



促進幹細胞增殖之可降解複合生醫材料

提案人： 游佳欣 副教授

單位： 國立臺灣大學 化學工程學系/研究所

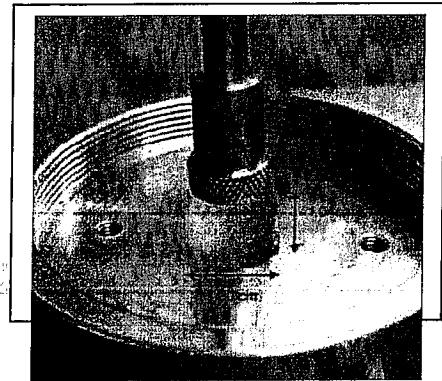
簡歷：

臺大化工系教授介紹：

http://www.che.ntu.edu.tw/ntuche/cht/prof_detail.php?id=39

生醫與組織工程實驗室：

<http://jiashinglab.wixsite.com/bmte>



市場及需求： 此材料可做為醫療用途，應用於骨頭傷患或年長者組織之修復，作為組織增殖之支架，幫助患者組織再生。亦可應用於表面組織修復，例如傷口敷料。

技術摘要(含成果)： 主要利用一由人體組織萃取之纖維構造蛋白以及一線性多醣複合成具有促進組織增殖功能之生醫材料，成功將材料成型，並且有效提升此類醫材之生物相容性以及機械強度。

優勢： 相較於類似應用之生醫材料具有更高之促進細胞增殖效果以及較高生物相容性。此複合材料製作簡易，且由人體萃取纖維構造蛋白之作法有效又便宜。

競爭產品： 應用於傷口敷料或組織支架等具有促進細胞增殖功能及幫助組織修復之生醫材料、應用角蛋白於頭髮保養之護髮產品、應用角蛋白作為皮膚更新生長因子之護膚保養品或化妝品

專利現況： 於中華民國專利局尚未檢索有此複合材料之技術或應用。市面上尚未有此複合材料之應用產品。

聯絡方式(請不用填)：

臺大產學合作總中心

Tel: 02-3366-9945, E-mail: ntuciac@ntu.edu.tw



Stem Cell Proliferation Promoting Biodegradable Composite Biomaterial

PI : Prof. Jiashing Yu

Department of Chemical Engineering, National Taiwan U.

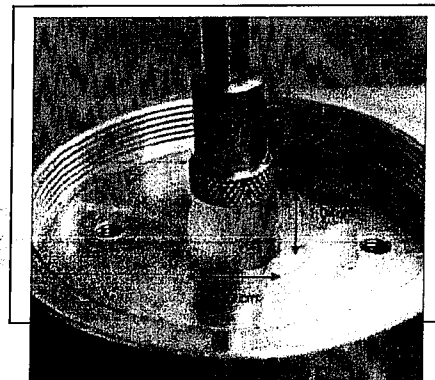
Experience:

Department of Chemical Engineering Lab Introduction :

http://www.che.ntu.edu.tw/ntuche/cht/prof_detail.php?id=39

Biomedical and Tissue Engineering Laboratory :

<http://jiashinglab.wixsite.com/bmte>



Market Needs:

The biomaterial can be applied in reparation of large traumatic bone defects such as elder people. Applications include tissue engineering scaffolds and surface modification such as wound dressing.

Our Technology:

Combining a fibrous structural protein extracted from human tissue and a linear polysaccharide to develop a tissue proliferation promoting biomaterial. We have successfully built a 2-D film and efficiently enhanced the biocompatibility and mechanical properties of the material.

Strength:

The material has better biocompatibility and enhanced promotion of stem cell proliferation comparing to analogous product. It's easily manufactured, with the extraction of fibrous structural protein from human tissue being efficient and affordable.

Competing Products:

Biomaterials that are cell proliferation promoting applied in wound dressings or tissue scaffolds, Hair-care products with the ingredient of keratin, Skin-care products or cosmetics applying keratin as the skin-cell proliferating factor

Intellectual Properties:

The biomaterial has not been patented in Intellectual Property Office of Taiwan. No merchandise of this biomaterial has been found in the market.

Contact (do not need to fill out):

Center for Industry-Academia Cooperation, NTU

Tel: 02-3366-9945, E-mail: ntuciac@ntu.edu.tw

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