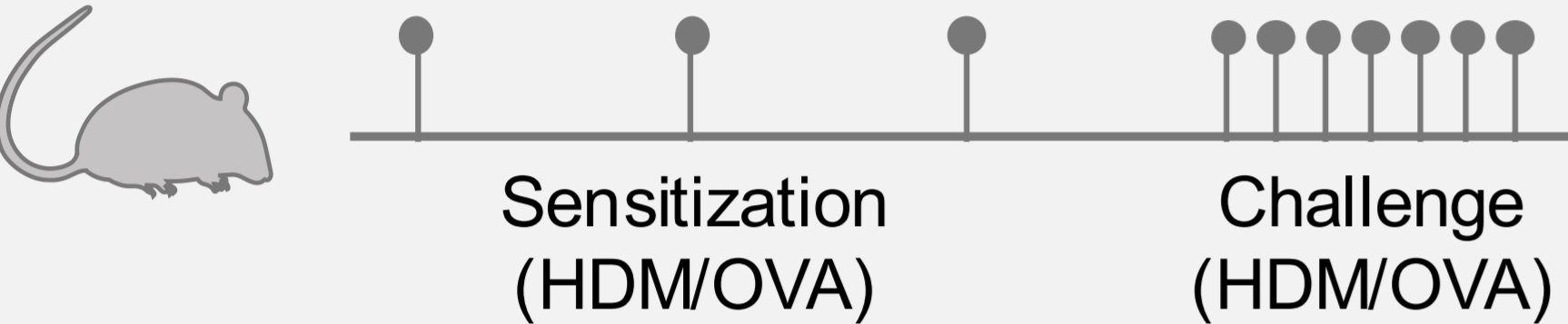


Pharmacological silencing of nasal TRPV1+ nociceptors ameliorates eosinophilic infiltration but exacerbates neutrophilic infiltration in murine models of allergic rhinitis

Experimental Design

AR models: HDM or OVA-induced mice



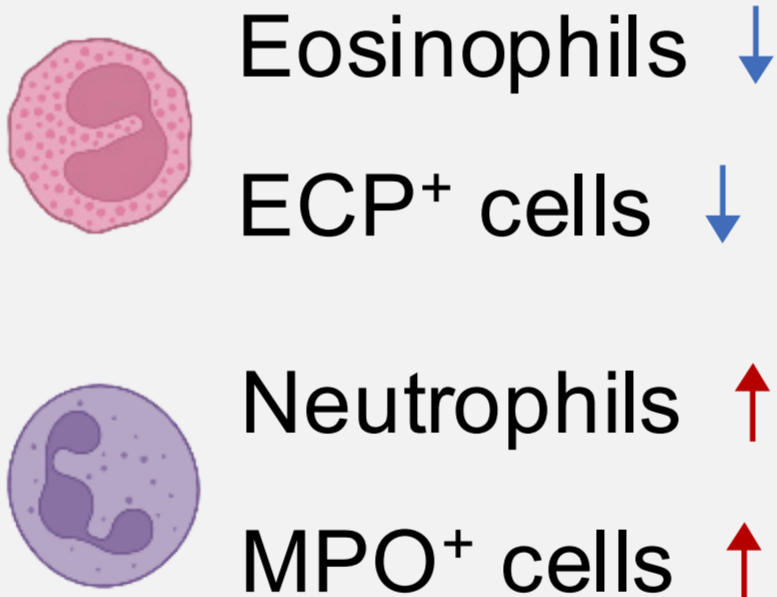
Strategies to silence TRPV1+ sensory neurons



