

# Methionine Choline Deficient (MCD) mouse model

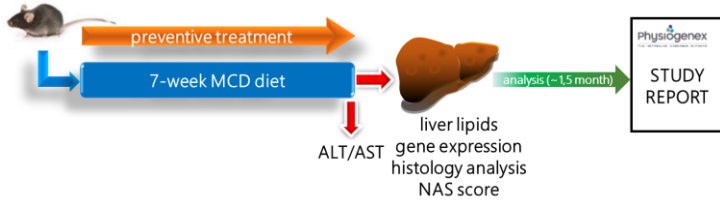
✓ A reference in NASH models, validated with the benchmark elafibranor, to rapidly evaluate your compounds targeting NASH **in less than 4 months**

## Key benefits

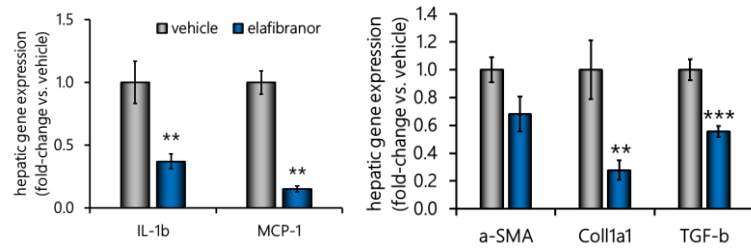
✓ Evaluate your drug compounds in this classical NASH model, validated in-house by Physiogenex with reference drugs : Get a **deep evaluation** (biochemistry, histology and NAS score) of your compounds targeting NASH **in less than 4 months**

## ANIMAL MODEL

- **Strain:** C57BL/6J mouse
- **Diet:** Methionine Choline Deficient (MCD) diet
- **Study duration:** 7 weeks
- **Reference compounds:** elafibranor (other references on request)



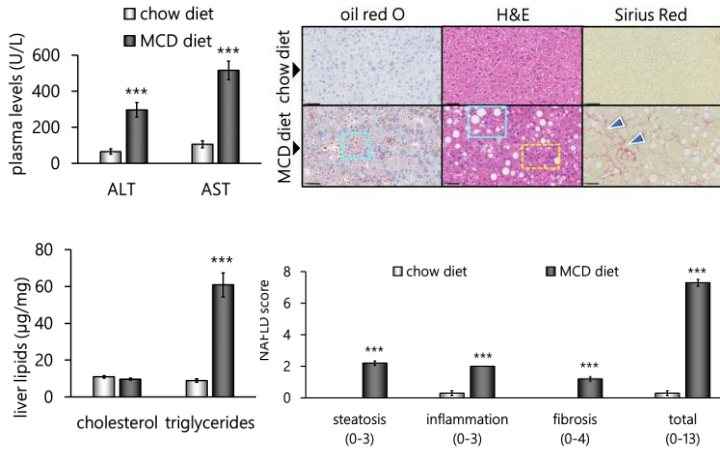
## ELAFIBRANOR REDUCES EXPRESSION OF GENES INVOLVED IN INFLAMMATION AND FIBROSIS



Hepatic gene expression of IL-1b and MCP-1 (left panel), alpha-SMA, Coll1a1 and TGF-beta (right panel) in mice treated with vehicle or elafibranor orally QD for 7 weeks. \*\*p<0.01 and \*\*\*p<0.001 vs. vehicle.

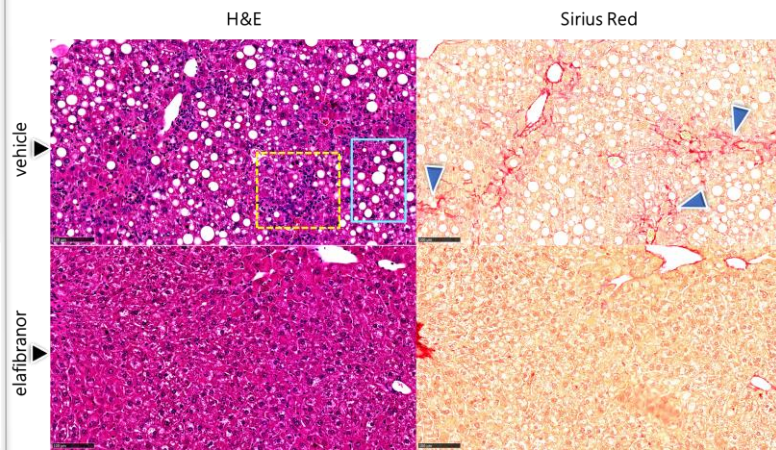
## EFFECTS OF MCD DIET

### MCD DIET INCREASES LIVER ENZYMES AND PROMOTES NASH



Plasma transaminases (upper left panel), representative oil red O, H&E and Sirius Red staining (upper right panel). Blue square indicates liver steatosis, yellow dashed square inflammatory foci, blue arrows indicates fibrosis. Hepatic lipids levels (lower left panel) and NAFLD activity score (lower right panel) in mice fed a chow or MCD diet for 7 weeks. \*\*\*p<0.001 vs. vehicle.

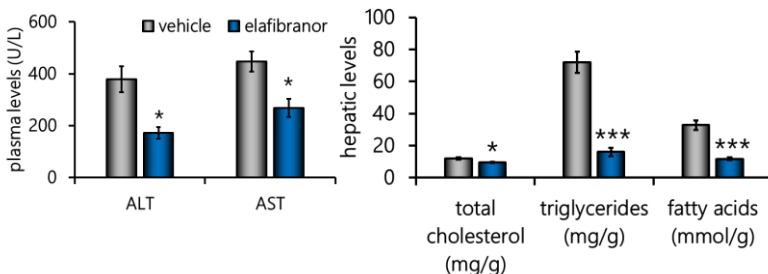
### ELAFIBRANOR MARKEDLY IMPROVES HEPATIC STEATOSIS, INFLAMMATION, FIBROSIS AND NAS SCORE



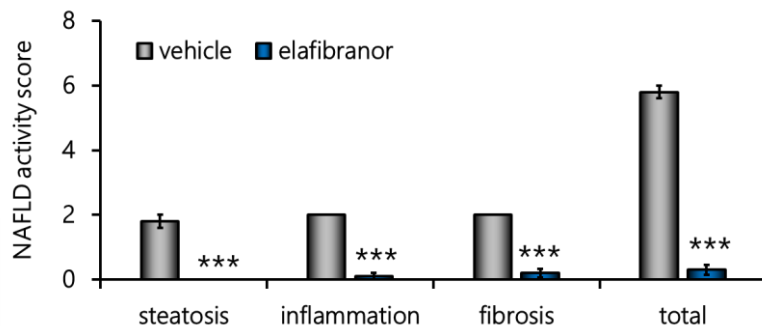
Representative H&E and Sirius Red staining in mice treated with vehicle or elafibranor orally QD for 7 weeks. Blue square indicates liver steatosis, yellow dashed square inflammatory foci, blue arrows indicates fibrosis.

## EFFECTS OF ELAFIBRANOR

### ELAFIBRANOR LOWERS PLASMA TRANSAMINASES AND LIVER LIPIDS LEVELS



Plasma transaminases (left panel) and hepatic lipids levels in mice treated with vehicle or elafibranor orally QD for 7 weeks. \*p<0.05 and \*\*\*p<0.001 vs. vehicle.



NAFLD activity score for hepatic steatosis, inflammation, fibrosis and total NAS score in mice treated with vehicle or elafibranor orally QD for 7 weeks. \*\*\*p<0.001 vs. vehicle.