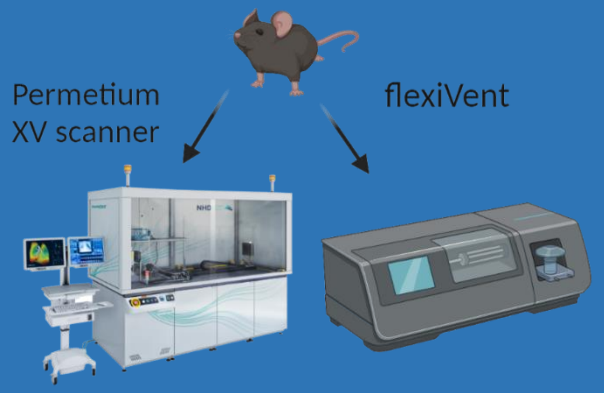
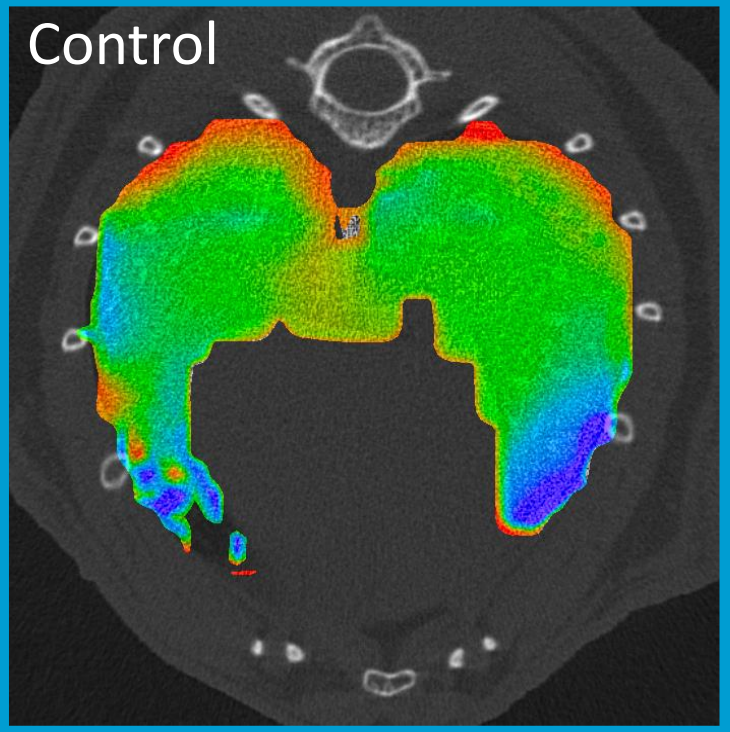
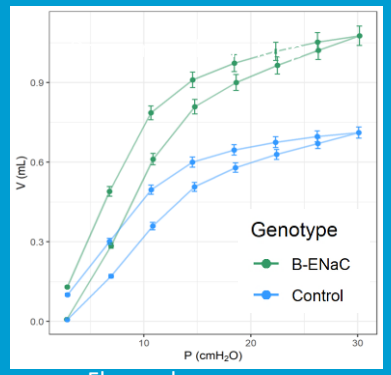
X-ray velocimetry identifies peripheral ventilation changes in β-Epithelial-Na-Channel-Tg mice

Aim: Undertake a comprehensive lung function and mechanics analysis of adult β-ENaC mice, a model of muco-obstructive lung disease.

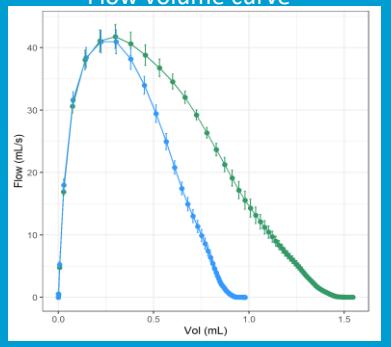
Methods: X-ray Velocimetry scans were acquired with a 4DMedical Permetium scanner, and lung mechanics were assessed with a Scireq flexiVent

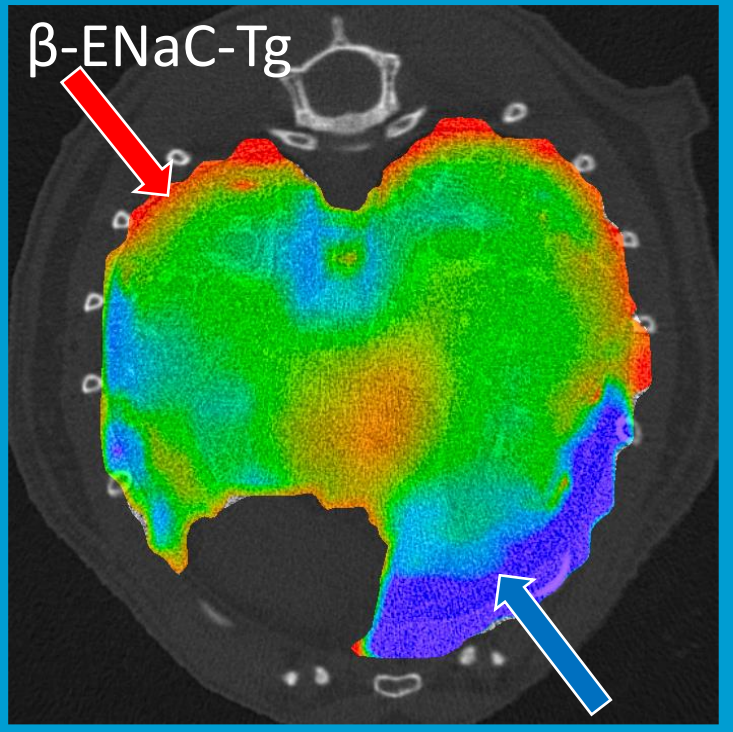






Flow volume curve





Results: β-ENaC-Tg mice exhibited patchy airflow across the lungs and regions of altered ventilation in the peripheral regions of the lungs. β-ENaC-Tg mice demonstrated mechanical properties of an emphysematous model.

Respirology

Functional lung imaging identifies peripheral ventilation changes in β-ENaC mice. Reyne et al., Respirology; 2025, DOI: 10.1111/resp.70009