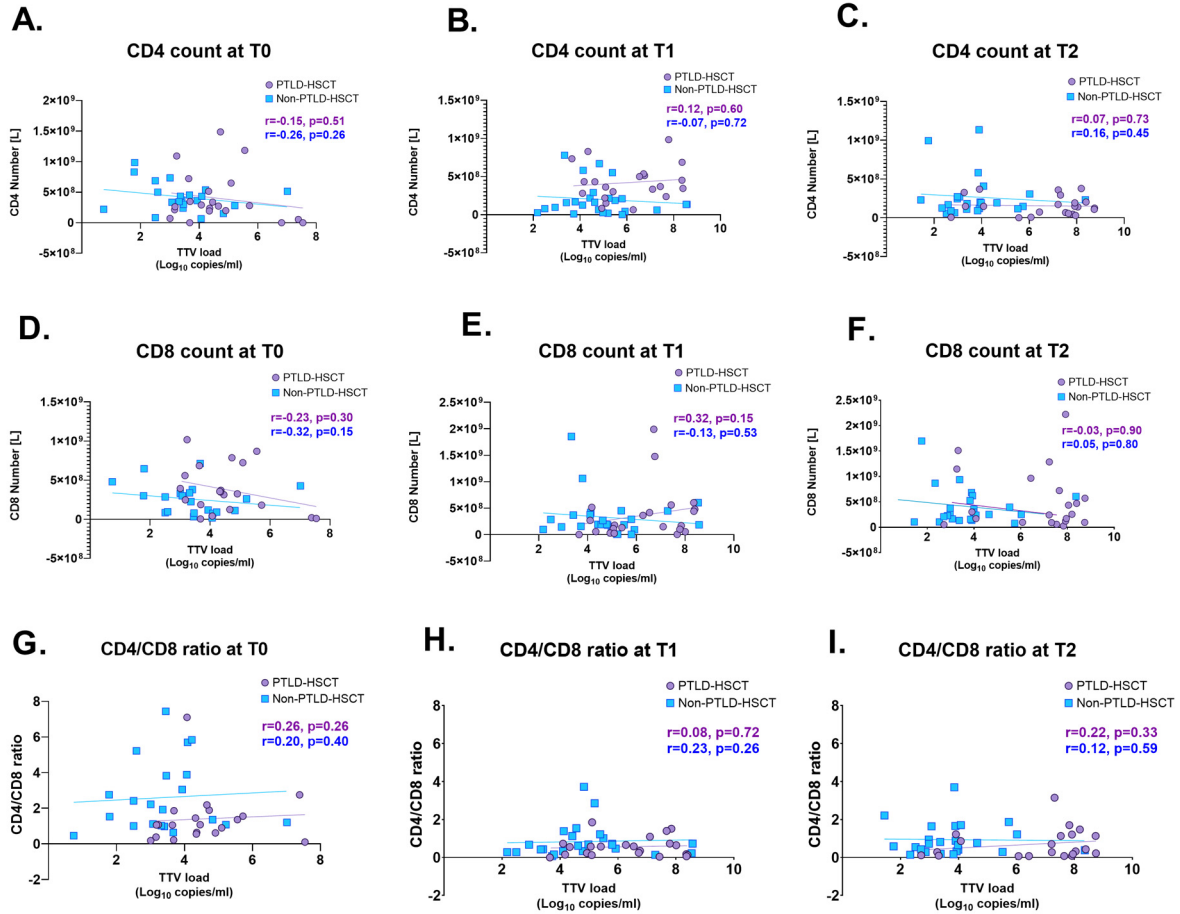
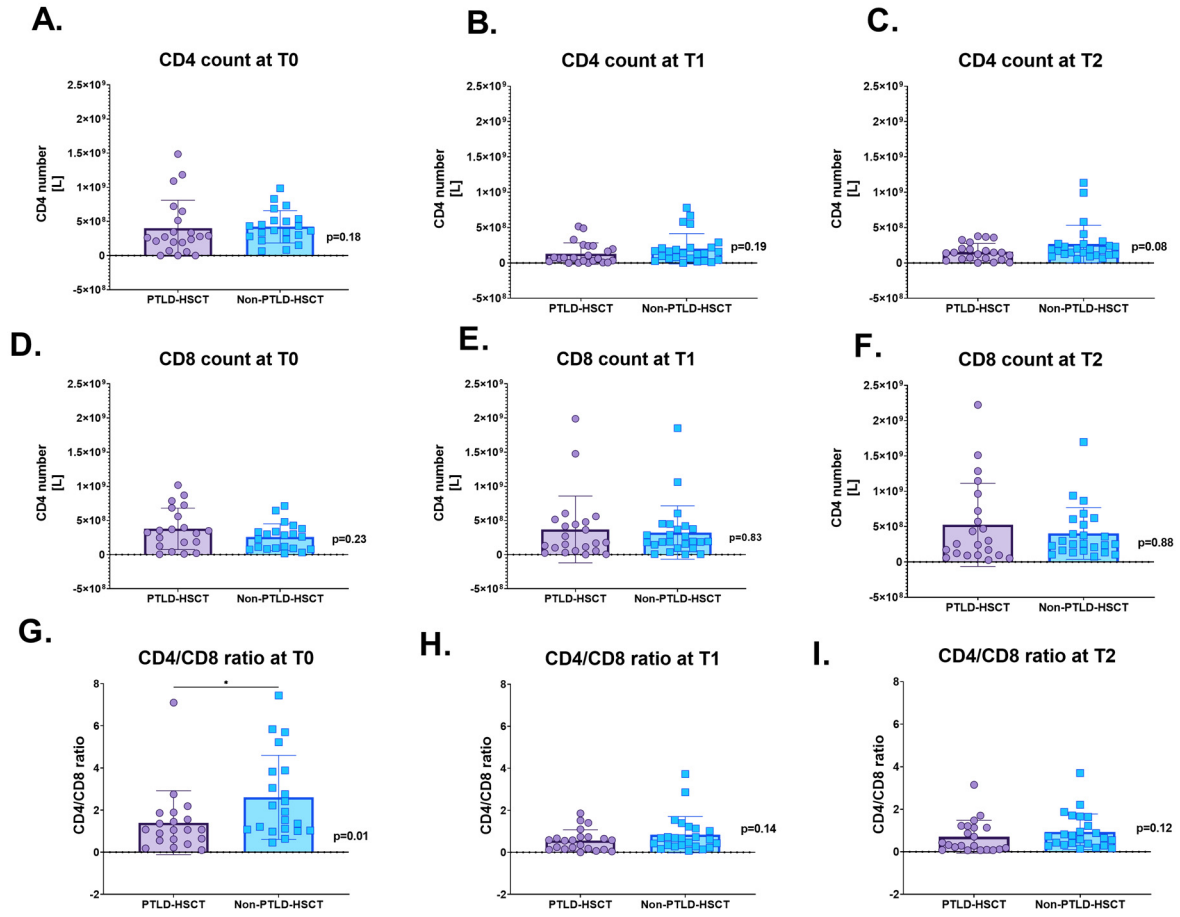


