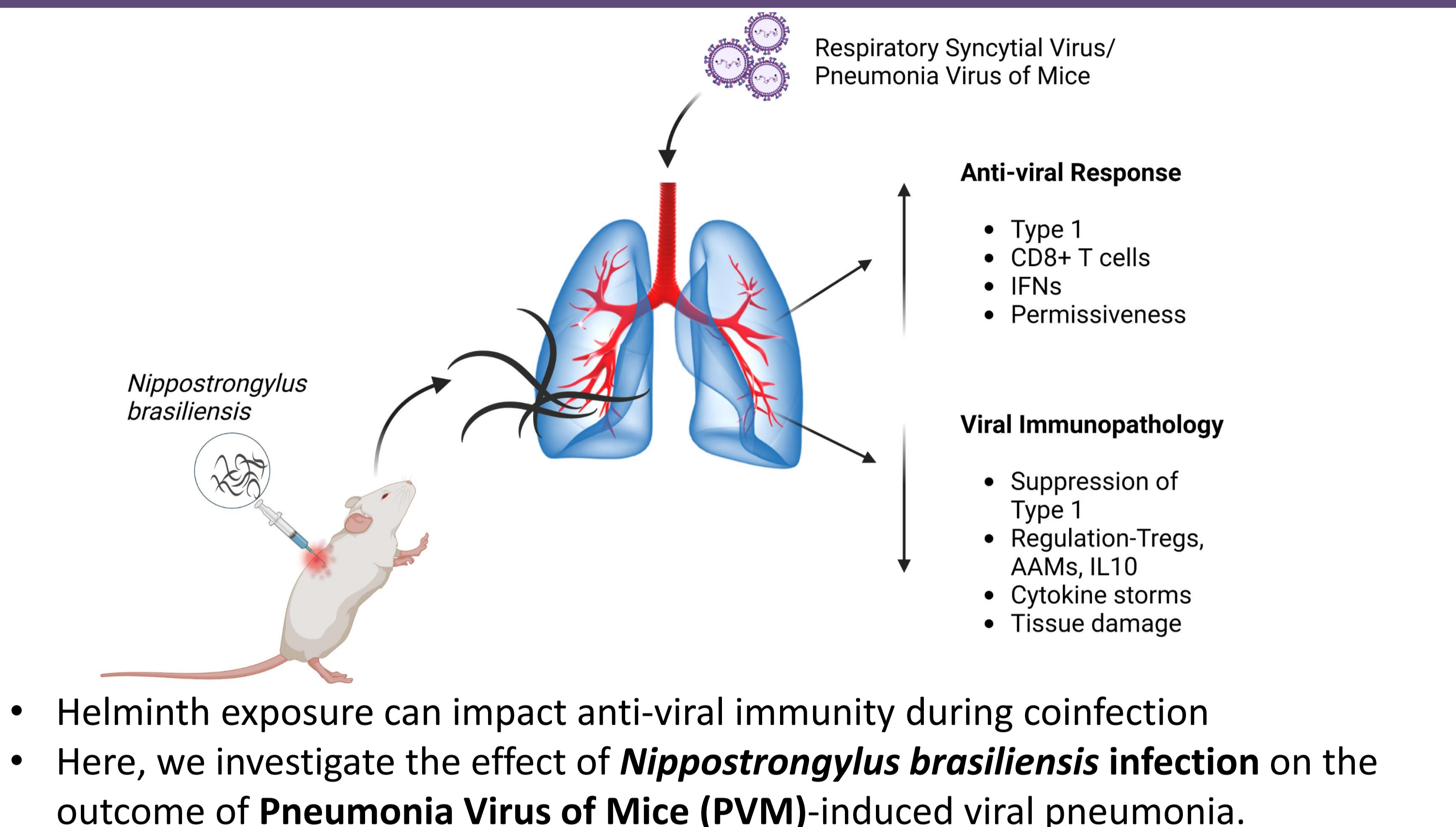


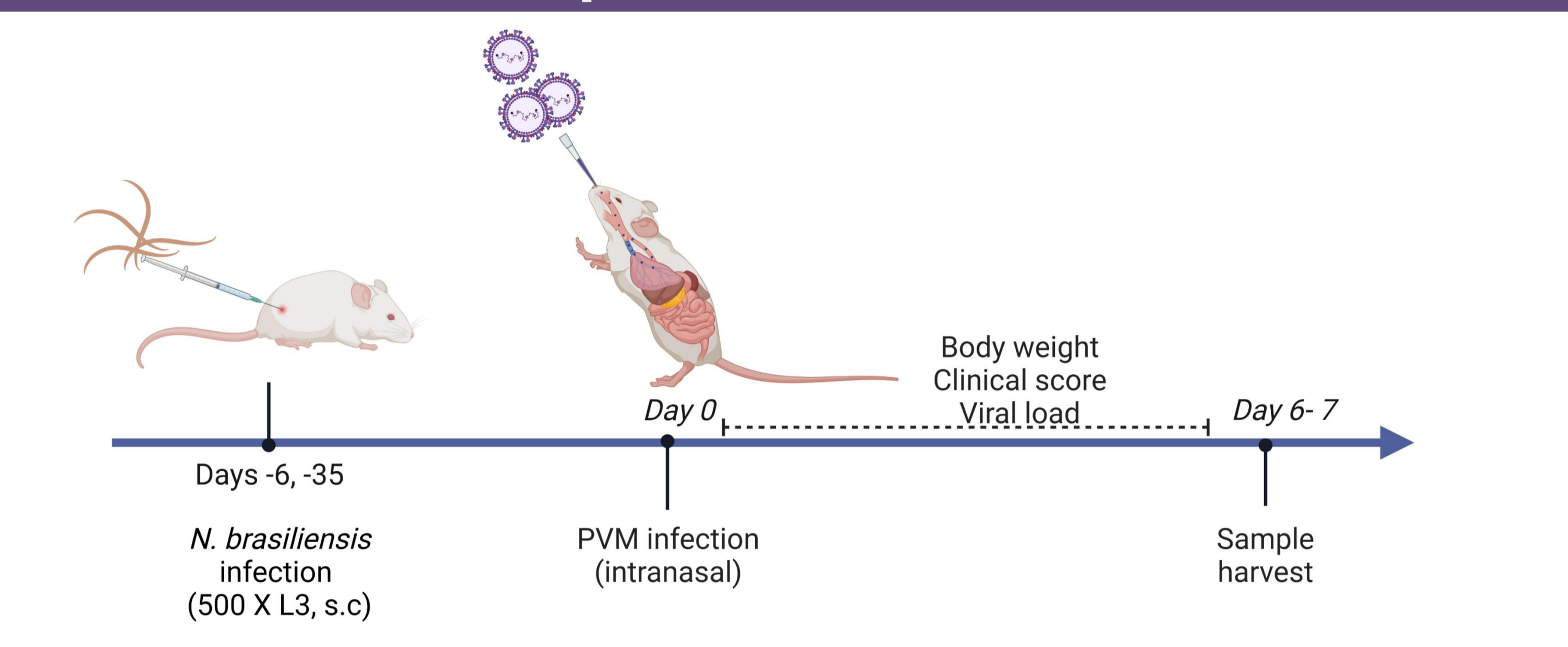
A history of helminth exposure protects against pneumovirus infection in an IL-4R α -independent manner

