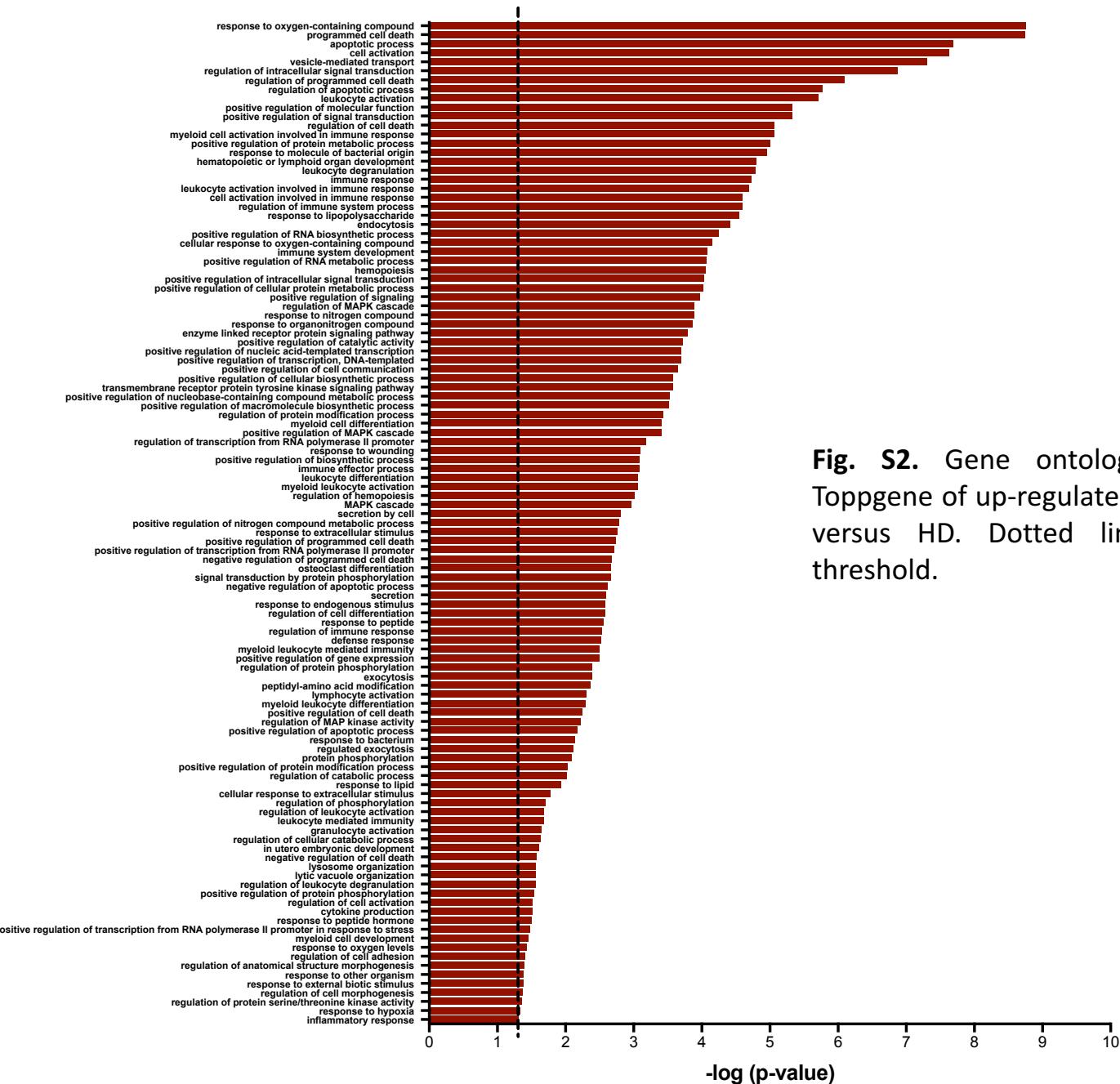
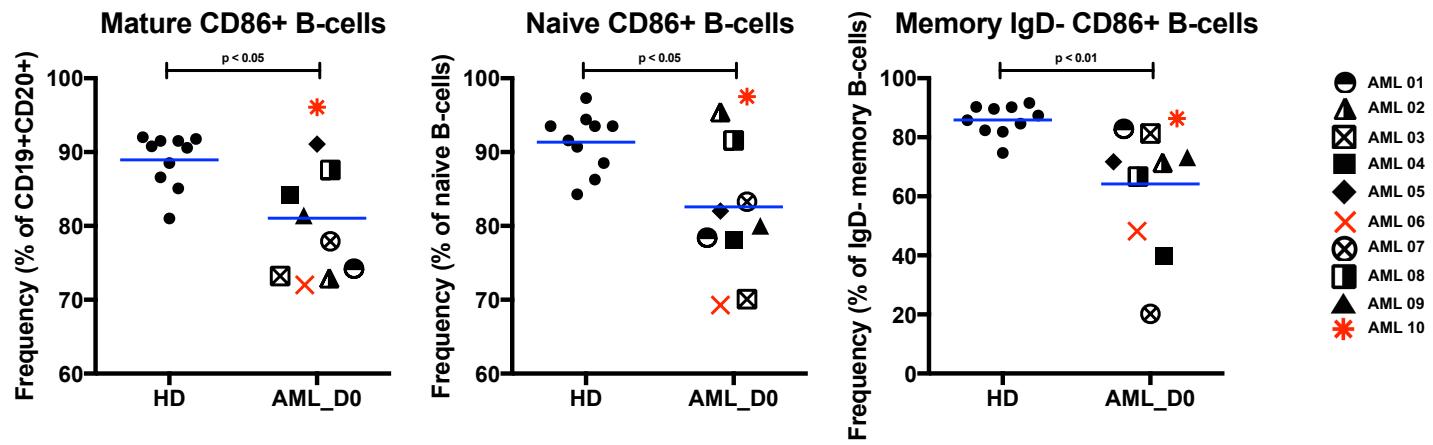


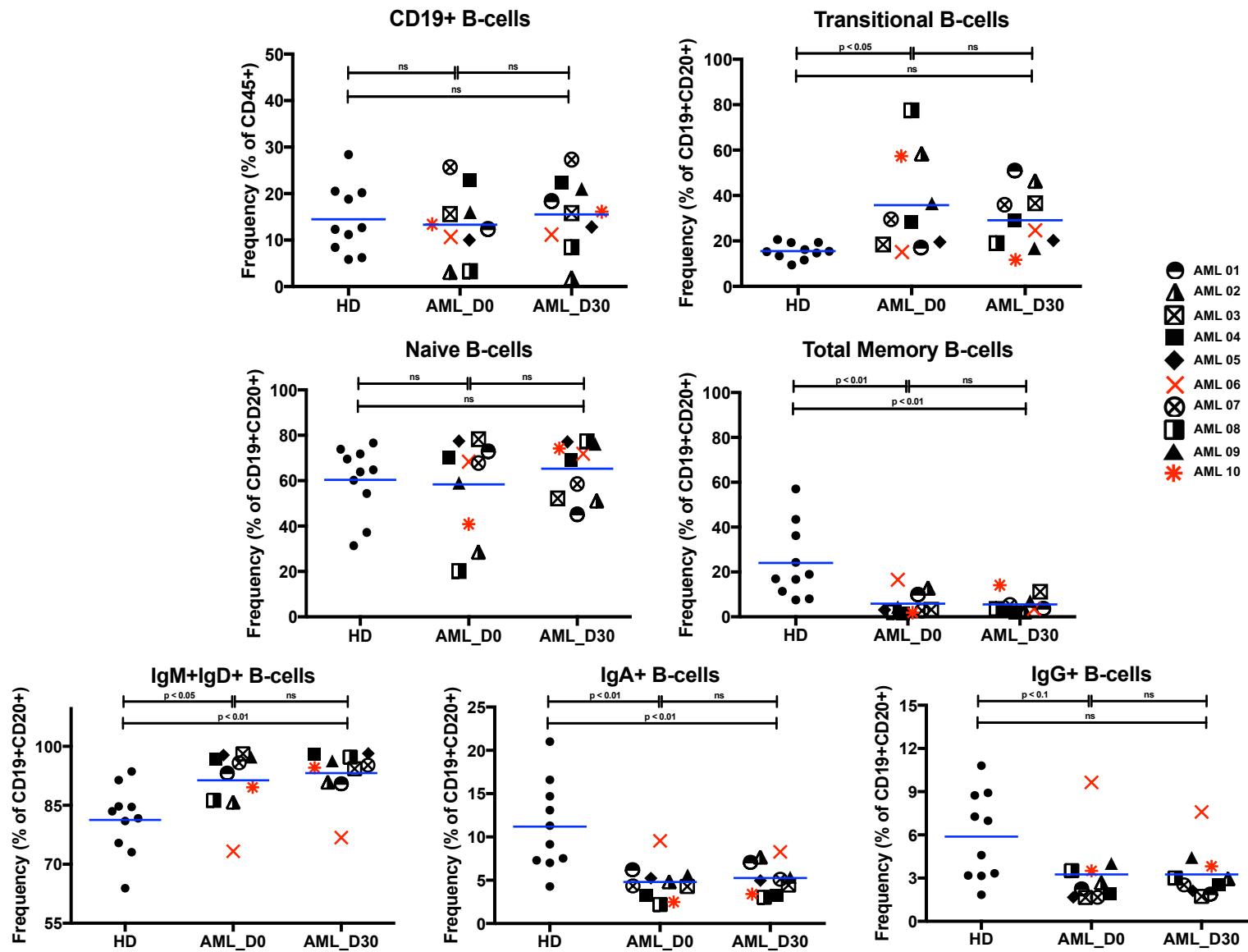
