MS Models

CrownBio
CONNECTING SCIENCE TO PATIENTS

In vivo models to progress your MS inflammation agents to the clinic

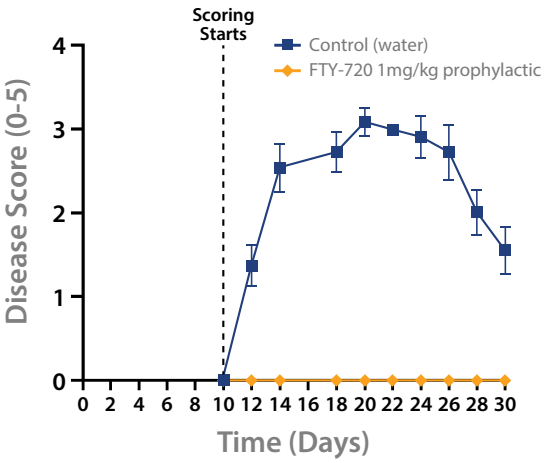
Advance your multiple sclerosis agents through the drug development process with our preclinical inflammation platform. Utilize well-validated models, including the MOG-EAE model which closely represents the human condition.

- Select preclinical models with diverse mechanisms that capture many of the key characteristic clinical and pathologic features of MS including:
  - myelin oligodendrocyte glycoprotein-induced experimental autoimmune encephalomyelitis (MOG-EAE) model
  - proteolipid protein-induced experimental autoimmune encephalomyelitis (PLP-EAE) relapsing-remitting model coming soon.
- Determine efficacy and response to treatment.
- Select qualified MS lead agents.

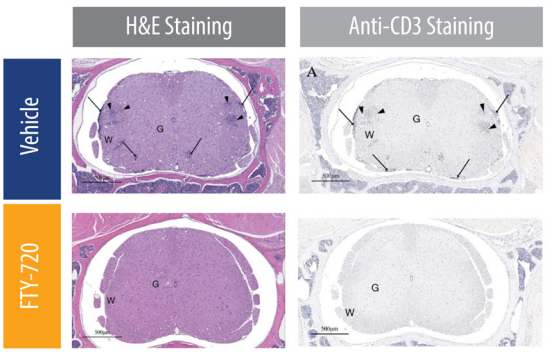
MOG-EAE model

- Mice are immunized with MOG_{35-55} myelin-associated peptide in complete Freunds adjuvant, then treated with pertussis toxin to promote increased transport of leukocytes across the blood-brain barrier.
- Disease onset occurs after Day 10.
- Major endpoints for assessment:
  - body weight measurements
  - Disease Paralysis Scoring (daily after Day 10)
  - cytokine levels
  - FACS analysis of immune cell populations
  - perfusion of the brain and spinal cord for histopathology assessment.

MOG-EAE Model Validation with FTY-720 (Fingolimod)



MOG-EAE Mouse Model Representative Spinal Cord Histopathology



Spinal Cord Sections

Black arrows: perivascular infiltration of lymphocytes; arrowheads: extension of inflammatory cells into the white matter (W) with axonal degeneration; G: gray matter. Anti-CD3 staining illustrates infiltration of CD3+ T cells into the white matter.