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(54) Title: ADIPOSE DERIVED ADULT STEM CELLS IN HEPATIC REGENERATION

(57) Abstract: The present invention provides a method to derive hepatic stem cells from stem cells derived from non- liver tissue. In one embodiment of the invention, hepatic stem cells are derived from adipose stem cells. The invention also provides a method of enhancing hepatic cytokine production (e.g., HGF) from ASCs, which may be useful in the regeneration of liver tissue when transplanted in vivo. Tissue culture conditions, including media conditions, are provided.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC: C12N 5/00(2006.01) USPC: 435/325,375,377 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. : 435/325, 375, 377 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)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PETERSEN, BE, et al. Bone marrow as a potential source of hepatic oval cells. Science, 14 May 1999, volume 284, pages 1168-1170; entire document.	1-13
A	US 2001/0033834 A1 (WILKISON et al) 25 October 2001 (25.10.2001), paragraphs 79-82.	1-13
X, P	TALENS-VISCONTI R et al. Human mesenchymal stem cells from adipose tissue: Differentiation into hepatic lineage. Toxicology in Vitro, March 2007, volume 21, number 2, pages 324-329. Published online 5 September 2005 (05.09.2005). Entire document.	1-13
X, P	TALENS-VISCONTI R et al. Hepatogenic differentiation of human mesenchymal stem cells from adipose tissue in comparison with bone marrow mesenchymal stem cells. World J Gastroenterol, 28 September 2006, volume 12, number 36, pages 5834-5845. Entire document.	1-13
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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PCT/US07/67216**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GUILAK F et al. Clonal analysis of the differentiation potential of human adipose-derived adult stem cells. J Cell Physiol, January 2006, volume 206, number 1, pages 229-237. Entire document.	1-13