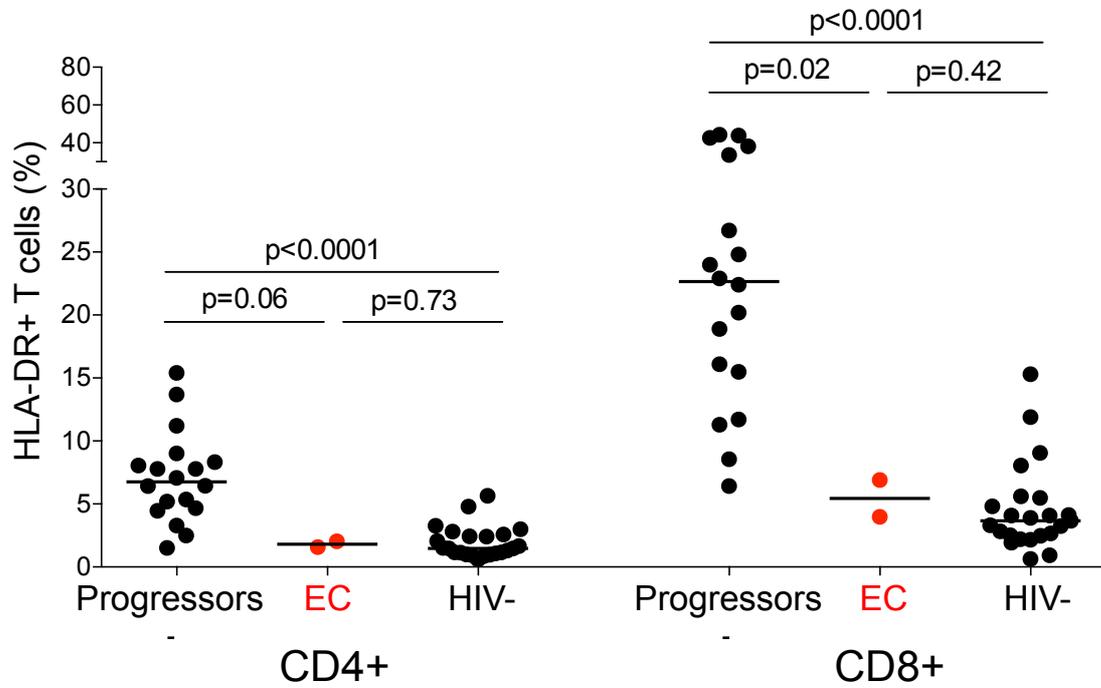


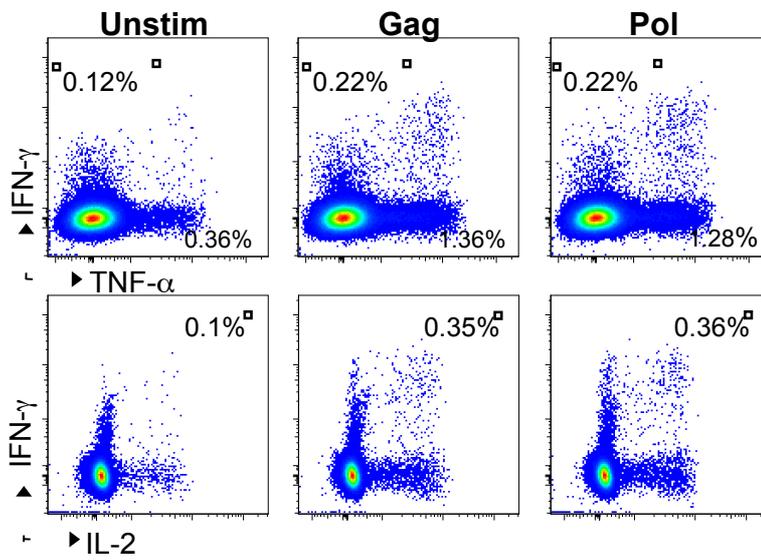
# Figure S1



**Figure S1. T cell activation in the CAPRISA cohorts.** CD4+ and CD8+ T cell activation, as measured by the frequency of HLA-DR-positive cells. HIV progressors in the chronic stage of infection (n=18), the two elite controllers (red dots) and HIV-uninfected individuals (n=24) are shown. T cell activation was measured in elite controllers 5 years post HIV infection. Horizontal lines indicate medians. Statistical comparisons were performed using the Mann-Whitney test.