**Fig. S1.** Number of influenza-specific antibody-secreting cells (ASC) and total ASCs.



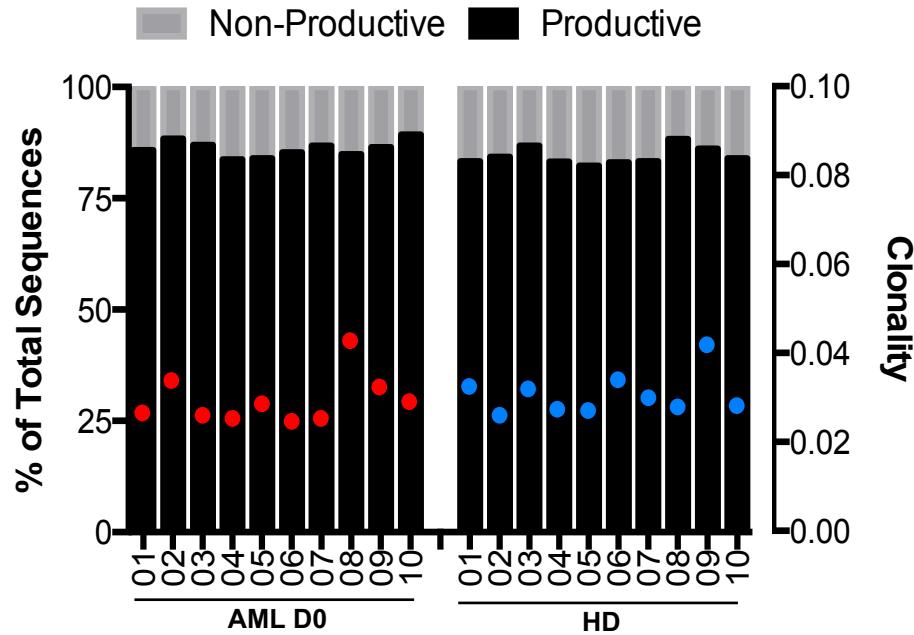
**Fig. S2.** Gene ontology analysis using Toppgene of up-regulated genes in AML-NR versus HD. Dotted line marks p=0.05 threshold.



