![Biomodels logo] **Biomodels**
FAST. INNOVATIVE. PREDICTIVE.

CUSTOMIZED PRECLINICAL SERVICES
Biomodels LLC, an AAALAC accredited preclinical CRO, has spent the last 25+ years developing and executing predictive and highly translational efficacy studies for biotechnology and pharmaceutical companies.
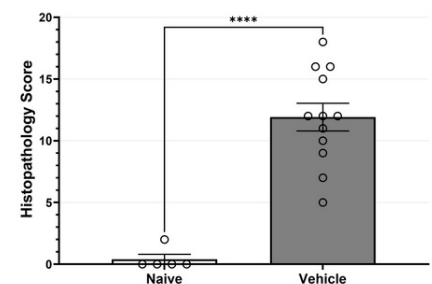
RODENT COLITIS MODELS

DSS-induced Colitis (Acute/Chronic)

Colitis is induced in C57Bl/6 mice via exposure to DSS-treated drinking water. Animals are evaluated daily for survival and body weight as well as presence/severity of diarrhea and blood in stool. Colitis can be assessed without animal sacrifice by video endoscopy. At sacrifice, colon weight and length are measured, and samples can be collected for a variety of endpoints including histopathology, cytokine analysis, and flow cytometry. Standard readouts include weight loss, diarrhea and blood in stool scoring for disease activity index (DAI), colitis severity and stool consistency scoring via endoscopy, colon weight and length measurement at euthanasia, and histopathology analysis. Additional readouts include colon cytokines, colon MPO, fecal inflammatory markers, and immunophenotyping via FACS.
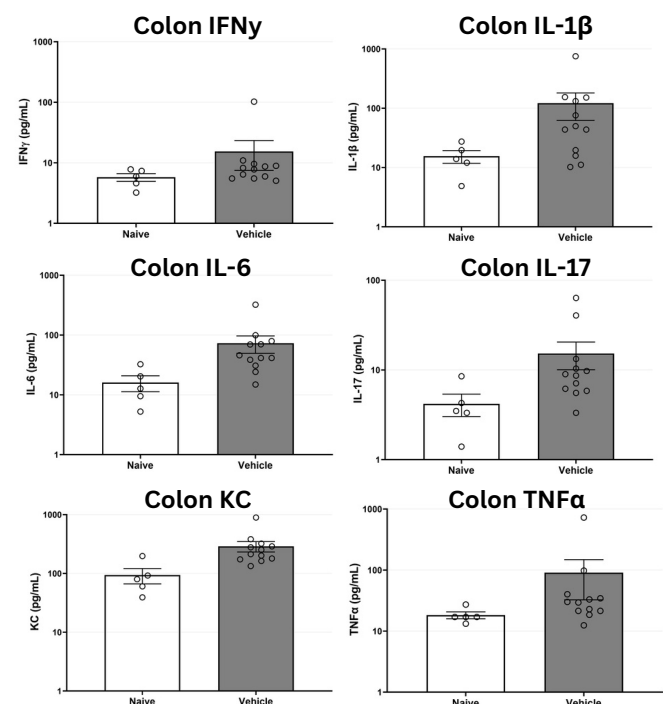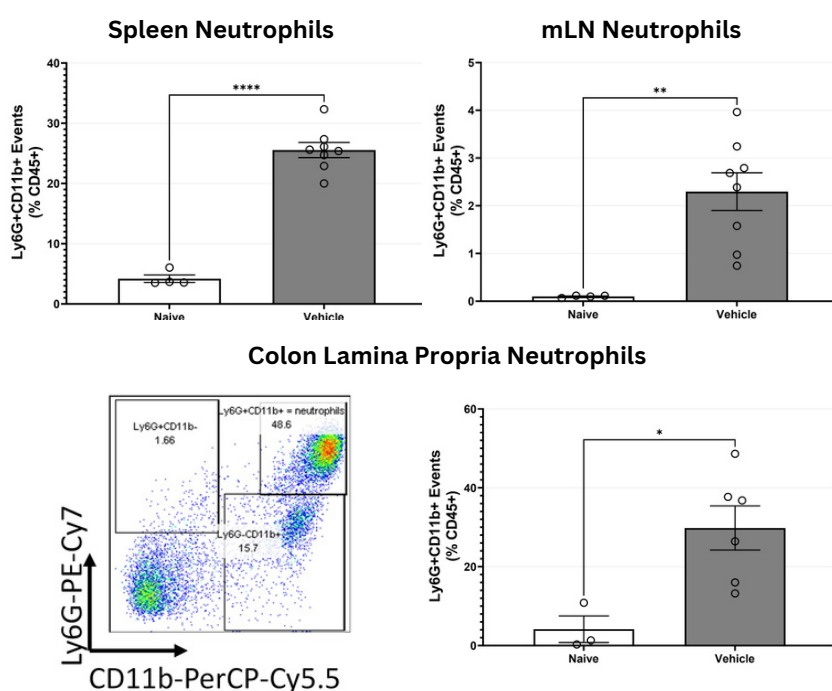
In Life Endpoints

