

**Table S2. Predictors of T cell activation and vulnerability.**

	HIV-infected infants			HIV-exposed uninfected infants		
	Coeff	[95% CI]	p	Coeff	[95% CI]	p
<b>A. Predictors of T cell activation</b>						
<i>CD4<sup>+</sup> T cells</i>						
CMV infected	-32	[-52, -13]	0.001	3.3	[0.69, 5.9]	0.01
CMV viral load	*	*	*	-0.90	[-2.4, 0.63]	0.3
HIV viral load	-1.4	[-2.9, -0.0091]	0.05	*	*	*
Interaction <sup>a</sup>	5.4	[2.5, 8.3]	<0.001	*	*	*
<i>CD8<sup>+</sup> T cells</i>						
CMV infected	13	[4.2, 22]	0.004	6.6	[-3.9, 17]	0.2
CMV viral load	6.7	[1.7, 12]	0.009	7.2	[-0.11, 14]	0.05
<b>B. Predictors of T cell vulnerability</b>						
<i>CD4<sup>+</sup> T cells</i>						
%Activated CD4 cells	*	*	*	0.22	[0.078, 0.37]	0.003
CMV infected	3.5	[0.66, 6.3]	0.02	0.20	[-2.1, 2.5]	0.9
CMV viral load	*	*	*	0.13	[-0.96, 1.2]	0.8
<i>CD8<sup>+</sup> T cells</i>						
%Activated CD8 cells	0.43	[0.10, 0.76]	0.01	1.4	[0.94, 1.9]	<0.001
CMV infected	23	[13, 33]	<0.001	12	[0.25, 24]	0.05
CMV viral load	*	*	*	-1.9	[-10, 6.2]	0.6

Notes. \*Covariate had no detectable effect on outcome, so excluded from final multivariate model. <sup>a</sup>Interaction term = CMV infection x HIV viral load.

Outcome is % activated or % apoptosis-vulnerable CD4<sup>+</sup> or CD8<sup>+</sup> T cells as indicated in shaded row headings. Predictor variables used in linear regression models are shown in the unshaded rows; “CMV infected” is a dichotomous predictor (Yes/No) and all viral loads were log10-transformed. Table shows point-estimates for all main effects and interactions included in final models, with the exception of time (time since HIV infection for HIV-infected infants, or age for HIV-EU). For HIV-infected infants, T cell activation models evaluated CMV infection,

CMV viral load, HIV-1 viral load, time since HIV infection, and an interaction term (CMV co-infection x HIV viral load). T cell vulnerability models evaluated these same covariates and additionally included % of activated cells. Non-significant terms were excluded in a stepwise manner to achieve a final parsimonious model with the best fit (smallest p value for Wald test). Terms were removed in the following order: interaction, HIV viral load, CMV viral load.

For HIV-exposed uninfected infants, all models evaluated CMV infection, CMV viral load, and age in months. T cell vulnerability models evaluated the same covariates as activation models, and additionally included % of activated cells.