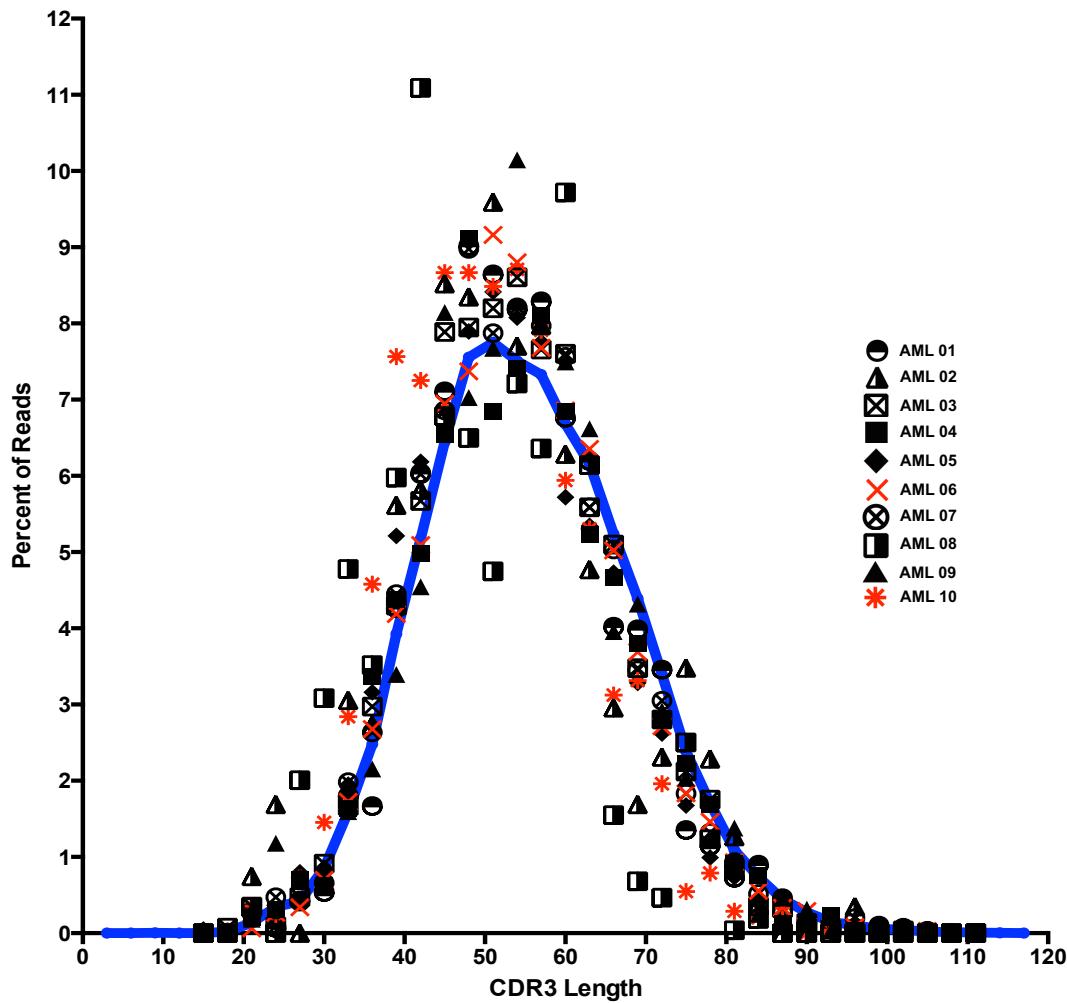
**Fig. S3** Frequencies of CD86+ B-cell populations in HD and AML at baseline. AML patients are indicated in the figure key. Blue lines indicate average frequencies for each indicated group.



