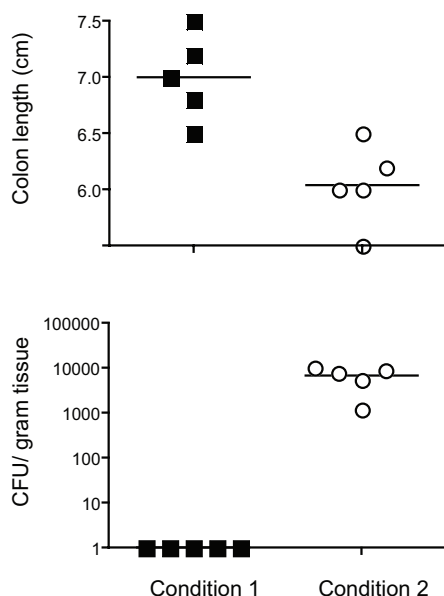


Pathogen-induced colitis

Enteropathogenic and enterohemorrhagic Escherichia coli are noninvasive bacterial pathogens that infect their hosts' intestinal epithelium, causing severe diarrheal disease. Both of these bacteria are human specific, precluding effective in vivo efficacy studies in mice. In order to model the colitis induced by such bacteria, we utilize Citrobacter rodentium, which is a mouse attaching and effacing bacterium that infects colonic epithelial cells, causing colitis and epithelial hyperplasia, using a similar array of virulence proteins as the Escherichia coli strains. Importantly, the disease induced by Citrobacter rodentium is virtually identical to that of Escherichia coli in humans.



Experimental readouts:

- Weight loss
- Histological analysis
- Bacterial dissemination
- Disease pathology scoring
- Quantitative PCR analysis of tissue cytokines and chemokines

Duration:

10-30 days dependent upon experimental readouts

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

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

Service Package I

- Administration of test compounds
- Induction of colitis model
- Assessment of weight loss and bacterial dissemination

Service Package II

- Histological analysis

Service Package III

- Quantitative PCR analysis of tissue cytokines and chemokines