

The Power of Predictability

HepatoPac is a novel platform developed to better prioritize and select compounds at the preclinical stage so you can reduce your candidate attrition rate and increase drug development success.

The problem: today's high attrition rate

As many as 15% of compounds never reach the market because of problems with liver metabolism and toxicity. And liver toxicity is a main reason drugs are recalled from pharmacy shelves. Why such a high attrition rate?

- Current *in vitro* methods use short-lived primary hepatocyte cultures and are not stable enough to predict long-term effects on the liver
- Animal studies cannot duplicate the human liver's functional behavior

The solution: better *in vitro* selection

Licensed from MIT, the HepatoPac platform addresses these issues by providing a highly functional and stable culture that mimics the human liver:

- Human liver cells in a microfabricated co-culture exhibit biochemical and molecular fidelity
- 4-6 week functionality allows accurate assessment of low-turnover compounds and other extended-horizon scenarios

Ideal for multiple applications

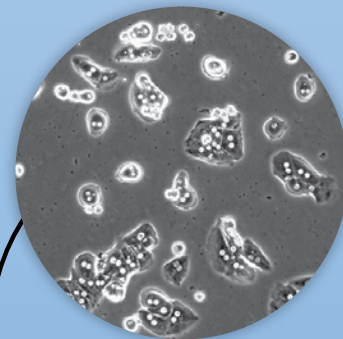
HepatoPac's ability to closely mimic the human liver's functionality makes it suited for a broad range of applications, including:

- Metabolite identification
- Toxicity
- Clearance
- Drug-drug interactions
- Transporter involvement

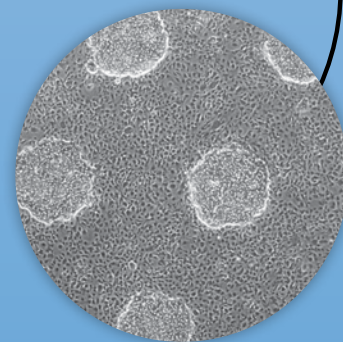
Integrates easily into your workflow

HepatoPac is currently available as a service for compound prioritization exclusively from Hepregen. It is designed to fit easily into your process: Simply send us your compound or drug and our experts will partner with you to design an experiment that will meet your application needs.

The HepatoPac Platform:
The Difference
Is Long-term
Functionality



Conventional Cultures



HepatoPac Platform

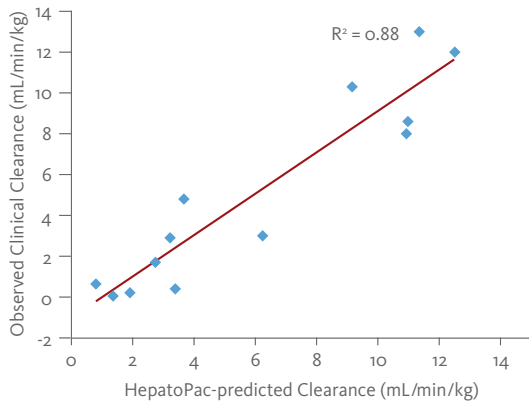


HepatoPac's micropatterned hepatocyte cultures are many times more stable and have been shown to mimic the human liver far more accurately compared to conventional cultures.

The HepatoPac Platform: Knowledge that Gives You Power

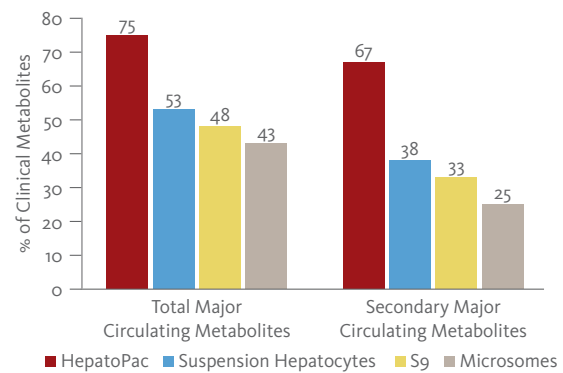
The HepatoPac Bioengineered Microliver Platform allows you to prioritize and select your compounds with greater confidence than ever before.

Predicting Drug Clearance



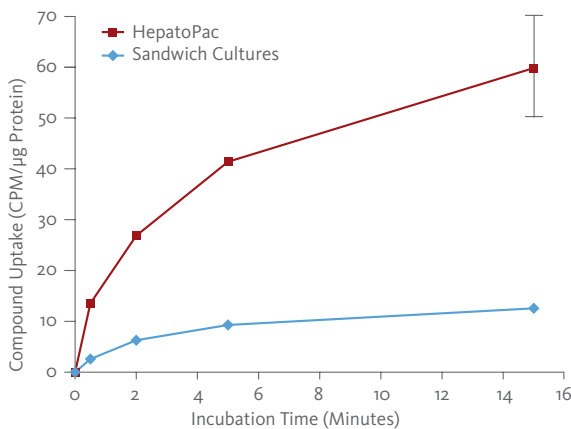
Long-term functionality (4-6 weeks) allows accurate correlation of low-turnover compound clearance.

Identifying Metabolites



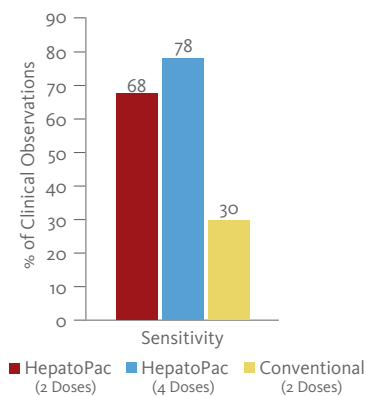
Longer term viability and incubation time allow HepatoPac to identify more metabolites, including secondary metabolites.

Assessing Transporter Involvement



Better retention of transporter activities versus sandwich cultures allows more accurate prioritization of compounds.

Assessing Toxicity



Greater sensitivity helps identify liver toxicity missed by traditional assessment systems, thereby reducing false negatives.

Hepregen: Bioengineered Solutions for Greater Confidence

Let Hepregen help you achieve improved prioritization for your drugs or compounds. We are committed to partnering with you to give you the utmost confidence in your metabolism and toxicity testing results.

Contact us at info@hepregen.com to learn how easy it can be to access HepatoPac platform technology.