Physiogenex
THE METABOLIC DISEASES EXPERTS

CCl_4-injected rat model of liver fibrosis

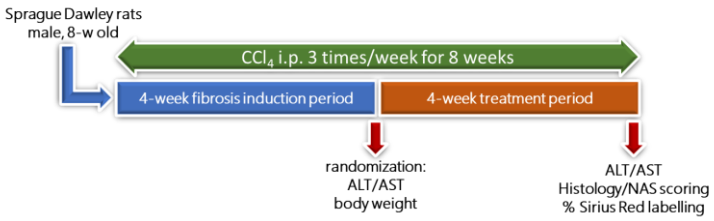
✓ A widely accepted model of liver bridging fibrosis to quickly evaluate the efficacy of your drug targeting hepatic fibrosis

Key benefits

✓ *Get a complete and rapid evaluation of the efficacy of your drugs on advanced liver fibrosis in this chemically-induced rat model*

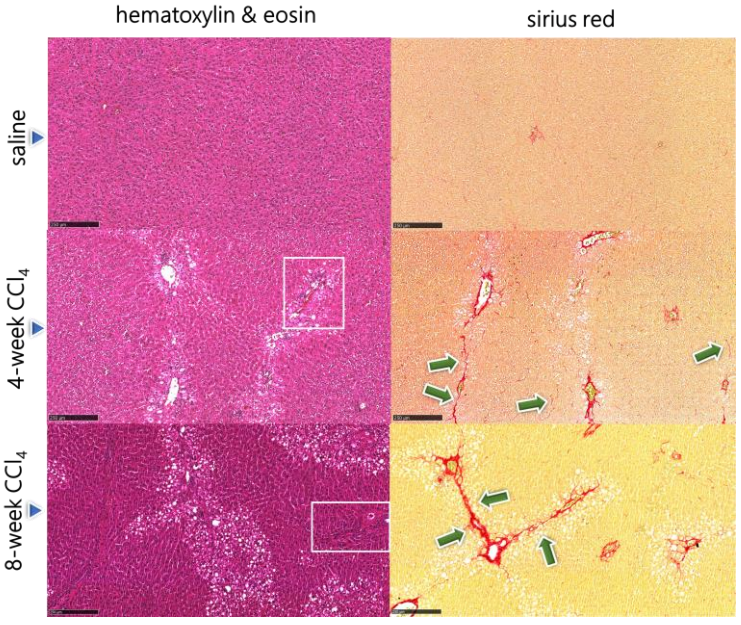
EXPERIMENTAL DESIGN

- **Background strain:** Sprague Dawley rat, male
- **Diet and chemically-induced fibrosis:** normal chow diet and carbon tetrachloride (CCl_4), 3 times/week for 8 weeks
- **In life study duration: 8** weeks
- **Reference drug and positive control**: elafibranor (preventive or curative treatment) and "reversal" (CCl_4 intoxication stops and shifts to saline injection)



MODEL CHARACTERISTICS

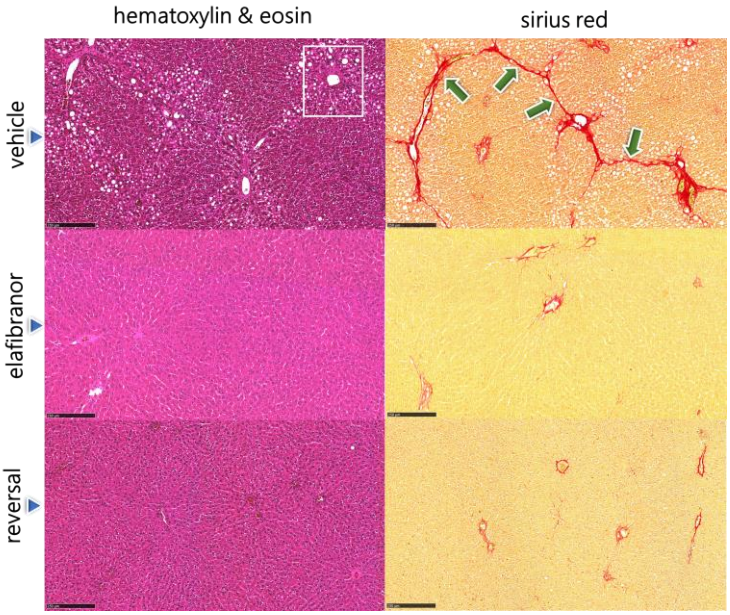
4 TO 8 WEEKS CCL_4 INTOXICATION INDUCES PORTAL TO BRIDGING FIBROSIS



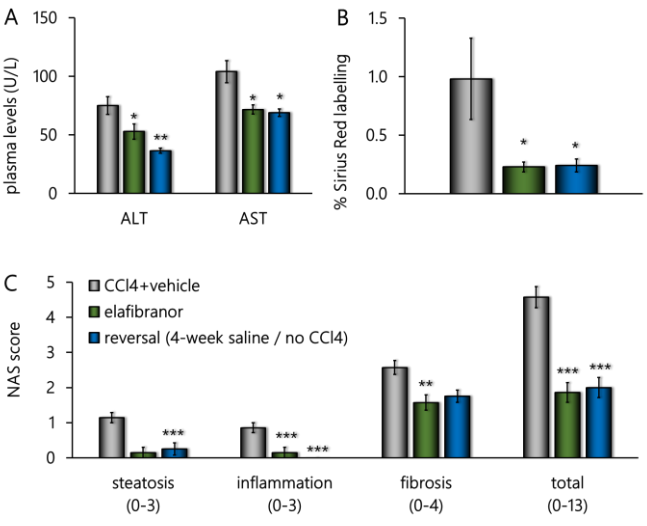
Liver hematoxylin & eosin (left column) and Sirius Red (right column) staining at x10 in rats injected with saline or CCl_4 for 4 weeks (time of treatment start) or 8 weeks (time of treatment end). White squares indicate inflammation and green arrows indicate fibrosis (perisinusoidal and portal fibrosis at 4 weeks, portal and bridging fibrosis at 8 weeks).

EFFECTS OF ELAFIBRANOR

4-WEEK CURATIVE TREATMENT WITH ELAFIBRANOR LOWERS PLASMA ALT/AST AND REDUCES FIBROSIS IN CCL_4 INTOXICATED RATS



Liver hematoxylin & eosin (H&E, left column) and Sirius Red (right column) staining in rats treated for 4 weeks with vehicle, elafibranor or saline (reversal, no CCl_4). White squares indicate inflammation and green arrows indicate fibrosis.



Plasma ALT and AST levels (A), liver % Sirius Red labelling (B), steatosis, inflammation, fibrosis and total NAS score in rats treated for 4 weeks with vehicle, elafibranor or saline (reversal, no CCl4). *p<0.05, **p<0.01 and ***p<0.001 vs. vehicle.

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