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Editor’s Highlight: Creating in vitro liver models has been difficult because liver cells in culture lose metabolic competence and the need to reconstruct a unique hepatic architecture. These authors overcame the loss of metabolic competence by using the HepaRG cell line, which retains many of the drug metabolizing enzymes of intact liver. To mimic the hepatic architecture, they cultured the HepaRG cells in stirred bioreactors as 3D cultures in contrast with standard 2D monolayers. These results offer an attractive alternative system with which to test the toxicity of chemicals that require biotransformation to express toxicity without the use of animal models.

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