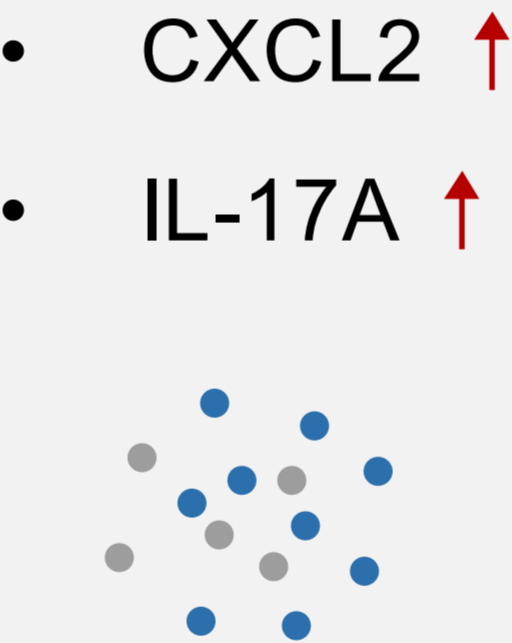
Key Findings

- TRPV1+ silencing reduces eosinophils but increases neutrophils in AR
- This neutrophilia is associated with barrier damage and heightened inflammation

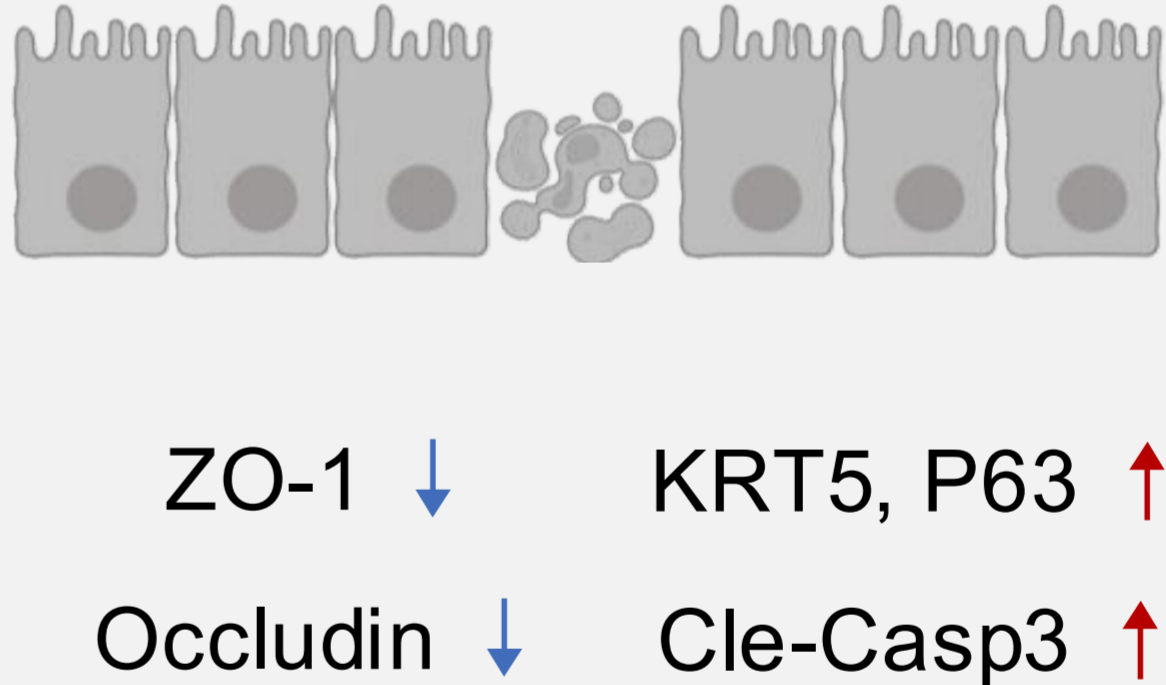
Inflammatory phenotype



Neutrophil-related mediators



Epithelial barrier damage Remodeling & apoptosis



Inflammatory burden



Conclusion

- ➔ Silencing nasal TRPV1+ sensory nerves exerts dual immunomodulatory effects in AR
- ➔ Precise neuromodulation targeting TRPV1+ sensory nerves is required to suppress allergic inflammation while maintaining mucosal homeostasis.