Supplemental Table 1: Association of transplant variables with the recovery of CD4+ T-cell subsets.

Variable	Naïve CD4+ T cells		CM CD4+ T cells		EM CD4+ T cells		Effector CD4+ T cells		Activated CD4+ T cells	
	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value
Age (10 years)	-0.171 (-0.376, 0.033)	0.105	-0.052 (-0.225, 0.121)	0.558	0.038 (-0.127, 0.204)	0.653	0.070 (-0.096, 0.237)	0.410	0.045 (-0.088, 0.179)	0.509
8-allele HLA-match*		0.456		0.123		0.808		0.620		0.609
< 5/8	reference		reference		reference		reference		reference	
$\geq$ 5/8	0.207 (-0.333, 0.748)		0.354 (-0.089, 0.798)		0.054 (-0.378, 0.485)		-0.111 (-0.544, 0.324)		-0.090 (-0.432, 0.251)	
Infused viable CD34+ cell dose*		0.292		0.725		0.017		0.992		0.046
< 1.18 x 10^5	reference		reference		reference		reference		reference	
$\geq$ 1.18 x 10^5	-0.265 (-0.754, 0.222)		0.073 (-0.335, 0.480)		0.472 (0.094, 0.851)		0.002 (-0.393, 0.396)		0.322 (0.013, 0.636)	
Infused viable CD3+ cell dose*		0.043		0.405		0.949		0.265		0.836
< 3.335 x 10^6	reference		reference		reference		reference		reference	
$\geq$ 3.335 x 10^6	0.506 (0.026, 0.990)		0.175 (-0.233, 0.586)		-0.013 (-0.406, 0.380)		0.226 (-0.168, 0.621)		0.034 (-0.283, 0.351)	
CMV reactivation by day 60		0.038		**0.002**		0.082		0.738		0.386
No CMV reactivation	reference		reference		Reference		Reference		reference	
CMV reactivation	-0.534 (-1.029, -0.040)		-0.644 (-1.046, -0.242)		-0.364 (-0.769, 0.041)		0.070 (-0.336, 0.475)		0.150 (-0.186, 0.487)	
Day 100 aGVHD grade		0.921		0.102		0.389		0.186		0.048
0-I	reference		reference		reference		reference		reference	
II	-0.007 (-0.671, 0.657)		-0.346 (-0.887, 0.196)		-0.290 (-0.830, 0.250)		0.276 (-0.248, 0.800)		-0.377 (-0.807, 0.051)	
III-IV	-0.138 (-0.956, 0.680)		-0.740 (-1.407, -0.075)		-0.465 (-1.129, 0.199)		0.609 (-0.033, 1.250)		-0.669 (-1.185, -0.155)	

engrafting CB unit
There was no association with the variables of recipient gender, diagnosis (acute leukemia vs. MDS/MPD vs. lymphoma), or the addition of haplo-identical CD34+ cells (data not shown).

Supplemental Table 2: Association of transplant variables with the recovery of CD8+ T-cell subsets.

Variable	Naïve CD8+ T cells		CM CD8+ T cells		EM CD8+ T cells		Effector CD8+ T cells		Activated CD8+ T cells	
	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value	Slope (95%CI)	p-value
Age (10 years)	-0.112 (-0.285, 0.060)	0.209	0.019 (-0.122, 0.159)	0.797	0.082 (-0.147, 0.312)	0.486	0.160 (-0.081, 0.402)	0.197	0.140 (-0.069, 0.350)	0.195
8-allele HLA-match*		0.930		0.559		0.240		0.047		0.021
< 5/8	reference		reference		reference		reference		reference	
≥ 5/8	0.020 (-0.430, 0.473)		0.109 (-0.253, 0.472)		-0.355 (-0.940, 0.230)		-0.636 (-1.252, -0.021)		-0.622 (-1.139, -0.106)	
Infused viable CD34+ cell dose*		0.460		0.557		**0.001**		0.028		**<0.001**
< 1.18 x 10^5	reference		reference		reference		reference		reference	
≥ 1.18 x 10^5	-0.156 (-0.569, 0.253)		0.100 (-0.233, 0.429)		0.918 (0.417, 1.421)		0.636 (0.079, 1.194)		0.861 (0.401, 1.324)	
Infused viable CD3+ cell dose*		0.183		0.637		0.815		0.710		0.691
< 3.335 x 10^6	reference		reference		reference		reference		reference	
≥ 3.335 x 10^6	0.281 (-0.127, 0.692)		0.081 (-0.252, 0.415)		-0.065 (-0.610, 0.478)		-0.110 (-0.687, 0.467)		-0.101 (-0.598, 0.395)	
CMV reactivation by day 60		0.809		0.706		**0.002**		**<0.001**		**<0.001**
No CMV reactivation	reference		reference		reference		reference		reference	
CMV reactivation	-0.052 (-0.477, 0.371)		0.068 (-0.283, 0.421)		0.896 (0.354, 1.437)		1.833 (1.390, 2.274)		1.526 (1.149, 1.898)	
Day 100 aGVHD grade		0.946		0.713		0.770		0.499		0.804
0-I	reference		reference		reference		reference		reference	
II	-0.065 (-0.626, 0.496)		-0.189 (-0.662, 0.285)		-0.129 (-0.893, 0.632)		0.406 (-0.396, 1.205)		0.201 (-0.487, 0.886)	
III-IV	0.017 (-0.670, 0.703)		-0.081 (-0.659, 0.495)		-0.338 (-1.267, 0.589)		0.572 (-0.412, 1.553)		0.049 (-0.777, 0.872)	

engrafting CB unit
There was no association with the variables of recipient gender, diagnosis (acute leukemia vs. MDS/ MPD vs. lymphoma), or the addition of haplo-identical CD34+ cells (data not shown).

