



超音波細胞刺激裝置

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簡歷： (可列出相關連結，例如系所、研究室網頁)

Aug 2007 - present 教授，國立台灣大學醫學工程學研究所

Jan 2015 - present 副主任，國立台灣大學醫療器材研發中心

Aug 2009 - present 兼任教授，國立台灣大學機械工程學系

Aug 2012 - present 兼任研究員，國立台灣大學醫院外科部

市場及需求： 可應用於從事組織再生業者，或者是超音波醫療相關產業。

技術摘要(含成果):

本發明可在玻璃片上形成均勻且可控的聲場，針對玻璃片上的細胞做精準的超音波刺激，同時利用玻璃片的透光性在顯微鏡上做即時細胞觀察。

優勢:

本發明為目前唯一可以在超音波刺激同時觀察細胞變化的裝置。

競爭產品:

目前市場上無競爭產品

專利現況:

(1)本研究團隊具有數年超音波用於細胞刺激之研究經驗，並已完成多個原型設計的實用驗證。

聯絡方式(請不用填):

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Ultrasonic cell stimulation device

PI : Prof. WANG, JAW-LIN

Department of BioMedical Engineering, National Taiwan U.

Experience:

- Aug 2007 –present Professor, Institute of Biomedical Engineering, National Taiwan University
- Jan 2015 –present Deputy Director, Research Center of Biomedical Devices, National Taiwan University
- Aug 2009 –present Adjunct Professor, Department of Mechanical Engineering, National Taiwan University
- Aug 2012 –present Adjunct Research Professor, Department of Surgery, National Taiwan University Hospital

Market Needs:

The invention can be applied to regenerative medicine or other medical ultrasonic applications.

Our Technology:

We are able to generate a uniform ultrasonic field about a glass plate on which the cells grow. This allow real-time observations of cell behavior during ultrasound stimulation.

Strength:

This is the only device that allow real-time cell observation during ultrasound stimulation.

Competing Products:

There is no similar product available in the market.

Intellectual Properties:

We have developed and validated several prototype devices.

Contact (do not need to fill out):

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