

FATTY LIVER DISEASE (FLD)

Characteristics of Normal and Fatty Liver Disease Tissues



NORMAL TISSUE

Over 25+ years of pharmacokinetic studies, XenoTech has accumulated normal and diseased tissues representing FLD with or without history of alcohol consumption and steatohepatitis in its Research Biobank...

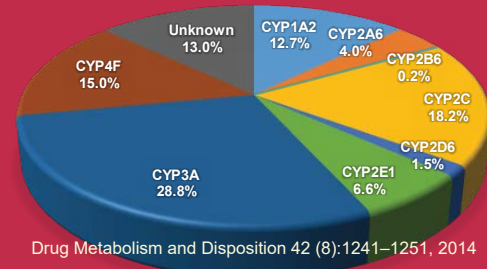
Cellular & CYP Composition

Hepatocytes 60-80%

Non-parenchymal 20-40%:

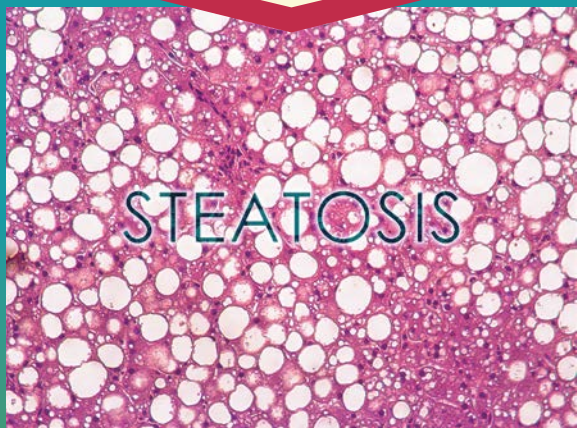
Endothelial ~50%, Kupffer cells ~25%, Lymphocytes ~25%, Biliary cells ~5%, Stellate <1%

Hepatology Vol 43, S1 Pages S54-S62

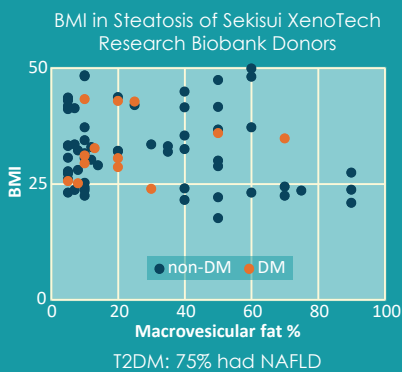


Drug Metabolism and Disposition 42 (8):1241-1251, 2014

FATTY LIVER DISEASE PROGRESSION



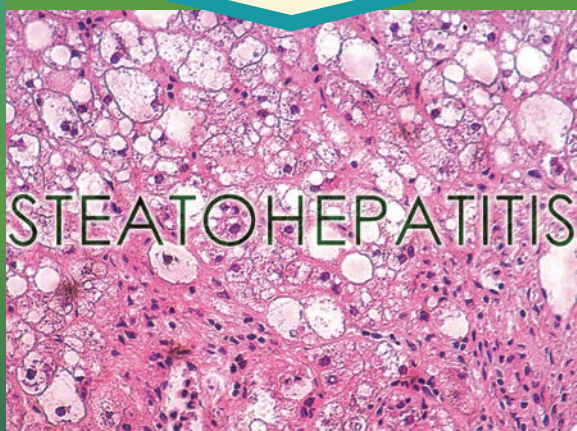
STEATOSIS



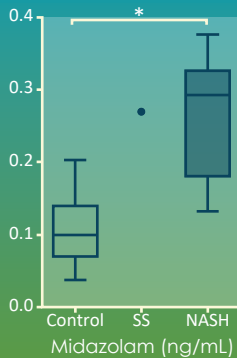
Non-alcoholic Fatty Liver Disease (NAFLD)

- 1) Spectrum of fatty liver disease without history of significant alcohol consumption.
- 2) Steatosis to steatohepatitis and steatohepatitis with cirrhosis.
- 3) The liver contains >5% fat by weight.

NAFLD in the US: 10-46%

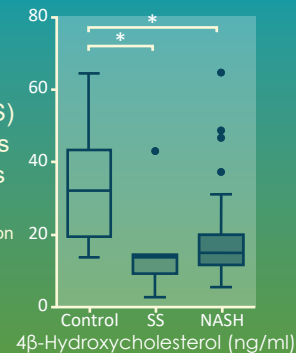


STEATOHEPATITIS



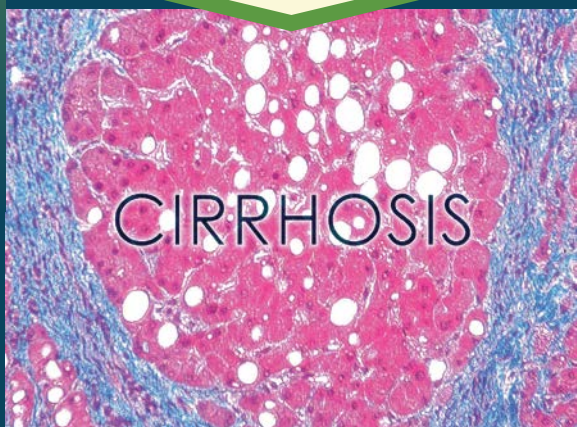
In simple steatosis (SS) and NASH, CYP3A4 is down- and CYP2E1 is up-regulated.

Drug Metabolism and Disposition 43:1484-1490, 2015



Non-alcoholic Steatohepatitis (NASH) in the US: 3-5%

- 1) Hepatic steatosis.
- 2) Inflammation with hepatocyte injury (ballooning).
- 3) With or without fibrosis.



CIRRHOSIS

NASH progresses to cirrhosis in 20% of patients;

Liver-related death occurs in up to 12% of patients over a 10-year period.

Additional Resources Available at www.xenotech.com:



Webinar on Drug Metabolizing Enzymes & Transporters in NASH



Research Biobank Donor Information Sheet and Scientific Poster

XenoTech is a global Contract Research Organization with unparalleled experience and proven expertise from discovery through clinical support, providing cell and tissue-based products, screening, in vitro ADMET and pharmacology, in vivo ADMET and QWBA, bioanalytical services, consulting and more.