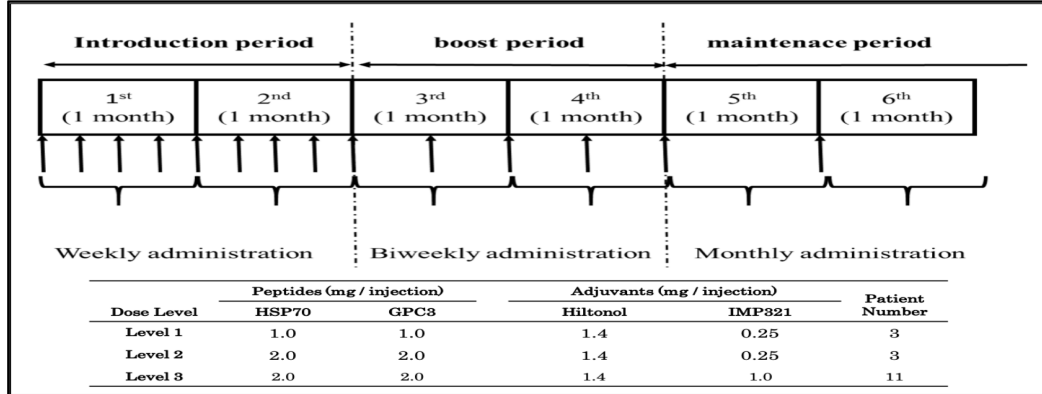
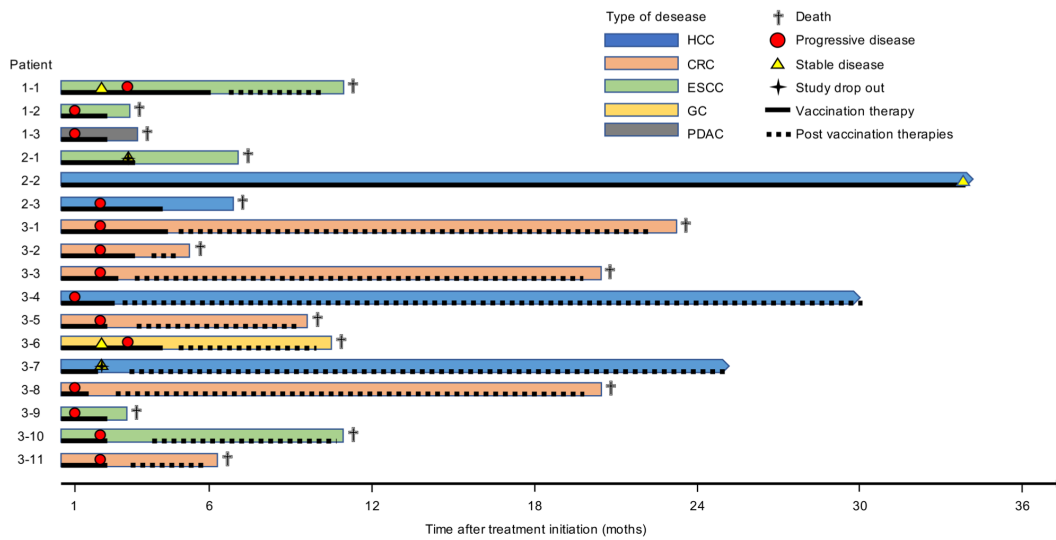


1 **Supplementary Figure**

A



B



2

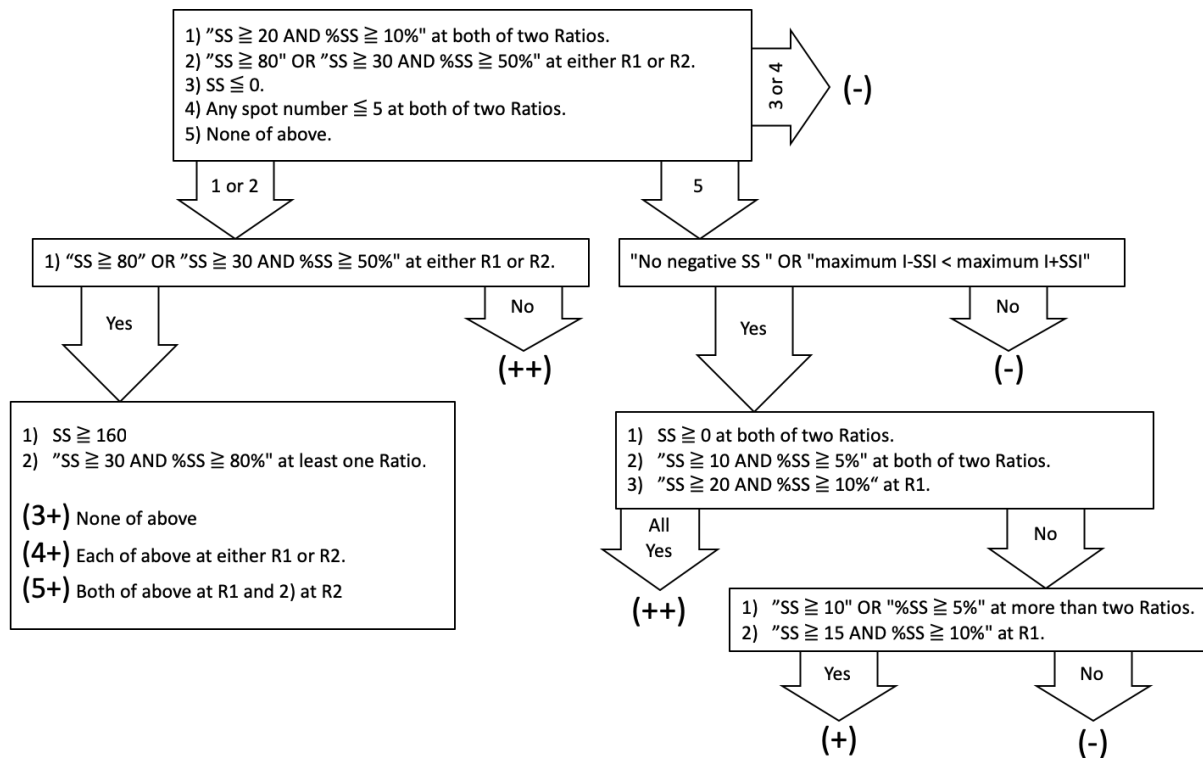
3 **Fig. S1. Study design and clinical outcomes of enrolled patients.**

