We claim:

1. A recombinant modified Vaccinia Ankara (MVA) for use in the treatment of cancer comprising: a) a first nucleic acid encoding a tumor-associated antigen (TAA); and b) a second nucleic acid encoding 4-1BBL; wherein the recombinant MVA is to be administered to a subject intratumorally.

2. The recombinant MVA for use of claim 1, wherein the intratumoral administration of the recombinant MVA enhances an inflammatory response in a cancerous tumor, reduces the size of the cancerous tumor, and/or increases overall survival of a human patient as compared to a non-intratumoral injection of said recombinant MVA.

3. The recombinant MVA for use of claim 1 or 2, further comprising c) a third nucleic acid encoding CD40L.

4. The recombinant MVA for use of any one of claims 1 to 3, wherein the TAA is an endogenous retroviral (ERV) protein.

5. The recombinant MVA for use of claim 4, wherein the ERV protein is from the human endogenous retroviral K (HERV-K) family and is selected from HERV-K-env and HERV-K-gag.

6. The recombinant MVA for use of any one of claims 1 to 3, wherein the TAA is selected from the group consisting of carcinoembryonic antigen (CEA), mucin 1 cell surface associated (MUC-1), prostatic acid phosphatase (PAP), prostate specific antigen (PSA), human epidermal growth factor receptor 2 (HER-2), survivin, tyrosine related protein 1 (TRP1), tyrosine related protein 1 (TRP2), Brachyury, FOLR1, PRAME, HERV-K-env, HERV-K-gag, p15, MEL, and combinations thereof.

7. The recombinant MVA for use of any one of claims 1 to 6, wherein the recombinant MVA is to be administered to the subject in combination with either an immune checkpoint molecule antagonist or agonist.

8. The recombinant MVA for use of claim 7, wherein the immune checkpoint molecule antagonist or agonist is selected from an antagonist or agonist of CTLA-4, PD-1, PD-L1, LAG-3, TIM-3, and ICOS.

9. The recombinant MVA for use of any one of claims 1 to 6, wherein the recombinant MVA is to be administered to a subject in combination with an antibody specific for a TAA.