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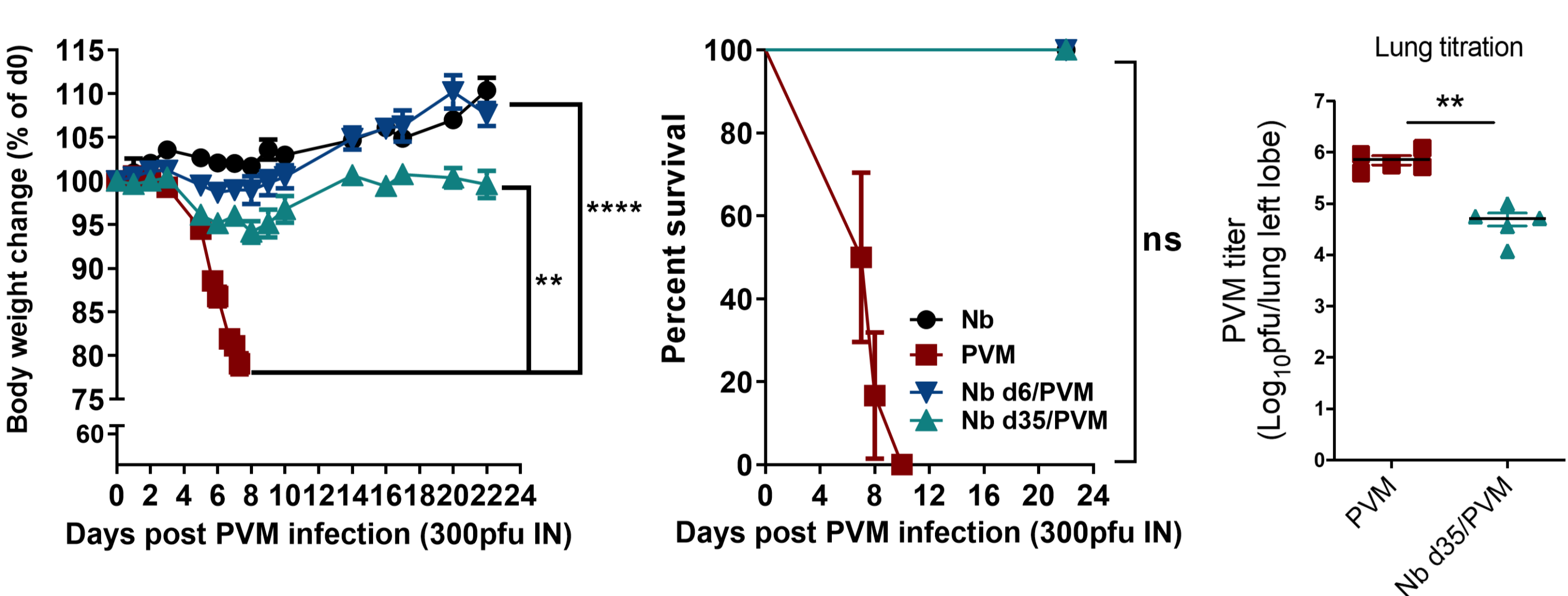
Background



