附件一、技術推廣表

營養組合物提升生物墨水自我修復力之用途

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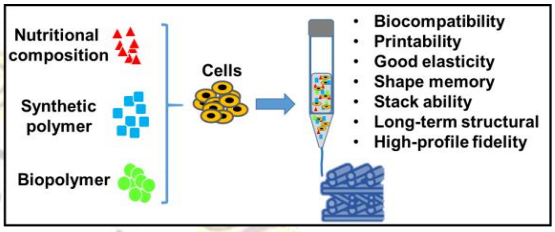
簡　歷：http://www.pse.ntu.edu.tw/members/bio.php?PID=8



市場及需求: 醫療器材、組織工程

技術摘要:

本發明提供一種營養組合物用於製備具自我修復力及形狀記憶性之生物墨水組合物之用途，其中包含營養組合、一生物可降解合成高分子及生物高分子。

優勢:

(1) 本研究生物墨水一種具自我修復力及形狀記憶性(shape memory)之生物墨水組合物，支持細胞生長之營養組合物使包含一生物可降解合成高分子及生物高分子之生物墨水組合物。

(2) 具有高生物相容性、可列印性與堆疊性、光固化後之長時間結構穩定性、及良好彈性與形狀記憶性，因此適合用於進行高解析度、高形狀保真、及多層堆疊之三維生物列印成品的應用方式。

(3) 本研究之生物墨水組合物特別適合用於製備人工組織或仿生支架。

競爭產品: CELLINK®

專利簡述:

(1) 本技術已有相關專利 (中華民國專利申請號: TW108105192)。

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Use of nutrient composition for enhancing self-healing capability of bioink

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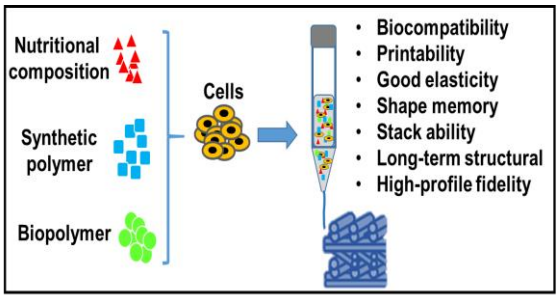

Market Needs: Medical device/ Tissue engineering

Our Technology:

Provided is use of a nutritional composition for preparing a self-healing and shape memory bioink composition. The bioink composition including the nutritional composition, biodegradable synthetic polymer and a biopolymer.

Strength:

(1) The bioink of this study demonstrate self-repairing and shape memory, which is a nutritional composition containing biodegradable synthetic polymer and a biopolymer that supports cell growth.

(2) The bioink composition of this study has many advantages, including high biocompatibility, printability, stackability, long-term structural stability after photocuring, good elasticity, and shape memory, which is suitable for a high-resolution, high-profile fidelity, and multi-layer stacked 3D bioprinted product.

(3) The bioink composition of this study is suitable for the preparation of artificial tissue or scaffolds.

Competing Products: CELLINK®

Intellectual Properties:

(1) R.O.C. Patent Application no: TW108105192

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