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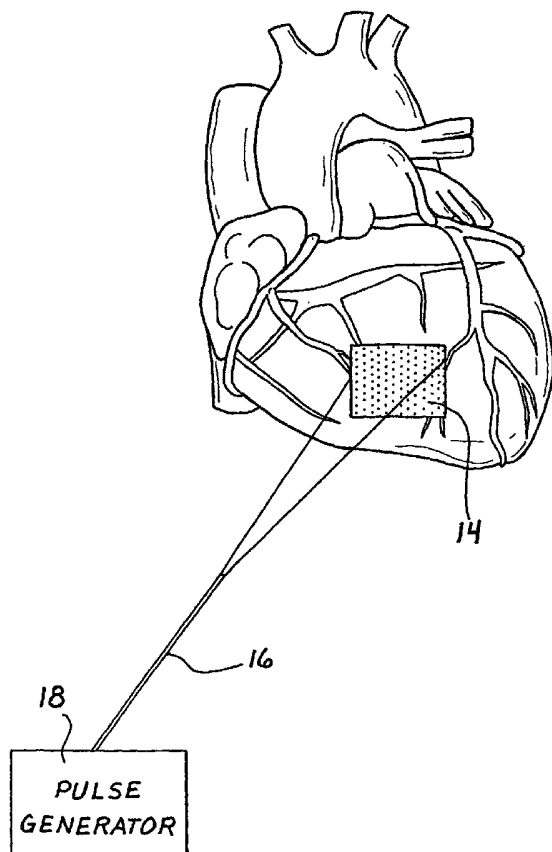
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(54) Title: METHOD AND APPARATUS FOR USING AN ELECTROMAGNETIC FIELD IN CELLULAR TRANSPLANTA-  
TION



(57) Abstract: An electromagnetic field is applied to transplanted cells during their transplantation culturing to achieve confluence and alignment of transplanted cells into damaged tissue and organs, therefore improving the synchronization of electrical and mechanical tissue or organ functions. The electromagnetic field may be applied by catheter based to a selected portion of tissue or to the entire surface of a hollow body cavity or organ, such as heart chamber. The electromagnetic field is provided by an expansible net or array from a catheter or on an inflatable balloon or stent. The electromagnetic field is also provided by an implantable net or array of electrodes which may either be hardwired to a pulse generator or coupled by means of wireless or inductive transmission.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/09057

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 48/00

US CL : 128/898

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 128/897,898; 600/9-15

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y --- A	US 5,873,849 A (BERNARD) 23 February 1999. See entire document.	1-13 ----- 14-32
Y --- E	US 6,654,636 B1 (DEV ET AL) 25 November 2003. See entire document.	1-13 ----- 14-32
Y --- A	US 6,043,066 A (MANGANO ET AL) 28 March 2000. See entire document.	1-13 ----- 14-32
Y --- E	US 2003/0170898 A1 (GUNDERSEN ET AL) 11 September 2003. See entire document.	1-13 ----- 14-32

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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# INTERNATIONAL SEARCH REPORT

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## Continuation of Item 4 of the first sheet:

The title is too long.

"Electromagnetic Fields in Cellular Transplantation"