**PATENT REPORT**



**INTERROGATORY CELL-BASED ASSAYS FOR IDENTIFYING DRUG-INDUCED TOXICITY MARKERS**



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**ROLL: CB.AI.U4AIM24102**

**PATENT NO: US 2024/0161863 A1**



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**COUNTRY: UNITED STATES**

**ABSTRACT:** The patent describes a micro-engineered system that mimics human organs to test drug toxicity. It allows researchers to study how different drugs affect human cells by using a lab-on-a-chip platform with tiny organ models connected together. This helps detect harmful effects early, improves drug safety, and reduces the need for animal testing. Further it also uses some biomarkers related to specific toxicity(cardio,hepatic etc) and predicts it.

It is a discovery Platform technology for analyzing a drug induced toxicity condition via model building.

**APPLICATIONS:**

* Reduce reliance on animals.
* Personalised medicine
* Pharmaceutical and drug testing.

**ETHICAL CONSIDERATIONS:**

Positive impact on animal testing

Source of human cells for model

Misuse of biomarkers

**REFERENCES:**

1. [**https://patents.google.com/patent/KR102149070B1/en?q=(DRUG+TOXICTTY+PREDICTION)&oq=DRUG+TOXICTTY+PREDICTION&page=1**](https://patents.google.com/patent/KR102149070B1/en?q=(DRUG+TOXICTTY+PREDICTION)&oq=DRUG+TOXICTTY+PREDICTION&page=1)
2. [**https://pmc.ncbi.nlm.nih.gov/articles/PMC10210057/**](https://pmc.ncbi.nlm.nih.gov/articles/PMC10210057/)

**CASE STUDY REPORT**

**SHERLEY AMENDMENT CASE STUDY**

**SOURCE: US FOOD AND DRUG ADMINISTRATION**

**AMENDED ON: 1912**

**SUMMARY: This act prohibited false therapeutic claims on drug labels. It came about as a result of Mrs. Winslow’s Soothing Syrup, a product advertised to treat teething and colic, which contained morphine and led to the death of many infants. Under the Sher ley Amendment, the government had to prove intent to defraud before a drug could be removed from the market.**

**REFERENCE:** [**https://www.fda.gov/files/about%20fda/published/How-Chemists-Pushed-for-Consumer-Protection--The-Food-and-Drugs-Act-of-1906.pdf**](https://www.fda.gov/files/about%20fda/published/How-Chemists-Pushed-for-Consumer-Protection--The-Food-and-Drugs-Act-of-1906.pdf)