Figure S1. Association of CMV reactivation with CD4+ T-cell subset recovery in adult CBT recipients. (A) Naïve CD4+ T cells. (B) CM CD4+ T cells. (C) EM CD4+ T cells. (D) Effector CD4+ T cells. (E) Activated CD4+ T cells. Individual patient time-points in panels A-E are color coded according to CMV reactivation by day 60. Curves are Loess-smoothed averages.

Figure S2. Association of CMV reactivation with CD8+ T-cell subset recovery in adult CBT recipients. (A) Naïve CD8+ T cells. (B) CM CD8+ T cells. (C) EM CD8+ T cells. (D) Effector CD8+ T cells. (E) Activated CD8+ T cells. Individual patient time-points in panels A-E are color coded according to CMV reactivation by day 60. Curves are Loess-smoothed averages.

Figure S1A. Naïve CD4+ T-cell recovery according to CMV reactivation
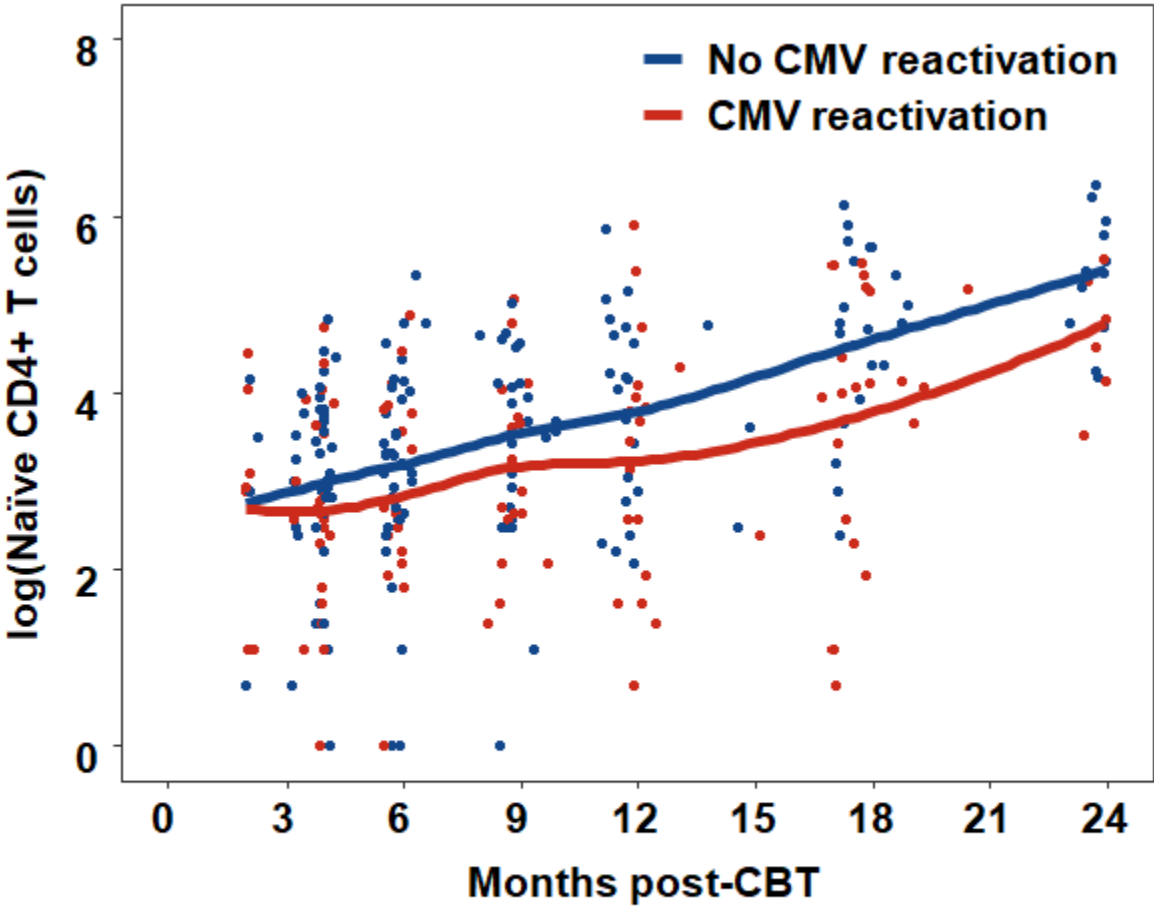
Figure S1B. CM CD4+ T-cell recovery according to CMV reactivation
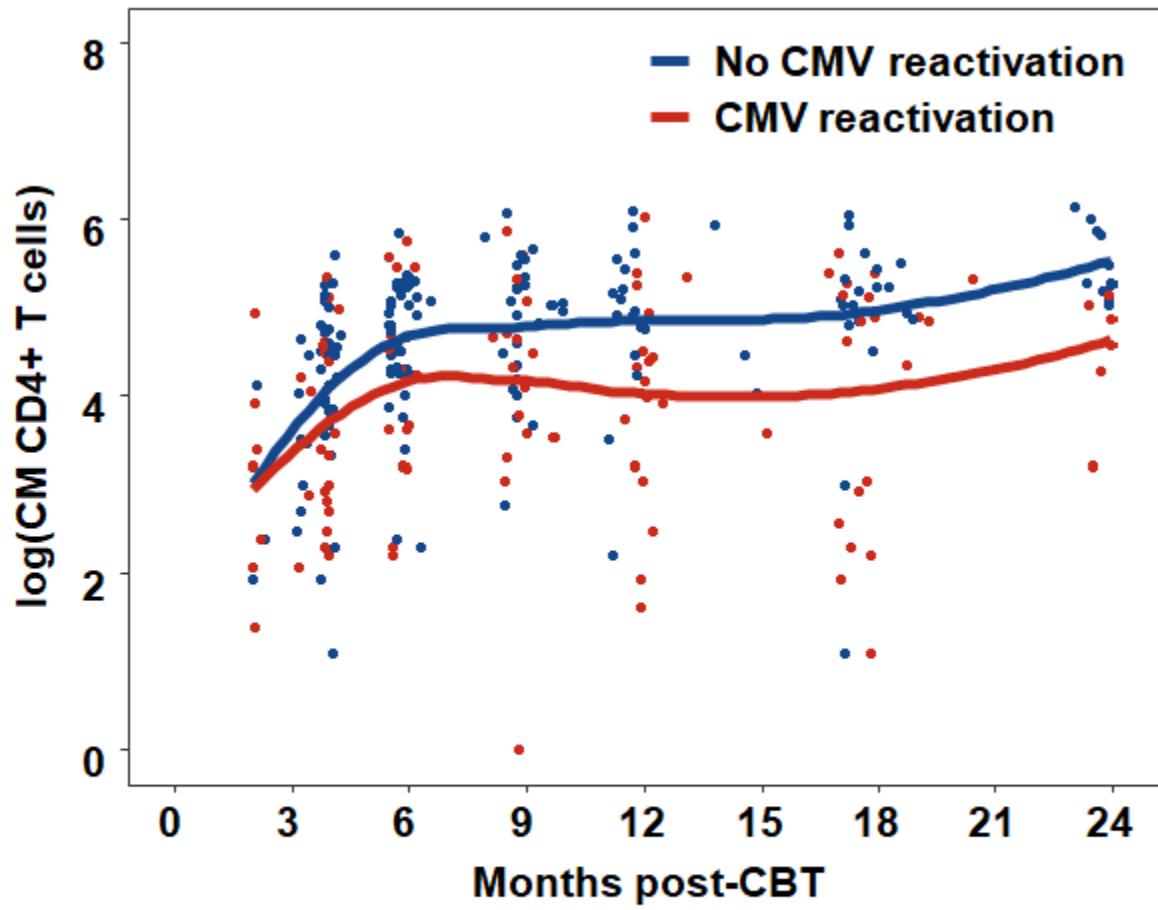
Figure S1C. EM CD4+ T-cell recovery according to CMV reactivation
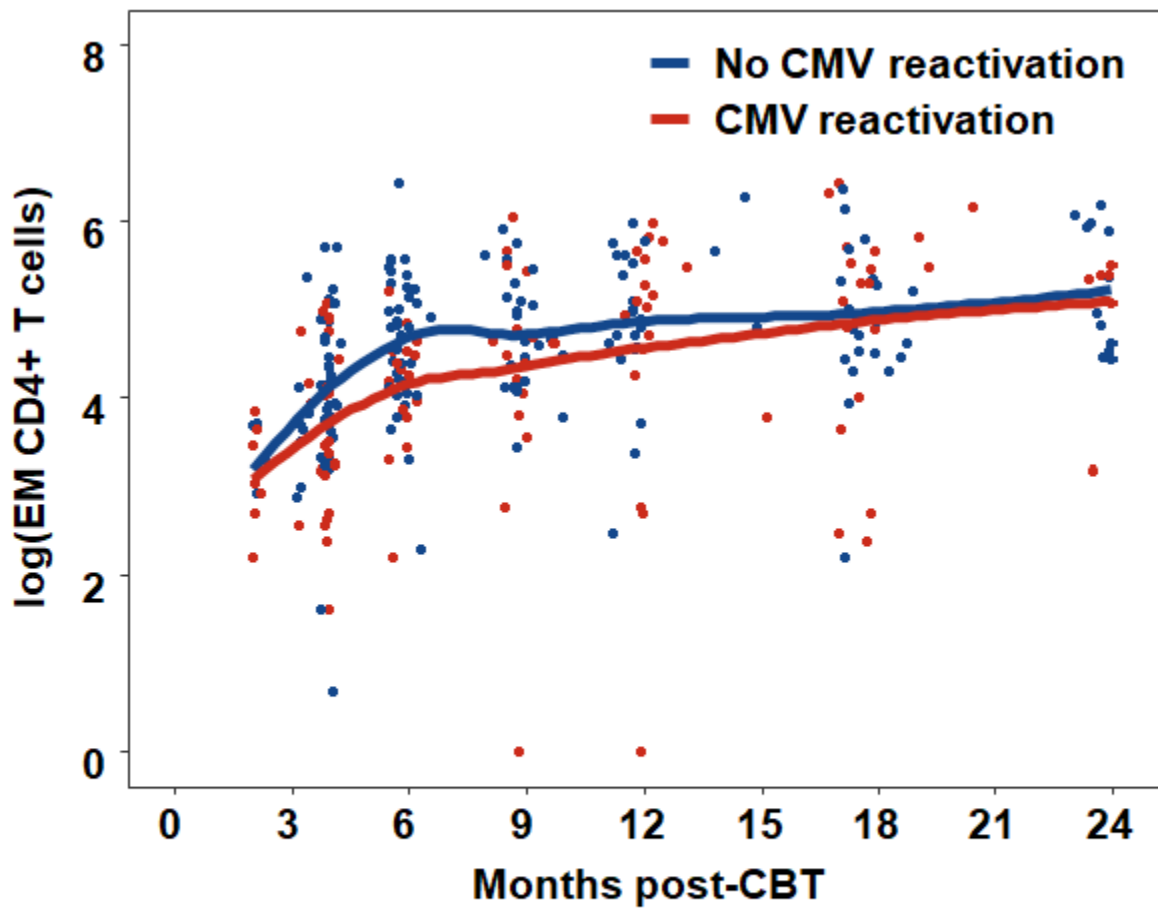