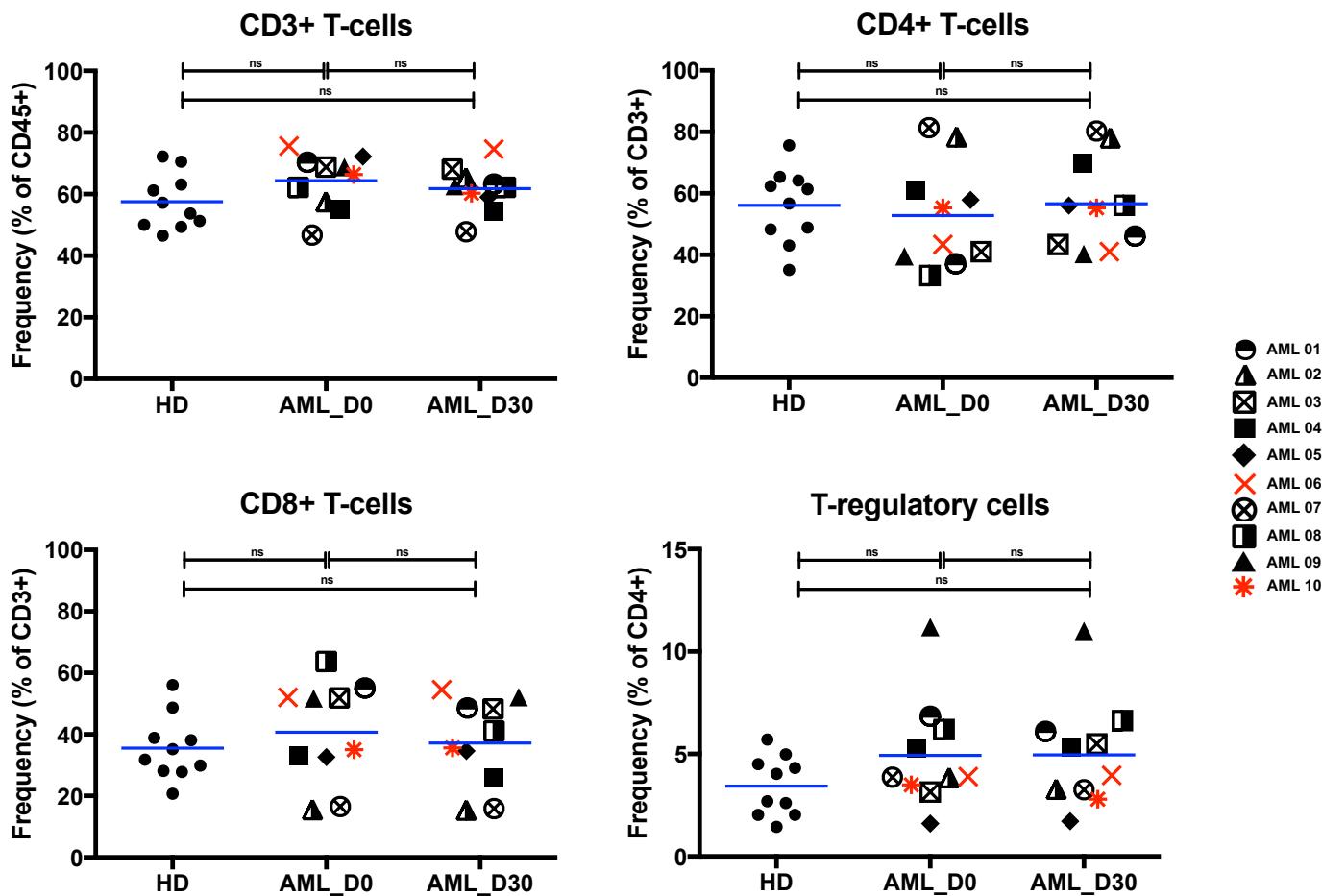
**Fig. S4.** Frequencies of B-cell populations in HD and AML at baseline and day 30. AML patients are indicated in the figure key. Blue lines indicate average frequencies for each group; “ns” indicates a non-significant difference.



