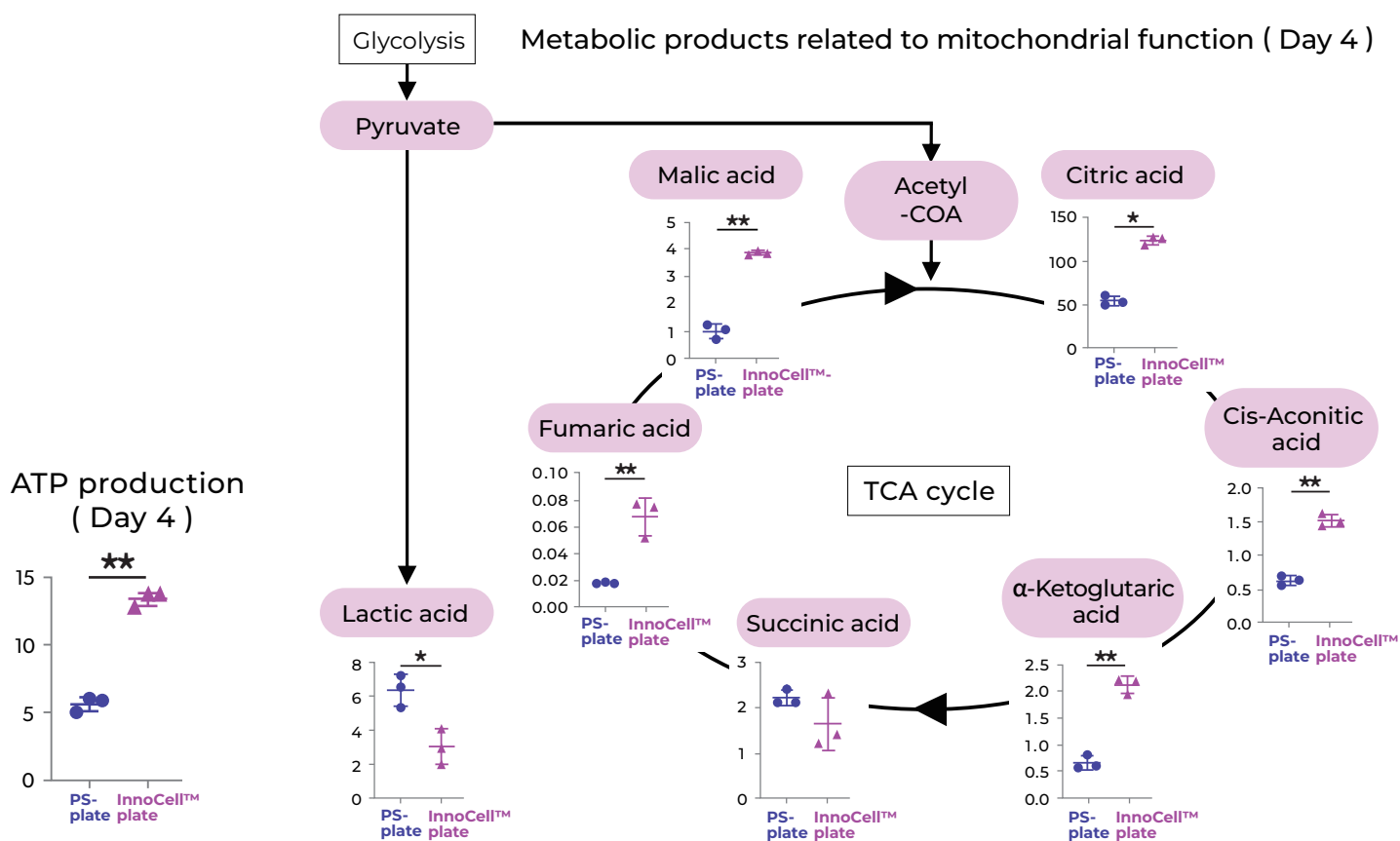
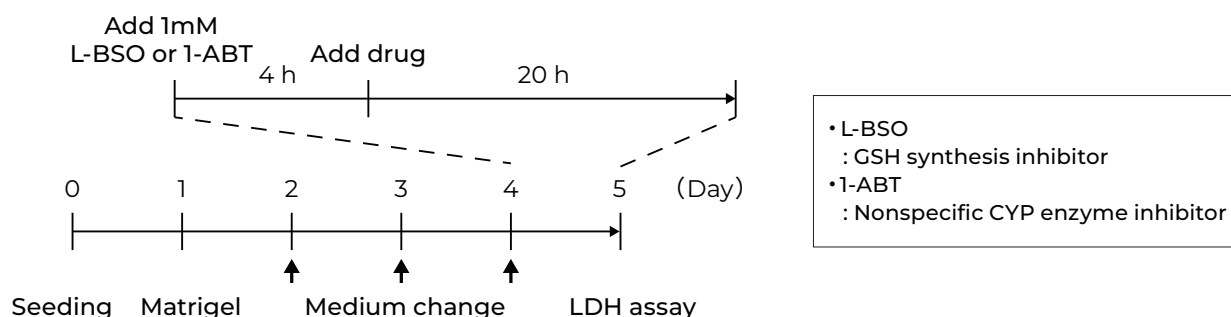