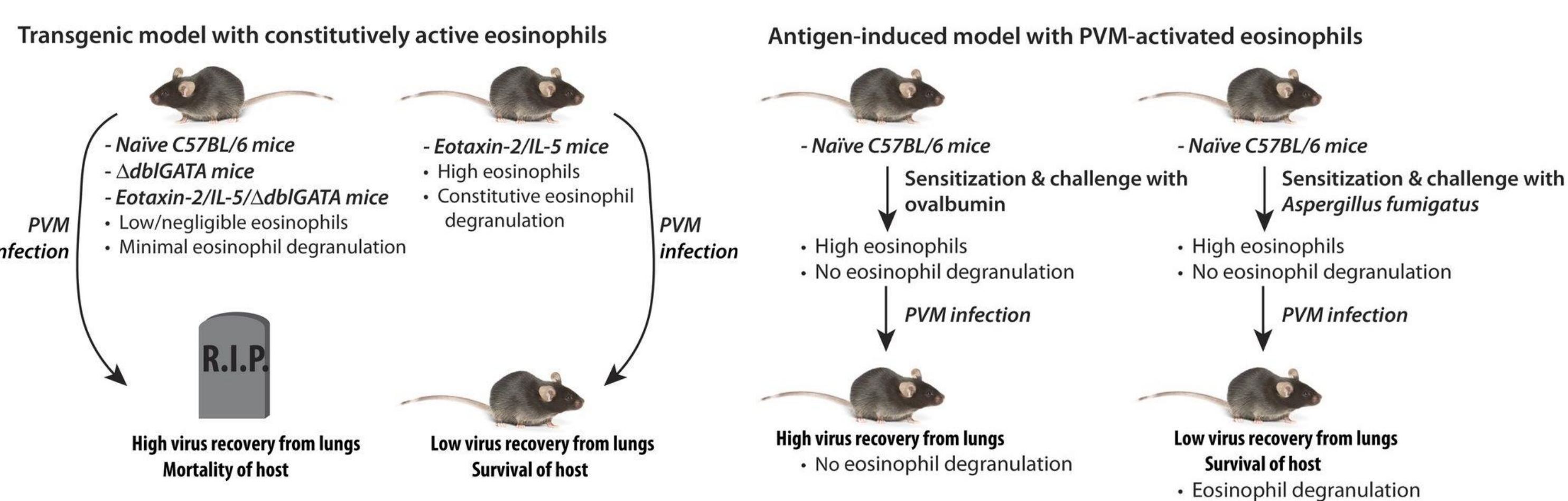
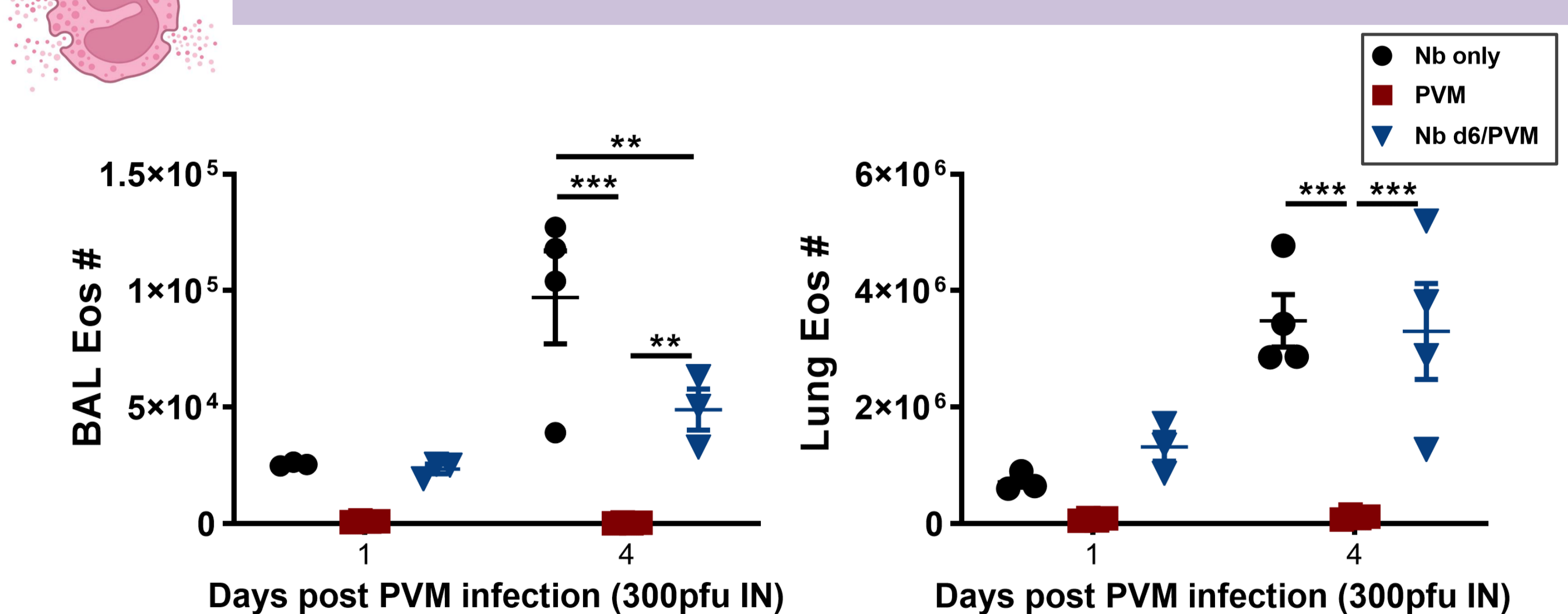
Experimental Plan



