

CORRECTED VERSION

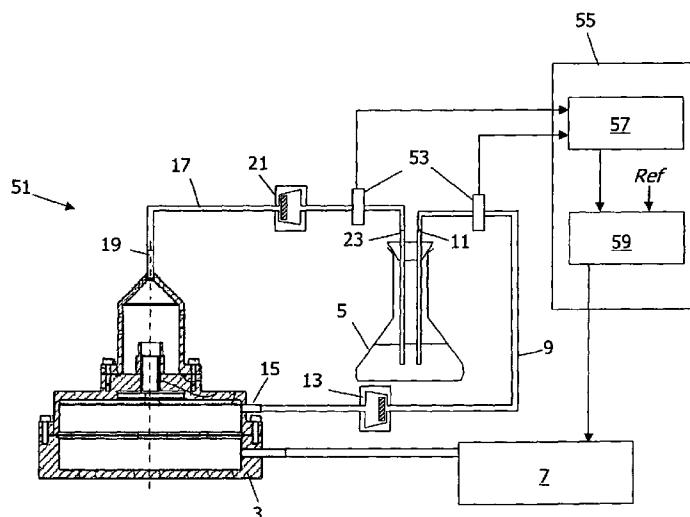
(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
31 May 2007 (31.05.2007)

PCT

(10) International Publication Number
WO 2007/059999 A1(51) **International Patent Classification:**
C12M3/00 (2006.01)(21) **International Application Number:**
PCT/EP2006/01 1304(22) **International Filing Date:**
24 November 2006 (24.11.2006)(25) **Filing Language:** English(26) **Publication Language:** English(30) **Priority Data:**
0523950.4 24 November 2005 (24.11.2005) GB(71) **Applicant (for all designated States except US):** **UNIVERSITÄT ZÜRICH** [CH/CH]; Ramistrasse 71, CH-8006 Zurich (CH).(72) **Inventors; and**(75) **Inventors/Applicants (for US only):** **HOERSTRUP, Simon, P.** [CH/CH]; Universität Zurich, Ramistr. 100, CH-8091 Zurich (CH). **ZUND, Gregor** [CH/CH]; Universität Zurich, Ramistrasse 100, CH-8091 Zurich (CH).(74) **Agent:** **LAUBENTHAL, Thomas, W.**; Grünecker, Kinkeldey, Stockmair & Schwanhauser, Maximilianstrasse 58, 80538 München (DE).(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, 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, 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).**Declaration under Rule 4.17:**

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

[Continued on next page]

(54) **Title:** BIOREACTOR SYSTEM

(57) **Abstract:** In one aspect the invention provides a bioreactor system (51) for the production of tissue prostheses, the system comprising: a bioreactor (3) having an input port (15) and an output port (19), a culture medium reservoir (5) having an input port (23) and an output port (11), a first conduit (9) coupled between the bioreactor input port and the reservoir output port, a second conduit (17) coupled between the bioreactor output port and the reservoir input port, pump means (7) operable to pump fluid into and draw fluid out of a pumping chamber defined in the bioreactor to generate a pulsatile flow of culture medium through the reservoir and bioreactor via said first and second conduits, one or more flow meters (13, 21) operable to generate flow rate signals representative of the rate of culture medium flow through one or both of said first and second conduits, and control means (55) arranged to receive said flow rate signals from said one or more flow meters and to control the pump means in response to said received flow rate signals to provide a desired rate of culture medium flow.

WO 2007/059999 A1



Published:

— with international search report

(15) Information about Correction:

see PCT Gazette No. 31/2007 of 2 August 2007

(48) Date of publication of this corrected version:

2 August 2007

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.