIGIT) inhibitor, a CD47 inhibitor, an indoleamine-2,3-dioxygenase (IDO) inhibitor, a vascular endothelial growth factor (VEGF) antagonist, an angiopoietin-2 (Ang2) inhibitor, a transforming growth factor beta (TGFβ) inhibitor, an epidermal growth factor receptor (EGFR) inhibitor, an antibody to a tumor-specific antigen, Bacillus Calmette-Guerin vaccine, granulocyte-macrophage colony-stimulating factor (GM-CSF), a cytotoxin, an interleukin 6 receptor (IL-6R) inhibitor, an interleukin 4 receptor (IL-4R) inhibitor, an IL-10 inhibitor, IL-2, IL-7, IL-12, IL-21, IL-15, an antibody-drug conjugate, an anti-inflammatory drug, and combinations thereof.

42. A combination of an oncolytic virus and an antibody or antigen-binding fragment thereof that binds specifically to programmed death 1 (PD-1), wherein the combination is for use in treating or inhibiting the growth of a tumor in a patient with a cancer, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises three heavy chain complementarity determining regions (HCDR1, HCDR2 and HCDR3) of a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 1 and three light chain complementarity determining regions (LCDR1, LCDR2 and LCDR3) of a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 2.

43. A combination of an oncolytic virus, an antibody or antigen-binding fragment thereof that binds specifically to programmed death 1 (PD-1), and a CTLA-4 inhibitor comprising ipilimumab or a bioequivalent thereof, wherein the combination is for use in treating or inhibiting

the growth of a tumor in a patient with a cancer, wherein the anti-PD-1 antibody or antigen-binding fragment thereof comprises three heavy chain complementarity determining regions (HCDR1, HCDR2 and HCDR3) of a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 1 and three light chain complementarity determining regions (LCDR1, LCDR2 and LCDR3) of a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO. 2.

44. A kit comprising an oncolytic virus and an antibody or antigen-binding fragment thereof that binds specifically to programmed death 1 (PD-1), in combination with written instructions for use of a therapeutically effective amount of a combination of the oncolytic virus and the anti-PD-1 antibody or antigen-binding fragment thereof for treating or inhibiting the growth of a tumor of a patient.

45. A kit comprising an oncolytic virus, an antibody or antigen-binding fragment thereof that binds specifically to programmed death 1 (PD-1), and a CTLA-4 inhibitor comprising ipilimumab or a bioequivalent thereof, in combination with written instructions for use of a therapeutically effective amount of a combination of the oncolytic virus, the anti-PD-1 antibody or antigen-binding fragment thereof, and the CTLA-4 inhibitor for treating or inhibiting the growth of a tumor of a patient.