Figure S1. Characteristics of healthy adults and treatment naïve HIV-1 infected patients

Age, plasma viral load, and CD4⁺, CD8⁺ T cell, NK and B cell, erythrocyte and neutrophil counts of middle aged (M, n=27) or old (O, n=26) adults, and in treatment naïve patients with chronic HIV-1 infection grouped according to CD4⁺ T cell counts: above 500 (H, n=35), between 200 and 500 (I, n=44), or below 200 (L, n=23) cells/µl. HIV-1 infected patient groups are matched to the middle aged adult group for the age. The Kruskall Wallis test was used for group comparison. *, ** and *** indicate P values below 0.05, 0.01, 0.001 respectively. Bars indicate the median.

Figure S2. Phenotyping of CD34⁺ hematopoietic progenitor cells in the blood

Identification and phenotype of CD34⁺ enriched cells from PBMC of one healthy donor. For comparison, stainings are shown in a matching sample of bone marrow, which includes a variety of hematopoietic progenitor cells. In the blood, the majority of CD34⁺ Lin⁻ cells are CD38⁺ committed hematopoietic progenitor cells, which include two main subsets: hematopoietic progenitor cells with lymphoid (CD45RA⁺ CD10⁺ CD117⁻) or myeloid (CD117⁺ CD45RA⁻ CD10⁻) precursor properties.

Figure S3. CD34⁺ hematopoietic progenitor cell and lymphocyte counts during primary HIV-1 infection
The viral load and blood counts for CD4+ T cells, CD34+ hematopoietic progenitor cells, naïve (CD45RA+ CCR7+ CD27+) CD4+ or CD8+ T cells as well as B or NK cells are shown in 8 patients during primary HIV-1 infection (PHI). Values in middle age healthy controls (M) and HIV-1 infected donors with CD4+ T cell counts below 200 cells/µl (L) are shown for comparison. The Mann-Whitney was used for comparing groups. ** and *** indicate P values below 0.01, 0.001 respectively.

**Figure S4. Hematopoietic factor levels and monocyte activation**

Correlations between SDF-1α, IP-10 or MIG plasma levels and (A) CD38 expression on memory CD8+ T cells or (B) sCD14 plasma levels in treatment naïve HIV-1 infected patients. (C) Inverse correlation between CD34+ HPC counts and sCD14 plasma levels in treatment naïve individuals. The Spearman’s rank test was used to determine correlations.

**Figure S5. Characteristics of HIV elite controller progressors and non progressors**

CD4+ T cell counts, age and plasma viral load in HIV elite controllers divided into typical non progressors (Cnp, n=12) and progressors (Cp, n=10). Bars indicate the median.

**Figure S6. Characteristics of ART treated HIV-1 infected patient groups**

CD4+ T cell counts, age, plasma viral load, CD4+ T cell nadir (before treatment), years of treatment, and erythrocyte and neutrophil counts of HIV-1 infected patients receiving ART, grouped according to CD4+ T cell counts: above 500 (Hx, n=13), between 200 and 500 (Ix, n=28), or below 200 (Lx, n=13) cells/µl. For comparison, middle aged control adults (M, n=27), treatment naïve HIV-1 infected patients with CD4+ T cell count below 200 cells/µl (L, n=23), and treated HIV-1 infected
patients with high CD4 nadir and counts (above 500 cells/µl) (Hxh, n=21) are also shown. The Kruskall Wallis test was used for group comparison. *, ** and *** indicate P values below 0.05, 0.01, 0.001 respectively.
Figure S2

Comparison of cell distribution between Bone Marrow and Blood based on various markers:

- SSC vs. FSC
- Lin vs. CD34
- CD33 vs. CD10
- CD117 vs. CD10
- CD117 vs. CD45RA
- CD45RA vs. CD10
Figure S3

Graphs depicting various cell counts and plasma viral loads in HIV+ and HIV- individuals.
Figure S5
Figure S6