

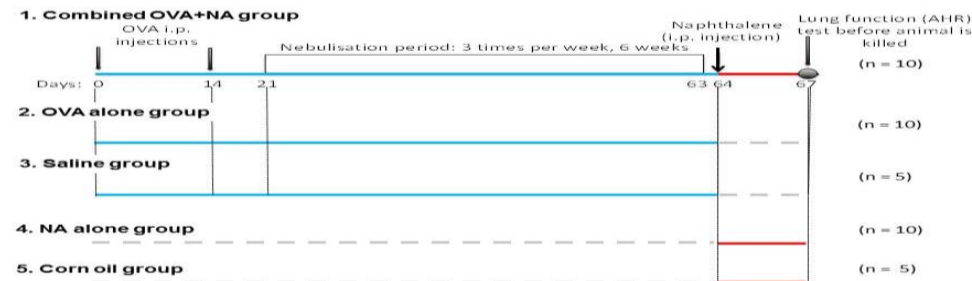
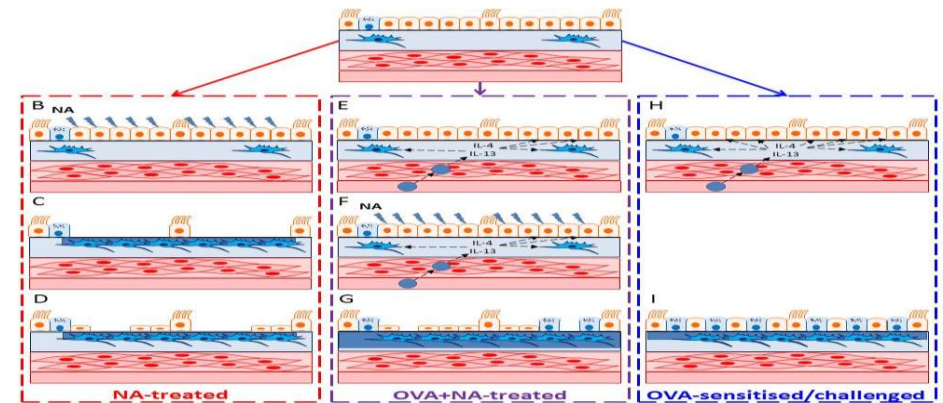
DISEASE MODEL

The **Lung Biology Network** has utilised and developed gold standard and improved models of lung disease for over 15 years.

We apply these extensively validated models to assess clinically relevant endpoints.

Major models include:

- LPS models (**acute lung injury**)
- allergic airways disease models (**asthma**; acute, subacute, chronic)
- epithelial damage (**environmental injury**)
- bleomycin models (**IPF**; single or multiple dose)
- early life exposures (**BPD**) and aging
- transgenic susceptible models of fibrosis and epithelial damage/repair
- characterization of lung and systemic phenotype of KO
- combined models



Custom experimental designs are drawn up in consultation with client needs



Model: Chronic allergic airways disease model (cAAD)
Sensitization / challenge with antigen
(chicken egg white or house dust mite)

Application: Testing preventative and reversal therapies for asthma.

This model contains many of the facets of human asthma

- elevated IgE
- airway inflammation (BAL cytokines, eosinophilia)
- airway remodelling (goblet cell metaplasia, peribronchial fibrosis, angiogenesis)
- airway hyperresponsiveness (*in vivo* and *ex vivo*)

This gold standard model forms the basis for many of our other disease models.