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MEMBRANE BIOREACTOR TO GUIDE HEPATIC DIFFERENTIATION OF HUMAN MESENCHYMAL STEM CELLS

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Abstract

The eminent role of the membrane technology in liver tissue engineering is already consolidated. Indeed, membranes with their geometry and intrinsic properties can modulate liver cell behavior and tissue organization. The development of a robust membrane-based engineered hepatic differentiation model has to satisfy a plethora of fundamental criteria with the aim to reproduce a biomimetic environment, which exposes the undifferentiated cells to their native niche. Within our membrane bioreactor, a large compendium of aspects for controlling key process variables