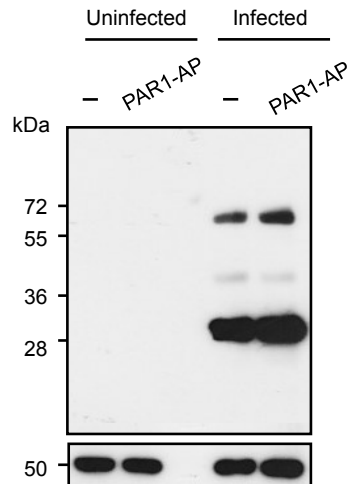
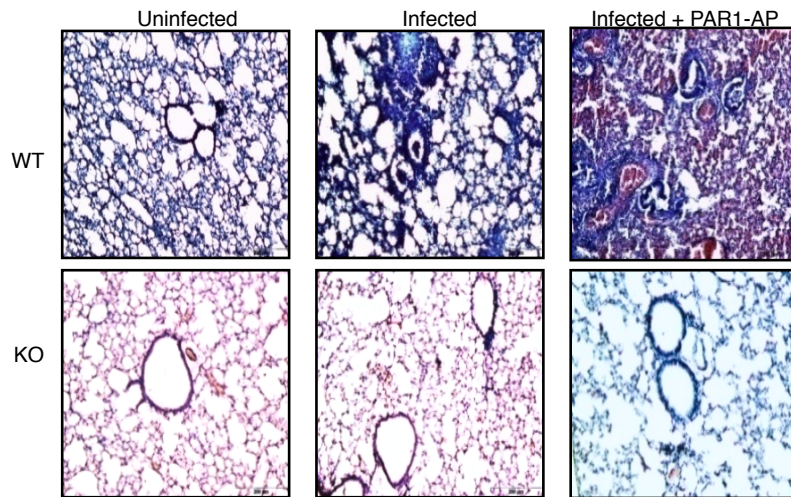


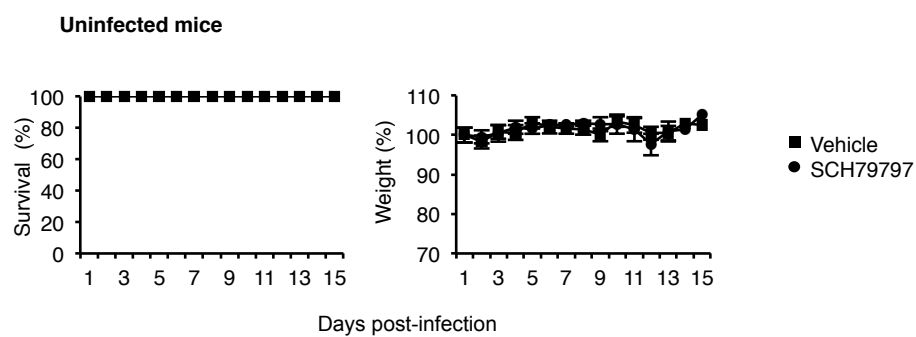
**Supplemental data S1: PAR1 agonist specifically increases inflammation in IAV-infected mice.** Cytokines in the BAL of infected mice (50PFU) treated with PAR1-AP (TFLR-NH2) or control peptides (FTLR-NH2) were measured by ELISA assay 24 hours post-infection. Histograms represents the mean values  $\pm$  standard deviation from 6 individual animals per groups from 2 independent experiments.



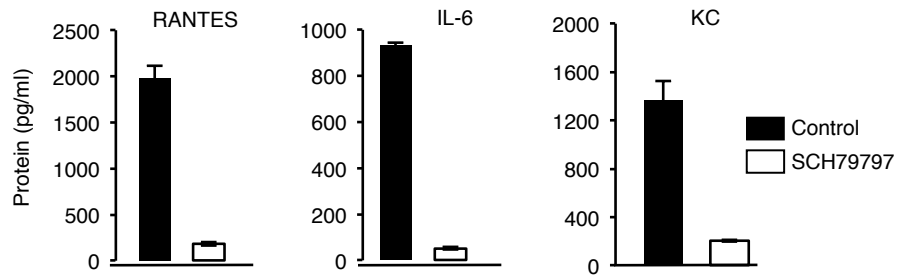
**Supplemental data S2: PAR1 agonist does not affect virus entry into cells.** A549 cells were infected with A/PR/8/34 virus (MOI 20) in absence (-) or presence of PAR1-AP for one hour and accumulation of viral proteins from incoming virus was analyzed by western blot using a polyclonal anti-A/PR/8/34 antibody. PAR1-AP did not have an effect on accumulation of viral proteins in infected cells. kDa : apparent molecular weight.



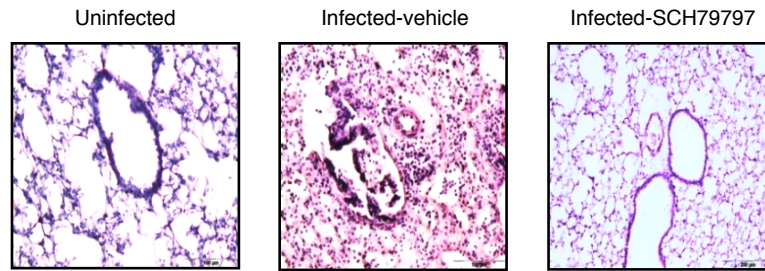
**Supplemental data S3: Histopathological examination of lungs from infected mice treated or not with PAR1-AP.** Infiltration of inflammatory cells in the lungs of uninfected or infected mice (50 PFU) treated or not with PAR1-AP (50 $\mu$ M) at day three post-inoculation. PAR1-mediated inflammation was abolished in PLG KO mice (KO).



**Supplemental data S4: Survival and body weight of mice after administration of SCH79797.** Survival and weight loss was assessed on uninfected mice, treated or not with 50  $\mu$ M SCH79797 (n= 7 mice per group).



**Supplemental data S5: Cytokines levels in the BAL of infected mice treated or not with SCH79797.** Cytokines levels were measured by ELISA in the BAL of infected mice 5 days post inoculation. Results show the average values  $\pm$  standard deviations from 5 individual mice per group.



**Supplemental data S6: Histopathological examination of lungs from infected mice treated or not with SCH79797.** Infiltration of inflammatory cells in the lungs of uninfected or infected mice (500 PFU) treated or not with SCH79797 (50 $\mu$ M) at day three post-inoculation. SCH79797 prevented PAR1-mediated inflammation.