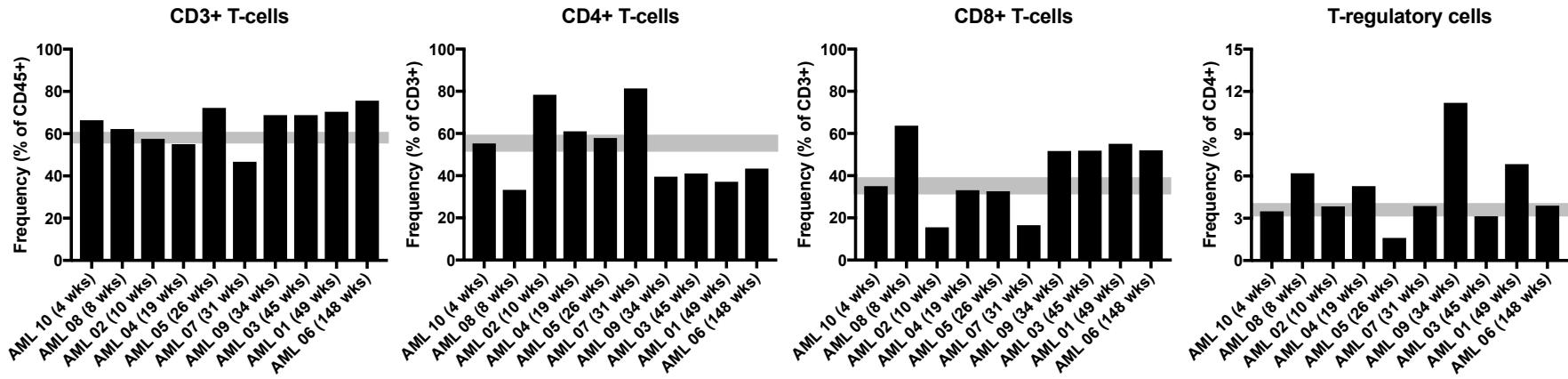
**Fig. S5.** Percentages of productive (black) and non-productive (gray) rearrangements in AML at baseline and 10 healthy individuals (different than matched HD used previously). Clonality in AML patients is indicated by red dots; clonality in HD indicated by blue dots.



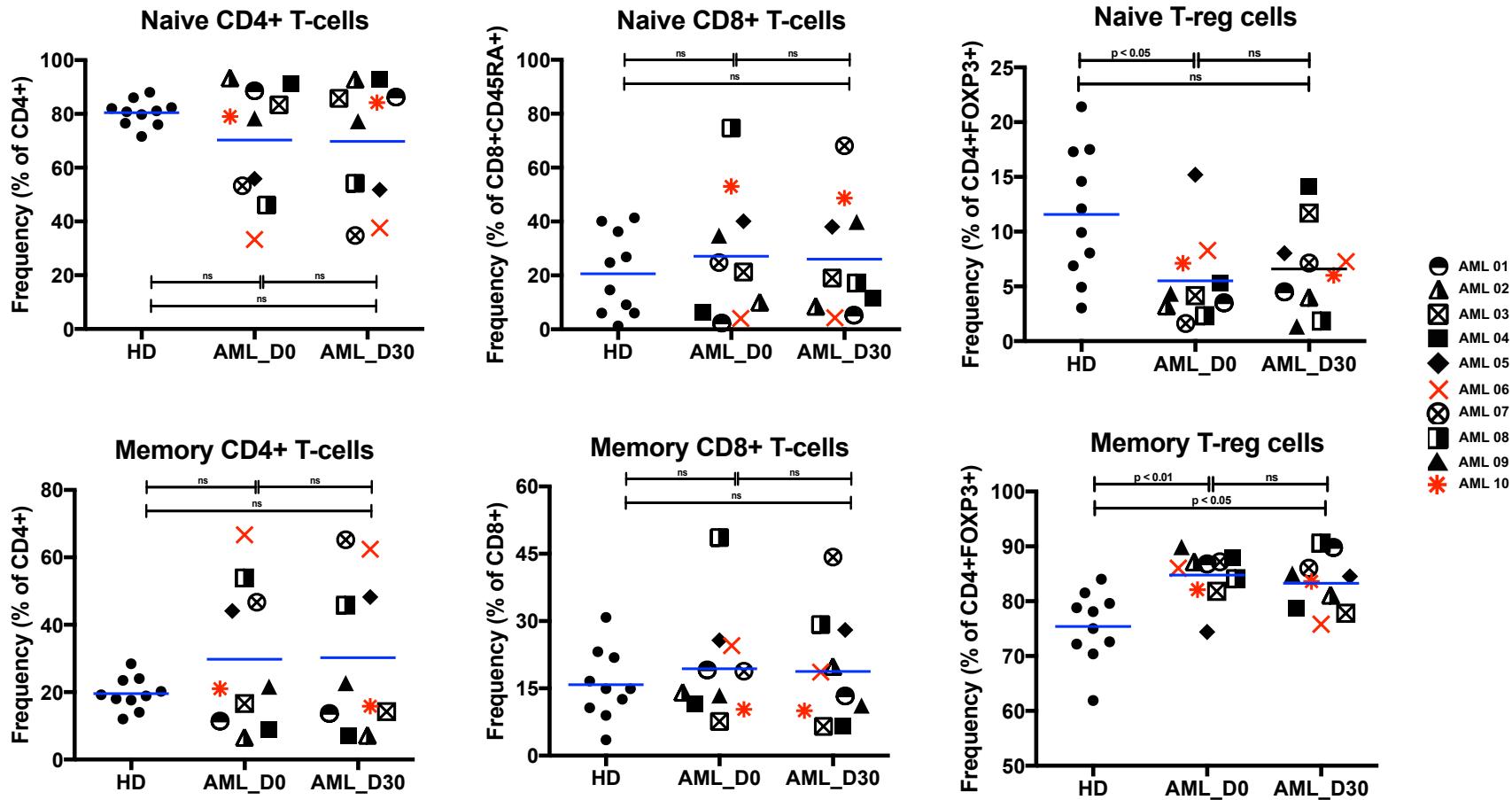
**Fig. S6.** Distribution of CDR3 lengths in productive rearrangements in AML patients (indicated in key) and 10 healthy individuals (blue points).



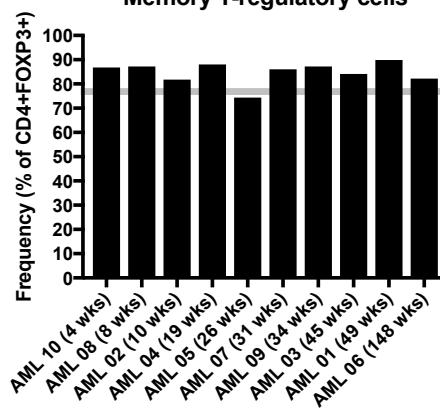
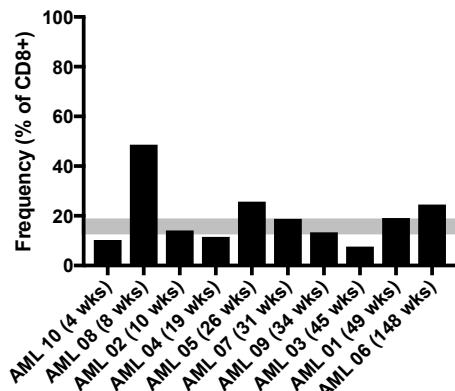
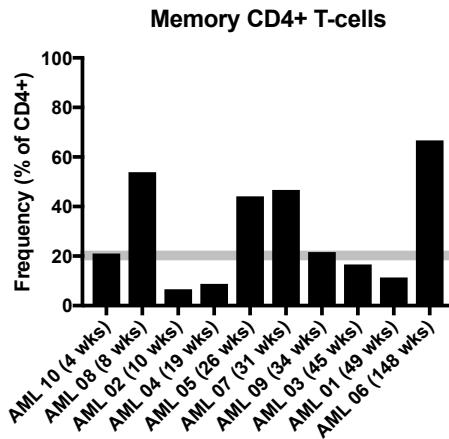
