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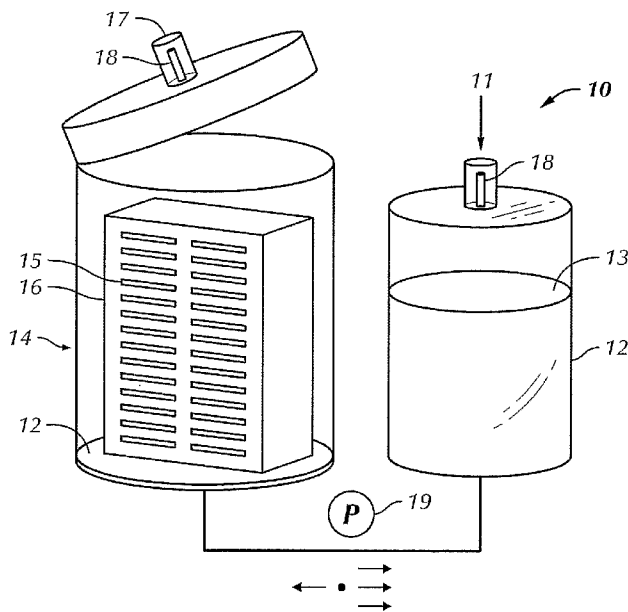
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(54) Title: DRUG TESTING SYSTEM WITH BIO-ARTIFICIAL LIVER



(57) Abstract: A drug testing system (10) using a liver-slice culture apparatus (14). The apparatus has a chamber with plasma and gas valves (17), animal liver slices (15) being positioned securely in the chamber so as to maximize the surface area of liver slices exposed to the culture medium (13). Plasma is supplied to the chamber so that it rises to contact the liver slices, and is alternately removed from contacting the liver slices. Gas is supplied to the top of the chamber. The system also includes a reservoir (12) for containing media entering and exiting the chamber. Methods are provided for assessing the toxicity of a drug or drug candidate.