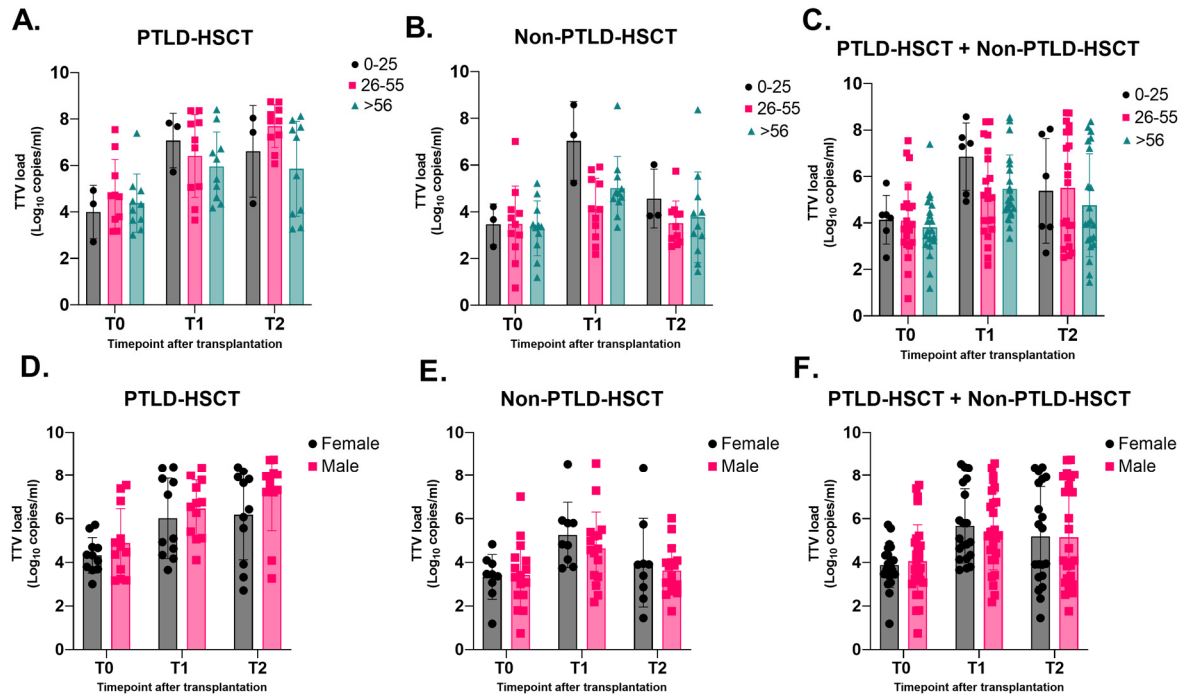
**Supplementary Figure S1. Comparison of patients characteristics between PTLD-HSCT and Non-PTLD-HSCT.** The difference in age **(A)** between median of PTLD-HSCT (52) and Non-PTLD-HSCT (53) is not significant ( $p=0.84$ ). **(B)** The PTLD-HSCT included 12 males and 11 females whereas the Non-PTLD-HSCT cohort included 16 males and 9 females. **(C)** Graph bar showing the time and number of PTLD-HSCT patients diagnosed with PTLD post-HSCT presented in months.