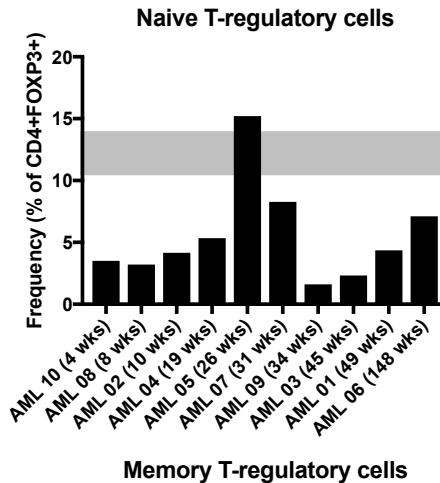
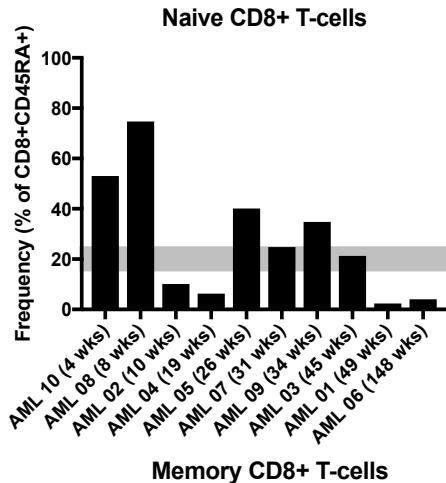
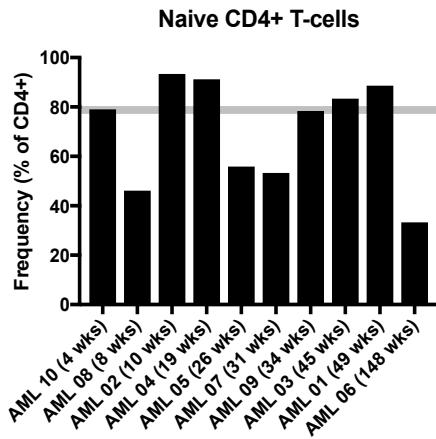
**Fig. S7.** Frequencies of T-cell populations in HD and AML at baseline and day 30. AML patients are indicated in the figure key. Blue lines indicate average frequencies for each group; “ns” indicates a non-significant difference.



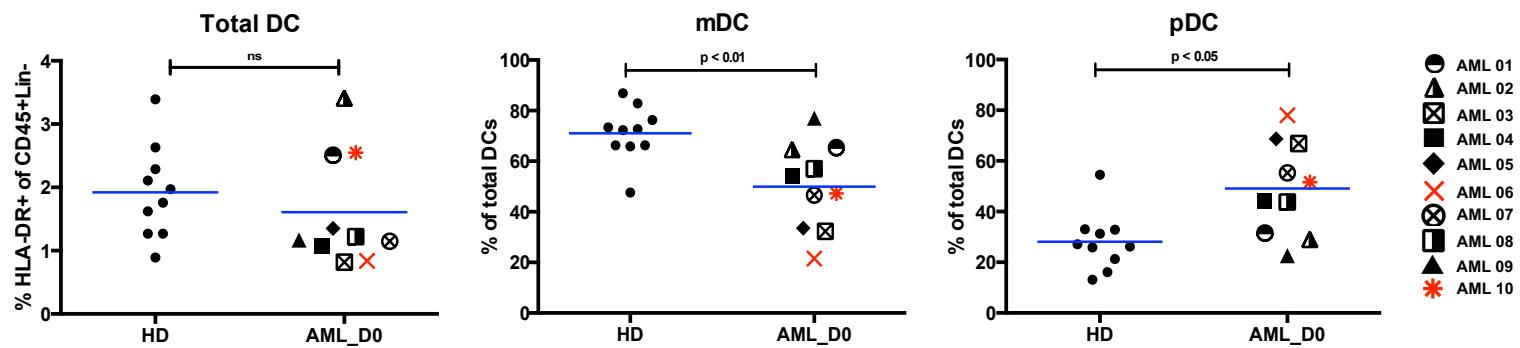
**Fig. S8.** AML patients at baseline are binned by time since treatment and indicated T-cell population frequencies plotted. Gray boxes highlight mean values +/- SEM of the HDs.



**Fig. S9.** Frequencies of indicated T-cells in HD and AML at baseline and day 30. AML patients are indicated in the figure key. Blue lines indicate average frequencies for each group; “ns” indicates a non-significant difference.



**Fig. S10.** AML patients at baseline are also ranked by time since end of chemotherapy and indicated T-cell population frequencies plotted. Gray boxes highlight mean values +/- SEM of the HDs.



**Fig. S11.** Frequencies of total DCs, mDCs, and pDCs between HD and AML at baseline. AML patients are indicated in the figure key. Blue lines indicate average frequencies for each group; “ns” indicates a non-significant difference.