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(54) Title: ONCOLYTIC VIRUSES EXPRESSING IMMUNOMODULATORY FUSION PROTEINS

Figure 1A



(57) Abstract: Recombinant oncolytic viruses that produce and secrete novel immunomodulatory fusion proteins are described. The fusion proteins encode a single chain variable fragment antibody (ScFv) that specifically binds PD-1 OR PD-L1 fused via an antibody Fc region to the ectodomain of the TGF β receptor II (TGF β RII_{ecto}). The immunomodulatory fusion proteins have dual function: blocking inhibitory pathways mediated by PD-1/PD-L1 and blocking the immune-dampening activity of TGF β . In addition, dual gene oncolytic herpes simplex viruses (HSVs) are provided that include, in addition to a gene encoding an ScFv-Fc-TGF β RII_{ecto} fusion protein, a gene encoding IL12, a T cell stimulatory factor.



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