(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 December 2005 (15.12.2005)

PCT

(10) International Publication Number
WO 2005/118771 A3

(51) International Patent Classification:
C12M 1/00 (2006.01)

(21) International Application Number:
PCT/US2005/020083

(22) International Filing Date: 6 June 2005 (06.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/577,143 4 June 2004 (04.06.2004) US
60/669,252 7 April 2005 (07.04.2005) US

(71) Applicant *(for all designated States except US)*: **XCELLEREX, INC.** [US/US]; 170 Locke drive, Marlborough, MA 01752 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **HODGE, Geoffrey** [US/US]; 146 Mendon Road, Sutton, MA 01590 (US). **GALLIHER, Parrish** [US/US]; 28 Old Pickard Lane, Littleton, MA 01590 (US). **FISHER, Michael** [US/US]; 269 Winter Street, Ashland, MA 01721 (US).

(74) Agent: **HOPKINS, Brian, P.**; Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Chrysler Center, 666 Third Avenue, New York, NY 10017 (US).

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

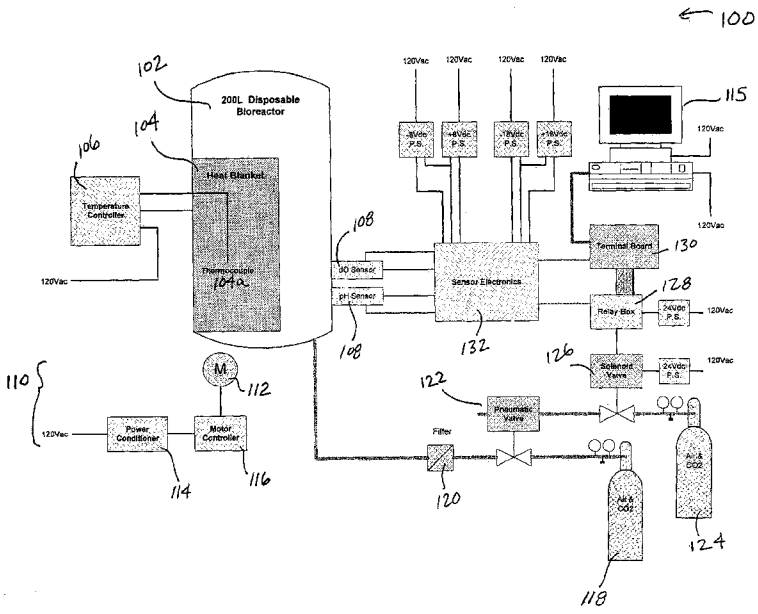
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, 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:
2 February 2006

[Continued on next page]

(54) Title: DISPOSABLE BIOREACTOR SYSTEMS AND METHODS



(57) Abstract: Accordingly, in one embodiment of the invention, a bioreactor system is presented and includes a disposable container for housing biomaterials for processing, the disposable container including at least one input port, at least one exhaust port, at least one harvest port, and the integrity of the sterile environment is protected with sterile filters attached to all external open ports a structure for supporting the disposable container, one or more sensors for sensing one or more parameters of the biomaterials in the container, a heater for heating the contents of the container, the heater having a thermostat and mixing system arranged with the system such that biomaterials contained in the disposable container are mixed.

WO 2005/118771 A3

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.