4 A, Treatment schedule, dose escalation and cohort assignment of this study. B, Swimmer plot

5 for enrolled patients (n = 17).

6

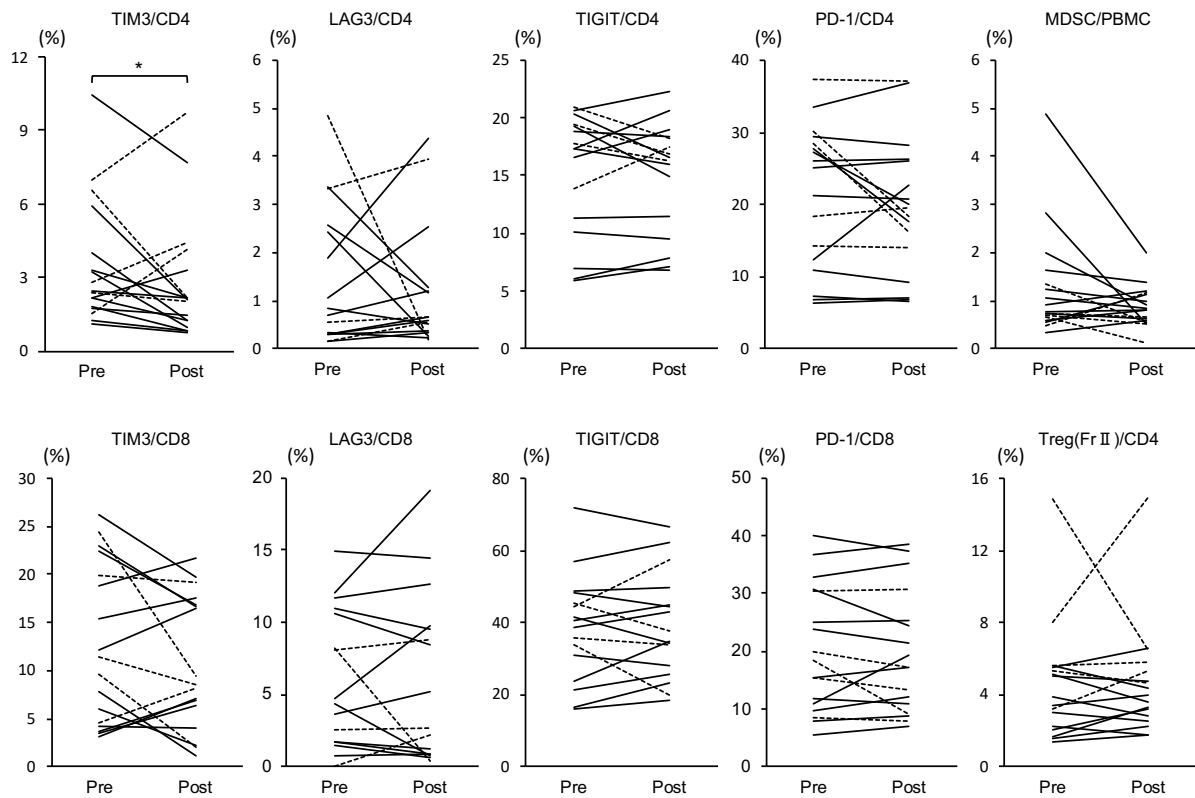
7



8

9 **Fig. S2. ELISPOT assay protocol used in this study.**

10 Positivity of antigen-specific T cell response was quantitatively defined according a tree
 11 algorithm. In brief, the peptide-specific spots (SS) were the averages of triplicates and were
 12 determined by subtracting the value of the HIV peptide-pulsed stimulator well from that of
 13 the immunized peptide-pulsed stimulator well. %SS is the percentage of SS among the
 14 average number of spots in the immunized peptide pulsed stimulator well. Positivity of
 15 antigen-specific T cell response was classified as $-$, $+$, $2+$, $3+$, $4+$, or $5+$ depending on the
 16 numbers of peptide-specific spots and the invariability of the peptide-specific spots at
 17 different responder/stimulator ratios. SS, peptide-specific spots; R1, responder/stimulator
 18 ratio = 1; R2, responder/stimulator ratio = 0.5.



20

21 **Fig. S3. Flow cytometric analysis of surface marker expression on PBMCs before and**

22 **after treatment**

23 Comparison of the exhaustion marker expression levels in CD4 and CD8 T and

24 immunosuppressive (Treg and MDSC) cells in the PBMCs before and after one course of

25 treatment. (*, $P < 0.05$)