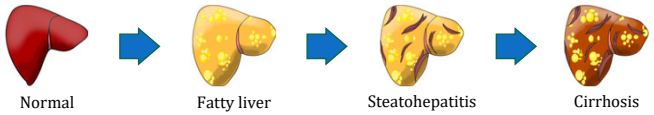
Characterization of epithelial membrane protein 1 in non-alcoholic steatohepatitis

Hung Vu Thai, Miku Ando, Atsuko Daikoku, Misako Sato-Matsubara Hideto Yuasa, Hayato Urushima, Kazuo Ikeda, Tsutomu Matsubara
Department of Anatomy and Regenerative Biology, Graduate School of Medicine

Background



✓What is NASH?

Non-alcoholic steatohepatitis (NASH), a severe form of **Non-alcoholic fatty liver disease (NAFLD)**, refers to **accumulation of fat in the liver** which isn't caused by alcohol intake abuse, leading to dysfunction of lipid homeostasis, inflammation and fibrosis which becomes a major cause of chronic liver disease that can progress to cirrhosis. However, until now the molecular pathology of NAFLD/NASH is not fully understood. Moreover, a lot of studies reported about increasing of NASH-related hepatocellular carcinoma (HCC) cases.

- 5th 6th 7th Most common cancer
- 3rd leading cause of cancer death 2020
- NAFLD/NASH is a fast-growing cause since 2019
- Fibrosis increase risk of discovering HCC

Complexity of the NAFLD/NASH

- Nonspecific/silent symptoms
- Absence of treatment
- Easily to be developed
- HCC progression risk

High risk of liver failure disease

✓NAFLD/NASH and HCC statistics

- ~0.6% NAFLD per year (global)
- ~0.3% NAFLD per year (Japan)
- ~0.71% NAFLD-related cirrhosis
- ~1.36% NASH-related HCC (2019-2021)

Purpose

Analysis interactions between cytokines and liver cells and uncover mechanism of NAFLD/NASH pathogenesis