1. *N. brasiliensis* infection protects against PVM-induced pneumonia

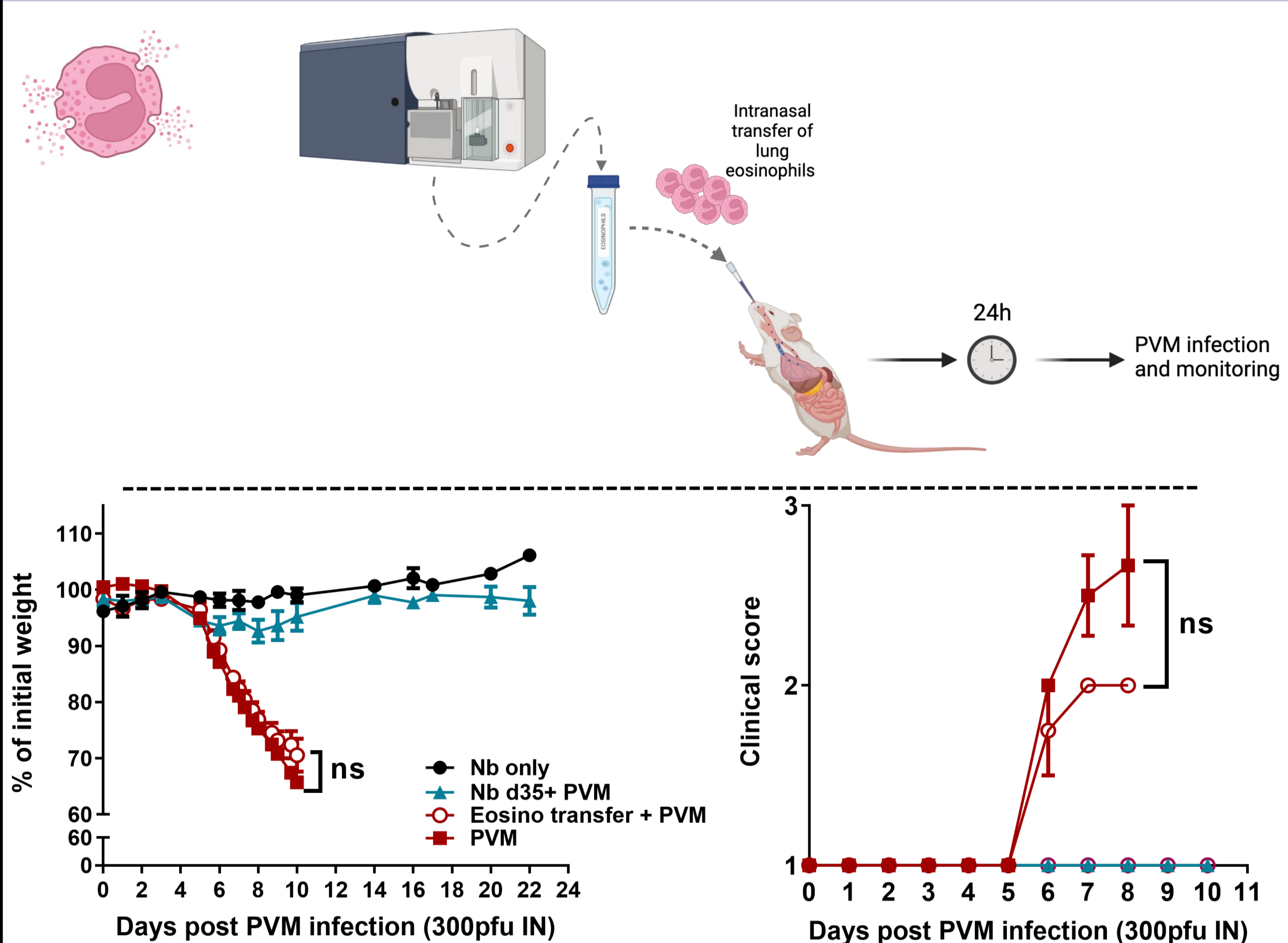


2. Contribution of lung eosinophils?

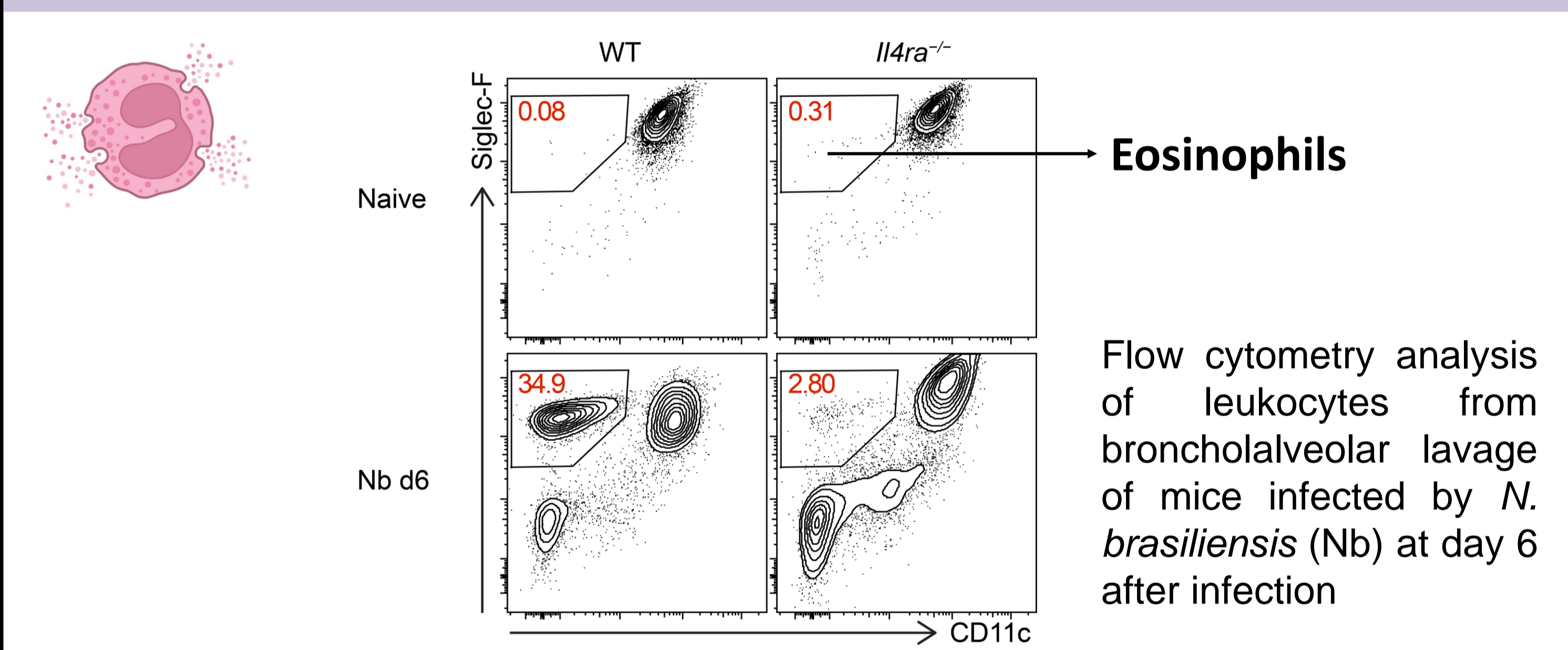


Activated mouse eosinophils protect against lethal respiratory virus infection
 Caroline M. Percopo, Helene F. Rosenberg et al. Blood (2014) 123 (5): 743–752

