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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/113516 A1

(51) International Patent Classification[7]: C12N 5/06, A61K 35/39

(21) International Application Number: PCT/NZ2003/000130

(22) International Filing Date: 24 June 2003 (24.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant *(for all designated States except US)*: **DIABCELL PTY LIMITED** [AU/AU]; 160 Greenhill Road, Parkside, South Australia 5063 (AU).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SKINNER, Stephen, John, Martin** [NZ/NZ]; 19 Laureston Avenue, Papatoetoe, Auckland (NZ). **ELLIOTT, Robert, Bartlett** [AU/NZ]; 19 Laureston Avenue, Papatoetoe, Auckland (NZ). **ORELLANA, Livia, Del, Carmen Escobar** [NZ/NZ]; 24/51 Cranbrook Place, Glendowie, Auckland (NZ).

(74) Agents: **ADAMS, Matthew, D.** et al.; A J Park, 6th Floor Huddart Parker Building, PO Box 949, 6015 Wellington (NZ).

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

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

Published:
— *with international search report*

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.

WO 2004/113516 A1

(54) Title: PORCINE ISLETS CULTURED WITH PORCINE SERTOLI CELLS FOR XENOTRANSPLANTATION

(57) Abstract: Aggregates and their method of preparation suitable for implantation into a recipient in order to produce insulin in vivo. The methods involve culturing islet cells isolated from the pancreas of donor piglets with isolated Sertoli cells from the testes of donor piglets. A preferred period of culturing is 5 days and may be followed by a purification procedure.