**CCl4 Induced hepatic fibrosis model**

A Standard Protocol for CCl4 induced hepatic fibrosis has been developed to facilitate your study design. This protocol can be customized as needed to meet your specific objectives.

**Study Design**

Following acclimation, animals are randomly assigned to groups according to their body weight. Animals are intoxicated with intraperitoneal injection of CCl4 in olive oil twice-weekly for 4-12 weeks. Test Articles can be dosed via one of the routes of the administration [PO, IP, SC or IV] for 4-12 weeks.

**Timeline:** Normally 2-4 months is required to complete a study and submit report from the time purchase order and test article receipt.

**Observation:**
- Once-daily cage-side observations
- Body weights twice a week
- Blood collection every four weeks and process for serum
- Clinical pathology for AST, ALT, ALP and Albumin
- Gross necropsy and macroscopic observation of liver
- Liver weight and preservation for histology
- Histopathology staining using H &E, Masson’s Trichrome and Picosirus Red
- Fibrosis scoring

**Report:**
- Written report provide the following data:
  - Percentage change in body weight
  - Clinical Pathology
  - Serum analysis for TNF-α, IL-6 and TGF-β
  - Liver Weight (wet)
  - Histology and Fibrosis Scoring
  - Data analysis and report

SD rats (225-250g) are dosed with a mixture of CCl4 and olive oil [1:1 v/v] intraperitoneally twice-weekly for 12 weeks. Test article are dosed orally once a day.

**IMPORTANT:** Our services are responsive to client needs, customizing protocols, fast results, expert consultation and flexibility. Invitek intends to expand with new therapeutic areas, models, and assays, contact us to discuss your specific needs.
After 12 weeks of treatment, blood was collected and serum was analyzed for ALT, AST, ALP and TNF-α, IL-6 and TGF-β in serum was measured by ELISA method.