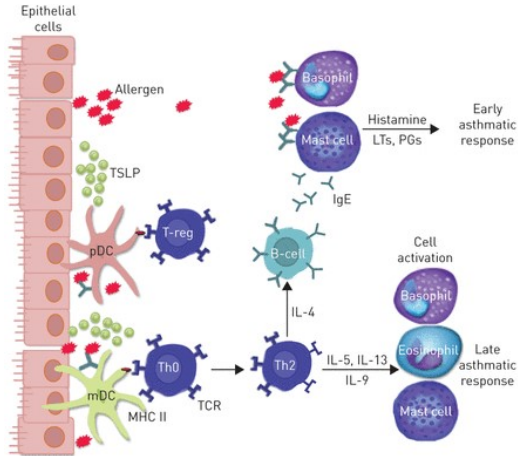


# The Role of epithelial c-Jun NH2-Terminal Kinase 1 in house dust mite induced pulmonary remodeling

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# Pathogenesis of asthma



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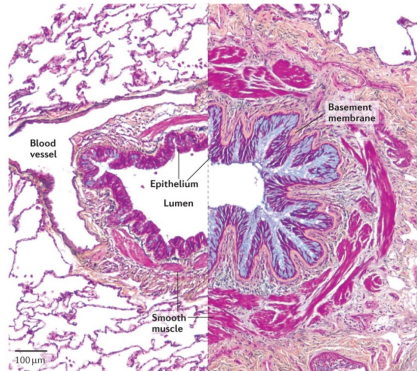
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- IL-4/IL-13 phosphorylate STAT6 leading to Th2 cell activation
- Characterized by a IgE to IgM antibody shift
- result of repeated injury and repair

# Pulmonary Remodeling



Here we have a normal airway to the left and an asthmatic airway to the right with pulmonary remodeling. Sub-epithelial collagen (red), goblet cell mucus metaplasia(blue), and some airway hyperresponsiveness

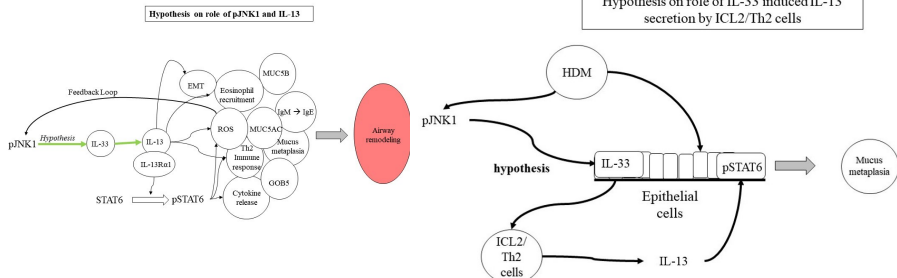
# Introduction of key players

- JNK1
- IL-13
- **STAT6**
- IL-33
- Hypothesis: Epithelial JNK1 drives airway remodeling via regulating IL-33 induced IL-13- expression and resultant downstream phosphorylation of STAT6.



# Hypothesis figures

- 1) Model of pathway
- 2) role of IL-33 on non-epithelial cell secretion



# Phosphorylation of STAT6 Immuno-Fluorescence Stain

