

# NAFLD

## UNDERSTANDING THE NEXT GLOBAL EPIDEMIC

### WHAT IS NAFLD ?



Non-alcoholic Fatty Liver Disease

Presence of hepatic fat in people who do not consume excessive alcohol [1]

### EPIDEMIOLOGY



25% of the global population could be affected [2]

10-25% NAFL develops into Non-alcoholic SteatoHepatitis (NASH)

#1 Liver disease

### RISK FACTORS

The exact cause of NAFLD remains unknown. However, some risk factors have been described.

- Obesity
- Sedentary lifestyle
- Genetic background
- Type 2 diabetes
- Hypertriglyceridemia
- ...

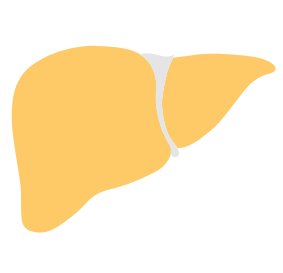
### PROGRESSION OF NAFLD

**NORMAL**  
Healthy liver



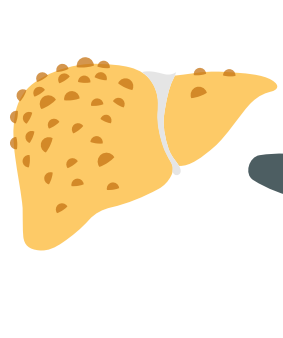
Reversible

**NAFL**  
Fat accumulation  
LEAST SEVERE



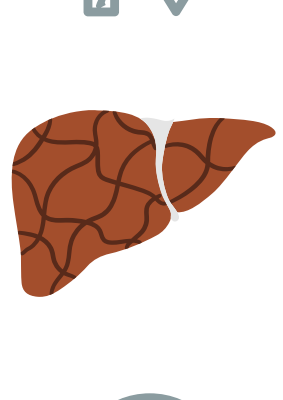
Reversible

**NASH**  
Fat accumulation  
Ballooning Inflammation



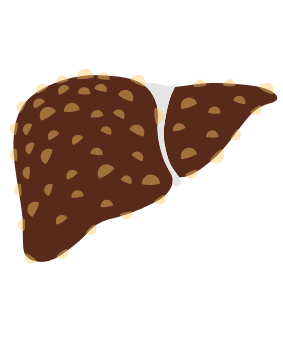
Reversible

**FIBROSIS**  
Excessive deposition of extracellular matrix (ECM)



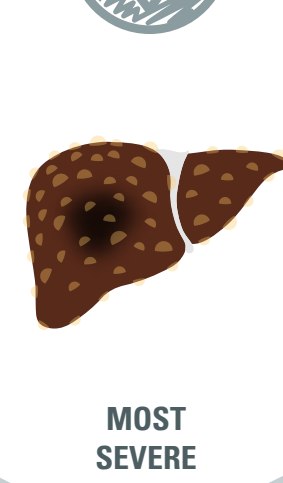
Irreversible

**CIRRHOSIS**  
Scar tissue destroys liver cells

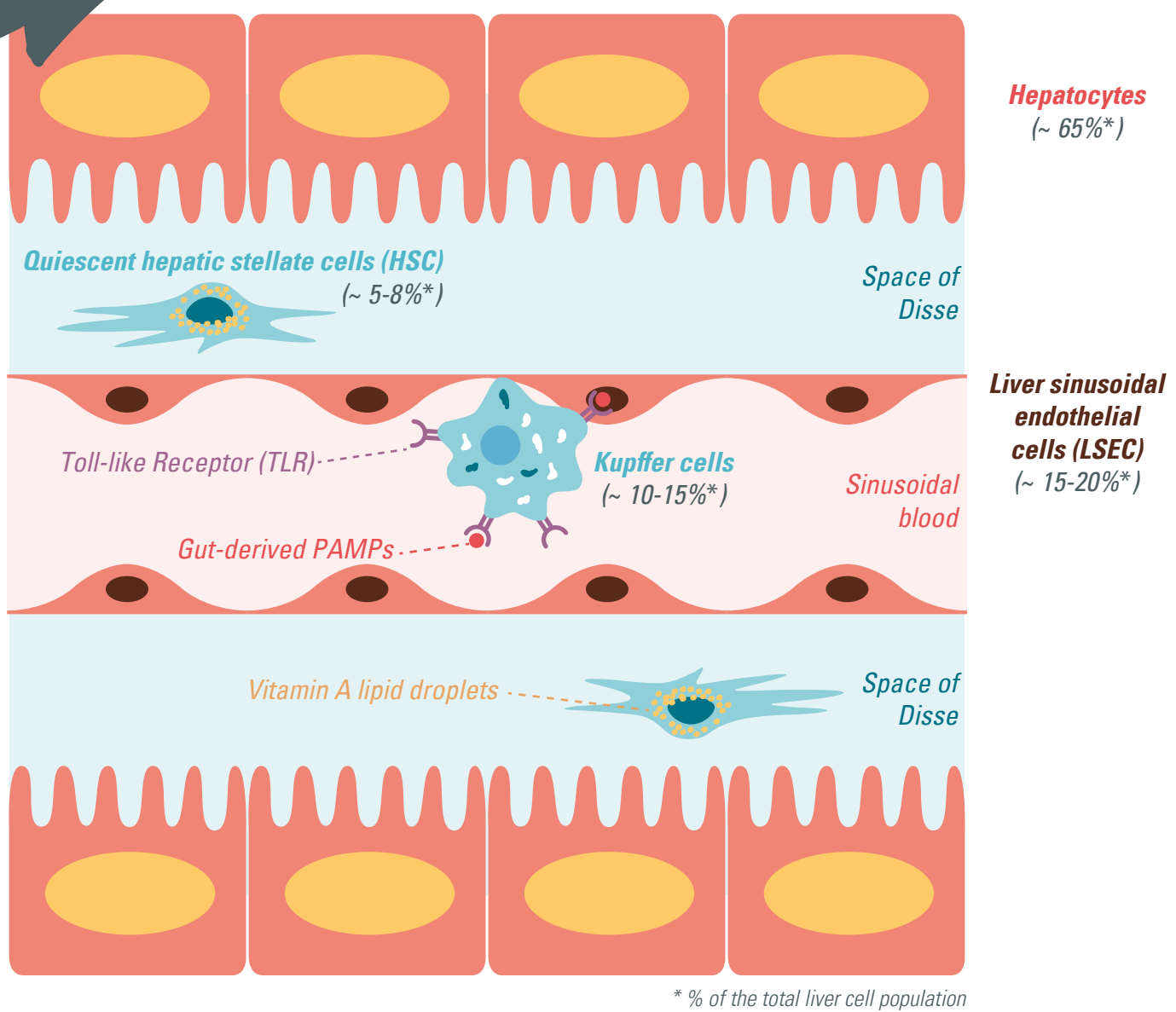


Irreversible

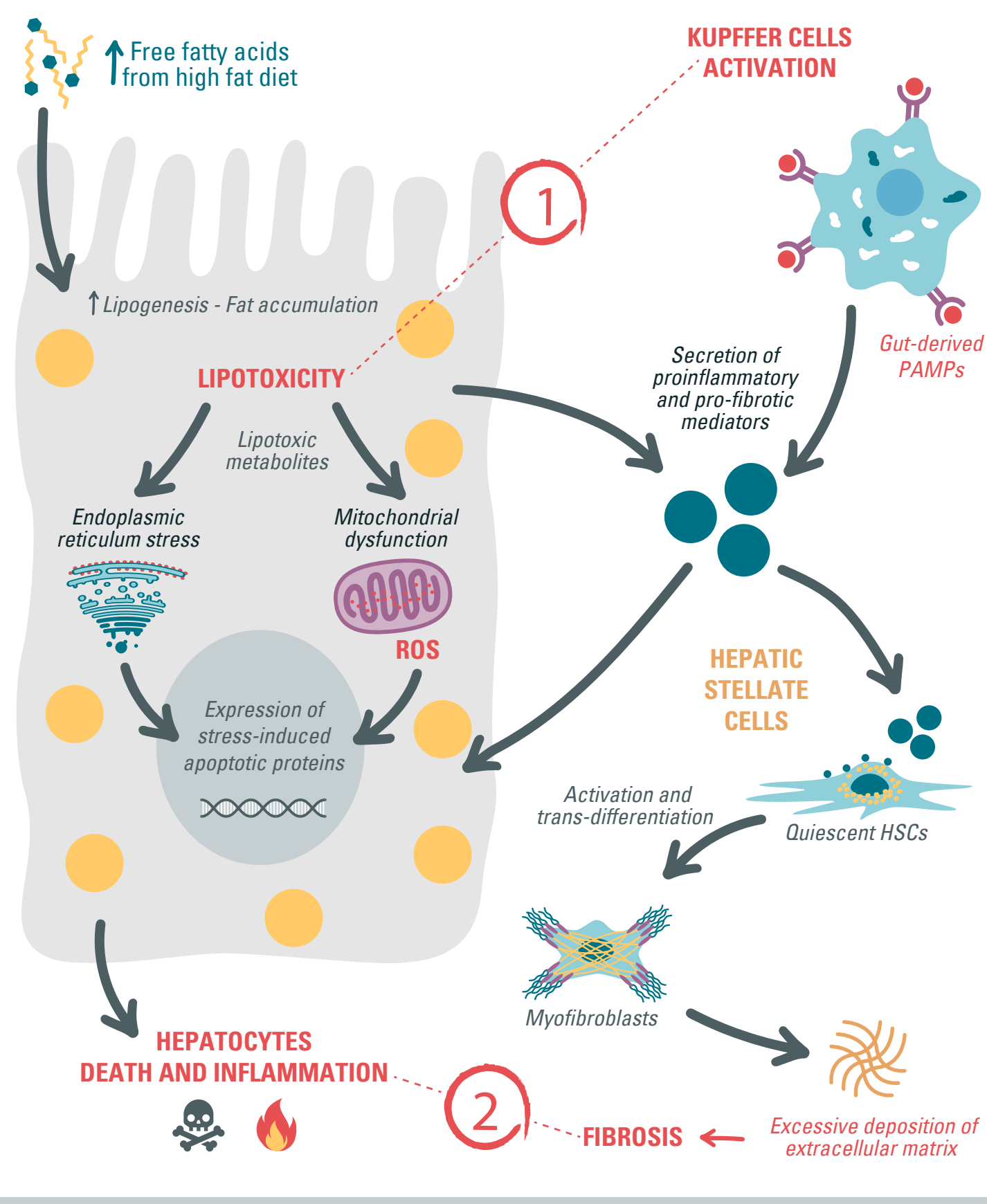
**HCC**  
Hepatocellular carcinoma = liver cancer  
MOST SEVERE



### HEALTHY LIVER CUT



### NASH DEVELOPMENT



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### References

- [1] Ludwig, J., Viggiano, T. R., McGill, D. B. & Oh, B. J. Nonalcoholic steatohepatitis: Mayo Clinic experiences with a hitherto unnamed disease. *Mayo Clin. Proc.* 55, 434-438 (1980)
- [2] Younossi, Z. M. et al. Global epidemiology of nonalcoholic fatty liver disease-Meta-analytic assessment of prevalence, incidence, and outcomes. *Hepatology*. *Baltimore, Md* 64, 73-84 (2016)
- [3] Nonalcoholic fatty liver disease. *Nature Reviews Disease Primers* (2015)

**PerkinElmer**  
For the Better

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