



A novel 3D liver organoid platform technology for drug toxicology screening and cell therapy

We have created a stem cell-derived 3D liver organoid platform that replicates the architecture, cellular complexity, and key functions of the human liver. The team is currently advancing this unlimited, scalable, and cost-efficient technology for drug toxicology assessment and rescue of liver functions. The planned spin-out (Q2 2026) has exclusive IP (Patent WO2022101675A1) for all applications.

Market assessment

- Drug toxicology screening: 68b USD
- Cell therapy: 85b USD

Current focus

- Drug toxicology screening
- Establishing production site
- Cell therapy
- Bleeding disorders

Competitive advantages

- Drug toxicology
- Eliminates animal testing (NAMs)
 - Complex & high-throughput
 - Acute & chronic exposure
 - Patient-specific
 - Digital liver model
- Cell therapy
- Rescue all liver functions (from hereditary to end-stage liver disease)
 - Autologous & off-the-shelf
 - Re-administrable
 - First-in-class

Development stage

- Drug toxicology
- Validated
- Cell therapy
- Preclinical

Needs

- Drug toxicology
- Investor funding
- Cell therapy
- Collaboration & partnership
 - Expert network

Project leader

Giacomo Roman; MSc
giacomo.roman@medisin.uio.no

Project coordinator

Erlend Ragnhildstveit; CEO
Bioselera

Team members

- Benedicte Stavik; PhD
- Maria E. Chollet; MD, PhD
- Per Morten Sandset; MD, PhD
- Gareth Sullivan; PhD, CSO
Occambio
- David Sønstebø; Co-founder
Occambio
- Christian Qvigstad; MD, PhD
- Anne Ulvestad; CEO Innosiamo

SPARK
NORWAY