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## Dextran sulfate sodium (DSS)-induced colitis model SMC's CRO services

### *Digest version*

The **full version** includes the following content.

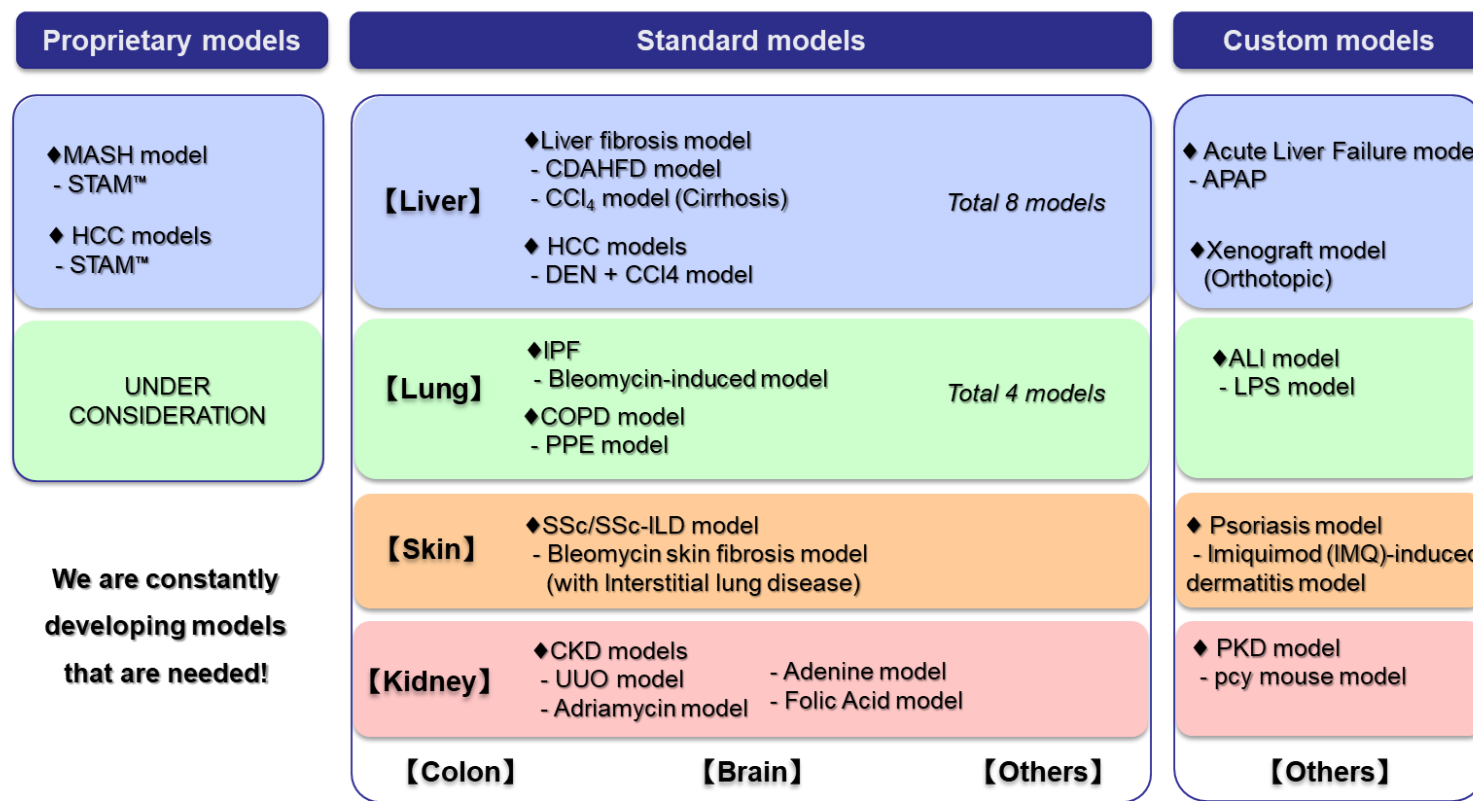
- Chronic DSS model (digest version include only acute DSS )
- Cytokine analysis data
- Histology guide
- Drug evaluation data (**Mesalazine, Etrasimod, Infliximab**)  
etc.

**Request for the full version materials from [here](#).**



## SMC Laboratories:

A pharmaceutical research assistance firm that provides drug evaluation studies to universities and R&D companies enthusiastic about delivering novel drugs to patients suffering from unmet medical needs. We focus on fibrosis, and support development of novel drugs by providing preclinical drug efficacy study services all around the world with the following disease animal models. We provide preclinical drug efficacy study services with our proprietary model, STAM™, inflammatory and fibrotic disease models (standard models), and disease models established at clients' requests (custom models).



## SMC overview

- Established in 2014
- Clients from 30 countries
  - Oversea clients : 70%
  - **# of clients: Over 1,200**
  - Repeat rate: 90%
  - Average # of trials: about 3 studies / client

**15** successful CTA packages

Over **600** MoAs tested

Total **20** models focused on inflammation, fibrosis and cancer

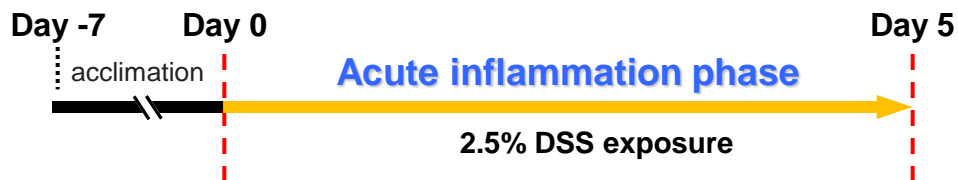
Experienced in more than **1,000** studies