Body Weight Change

Composite Disease Activity Score

Colitis Severity Score

Colon Weight:Length Ratio
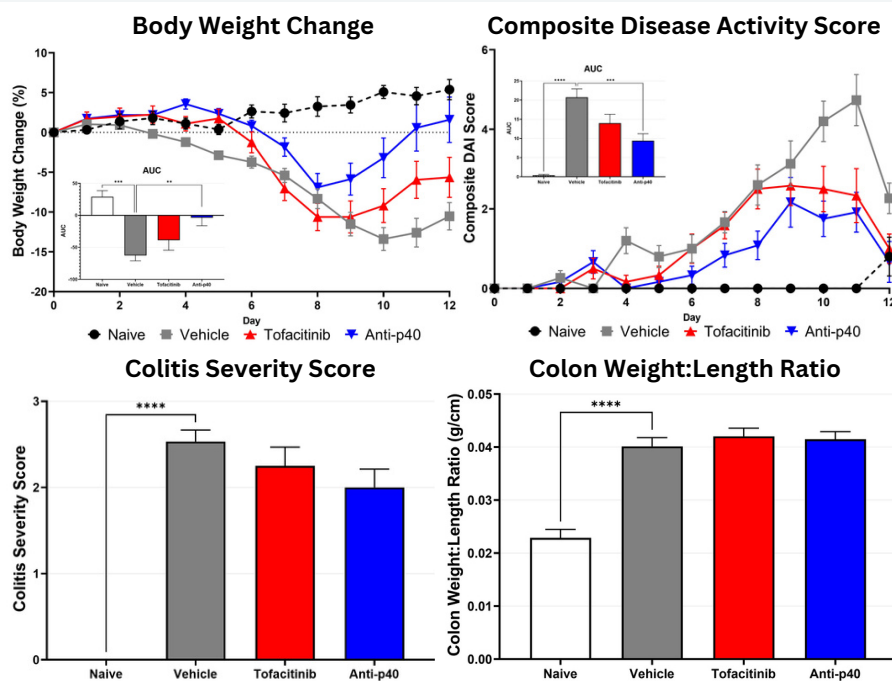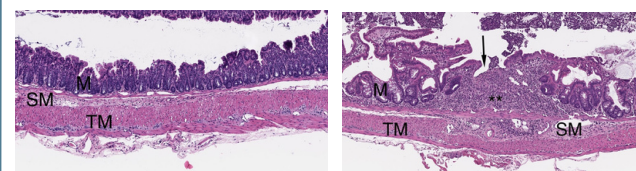
Histopathology

Naïve   Vehicle

Sum Histopathology Score

Histopathology analysis performed by
Dallas Tissue Research, info@dallastissue.com

![Dallas Tissue Research logo] DALLAS TISSUE RESEARCH

Ex Vivo Endpoints

Spleen Neutrophils

mLN Neutrophils

Colon Lamina Propria Neutrophils

Colon IFNγ

Colon IL-1β

Colon IL-6

Colon IL-17

Colon KC

Colon TNFα

RODENT COLITIS MODELS (CONTINUED)

Adoptive Transfer Colitis

Colitis is induced in RAG2-/- mice via adoptive transfer of naïve Th cells harvested from C57Bl/6 donors. Engraftment is confirmed by assessment of peripheral blood CD4+ T cell percent frequency two weeks following transfer, and animals are randomized into treatment groups thereafter. Experiments are typically 6-8 weeks in duration.
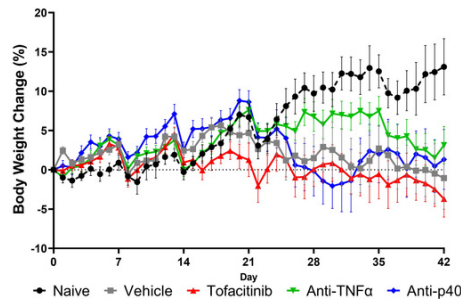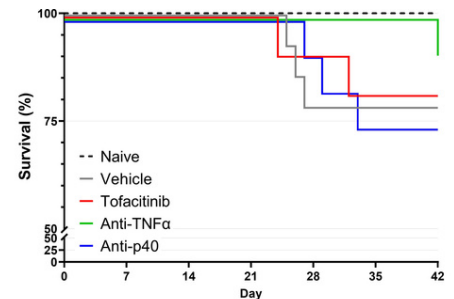
In Life Endpoints

Have a preclinical project in mind?