Drug Discovery Research

Example assay using primary rat hepatocytes (1/2)

• Data provided by Dr. Takemura, Chiba University

• Reference : New in vitro screening system to detect drug-induced liver injury using a culture plate with low drug sorption and high oxygen permeability. *Drug Metabolism and Pharmacokinetics*, 52: 100511, (2023).



Conditions

[Cell] Rat Primary Hepatocyte Cells
 [Seeding density] 1.25×10^5 cells / cm²
 [Plate type] InnoCell™ plate FP series (flat bottom)
 Collagen-coated (C type)

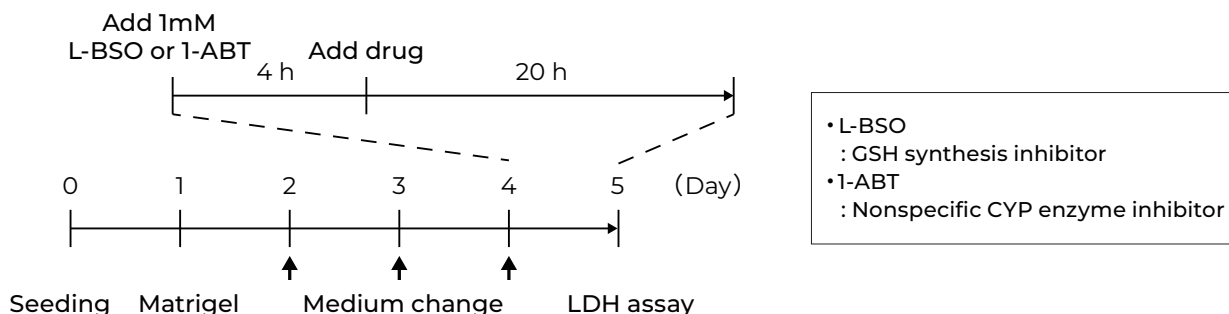
InnoCell™ plate has been shown to shift energy production of rat hepatocytes from the glycolytic system to the TCA cycle.

Drug Discovery Research 2

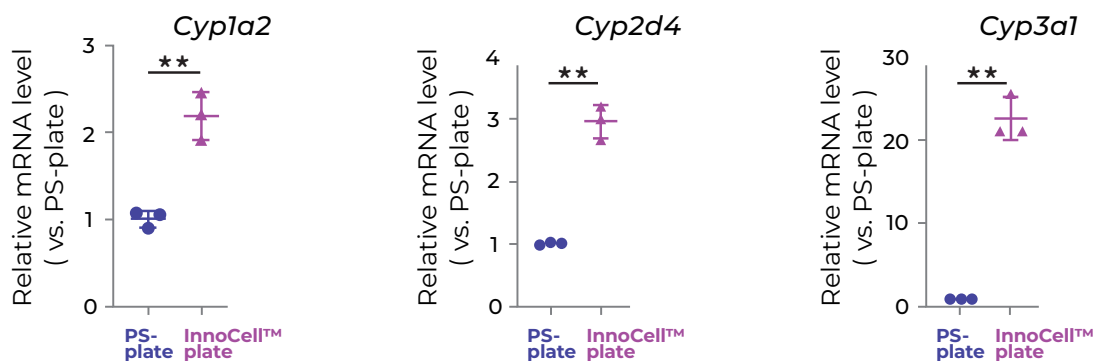
Example assay using primary rat hepatocytes (2 / 2)