Establishing **18** new models

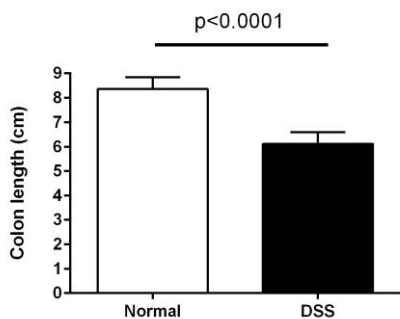
**78%** success rate

## DSS-induced colitis model

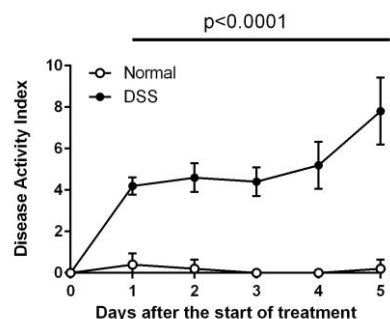
Acute DSS model  
(Mouse: C57BL/6J, female, 9 weeks of age)



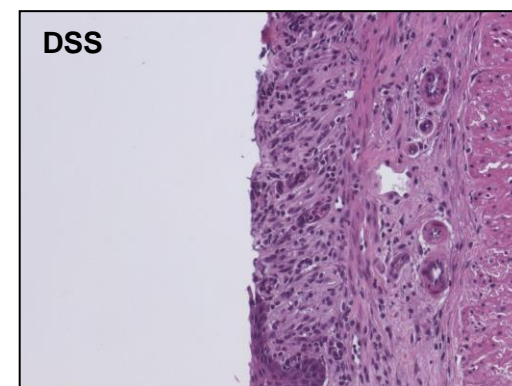
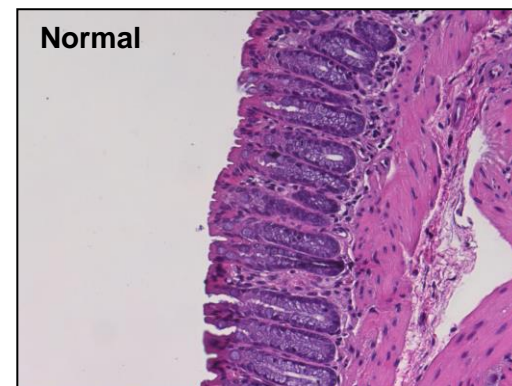
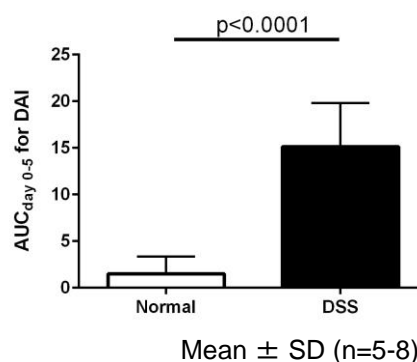
### Colon length



### Disease activity index



### AUC for DAI



In the acute DSS model, an increase in DAI and damage to colon tissue (loss of crypt/epithelium layer and inflammatory cell infiltration) were observed.

# Case study: Tacrolimus (using Acute DSS model)

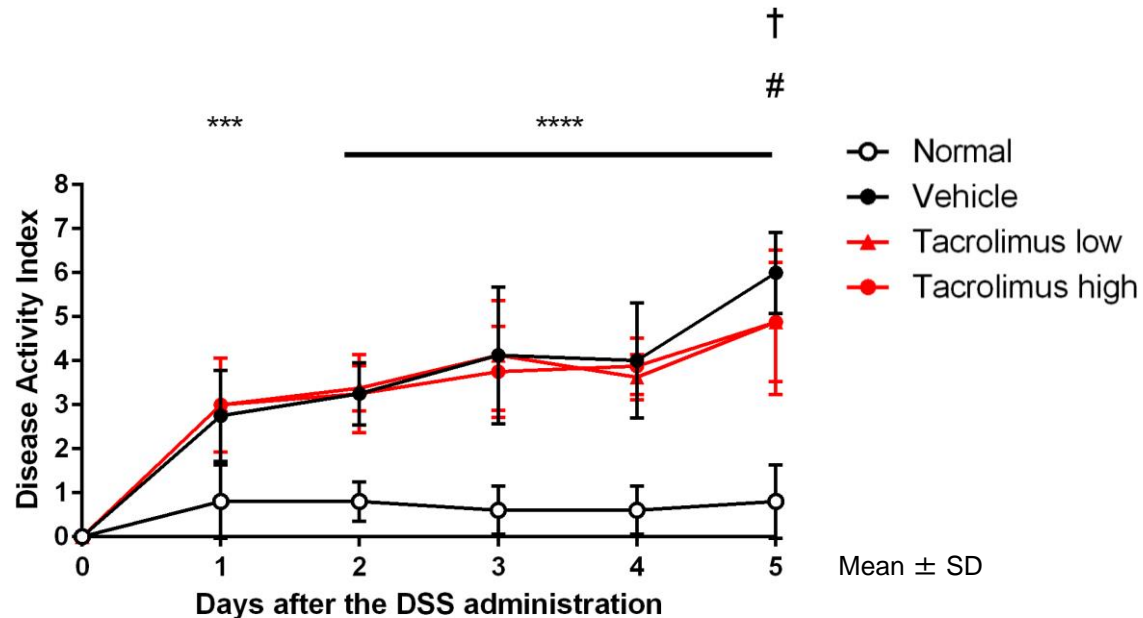


## DSS-induced colitis model

Acute DSS model  
(Mouse: C57BL/6J, female, 9 weeks of age)



## Disease activity index



Treatment with Tacrolimus lowered disease activity index compared to DSS group.