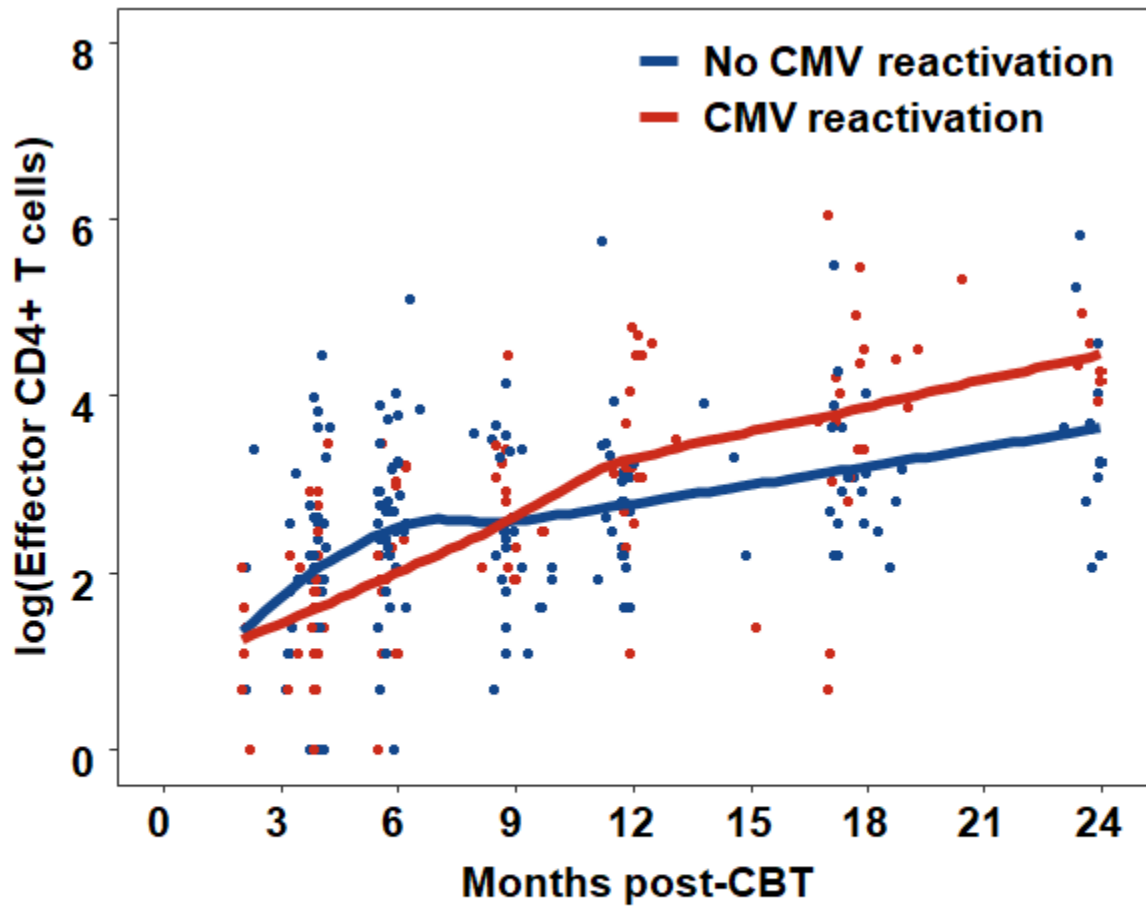**Figure S1D. Effector CD4+ T-cell recovery according to CMV reactivation**

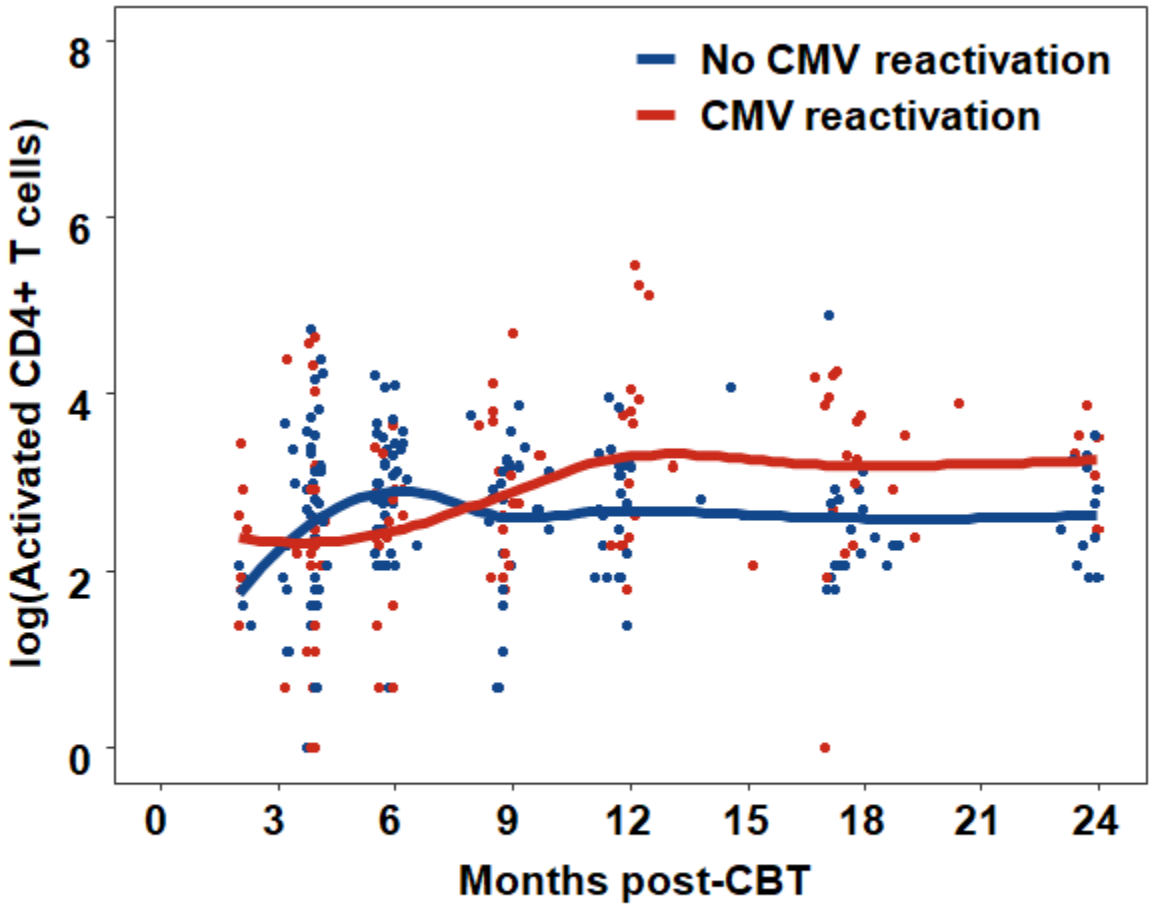**Figure S1E. Activated CD4+ T-cell recovery according to CMV reactivation**