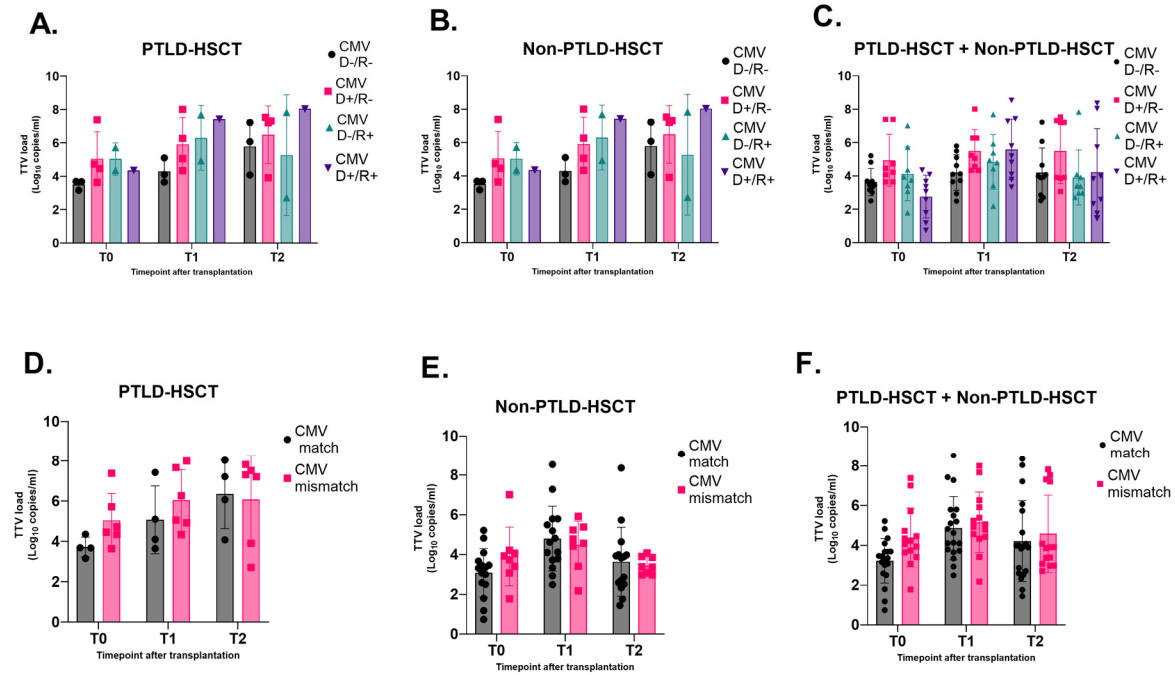
**Supplementary Figure S2. Correlations of immune cells count and TTV DNA load at different timepoints.** TTV DNA load correlation with (A-C) CD4, (D-F) CD8 count and (G-I) CD4/CD8 ratio in PTLD-HSCT and Non-PTLD-HSCT group at (A,D,G) T0, (B,E,H) T1 and (C,F,I) T2. The Spearman correlation coefficient (r) test was used for correlations. Significance was determined as a P value of <0.05



