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(54) Title: A BIOPRINTED LIVER MODEL, A METHOD FOR MANUFACTURING THE LIVER MODEL AND THE USE THEREOF IN CYTOTOXICITY EVALUATION

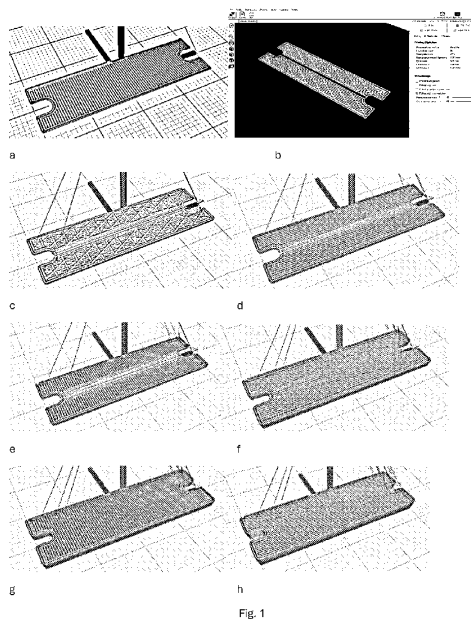


Fig. 1

(57) Abstract: A bioprinted liver model with a vascular system consisting of layers and comprising at least one flow channel in which: the first two layers forming the base of the model are 100% filled with bioink, and wherein layer 1 is positioned at an angle of 0° to the flow channel and layer 2 is positioned at an angle of 90° to the flow channel, the inner layers of the model are filled from 20% to 100% with bioink, wherein the inner layers comprise a centrally located at least one flow channel, the perimeter of which is printed with 100% filling and in which every inner layer is arranged at an angle of 60° with respect to the previous layer, the last two layers enclosing the model: the penultimate and the last layer are 100% filled with bioink and wherein the penultimate layer is arranged at an angle of 0° with respect to the flow channel and the last layer is arranged at an angle of 90° with respect to the flow channel, wherein

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the bioink used is based on natural polymers, synthetic polymers, methacrylated derivatives of natural polymers or mixtures thereof.
A method for manufacturing the liver model and the use thereof.