Supporting Information

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HMBPP/IL-2 groupControl group22744Image: Control groupImage: Control gr

Fig. S1. Expansion of $V_{\gamma}2V\delta^2$ T cells after the delayed HMBPP/IL-2 treatment resulted in apparent attenuation of pneumonic plague lesions at gross pathology level after pulmonary infection with large-dose *Y. pestis*. Front/back-view pictures show comparisons of gross pathology for additional 3 HMBPP/IL-2 treated monkeys (*Left*) and 3 control monkeys (*Right*).



Fig. 52. Expansion of $V_{\gamma}2V\delta^2$ T cells after the delayed HMBPP/L-2 treatment resulted in apparent attenuation of pneumonic plague lesions at gross pathology level after pulmonary infection with large-dose *Y. pestis*. The side-view pictures show gross pathology comparisons for the same 6 monkeys from HMBPP/L-2-treated monkeys (*Left*) and control group (*Right*) groups as shown in Fig. S1.

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Fig. S3. Histology of lung tissue sections from 1 representative survival monkey treated with HMBPP/IL-2 and the 1 survival control monkey treated with glucose only. Note that no hemorrhages or necrosis were seen in lung tissues of the HMBPP/IL-2-treated monkey (22734). Some lymphocytes were seen in alveolar interstitials. In contrast, the control monkey (22748) still exhibited congestion in pulmonary veins and capillaries. Exudates and macrophages remained in alveoli,

HMBPP/IL-2 Group



Fig. S4. $V_{\gamma}2V\delta2$ T cells were present in the lung tissues with no or mild plague hemorrhages/necrosis in the HMBPP/IL-2-treated macaques. The 3 patterns of $V_{\gamma}2V\delta2$ T cells' localization were also seen in other HMBPP/IL-2-treated monkeys. No $V_{\gamma}2V\delta2$ T cells were detected in lung tissues from control monkeys treated with glucose plus IL-2 or glucose only.

Table S1. Bacterial burdens in blood and lung homogenate after inhalational Y. pestis infection

cfu counts/mL

	Treatment			
Animal		Day 5 blood	Endpoint	
				Lung
			Blood	homogenate*
22744	HMBPP + IL-2	0	0 (day 28)	0 (day 28)
22739	HMBPP + IL-2	0	1.07E + 09 (day 8)	3.43E + 09 (day 8)
22734	HMBPP + IL-2	0	0 (day 28)	0 (day 28)
22742	HMBPP + IL-2	0	2.77E + 07 (day 9)	1.12E + 06 (day 9)
22802	HMBPP + IL-2	2.84E + 04	1.12E + 09 (day 7)	1.57E + 08 (day 7)
22801	HMBPP + IL-2	2.13E + 08	2.13E+(day 5)	5.87E + 06 (day 5)
22746	Glucose + IL-2	3.13E + 07	4.87E + 07 (day 7)	5.37E + 08 (day 7)
22749	Glucose + IL-2	1.66E + 06	4.33E + 07 (day 7)	7.50E + 07 (day 7)
22811	Glucose + IL-2	0	5.43E + 06 (day 10)	1.21E + 09 (day 10)
22748	Glucose	0	0 (day 28)	0 (day 28)
22735	Glucose	0	3.40E + 07 (day 8)	7.50E + 08 (day 8)
22798	Glucose	6.69E + 05	1.61E + 08 (day 7)	4.20E + 07 (day 7)

*Fifteen milliliters of lung homogenate was analyzed.

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