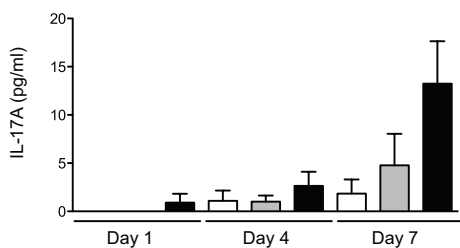
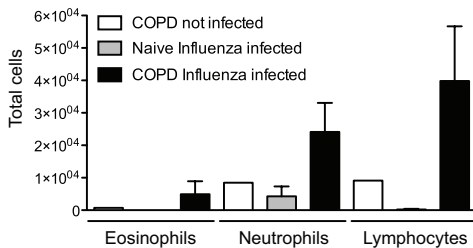


Exacerbation of COPD:

Conservative estimates place chronic obstructive pulmonary disease (COPD) as the world's fifth most prevalent disease. The leading cause of hospitalization of individuals suffering from COPD is acute lung dysfunction due to infection with respiratory pathogens. Some evidence also indicates that episodes of pathogen-induced exacerbation of COPD may also accelerate the progression of COPD and loss of lung function. Current therapeutic options are limited and run the risk that broad-spectrum suppression of the inflammatory response may impair the individuals ability to clear the infection. There is a clear need for new treatments. Compounding the problem is the paucity of relevant preclinical models that allow full analysis of the inflammatory exacerbation and direct measurements of lung function. Our model of Influenza A- and Respiratory Syncytial Virus-induced exacerbation of COPD allows the rapid assessment of a drugs efficacy in controlling exaggerated inflammation and protecting lung function. In addition, utilizing this model one can ascertain the effect of the drug candidate upon controlling the COPD exacerbation and its effect upon mounting a protective anti-viral response with consequent clearance of the infection and protective immunity.



Experimental readouts:

- Lung function studies (compliance, resistance, FEV1, total lung volume)
- Histological analysis
- Determination of cellular infiltrate into the tissue and airways
- Persistence or clearance of the pathogen
- Measurement of disease biomarkers
- Analysis of tissue cytokines and chemokines

Duration:

20-40 days dependent upon experimental readouts

Service Package I is available alone, or in combination with Service Packages II and III

Service Package I

- Administration of test compounds
- Initiation of disease model
- Analysis of cell infiltrate

Service Package II

- Lung function
- Histological analysis

Service Package III

- Analysis of airway and tissue cytokines and chemokines

Our scientific project managers can provide expert advice and guidance for all of your efficiency studies.

Please contact us for customized Service Packages
info@preclinbiosystems.com