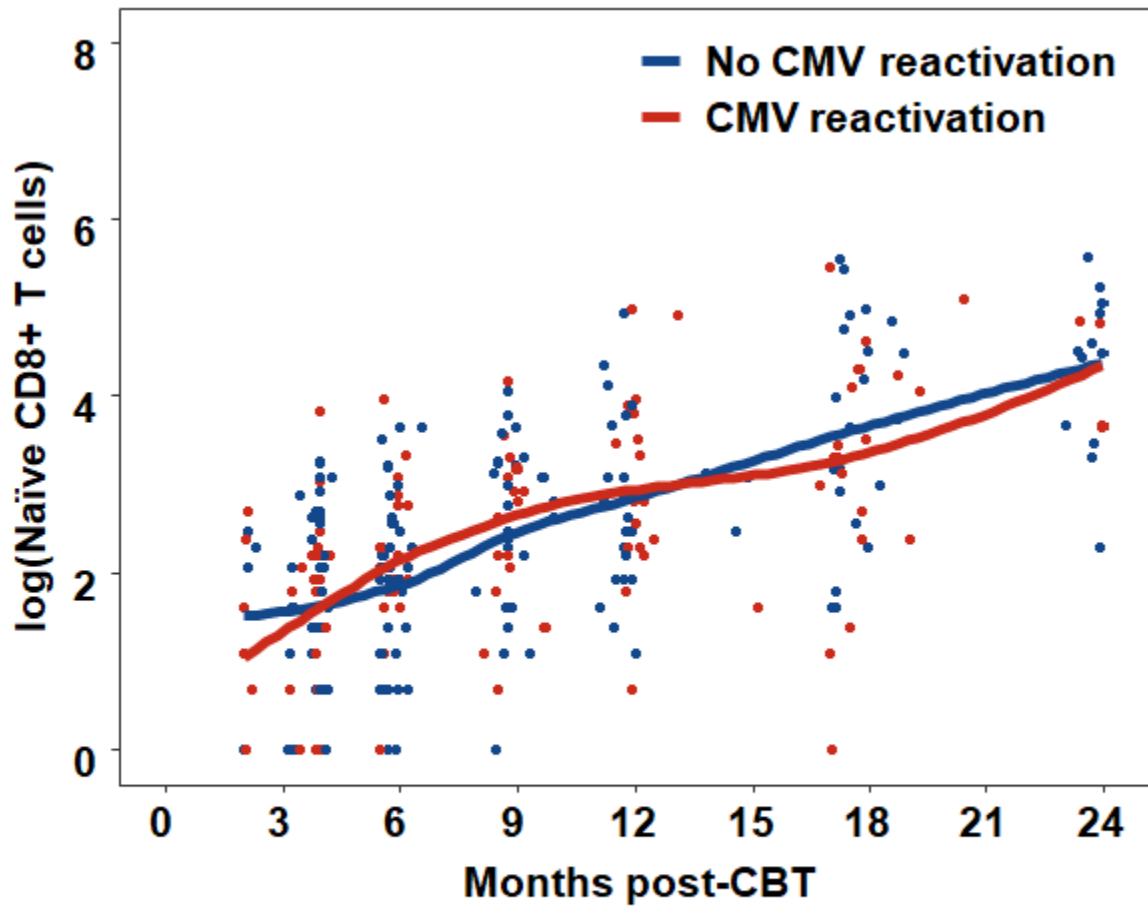**Figure S2A. Naïve CD8+ T-cell recovery according to CMV reactivation**

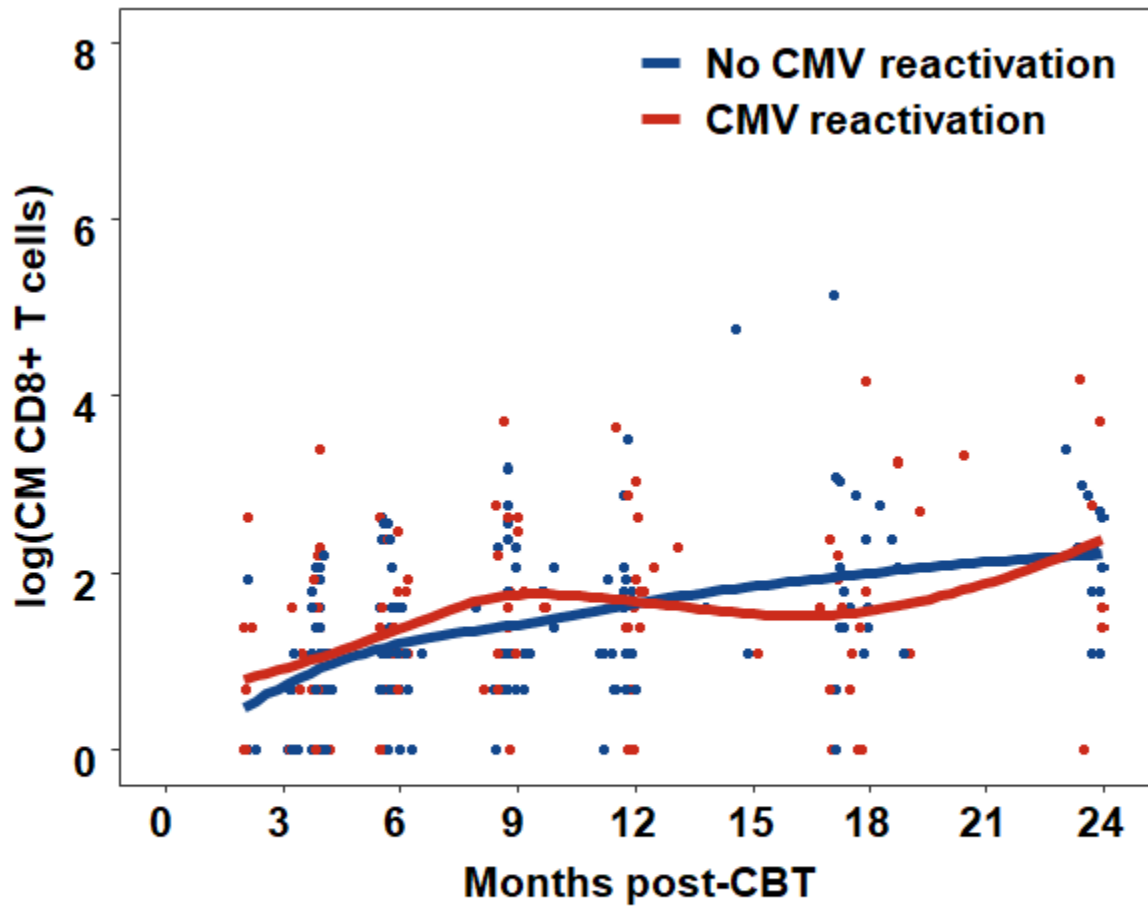**Figure S2B. CM CD8+ T-cell recovery according to CMV reactivation**

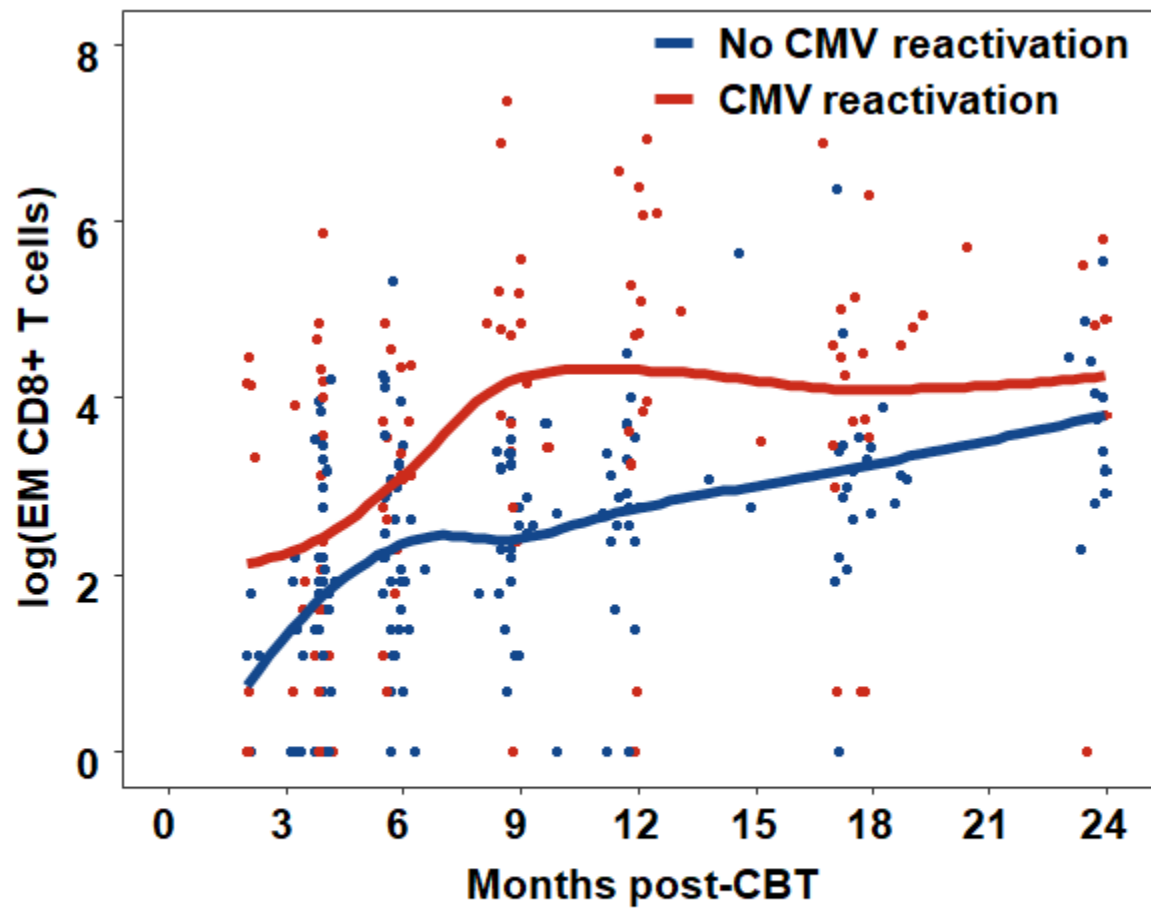**Figure