

Age (y)

Fig. S1. Relationship between age and percentage alterations in CD8 T cell subsets. Percentages of each circulating population are represented in correlation with the subject age. All the correlations were assessed by Spearman's rank test. Spearman's rank correlation coefficients ( $r_s$ ) and the line of best fit are shown. *p* values <0.05 were considered to be significant.



Fig. S2. Relationship between anti-CMV CD8+ T cell responses and percentage alterations in CD8 T cell subsets. The Percentages of naïve and antigen-experienced CD8+ T cell subsets are represented in correlation with the percentages of functional anti-CMV CD8+ T cells, (a) and (b) respectively, and with the percentages of anti-pp65pentamer+ CD8+ T cells (c) and (d) respectively. The antigen-experienced CD8+ T cells are then dissected to depict CD28+ CM and CD28- EM T cells and percentages are represented in correlation with the percentages of anti-pp65pentamer+CD28+ CM and CD28- EM T cells (e) and anti-pp65pentamer+CD28- EM T cells (f). All the correlations were assessed by Spearman's rank test. The Spearman's rank correlation coefficients ( $r_s$ ) and the line of best fit are shown. Both the functional anti-CMV and anti-pp65pentamer+ CD8+ T cell percentages are shown in a log-scale. *p* values <0.05 were considered to be significant.



Fig. S3. Distribution of anti-CMV humoral responses with age and correlation with anti-CMV CD8+ T cell responses. (a) Distribution of CMV-specific IgG titer with age. (b) Percentages and (c) absolute numbers of functional anti-CMV CD8+ T cells are correlated with CMV-specific IgG. (d) Percentages and (e) absolute numbers of anti-pp65pentamer+ CD8+ T cells are correlated with CMV-specific IgG. All the correlations were assessed by Spearman's rank test. Spearman's rank correlation coefficients ( $r_s$ ) and the line of best fit are shown. *p* values <0.05 were considered to be significant.