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(54) Title: CELL CULTURE PLATFORM FOR SINGLE CELL SORTING AND ENHANCED REPROGRAMMING OF IPSCs

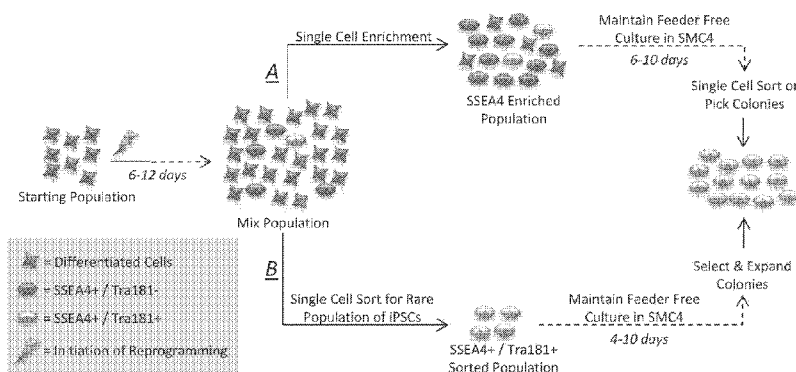


FIG. 9

(57) Abstract: The invention provides cell culture conditions for culturing stem cells, including feeder-free conditions for generating and culturing human induced pluripotent stem cells (iPSCs). More particularly, the invention provides a culture platform that allows long-term culture of pluripotent cells in a feeder-free environment; reprogramming of cells in a feeder-free environment; single-cell dissociation of pluripotent cells; cell sorting of pluripotent cells; maintenance of an undifferentiated status; improved efficiency of reprogramming; and generation of a naïve pluripotent cell.

A. CLASSIFICATION OF SUBJECT MATTER*C12N 5/074(2010.01)i, C12N 5/02(2006.01)i, C12N 5/0735(2010.01)i, C12Q 1/24(2006.01)i*

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)

C12N 5/074; C12N 5/06; C12N 5/08

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: INDUCED PLURIPOTENT STEM CELL, IPSC, TGFbeta INHIBITOR, GSK3 INHIBITOR, MEK INHIBITOR, ROCK INHIBITOR

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHU et al., 'Reprogramming of human primary somatic cells by OCT4 and chemical compounds' Cell Stem Cell, Vol.7, pp.651-655 (03 December 2010) See the whole document, especially p.651 middle column - p.653, left column, figure 1, and supplemental information, table S1, pp.6-7.	1-24,32-54,97-126
Y		65-69,71-91
A		25-31,55-64,70,92-96
X	EMRE et al., 'The ROCK Inhibitor Y-27632 improves recovery of human embryonic stem cells after fluorescence-activated cell sorting with multiple cell surface markers' PLoS one, Vol.5, Issue 8, e12148, pp.1-10 (13 August 2010) See the whole document, especially abstract, pp.2-6, and figures 1-7.	25-31,55-64,70,92-96
Y		65-69,71-91
A		1-24,32-54,97-126
X	WATANABE et al., 'A ROCK inhibitor permits survival of dissociated human embryonic stem cells' Nature Biotechnology, Vol.25, No.6, pp.681-686 (27 May 2007) See the whole document, especially abstract, pp.681-683, 685, figure 3, and supplementary figure 1.	1,2,5,6,15-23,25-31,97-98,103-104,113,115,116,126



Further documents are listed in the continuation of Box C.



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"&" document member of the same patent family

Date of the actual completion of the international search

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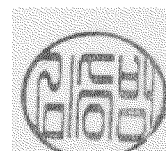
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2011/065900

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A		3,4,7-14,24,32-96 ,99-102,105-112 ,114,117-125
X	US 2010-0009442 A1 (SASAI et al.) 14 January 2010 See the whole document, especially abstract, paragraphs [0046]-[0051], [0099] -[0123], and claims.	1,2,5,6,15-23 ,25-31,97-98 ,103-104,113,115 ,116,126
A		3,4,7-14,24,32-96 ,99-102,105-112 ,114,117-125

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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