







Supplemental Figure 1. Negative correlation between anti-vaccinia antibody titers as determined by ELISA and T cell responses as determined by IFN- γ ELISPOT assay. The n-fold increase in antibody titers against the n-fold increase in T cell responses showed a negative correlation of -0.45 with 95% CI: -0.93 to -0.28 .

Supplemental Figure 2. Melanoma cells were identified in fine needle aspirate cytopins derived from index lesions in patients enrolled on the rV-B7.1 clinical trial. The tumor cells expressed gp100 (a) and Melan-A/MART-1 (b) as shown after immunohistochemical staining with HMB45 or Melan-A/MART-1 monoclonal antibodies as described in the Methods. A granular pattern with brown as a positive stain (counterstain is blue) is demonstrated (magnification, 40X).

Supplemental Table 1. Relative quantification of average CD8, IFN- γ and IL-10 transcription levels reported as comparative C_T values in pre-vaccination RNA samples subtracted by the average PGK-1 endogenous control C_T value for individual patients, and thus shown as ΔC_T . The samples were taken from index lesions of one patient with a stable lesion (SD), two with partially regressing lesions (PR), and two with lesions demonstrating progressive disease (PD) after vaccination.

Pt. #	Target Response	ΔC_T CD8	ΔC_T IFN- γ	ΔC_T IL-10
3	SD	3.1 ± 0.05	8.9 ± 0.07	7.6 ± 0.07
4	PR	8.8 ± 0.17	0	15.8 ± 0.11
5	PR	5.2 ± 0.08	12.2 ± 0.1	11.6 ± 0.09
7	PD	3.4 ± 0.08	8.2 ± 0.07	ND
9	PD	2.6 ± 0.06	8.9 ± 0.09	9.2 ± 0.07