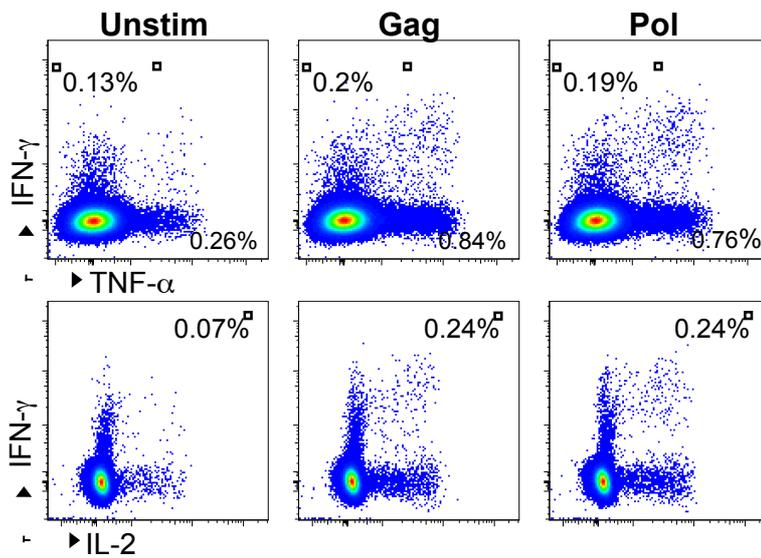
Figure S2

**A**



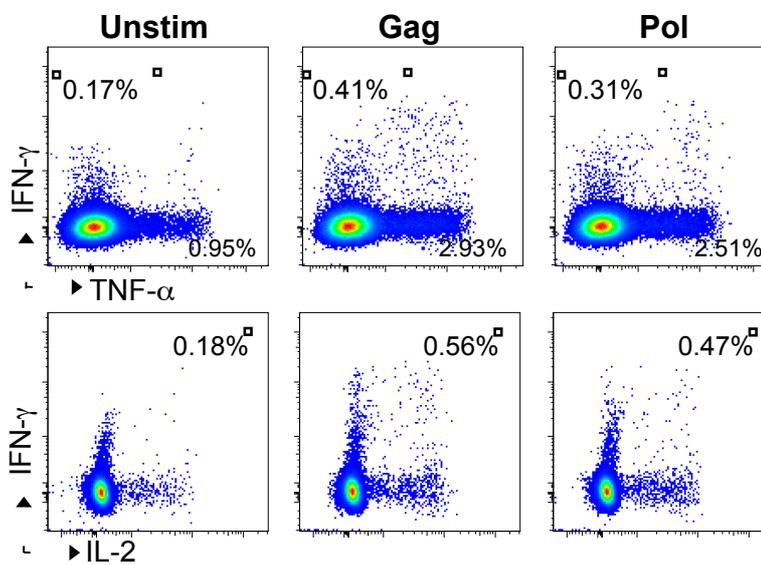
EC2  
Month -10  
pre-infection

**B**



EC2  
Month -1  
pre-infection

**C**

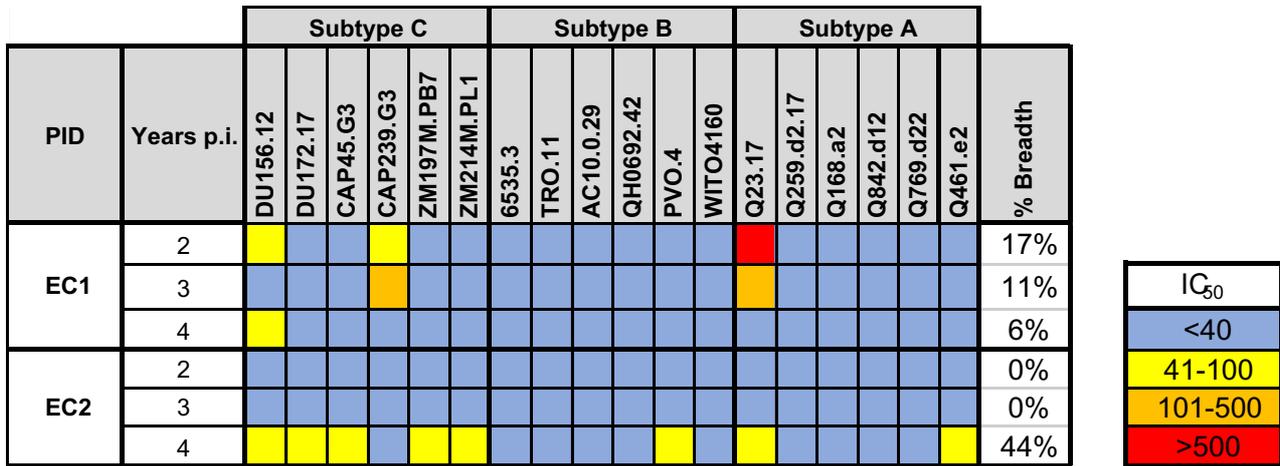


EC2  
Month 1  
post-infection

**Figure S2. Flow cytometry plots of HIV-specific CD4+ responses**

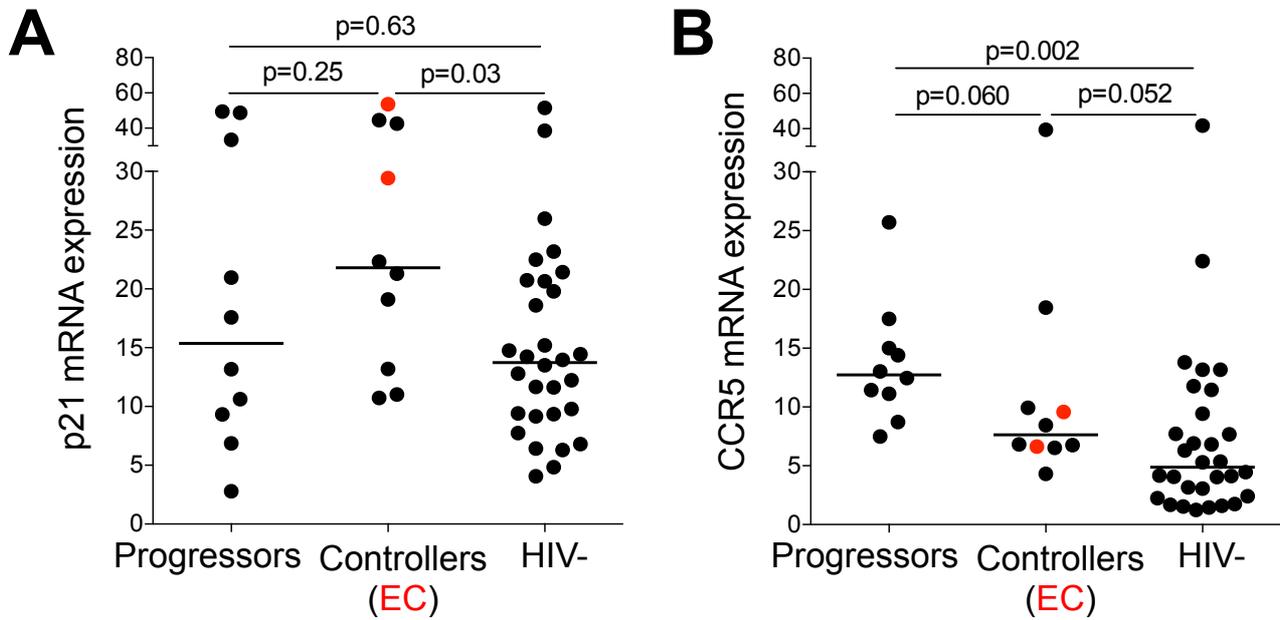
**in elite controller 2 pre- and post-infection.** CD4+ T cell IFN- $\gamma$ , TNF- $\alpha$  and IL-2 cytokine responses from PBMC that were not stimulated (Unstim), or stimulated with Gag or Pol peptides, measured in samples taken 10 months prior to confirmed HIV infection (**A**), 1 month prior to HIV infection (**B**), or 1 month post infection (**C**). Cells were gated on singlets, live CD3+ lymphocytes and then CD4+ cells. The frequency of cytokine positive events is indicated on the plots. A positive cytokine response was defined as at least twice the Unstim sample. Cytokine responses in Figure 1C and F in the manuscript are presented as the background-subtracted total cytokine response, representing the frequency of CD4+ (or CD8+) T cells producing any of the three cytokines. However, due to high TNF- $\alpha$  background responses, TNF- $\alpha$ -single positive cells were excluded from the total response.

# Figure S3



**Figure S3. HIV neutralizing antibody responses in elite controllers.** Plasma from two, three and four years post-infection (p.i.) was assayed for neutralization breadth against a panel of 18 heterologous viruses, including 6 subtype C, 6 subtype B and 6 subtype A viruses. Neutralization data are represented in a heat-map, with lack of neutralization indicated in blue, IC<sub>50</sub> titers of 1:41-1:100 in yellow, 1:101-1:500 in orange and greater than 1:500 in red. Percentage breadth is indicated.

## Figure S4



**Figure S4. Host genetic factor expression in the CAPRISA cohorts.** mRNA expression levels for the p21 (**A**) and CCR5 (**B**) genes were measured in HIV progressors (n=10), HIV controllers (n=10) and HIV-uninfected individuals (n=30). ECs are indicated as red dots. Expression levels are represented relative to the housekeeping gene GAPDH. Horizontal lines indicate medians. Statistical comparisons were performed using the Mann-Whitney test.