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(54) **Title:** RAPID PREPARATION OF STEM CELL MATRICES FOR USE IN TISSUE AND ORGAN TREATMENT AND REPAIR

(57) **Abstract:** The present invention describes a rapid method for preparing stem cell and physiologically acceptable matrix compositions for use in tissue and organ repair. Compared with previous tissue engineering materials, the stem cell-matrix compositions of the present invention do not require long-term incubation or cultivation *in vitro* prior to use in *in vivo* applications. The stem cells can be from numerous sources and may be homogeneous, heterogeneous, autologous, and/or allogeneic in the matrix material. The stem cell-matrix compositions as described provide point of service utility for the practitioner, wherein the stem cells and matrix can be combined not long before use, thereby alleviating costly and lengthy manufacturing procedures. In addition, the stem cells offer unique structural properties to the matrix composition which improves outcome and healing after use. Use of stem cells obtained from muscle affords contractility to the matrix composition.



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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/06125

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 63/00, 1/00; C12N 5/00

US CL : 424/93.1; 435/1.1+, 325,

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. : 424/93.1; 435/1.1+, 325,

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST, STN (MEDLINE, CAPLUS, EMBASE, BIOSIS)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,863,531 A (NAUGHTON et al) 26 January 1999 (26.01.1999), column 9, column 10, line 62, lines 31-45 and 57-62, column 14, lines 1-65, column 15, line 59-62, and column 16, lines 5-6.	1-7, 18, 21, 37, 38, 40, 41 ----- 9, 10, 19, 22-30, 34-37, 39, 42-45
X --- Y	US 6,174,333 B1 (KADIYALA et al) 16 January 2001 (16.01.2001), Abstract, col.3, lines 32-39, col. 4, lines 14-15 and 23-26, and col. 5 line 61 to col. 6, line 26.	1-6, 21, 22 ----- 7-10, 18-20, 23-30, 34-45
Y	US 6,306,424 B1 (VYAKARNAM et al) 23 October 2001 (23.10.2001), Abstract, column 7, lines 48-49, column 10, lines 346-54, column 12, lines 43-60, column 15, lines 6-8 and column 33, lines 12-30.	23-30, 34-37
Y	US 6,299,905 B1 (PETERSON et al) 09 October 2001 (09.10.2001), column 1, lines 5-14, column 7, line 64 to column 8, line 10.	5, 19, 27, 39, 45
Y	US 6,348,069 B1 (VACANTI et al) 19 February 2002 (19.02.2002), Abstract, column 6, lines 25-39.	7-10, 29, 30, 34, 42-44

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

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