Schedule a call with Caitlin Parello, Ph.D., the scientist on our team who leads our Colitis studies!
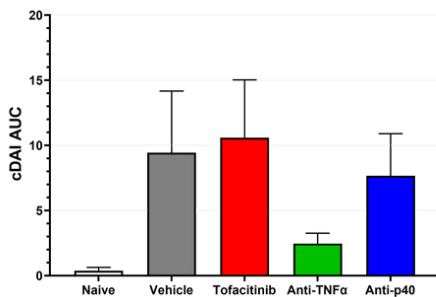
Click here to submit your request.
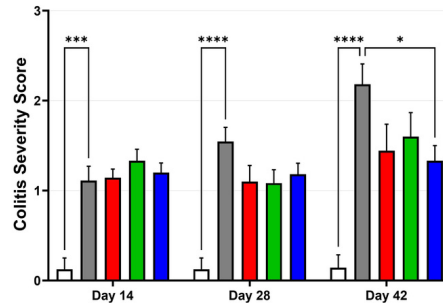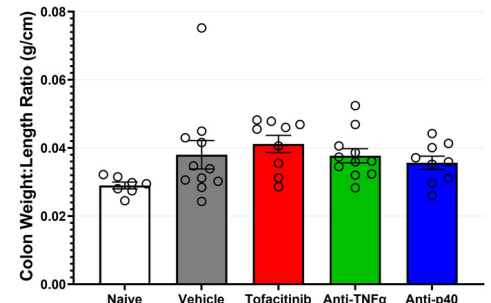

Body Weight Change

Survival
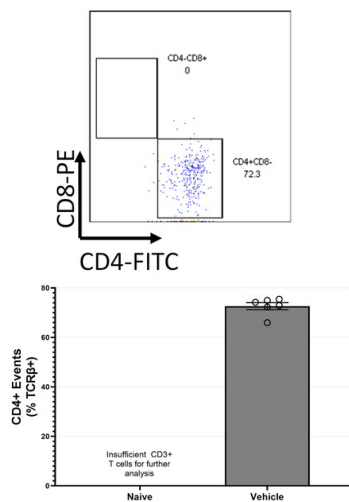

Composite Disease Activity Score

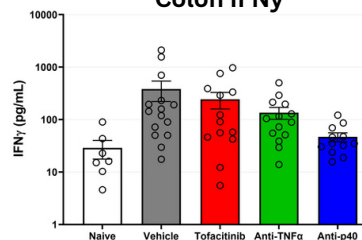Colitis Severity Score

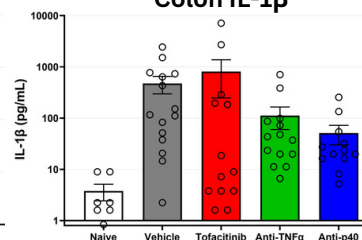Colon Weight: Length Ratio

Ex Vivo Endpoints

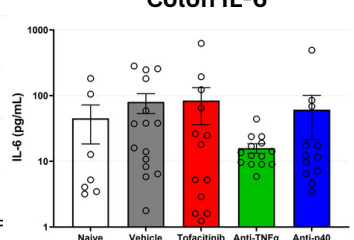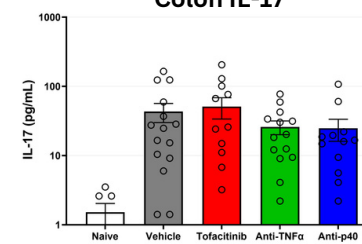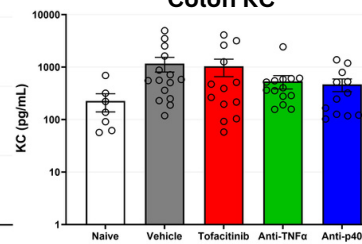Colon Lamina Propria CD4+ T Cells

Colon IFNγ
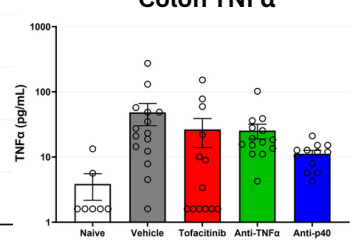

Colon IL-1β

Colon IL-6

Colon IL-17

Colon KC

Colon TNFα

2023 EVENTS

Microbiome Movement Drug Development **|** June 29 - 30, 2023 | Boston, MA

Anti-Fibrotic Drug Development (AFDD) **|** October 25 - 26, 2023 | Boston, MA

AREAS OF EXPERTISE

Cancer Supportive Care **|** Inflammatory & Autoimmune Diseases **|** Oncology **|** Microbiome **|** Radiation Countermeasures **|** Metabolic Disease **|** Fibrosis **|** Microbiology & Infectious Disease **|** Pulmonary Disease **|** Cardiovascular **|** Neurological & Psychological Disorders **|** Pharmacology