• Data provided by Dr. Takemura, Chiba University

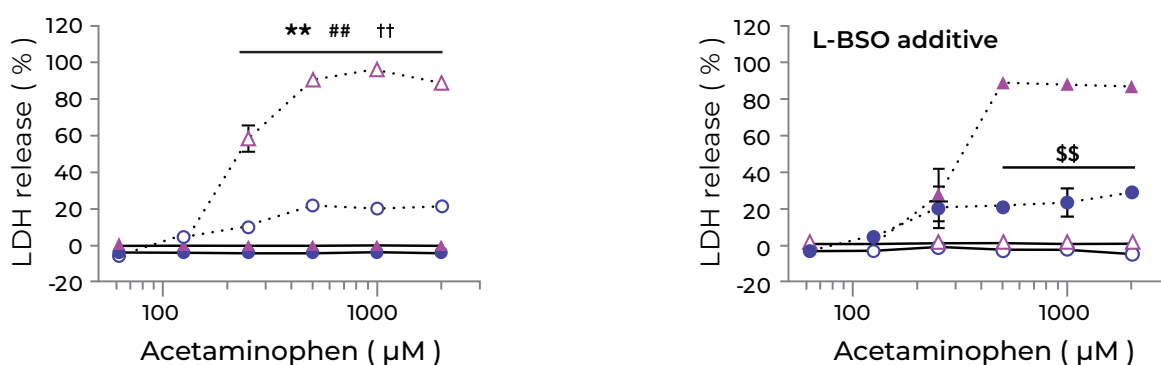
• Reference : New in vitro screening system to detect drug-induced liver injury using a culture plate with low drug sorption and high oxygen permeability. *Drug Metabolism and Pharmacokinetics*, 52: 100511, (2023).



CYP gene expression (Day 4)



Hepatocellular damage (Acetaminophen)



L-BSO not added : ● PS-plate | ▲ InnoCell™ plate
L-BSO Added : ○ PS-plate | △ InnoCell™ plate

1-ABT not added : ● PS-plate | ▲ InnoCell™ plate
1-ABT Added : ○ PS-plate | △ InnoCell™ plate

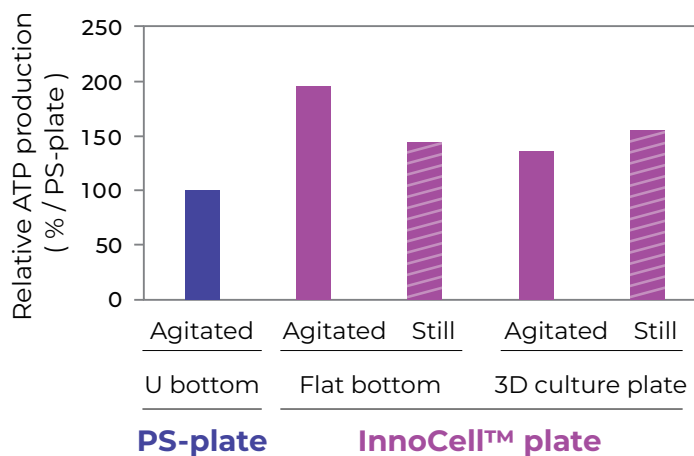
Using InnoCell™ plate, hepatocellular cytotoxicity due to acetaminophen was increased in the presence of L-BSO and attenuated by adding 1-ABT. Hepatocellular cytotoxicity caused by reactive metabolites may be detected with high sensitivity.

Drug Discovery Research 3

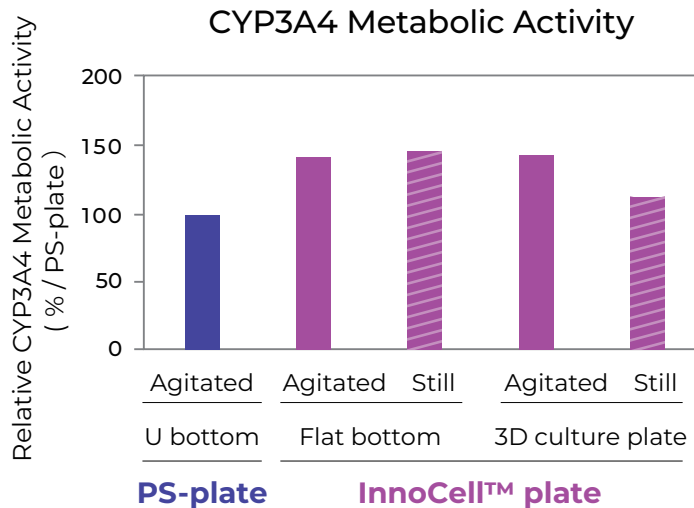
Example assay using human 3D liver buds

• Data provided by Cyfuse Biomedical K.K.

ATP production amount



CYP3A4 Metabolic Activity



Conditions

- [Cell] Same company Human 3D liver buds
- [Culture period] 6 days
- [Plate type]
 - InnoCell™ plate FP series (flat bottom)
 - Non-treated (N type)
 - InnoCell™ plate 3D series
 - 3D culture plate

InnoCell™ plate maintains higher ATP production and CYP3A4 metabolism in human 3D liver buds.