S2C. EM CD8+ T-cell recovery according to CMV reactivation**

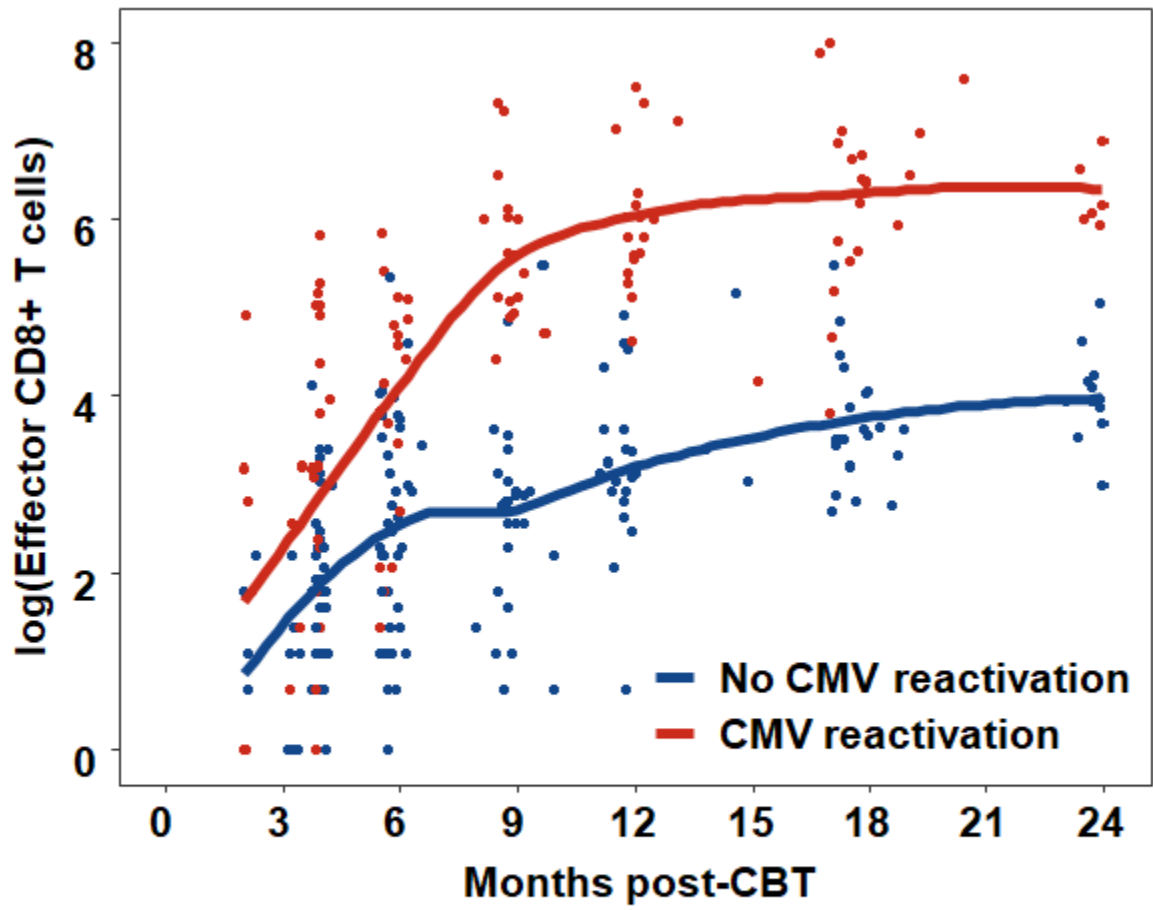**Figure S2D. Effector CD8+ T-cell recovery according to CMV reactivation**

Figure S2E. Activated CD8+ T-cell recovery according to CMV reactivation