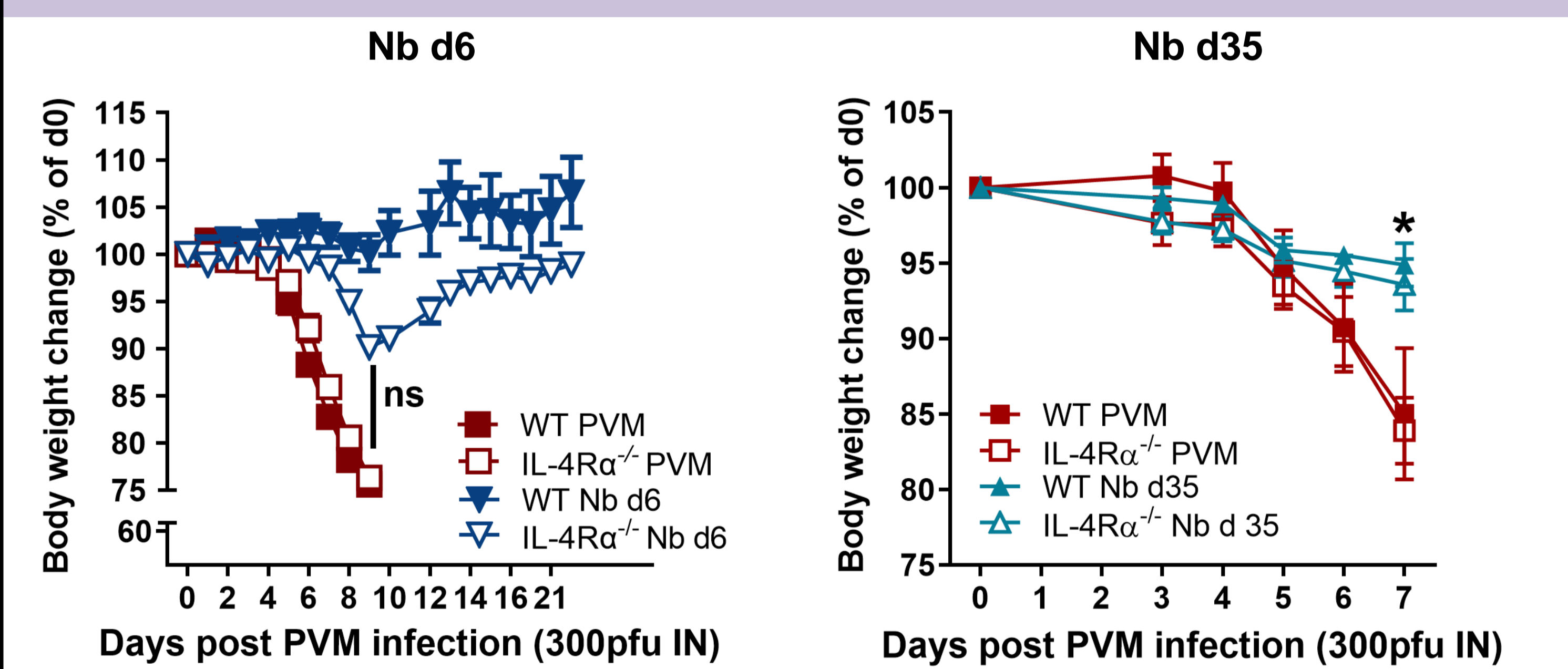
3. Airway transfer of lung eosinophils does not protect against PVM-induced pneumonia



4. Impaired recruitment of eosinophils in the airway of IL-4R α deficient mice after *N. brasiliensis* infection



5. Protection against PVM-induced weight loss is IL-4R α independent



Conclusions

- We demonstrate that prior *N. brasiliensis* (Nb) infection protects against PVM-induced pneumonia.
- Protection is associated with reduced viral burden in the lung.
- Although type 2 activated mouse eosinophils are demonstrated to protect against PVM infection; eosinophil transfer from Nb infected mice failed to provide a protective effect against PVM-induced pneumonia.
- IL-4R α KO mice exhibit poor eosinophil recruitment and weak type 2 immunity and are protected from PVM-induced pneumonia.
- These data demonstrate that IL-4R α signalling and eosinophil recruitment are dispensable for the *N. brasiliensis*-induced protection against PVM-induced lung disease.