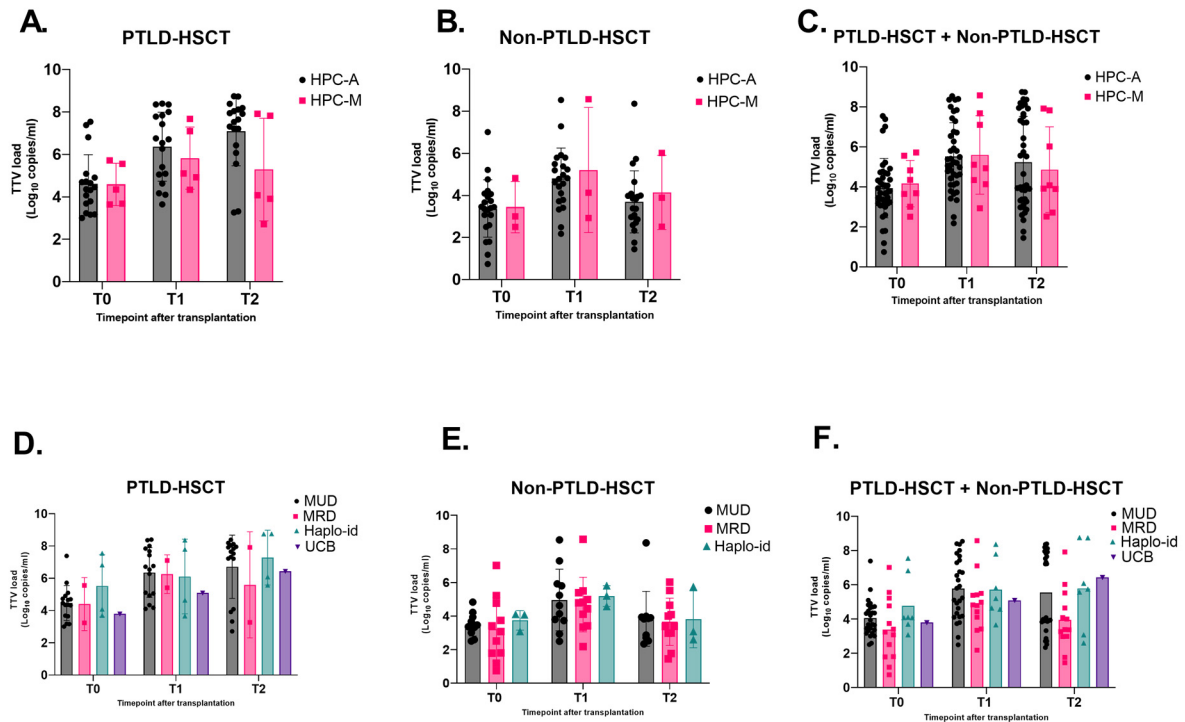
**Supplementary Figure S3. Comparison of immune cell count between PTLD-HSCT and Non-PTLD-HSCT groups.** Comparison of (A-C) CD4, (D-F) CD8 count and (G-I) CD4/CD8 ratio between PTLD-HSCT and Non-PTLD-HSCT group at (A,D,G) T0, (B,E,H) T1 and (C,F,I) T2. Mann-Whitney test was used to establish differences in cell count between timepoints. Significance was determined as a P value of <0.05



**Supplementary Figure S4. Impact of age and gender on TTV DNA load in HSCT recipients.** TTV DNA load depending on (A-C) age in (A) PTLD-HSCT, (B) Non-PTLD-HSCT, (C) in both PTLD-HSCT and Non-PTLD-HSCT and based on (D-F) gender in (D) PTLD-HSCT, (E) Non-PTLD-HSCT and (F) in both PTLD-HSCT and Non-PTLD-HSCT. Comparison between groups was done using two-way analysis of variance (ANOVA) with repeated measures. Significance was determined as a P value of <0.05.

