

2 Supplemental Figure 1. Pulmonary MALP-2 stimulation did not affect systemic interleukin-6 3 (IL-6) levels or clinical parameters 6 d after IAV infection. Mice were treated with 0.5 µg 10^{2} PFU 4 MALP-2 5 d infection with or solvent post 5 Influenza virus A/H1N1/PR/8/34 (IAV) or sham infection with PBS. (A) Plasma IL-6 levels 6 were quantified using cytokine singleplex assay (Bioplex®, BioRad, Hercules, CA). (B) Body 7 weight and body temperature were measured. Values are given as mean + SEM (n=6-8 (A) or 8 (B) each group). $^{\#\#} p < 0.01$ vs. corresponding sham-infected group. 8



10 Supplemental Figure 2. Pulmonary MALP-2 treatment of IAV-infected mice did not affect

- 11 the course of body weight after pneumococcal superinfection. Mice infected with 10^2 PFU
- 12 IAV were treated with 0.5 μ g MALP-2 or solvent on day 5. Secondary infection with 10³
- 13 CFU S. pneumoniae (Spn) was performed on day 6. Body weight was monitored for 10 d after
- 14 IAV infection. Values are given as mean + SEM (n=10 (MALP-2) or 9 (solvent)).



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Supplemental Figure 3. Pulmonary MALP-2 stimulation did not affect the systemic inflammatory response after secondary pneumococcal infection. Mice infected with 10² PFU IAV were treated with 0.5 μg MALP-2 or solvent on day 5 and challenged with 10³ CFU S. pneumoniae (Spn) on day 6. (A) Blood leukocytes were quantified by FACS on day 7. Values are given as mean + SEM (n=7-8 each group). (B) Plasma interleukin-6 (IL-6) levels were measured using cytokine singleplex assay. Values are given as mean + SEM (n=7-8 each group).



Supplemental Figure 4. MALP-2 did not alter the distribution of lung lesions after IAV 24 infection and pneumococcal superinfection. Mice infected with 10² PFU IAV were treated 25 with 0.5 μ g MALP-2 or solvent on day 5 and challenged with 10³ CFU S. pneumoniae or 26 27 sham-infected with PBS on day 6. Lungs were harvested on day 7 and formalin-fixed and 28 paraffin-embedded sections were prepared and stained with hematoxylin and eosin for 29 histopathological analyses. Total lung area affected by inflammation was determined by 30 microscopic evaluation. Lung sections of sham-infected and solvent-treated mice served as negative control. Representative images are shown (n=3-4 each group). 31



33 **Supplemental Figure 5.** Blood bacterial load after secondary pneumococcal infection. Mice 34 infected with 10^2 PFU IAV were treated with 0.5 µg MALP-2 or solvent on day 5 and

35 challenged with 10^3 CFU S. pneumoniae (Spn) on day 6. Blood bacterial load was determined

36 on day 7. Values are given as individual data (n=10-11 each group). The *dotted line* indicates

37 the lower detection limit.



39 Supplemental Figure 6.

40 Overview of leukocyte recruitment and cytokine release in influenza A virus (IAV)-infected lungs on day 6 and 7 summarizing data from Figure 1 and 4 of the main article. Mice 41 infected with 10^2 PFU IAV or sham-infected with PBS were treated with 0.5 µg MALP-2 or 42 43 solvent on day 5 (PBS and IAV [d6]). Secondary sham infection with PBS was performed on 44 day 6 (IAV [d7]). BAL was performed and BALF leukocytes (A) and cytokines (B) were quantified six and seven days post infection. Dotted lines indicate the lower limit of the 45 46 cytokine assay working range and are missing if all values were within the working range. b.t. = values below threshold. Values are given as mean + SEM (n=5-8 (A) or 3-8 (B) each 47 group). * p < 0.05, ** p < 0.01 as indicated; # p < 0.05, ## p < 0.01, ### p < 0.001 vs. 48 49 corresponding sham-infected group.