

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 June 2008 (05.06.2008)

PCT

(10) International Publication Number
WO 2008/067422 A3

(51) International Patent Classification:
C12N 5/08 (2006.01)

(21) International Application Number:
PCT/US2007/085821

(22) International Filing Date:
28 November 2007 (28.11.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/867,582 28 November 2006 (28.11.2006) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

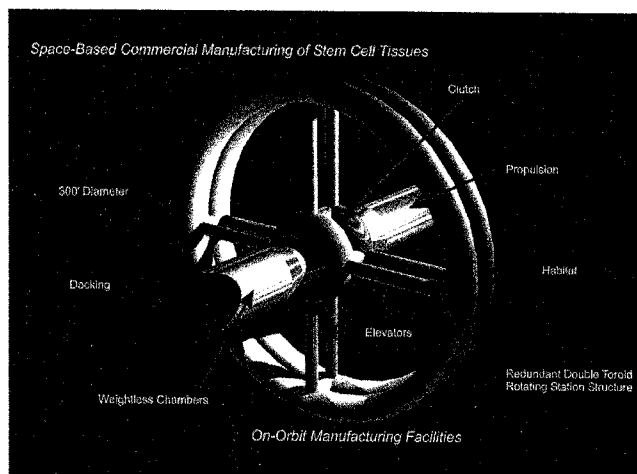
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
7 August 2008

(54) Title: REPLICATION OF UNDIFFERENTIATED DIPLOID CELLS IN A WEIGHTLESS ENVIRONMENT, USES THEREOF AND A FACILITY FOR SUCH REPLICATION



(57) Abstract: The present invention comprises manufacturing processes for biological replication of undifferentiated plant and animal cells and tissue in a weightless condition, including those systems used in current stem cell research and development and use of undifferentiated parenchyma in plants. The present invention comprises uniting a sperm and egg in an animal or pollen and ovary from a plant to form a single cell in a weightless condition or environment that can replicate itself without forming a zygote that will develop into an embryo of differentiated cells and tissue. The present invention encompasses the use of undifferentiated cells produced in a gravity environment for replication on orbit using technology to preserve the cells for transport to orbit, conditioned to replicate and transport back to Earth in a preserved condition. The present invention additionally comprises those structures and processes for on-orbit vehicles, systems, spacecraft, space ships, and related habitats and containments.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2007/085821

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - C12N 5/08 (2008.04) USPC - 435/366 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) IPC(8) - C12N 5/00, 5/02, 5/06, 5/08, 15/05, 15/06, 15/07, 15/85 (2008.04) USPC - 424/93.21; 435/325, 366, 377, 383, 384; 800/14 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) PatBase, Google		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2001/023595 A2 (GOLDMAN et al) 05 April 2001 (05.04.2001) entire document	1-34
Y	US 2006/0263879 A1 (SIMON VALLES et al) 23 November 2006 (23.11.2006) entire document	1-34
Y	US 6,245,566 B1 (GEARHART et al) 12 June 2001 (12.06.2001) entire document	7, 23
Y	US 7,138,562 B2 (BREMEL et al) 21 November 2006 (21.11.2006) entire document	15, 16, 31, 32
Y	US 6,372,494 B1 (NAUGHTON et al) 16 April 2002 (16.04.2002) entire document	33
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Date of the actual completion of the international search 08 May 2008		Date of mailing of the international search report 29 MAY 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774