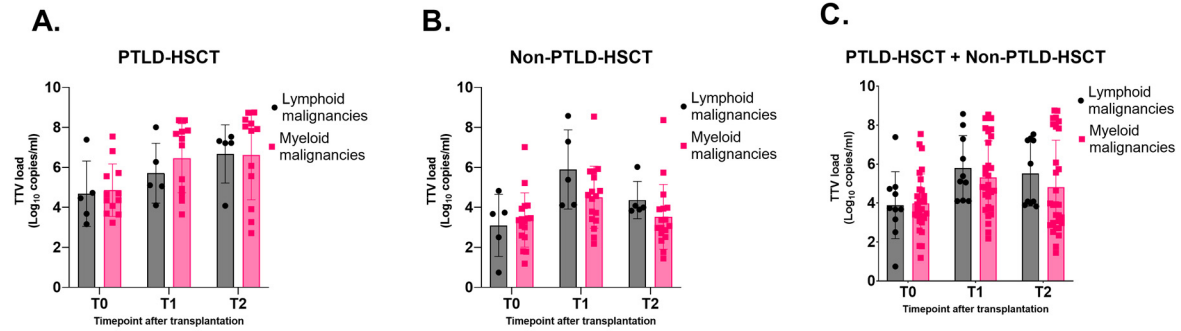


**Supplementary Figure S5. Impact of CMV status on TTV DNA load in HSCT recipients.** TTV DNA load depending on **(A-C)** CMV status of donor (D) and recipient (R) in **(A)** PTLD-HSCT, **(B)** Non-PTLD-HSCT, **(C)** in both PTLD-HSCT and Non-PTLD-HSCT and based on **(D-F)** CMV mismatch in **(D)** PTLD-HSCT, **(E)** Non-PTLD-HSCT and **(F)** in both PTLD-HSCT and Non-PTLD-HSCT. Comparison between groups was done using two-way analysis of variance (ANOVA) with repeated measures. Significance was determined as a P value of <0.05.

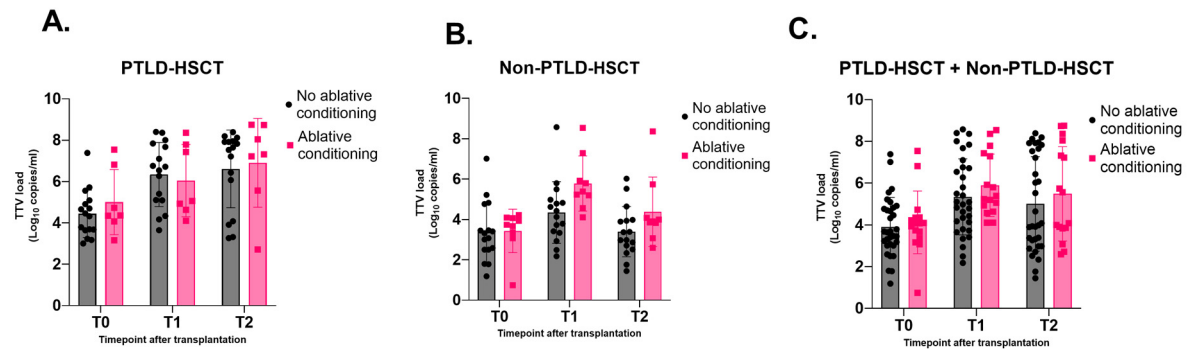


**Supplementary Figure S6. Impact of HSCT characteristics on TTV DNA load in HSCT recipients.**

TTV DNA load depending on **(A-C)** the source of hematopoietic stem cells (Hematopoietic progenitor cells [HPC] from apheresis [HPC-A]) or from bone marrow [HPC-M]) in **(A)** PTLD-HSCT, **(B)** Non-PTLD-HSCT, **(C)** in both PTLD-HSCT and Non-PTLD-HSCT and based on **(D-F)** HSCT subtype (matched-unrelated-donor [MUD], matched-related-donor [MRD], Haploidentical hematopoietic stem cell transplantation [haplo-id] or Umbilical cord blood [UCB]) in **(D)** PTLD-HSCT, **(E)** Non-PTLD-HSCT and **(F)** in both PTLD-HSCT and Non-PTLD-HSCT. Comparison between groups was done using two-way analysis of variance (ANOVA) with repeated measures. Significance was determined as a P value of <0.05.



**Supplementary Figure S7. Impact of underlying disease type on TTV DNA load in HSCT recipients.** TTV DNA load depending on (A-C) the type of underlying disease in (A) PTLD-HSCT, (B) Non-PTLD-HSCT, (C) in both PTLD-HSCT and Non-PTLD-HSCT. Comparison between groups was done using two-way analysis of variance (ANOVA) with repeated measures. Significance was determined as a P value of <0.05.



**Supplementary Figure S8. Impact of ablative conditioning on TTV DNA load in HSCT recipients.** TTV DNA load depending on (A-C) if ablative conditioning was introduced in (A) PTLD-HSCT, (B) Non-PTLD-HSCT, (C) in both PTLD-HSCT and Non-PTLD-HSCT. Comparison between groups was done using two-way analysis of variance (ANOVA) with repeated measures. Significance was determined as a P value of <0.05.