CLAIMS

1. Use of a composition comprising one or more of:

a thymidine kinase-deficient vaccinia virus or virus construct lacking Z-DNA-binding domain of E3L gene (E3LΔ83N-TK$^-$),

a recombinant E3LΔ83N-TK$^-$ virus or viral construct expressing human Fms-like tyrosine kinase 3 ligand (E3LΔ83N-TK$^-$-hFlt3L), and

a recombinant E3LΔ83N-TK$^-$ virus or viral construct expressing granulocyte macrophage colony stimulating factor (E3LΔ83N-TK$^-$-GM-CSF),

wherein each is replication competent or in inactivated form, and a pharmaceutically acceptable excipient, in the manufacture of a medicament, for treating a malignant solid tumor in a subject in need thereof.

2. The use according to claim 1, wherein said composition comprises two or more of the E3LΔ83N-TK$^-$-hFlt3L, E3LΔ83N-TK$^-$, and E3LΔ83N-TK$^-$-GM-CSF viruses or viral constructs.

3. The use according to claim 1, wherein said composition comprises a E3LΔ83N-TK$^-$-hFlt3L virus which is replication competent or in inactivated form.

4. The use according to claim 1, wherein said composition comprises a E3LΔ83N-TK$^-$ virus which is replication competent or in inactivated form.

5. The use according to claim 1, wherein said composition comprises a E3LΔ83N-TK$^-$-GM-CSF virus which is replication competent or in inactivated form.

6. The use according to any one of the preceding claims, wherein the composition is intended for delivery to the cells of the tumor.

7. The use according to any one of the preceding claims, wherein the composition is to be administered intratumorally, intravenously, intraperitoneally, intracranially or via a combination of localized injection and a systemic injection.

8. The use according to any one of the preceding claims, wherein the tumor is primary or metastatic melanoma, breast carcinoma, or colon carcinoma.

9. The use according to any one of the preceding claims, wherein the virus is heat-inactivated.

10. The use according to any one of the preceding claims, wherein said composition is to be administered in an amount effective to accomplish one or more of the following: reduce the size of the tumor, eradicate the tumor, inhibit growth of the tumor, inhibit metastasis or

metastatic growth of the tumor, wherein the tumor is located at the site of administration in the body of the subject.

11. The use according to claim 3, wherein said composition is to be administered in an amount effective to accomplish one or more of the following: reduce the size of the tumor, delay growth of the tumor, inhibit growth of the tumor, inhibit metastasis or metastatic growth of the tumor, wherein the tumor is not located at the site of administration in the body of the subject.

12. The use according to claim 4, wherein said composition is to be administered in an amount effective to accomplish one or more of the following: reduce the size of the tumor, or delay growth of the tumor, wherein the tumor is not located at the site of administration in the body of the subject.

13. The use according to claim 5, wherein said composition is to be administered in an amount effective to accomplish one or more of the following: reduce the size of the tumor, or delay growth of the tumor, inhibit growth of the tumor, inhibit metastasis or metastatic growth of the tumor, wherein the tumor is not located at the site of administration in the body of the subject.

14. The use according to any one of the preceding claims, wherein the composition is to be administered in an amount effective to elicit in the subject an immune response against the tumor and any metastases thereof, upon local delivery to tumor cells of the subject.

15. The use according to claim 14, wherein the immune response includes one or more of the following:

oncolysis of tumor cells and release of tumor antigen;

an increase in cytotoxic CD8+ T cells within the tumor and/or in tumor-draining lymph nodes;

induction of maturation of dendritic cells infiltrating said tumor or circulating in remote locations within the patient’s body through induction of type I IFN;

induction of effector CD4+ T cells in the subject recognizing tumor cells within the tumor and/or in tumor draining lymph nodes; and

increase of CD103+ dendritic cells in noninjected tumors of the subject.

16. The use according to any one of the preceding claims, wherein the composition is to be used in combination with other treatment modalities comprising surgery, chemotherapy, targeted therapy, or radiation.

17. The use according to any one of the preceding claims, wherein the composition further comprises an immune checkpoint blocking agent.

18. The use according to claim 17, wherein the immune checkpoint blocking agent comprises CTLA-4, CD80, CD86, PD-1, PDL1, PDL2, LAG3, B7-H3, B7-H4, TIM3, ICOS, II DLBCL inhibitors, BTLA, or any combination thereof.

19. The use according to claim 17, wherein the immune checkpoint blocking agent comprises ipilimumab, nivolumab, pembrolizumab, pidilizumab, AMP-224, MPDL3280A, BMS-936559, MEDI4736, MSB 00107180, or any combination thereof.

20. A E3LΔ83N-TK^{-}-hFlt3L virus which is replication competent or in inactivated form.