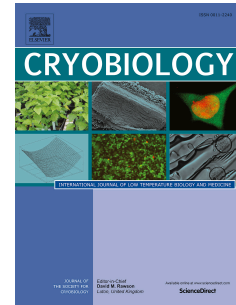


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A study of cryogenic tissue-engineered liver slices in calcium alginate gel for drug testing

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1 **A study of cryogenic tissue-engineered liver slices in calcium alginate gel for**
2 **drug testing**

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10 **Abstract**

11 To address issues such as transportation and the time-consuming nature of
12 tissue-engineered liver for use as an effective drug metabolism and toxicity
13 testing model, “ready-to-use” cryogenic tissue-engineered liver needs to be
14 studied. The research developed a cryogenic tissue-engineered liver slice
15 (TELS), which comprised of HepG2 cells and calcium alginate gel. Cell
16 viability and liver-specific functions were examined after different
17 cryopreservation and recovery culture times. Then, cryogenic TELSs were used
18 as a drug-testing model and treated with Gefitinib. Cryogenic TELSs were
19 stored at -80°C to ensure high cell viability. During recovery in culture, the cells
20 in the cryogenic TELS were evenly distributed, massively proliferated, and then

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