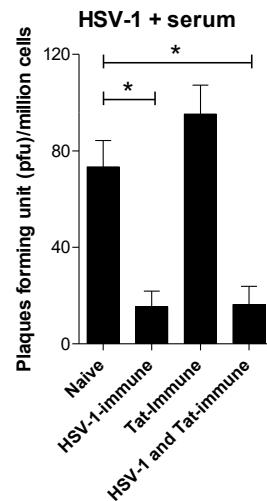
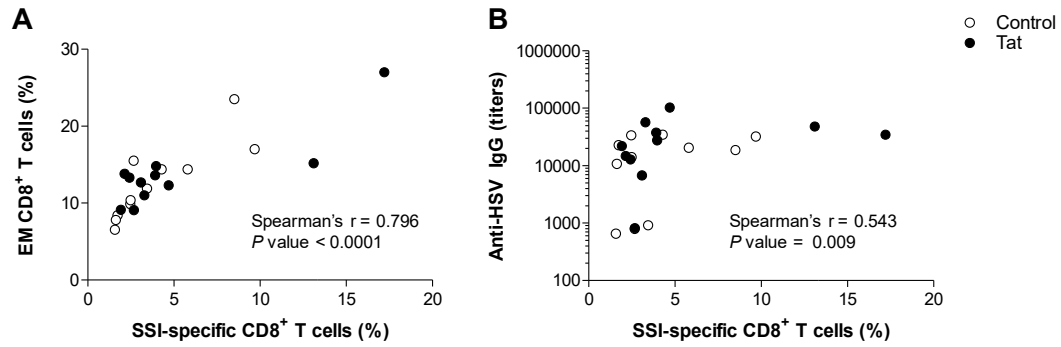


**Figure S1.** Tat exerts therapeutic effects on previously acquired HSV-1 infection. Mice were infected by the intravaginal route with  $10^3$  PFU/mouse of HSV-1 and treated with Tat (or buffer) 44 days later. Mice were observed twice per week after treatment to monitor the appearance of signs of disease. The Kaplan-Meier test was used to estimate the probability of clinical manifestation ( $n = 5$  per group). \*  $p < 0.05$ .



**Figure S2.** Anti-Tat antibodies do not interfere with HSV-1 replication. HSV-1 ( $10^4$  PFU) was pre-incubated with 2  $\mu$ l of sera from naïve, HSV-1-immune, Tat-Immune or HSV-1- and Tat-immune mice for 1 hour at  $37^\circ\text{C}$  under mild agitation. Samples were then added to monolayers of Vero cells (400000 cells/well) at  $10^{-6}$  PFU in 12-well plates. After incubation for 1 hour at  $37^\circ\text{C}$ , the medium was replaced with 1 ml of methylcellulose. After further 23 hours of incubation at  $37^\circ\text{C}$ , cells were fixed and stained and plaques counted. Bars represent mean  $\pm$  SEM of 5-7 experiments. Results from HSV-1- and/or Tat-immune sera were compared with HSV-1 pre-incubated with a naïve serum using the Wilcoxon signed rank test. \*  $p < 0.05$ .



**Figure S3.** Correlation between HSV-1-specific CD8<sup>+</sup> T cells, effector memory (EM) CD8<sup>+</sup> T cells and HSV-1-specific humoral immunity. The percentage (%) of circulating SSI-specific CD8<sup>+</sup> T cells measured at days 60 and 108 p.i. (days 16 and 64 after buffer  $\pm$  Tat inoculation, respectively) was correlated with the percentages of circulating EM CD8<sup>+</sup> T cells (**A**) or with HSV-1-specific IgG titers (**B**). Spearman's rank correlation determined statistical significance ( $n = 11$  per group). In the graphs, Spearman's  $r$  and  $p$  value of combined Tat and Control mice are reported. Values for Tat and Control separated are as follows:  $r = 0.93$ ,  $p < 0.001$  for Control and  $r = 0.59$ ,  $p = 0.06$  for Tat (**A**);  $r = 0.41$ ,  $p = 0.21$  for Control and  $r = 0.63$ ,  $p = 0.04$  for Tat (**B**).