**Supplementary Table 1**. Virus particle to pfu ratios. Virus stocks were diluted using formulation buffer (10mM HEPES, 0.15M NaCl, 4% sucrose, pH 7.4) and particle numbers were determined using the qViro<sup>x</sup> virus counter (IZON, New Zealand).

	HSV-1 wt	HSV-1 dNLS	HSV-1 d <i>ICP0</i>	HSV-2 wt	HSV-2 dNLS	HSV-2
						d <i>ICP0</i>
particle/ml	3.30E+10	3.00E+10	7.80E+10	4.00E+10	4.80E+10	4.60E+10
pfu/ml	2.00E+09	1.27E+09	2.70E+09	2.00E+08	6.00E+08	2.00E+08
particle/pfu	16.500	23.622	28.889	200.000	80.000	230.000

**Supplementary figure 1**. HSV dICP0 treated tumors have no significant differences in CD4<sup>+</sup> foxp3<sup>+</sup> Tregs infiltrating the tumors. Tumors were treated with three doses of HSV dICP0. Ten days after treatment the tumors were resected and CD45<sup>+</sup> immune cells isolated using EasySep magnetic bead positive selection. Cells were directly stained with the CD4<sup>+</sup> surface marker and foxp3<sup>+</sup> intracellular marker. The average and standard deviation of cell numbers were generated from 5 mice per each treatment group. ns, not significant

## Supp. Fig 1

